COUNTER-PROLIFERATION FINANCING.
PREVENTION AND DETECTION OF WEAPONS OF MASS DESTRUCTION FINANCING THROUGH INTERNATIONALLY VALID COMPLIANCE MEASURES

Frank A. Haberstroh

Doctoral Thesis

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by

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Als Meus Pares. Meinen Eltern.

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Frank Anton Haberstroh

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LIST OF ABBREVIATIONS

AFC	Anti-financial crime
AG	Australia Group
AML	Anti-money laundering
AMLD	Anti-money laundering directive
AP I	Additional Protocol I to the Geneva Conventions
AP II	Additional Protocol II to the Geneva Conventions
ATCC	American Type Culture Collection
AtG	German Atomic Energy Act *("Atomgesetz")*
AWB	Air waybill
AWG	German Foreign Trade Act *("Außenwirtschaftsgesetz")*
AWV	German Foreign Trade Ordinance *("Außenwirtschaftsverordnung")*
BAFA	German Federal Office of Economics and Export Control *("Bundesamt für Wirtschaft und Ausfuhrkontrolle")*
BaFin	German Federal Financial Supervisory Authority *("Bundesanstalt für Finanzdienstleistungsaufsicht")*
BCBS	Basel Committee on Banking Supervision
BGH	German Federal Court of Justice *("Bundesgerichtshof")*
BGHSt	Decisions of the Federal Court of Justice on criminal matters *("Entscheidungen des Bundesgerichtshofs in Strafsachen")*
B/L	Bill of Lading
BVerfG	German Constitutional Court *("Bundesverfassungsgericht")*
BWC	Biological Weapons Convention
CAATSA	Countering America's Adversaries Through Sanctions Act
CBDDQ	(Wolfsberg) Correspondent Banking Due Diligence Questionnaire
CBRN	Chemical, biological, radiological and nuclear weapons
CBRNE	Chemical, biological, radiologial, nuclear, and high explosive weapons
CCA	(UN) Commission for Conventional Armaments
CDD	Customer due diligence

CFSP	(European) Common Foreign and Security Policy
CFT	Combating the financing of terrorism
CISADA	Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (USA)
CMR	Standardized waybill according to the specifications of the Covention on the Contract for the International Carriage of Goods by Road *("Convention relative au contrat de transport international de Marchandises par Route")*
CP	Spanish Criminal Code *("Código Penal")*
CPF	Counter-proliferation financing
CWC	Chemical Weapons Convention
CWÜAG	German Implementing Law to the Chemical Weapons Convention *("Ausführungsgesetz zum Chemiewaffenübereinkommen")*
CWÜV	German Regulation Implementing the Chemical Weapons Convention *("Ausführungsverordnung zum Chemiewaffenübereinkommen")*
DPRK	Democratic People's Republic of Korea
EBW	Exploding-bridgewire detonator
EC	European Council
EDD	Enhanced due diligence
EMIS	Electromagnetic isotope separation
ENMOD	Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques
E.O.	Executive Order (USA)
ETA	Basque Fatherland and Freedom *("Euskadi ta Askatasuna")*
EU	European Union
FARC	Revolutionary Armed Forces of Colombia *("Fuerzas Armadas Revolucionarias de Colombia")*
FATF	Financial Action Task Force
FCR	Forwarders certificate of receipt
FIU	Financial Intelligence Unit
FSE	Foreign sanctions evader (USA)
G10	Group of Ten

G7	Group of Seven
GC I	Geneva Convention (I) on Wounded and Sick in Armed Forces in the Field of 1949
GC II	Geneva Convention (II) on Wounded, Sick and Shipwrecked of Armed Forces at See of 1949
GC III	Geneva Convention (III) in Prisoners of War of 1949
GC IV	Geneva Convention (IV) on Civilians of 1949
GRU	Russian military intelligence *("Glavnoye Razvedyvatelnoye Upravlenie")*
GwG	German Money Laundering Act *("Geldwäschegesetz")*
HEU	High enriched uranium
IAEA	International Atomic Energy Agency
ICBM	Intercontinental ballistic missile
ICC	International Criminal Court
ICCS	Rome Statute of the International Criminal Court ("Rome Statute") of 1998
ICJ	International Court of Justice
ICRC	International Committee of the Red Cross
ICTR	International Criminal Court for Rwanda
ICTY	International Criminal Court for the Former Yugoslavia
IEEPA	International Emergency Economic Powers Act (USA)
IISS	International Institute for Strategic Studies
ILC	International Law Comission
IMT	International Military Tribunal
IMTFE	International Military Tribunal for the Far East
INTERPOL	International Criminal Police Organization
IRMCT	International Residual Mechanism for CriminalTribunals
IS	Islamic State
ISIL	Islamic State in Iraq and the Levant
JCE	Joint Criminal Enterprise
JCPO	2015 Joint Comprehensive Plan of Action
KrWaffKontrG	German War Weapons Control Act *("Kriegswaffenkontrollgesetz")*

KrWaffKontrGDV	Implementing Regulation to the German War Weapons Control Act *(*"*Verordnung zur Durchführung des Kriegswaffenkontrollgesetzes*"*)*
KWG	German Banking Act *(*"*Kreditwesengesetz*"*)*
KYC	Know your customer
KYE	Know your employee
L/C	Letter of credit
LO	Spanish organic law *("Ley orgánica")*
MIRV	Multiple independently targetable reentry vehicles
ML	Money laundering
MT	(SWIFT) Message type
MTCR	Missile Technology Control Regime
MVTS/MSB	Money or value transfer services, or other money services businesses
NATO	North Atlantic Treaty Organization
NBC	Nuclear, biological and chemical weapons
NEA	National Emergencies Act (USA)
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSG	Nuclear Suppliers Group
OECD	Organisation for Economic Cooperation and Development
OFAC	US Office of Foreign Asset Control
OPANAL	Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean *(*"*Organismo para la Proscripción de las Armas Nucleares en la América Latina y el Caribe*"*)*
OPCW	Organisation for the Prohibition of Chemical Weapons
OWiG	German Administrative Offences Act *(*"*Ordnungswidrigkeitengesetz*"*)*
P-5 + 1	The permanent members of the Security Council plus Germany
pAMLD 6	EU Comission Proposal for an 6th Anti-Money Laundering Directive
PEP	Politically exposed person
PF	(Weapons of mass destruction) proliferation financing
PrüfbV	German Audit Report Ordinance *("Prüfungsberichtsverordnung")*
RDD	Radiological dispersal device
RED	Radiological exposure device

RFI	Request for information
RID	Radiological incendiary device
RPE	Rules of Procedure and Evidence (of the International Criminal Court)
SAR	Suspicious activity report
SDN	Specially designated nationals and blocked persons (USA)
SEB	Staphylococcal enterotoxin B
SIPRI	Stockholm International Peace Research Institute
SSRC	Scientific Studies and Research Center (Syria)
StGB	German Criminal Code *("Strafgesetzbuch")*
SWIFT	Society for Worldwide Interbank Financial Telecommunications
TF	Terrorist financing
TFEU	Treaty of the Functioning of the European Union
TWEA	Trading with the Enemy Act (USA)
UBO	Ultimate beneficial owner
UCP 600	International Chamber of Commerce Uniform Customs and Practice for Documentary Credits
UN	United Nations
UNGA	United Nations General Assembly
UNODA	United Nations Office for Disarmament Affairs
UNSC	United Nations Security Council
UNSCR	United Nations Security Council Resolution
US/USA	United States of America
USD	US-Dollar
USSR	Union of Soviet Socialist Republics
VCLT	Vienna Convention on the Law of Treaties of 1969
VEE	Venezuelan equine encephalitis
VStGB	(German) International Criminal Code *("Völkerstrafgesetzbuch")*
WA	Wassenaar Arrangement
WaffG	German Weapons Act *("Waffengesetz")*
WHO	World Health Organisation
WMD	Weapon(s) of mass destruction

INTRODUCTION

> Richiesto taluno delle cose necessarie alla guerra, egli rispondesse tre esser quelle: denaro, denaro, denaro – *Raimondo Montecuccoli (1609 - 1680)*[1]

What distinguishes a criminally relevant economic transaction from one that is not is fundamentally linked to the origin or destination of the funds. This is the case with money laundering or terrorist financing operations, which have been the object of special regulatory attention and the focus of a large part of the crime prevention measures contained in the regulatory compliance programs adopted by financial institutions. The same applies to operations for the financing of weapons of mass destruction and their proliferation, the illegal nature of which can be deduced from the purpose behind them and which pose similar problems of crime prevention and detection.

Main function of financial institutions, however, is not crime control, but the agile and efficient satisfaction of the operational needs of the market, so that even though they must contribute to the purpose of crime identification and prevention, this comes into tension with the main purpose to which they owe their existence.

In this context, throughout my professional practice, I have been able to see how the needs of preventing the financing of weapons of mass destruction could be hindered by the absence of compliances measures specifically dedicated to them, and the fear that their design, implementation, and application may come at an unreasonable expense. Furthermore, there seems to be a general understanding that the measures already in place against money laundering and terrorist financing, as well as compliance with political restrictive measures against states and groups with proliferation efforts, already constitute a sufficient preventive response to this phenomenon.

Reflecting on this problem, I developed the hypothesis that the funding of weapons of mass destruction, the so-called "proliferation financing", has phenomenological characteristics that are not addressed by the above measures and that, consequently, there could be a gap in the overall design of crime prevention measures adopted by financial institutions.

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[1] Raimondo MONTECUCCOLI (1609 - 1680), *Memorie del General Principe Di Montecuccoli Che Rinfermano Una Esatta Instruzzione de I Generali Ed Ufficiali Di Guerra, Per Ben Commander Un' Armata*, Cologne, Holy Roman Empire of the German Nation, printed 1704, p. 54.

The verification of this hypothesis required me first of all to define the phenomenon that should be the focus of these preventive measures. This is reflected in PART ONE of the thesis, in which I describe the criminological reality of proliferation financing, while emphasizing the points of intersection and divergence with other phenomena, such as money laundering and the financing of terrorism.

To this end, I have analyzed each of the elements of which the overall phenomenon is composed: Weapons of mass destruction, the normative definition of which serves to delimit the phenomenon under analysis (Chapter 1); acts of proliferation, with mention of the subjects involved and the forms they take (Chapter 2); and the financing of these activities, with mention of the means and financial instruments through which this is carried out (Chapter 3). All this with a view to the necessary identification of the sources of risk and patterns of conduct that must be taken into account in regulatory compliance programs (Chapter 4).

Within the specific characteristics of the phenomenon of proliferation financing, one in particular has shaped the rationale of my thesis: The frequent initiation and promotion of these offences by states and their political and military leadership. It is this characteristic that makes the response options of international law appear more promising than those of national criminal law systems. Since the offending third states are themselves outside the scope of criminal law, international economic policy measures against states are of particular relevance. With regard to the leadership of these states and the organizations they use these measures can also be more effective than national law because there will regularly be no willingness to extradite the relevant individuals. Furthermore, with respect to the natural persons involved, international law, in the form of international criminal law, offers additional cross-border response options, typically directed against political, military, and economic decision makers.

However, it must also be recognized that all these reactive measures of international law are still subject to considerable limitations and, like national criminal law, will often be practically impossible to enforce. Therefore, compliance aimed at the prevention of these crimes takes on particular importance here. Both international law and compliance are therefore my objects of investigation, the former being reflected in Parts Two and Three, and the latter in Part Four of this thesis.

Following these considerations, in PART TWO, I address the regulation of the phenomenon in international criminal law, which must necessarily be taken into account in the development of compliance programs and the identification of the legal risks that a bank may face. This has led me to analyze the competence of the International Criminal Court for the prosecution of these acts (Chapters 1 and 2), as well as the criminal offences and modes of responsibility in which they could find a place, whilst also referring to the national transposition rules. (Chapters 3 and 4). Overall, the development of this part of the thesis has led me to identify the types of international crimes in which financiers may be involved, by considering the forms of participation in article 25 of the Rome Statute and how they interact with the international crimes of articles 6 et seqq. and the special subjective requirements of article 30 of the mentioned Statute.

The analysis of these provisions of international law leads me to conclude that it is impossible to prosecute the main actors of the phenomenon: On the one hand, the acting states themselves, exempt from criminal responsibility in any case, and on the other hand, companies, for which the Rome Statue does not establish a criminal responsibility either. This situation is also present in national criminal law systems. In German criminal law because it generally does not recognize a criminal liability of legal persons. In Spanish criminal law, because the national equivalents of the international crimes of the Rome Statute are not among those for which legal persons can be criminally liable. Furthermore, it is also difficult to sanction the natural persons acting on behalf of the mentioned states and companies, as criminal liability of the individual bankers involved will regularly fail due to the high subjective requirements of the Rome Statute. But even if this high subjective hurdle is passed, states will regularly protect those who act on their behalf from criminal prosecution through the refusal of extradition.

In view of all these constraints, I then continue by discussing the main reactions that can be adopted to the phenomenon, in keeping with its eminently international nature: International sanctions and embargoes (PART THREE). It is obvious that these are not criminal sanctions in the usual sense, but a political instrument that provides an alternative means of preventing undesired behavior by states, organizations, and individuals (as discussed in Chapter 1). However, the fact that those primarily responsible for the crime, i. e. states, may be outside the scope of criminal law does not suffice to deny the criminal nature of the conduct that they may promote and for which they may be sanctioned in another way at the international

level. In order to properly assess the content, objectives, and possible political limitations of these sanctions, it is essential to know first of all the central international authorities behind them (Chapter 2). Furthermore, it is important to understand the criminal, administrative, and economic consequences that banks face if they do not apply this restrictive measures to their international business partners, as these consequences are key motivators for establishing appropriate compliance processes (Chapter 3). Understanding this framework then allows examining and challenging the effectiveness of the international embargo and sanctions framework with respect to proliferation financing (Chapters 4 and 5).

All the offenses and corresponding criminal and extra-criminal measures discussed up to this point must be taken into consideration when designing corporate compliance guidelines and specifying the criminal and extra-criminal risks faced, without precluding the possibility of going beyond them when required by corporate ethics or the market.

This aspect is addressed in PART FOUR, which is dedicated to the framework of international compliance standards. A framework that is to a large extent shaped by the requirements that influential international organizations set out in their guidelines and recommendations. Chapters 1 and 2, therefore, address the nature of these standards and the organizations publishing them. Since these standards are not sovereign regulatory acts, Chapter 3 examines the (indirect) criminal, administrative and economic measures through which they are ultimately enforced and why their observance is mandatory in the context of a compliance program. In this context, and due to their unparalleled influence on European and non-European anti-money laundering legislation, the standards of the Financial Action Task Force (FATF) are of particular importance. For this reason, Chapter 4 focuses on how this organization deals with the here relevant issue of proliferation financing. In particular, the latest developments in this regard, as well as their pending transposition into European law, are made the subject of a critical appraisal in Chapter 5. The Chapter then concludes with a practice-oriented overview of how an effective and efficient counter-proliferation financing program for a bank could be designed, i. e. which risk parameters and mitigating measures could be used to detect and prevent proliferation financing activities.

PART FIVE, finally, is dedicated to the elaboration and exposition of the conclusions that this thesis offers for the development of the theory of crime prevention through compliance programs. Four general conclusions are presented, which in turn are based on specific conclusions on the concept of WMD, proliferation and its financing as criminological

realities, international criminal law, the global sanctions and embargoes framework, and international compliance standards.

As a result, the elaboration of the thesis has led me to the following central outcomes: First, the confirmation of the hypothesis regarding the existence of a gap in the compliance programs currently applied by financial institutions. Second, the identification of the reasons for this gap, which i. a. have to do with the mentioned limitation and weakness of the international criminal judicature. Third, the assessment of the possibility of compensating for these deficits through more effective instruments outside of criminal law, which are accompanied by considerable deficits in the area of legal guarantees.

In summary, it must be stated that the impossibility of bringing the states behind these practices to justice - not to mention the serious difficulty of prosecuting the individuals who promote them - does not detract from the criminal significance of the facts and the need for a forceful response to them. Similarly, the fact that the focus of the response must be on preventive rather than repressive measures does not diminish its relevance to criminal law.

On the contrary, when the latter is not merely understood as the law that is concerned with criminal sanctions but the law that governs all forms of responses to criminal conduct - and especially its most serious manifestations - we must necessarily include the problem of proliferation financing, although, for the time being, there is no experience yet with the application of criminal sanctions to it.

In this sense, my aim has been to contribute to the fight against the proliferation of weapons of mass destruction from where it can be most effective: The prevention of its related financing activities.

PART ONE: PROLIFERATION FINANCING AS CRIMINOLOGICAL REALITY

If one were to ask what is needed to wage war, the common answer would be that there are only three things: "*Denaro, denaro, denaro*" - money, money, money.[2] What the general and military strategist Raimundo Count Montecucolli already recognized in the 17th century is still valid today: In 2019 alone, the world's states reported a record sum of 1.9 trillion dollars in military expenditure. A substantial part of this expenditure is accounted for by the cross-border trade in weapons of war. Germany's exports of major conventional weapons in recent years alone, ranged between 0.97 and 2.5 billion euros p.a.[3] Spain's exports were between 0.4 and 1.2 billion euros p.a.[4] They therefore constitute, together with the USA, Russia, France, the United Kingdom and Israel, the group of the seven states responsible for 85 % of global arms exports.

The considerable value of goods that are moved by arms exports is reflected in the financial world that accompanies the trade: Be it in the form of purchase prices that have to be transferred, trade transactions that have to be financed, or defense company accounts that have to be kept. The global business with death is not only a lucrative business for the arms industry of the top export countries but for their local banking sectors as well.

Although cross-border weapon deals come with considerable ethical questions both the international trade in weapons and the banking services that accompany them, are generally performed within the law. There are, however, also considerable arms trade activities that move outside this permitted legal framework. The corresponding demand is driven by criminal organizations, civil war parties, rebel groups, terrorist organizations, and rogue states on the one side and supplied by equally criminal economic actors on the other side. It

[2] MONTECUCCOLI, *Memorie*, op. cit., p. 54.
[3] SIPRI, *SIPRI Arms Transfer Database*, generated March 20, 2021. The term “major conventional weapons” does not include firearms and only refers to aircrafts, air defense systems, armored vehicles, artillery, engines, missiles, sensors and ships. The annual export numbers in these weapons are as follows (in million euros): 2015: 1,763; 2016: 2,506; 2017: 1,944, 2018: 1,070; 2019: 978; 2020: 1,232.
[4] SIPRI, *SIPRI Arms Transfer Database*, generated March 20, 2021. The annual export numbers in these weapons are as follows (in million Euro): 2015: 1,162; 2016: 471; 2017: 820; 2018: 1,025; 2019: 989; 2020: 1,201.

is therefore not surprising that the business of illicit arms trafficking has become one of the most lucrative activity fields of international organized crime.

The illegal arms trade is thereby not a mere injustice in itself. Rather, the critical menace lies in the destructive potential of the criminal acts made possible by the trafficked weapons. The spectrum of these acts is highly diverse and regularly determined by the nature and number of the weapons purchased on the one hand and by the aspirations and political-economic possibilities of the purchaser on the other. The international illegal arms trade is therefore the *sine qua non* for very different acts of violence, which can range from armed robberies and contract killings against individuals, to genocides of entire populations.

The spectrum of potential resulting acts is most severe in the case of trade in *weapons of mass destruction (WMD),* i. e. nuclear, biological and chemical weapons, whose destructive powers are, almost by definition, the most devastating to humanity. The deployment of such weapons is hereby not only a theoretical risk, fed by the historical memory of the attacks on Hiroshima and Nagasaki. Today in 2022, operationally active terrorist organizations, such as Al-Qaeda and ISIL, are rather openly seeking WMD capabilities to realize their murderous ideologies. States such as North Korea and Iran are continuously working on their nuclear weapons capabilities and are not afraid of diplomatic confrontation with established nuclear superpowers like the USA. The nuclear saber-rattling between Pakistan and India is coming to a head. The recent use of chemical warfare agents in the Syrian Civil War caused immeasurable suffering to the civilian population and illustrates the horrors that the "little man's nuclear bomb" can unleash in the context of civil war and asymmetric war scenarios as they are increasing around the globe.

The cross-border distribution and acquisition of these WMD and their components, is referred to as *"WMD proliferation"* or simply *"proliferation"*. Leaving aside the transport of nuclear weapons within the framework of existing defense alliances, there is no legal cross-border trade and transport in WMD, regardless of the party interested in acquiring them. These weapons, with their terrible potential, are rather outlawed as such by the international community and subject to comprehensive national export bans worldwide.

The trade in WMD and its components therefore always takes place in secret, under the appearance of legitimate trade and through straw men and middlemen. However, to achieve their goals, the criminal actors involved, are frequently forced to leave the criminal sphere

and interact with - regularly unwitting - legitimate industry participants under the appearance of their own righteousness. This becomes especially relevant with a view to companies that produce so-called *dual-use-goods*, i. e. goods that can serve civil and military purposes alike, and do not recognize the true intentions of their counterparts.

Nevertheless, both the unwitting and the malicious participants in proliferation seek one thing above all: To be remunerated for their contribution. This is only possible when banks, outside of this shadow world, transfer purchase prices, provide trade finance services, and keep accounts of the companies involved. All these and similar banking services in the context of proliferation are referred to as "*WMD proliferation financing"* or "*proliferation financing" (PF)* for short.

However, as proliferation financing is a complex phenomenon, it is indispensable to have basic knowledge of its key aspects to completely grasp the overall picture. For this purpose, aspects must be considered from a variety of different fields and disciplines like natural sciences, international politics, international trade, and banking. This is nothing that does not happen with other sectors of criminal reality if they really want to be approached from all their dimensions and perspectives of possible treatment, in line with the integrated criminal science (*"Gesamte Strafrechtswissenschaft"*) as theorized by VON LISZT. The specificity of the phenomenon studied here lies in the fact that WMD proliferation financing is a highly regulated subject. Applicable laws and policies are made by all degrees of policy makers, from chambers of commerce and national authorities to the European Union and the United Nations Security Council. Understanding them is an essential part of understanding WMD proliferation financing as such. Firstly, because criminal patterns are driven by the legal framework surrounding the relevant criminal act. Secondly, because they serve as orientation for the identification of the factual substrate of the criminal norm and the elaboration of possible political-criminal proposals, such as that of WMD itself.

To provide this basic knowledge, this section will present a typology of WMD proliferation financing and its relevant regulations, structured in three parts, which are built on one another:

It starts with the conceptualization of the trafficked goods, namely WMD and their components, and the challenges of their abstract definition. Since WMD pose a risk to entire peoples and the international community, it will be shown that it is international law in

particular that, in interaction with historical experience and political considerations, has shaped the concept of WMD. See Chapter 1: *Understanding Weapons of Mass Destruction.*

Once the relevant merchandise is known, the reader is guided through the proliferation process and the control, customs and commercial law requirements applied at every stage, thus the manufacturing (Chapter 2.1.), the transport (Chapter 2.2.) and the final purchase (Chapter 2.3.) of WMD and their components. See Chapter 2: *Understanding Weapons of Mass Destruction Proliferation.*

Finally, the financing acts that accompany the proliferation process and typical bank control measures are addressed. See Chapter 3: *Understanding Weapons of Mass Destruction Proliferation Financing.*

Chapter 1: Understanding weapons of mass destruction

Probably the first recorded use of the term "Weapon of Mass Destruction", can be found in the declarations of Cosmo Gordon Lang, Archbishop of Canterbury, in his Christmas message in the London Times of December 28, 1937. Influenced by the atrocities committed by the German air force unit Legion Condor during Spanish Civil War and those of the Japanese army against the Chinese civilian population during the Second Sino-Japanese War, he stated:

"Who can think at this present time without a sickening of the heart of the appalling slaughter, the suffering, the manifold misery brought by war to Spain and to China? Who can think without horror of what another widespread war would mean, waged as it would be with all the new weapons of mass destruction?" [5]

Even though the effects were devastating for the respective populations, the mentioned attacks were performed by what we nowadays consider *conventional weapons*[6], e. g. small arms and conventional bombs. In fact, the use of the term "Weapon of Mass Destruction" concerning non-conventional weapons, i. e. nuclear, radiological, chemical and biological weapons, effectively started to spread after the US atomic bomb attacks on Hiroshima and Nagasaki of August 6 and 9, 1945.

[5] Cosmo Gordon LANG, *Archbishop's Appeal: Individual Will and Action; Guarding Personality*, London Times, December 28th, 1937, p. 9.
[6] According to the UNODA, conventional arms are understood to mean "weapons other than weapons of mass destruction."; https://www.un.org/disarmament/conventional-arms/; accessed February 3rd, 2022.

As an answer to the horrors of World War II, the international community urged the United Nations Organization (UN) to address the experiences humanity made during the attacks on Japan. Hence, in its first resolution of January 24, 1946, the UN General Assembly accorded the establishment of a commission to deal with the problems raised by the discovery of atomic energy.[7] According to the exact wording of this resolution in article 1 para. 1 no. 5, one of the functions of the commission was to

"[…] make specific proposals: […] (c) for the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction; […]."

Thus in 1946 the International Community seemed to have at least a common understanding of the concept of "weapons adaptable to mass destruction" comprising atomic weapons as well as other major weapons not specifically mentioned. Since then, the term "weapon adaptable to mass destruction" or its shorter alternative "weapon of mass destruction (WMD)", has been widely used within UN resolutions, international treaties and regional regulations.[8]

However, already in 1948, the usage of the term was accompanied by a definition proposal established by the *United Nations Commission for Conventional Armaments (CCA)* in its first resolution. Therein, the CCA recommends to the Security Council that

"[…] weapons of mass destruction should be defined to include atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons, and any weapons developed in the future which have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above."[9]

Although this definition proposal was not immediately incorporated into an internationally binding document,[10] it already served as factual basis for different treaties and negotiations within international disarmament diplomacy.[11] It lasted nearly another 30 years for the

[7] United Nations General Assembly, Resolution A/RES/1 (I), January 24, 1946.
[8] E. g. Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof (Seabed Treaty) as of February 11, 1971, article I no. 1; Council Regulation (EC) No 428/2009 of May 5, 2009, setting up a Community regime for the control of exports, transfers, brokering and transit of dual-use items, recitals 14 and 16.
[9] Commission for Conventional Armaments, Resolution Adopted by the Commission at its Thirteenth Meeting, August 12, 1948, and a Second Progress Report of the Commission, UN document S/C.3/32/Rev.1, August 12, 1948.
[10] Chen KANE, *CNS Occasional Paper No. 22: Planning Ahead: A Blueprint to Negotiate and Implement a Weapon-of-Mass-Destruction-Free Zone in the Middle East*, Monterey, California, USA: Monterey Institute of International Studies/CNS Publications, 2015, p. 17.
[11] W. Seth CARUS, *Center for the Study of Weapons of Mass Destruction Occasional Paper, No. 8: Defining Weapons of Mass Destruction,* Washington, D.C., USA: National Defense University Press, 2012, p. 5, fn. 14.

General Assembly to formally acquire the above-mentioned definition in a resolution by stating that it

"[…] reaffirms the definition of weapons of mass destruction, contained in the resolution of the Commission for Conventional Armaments of 12 August 1948, which defined weapons of mass destruction as atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons and any weapon developed in the future that might have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above."[12]

Despite being literally reaffirmed by the General Assembly in further resolutions in 1996, 1999, 2002, 2006, 2009, 2011, 2014 and 2017[13], the prevailing *de facto* understanding of weapons of mass destruction in disarmament diplomacy does not require the lethality of chemical and biological weapons mentioned in the resolutions, as condition for their assignment as WMD. The terms "WMD" and *"CBRN"* (chemical, biological, radiological and nuclear weapons) are currently used indistinctly.[14] In fact, even the above-mentioned UN-definition itself has blurred the distinction between these terms, as it does not stress the intrinsically obvious key criterion of a WMD to cause death amongst *a large number* of individuals when referring to atomic, radiological, biological and chemical weapons.

A look at the European landscape reaffirms the world community's *de facto* understanding of WMD as synonym for CBRN on a regional i. e. multinational level. Different official EU regulations and papers use the term of WMD without any further definition or explanation. However, the understanding of WMD shows itself as clearly linked to "chemical, biological, radiological or fissile materials" as stated by the Council's "EU Strategy Against Proliferation of Weapons of Mass Destruction" of December 9, 2003.[15]

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[12] UN General Assembly, Resolution 32/84, 1977, titled *Prohibition of the development and manufacture of new types of weapons of mass destruction and new systems of such weapons*, December 12th, 1977.

[13] UN General Assembly Resolution(s), all titled *Prohibition of the development and manufacture of new types of weapons of mass destruction and new systems of such weapons*: Resolution A/RES/51/37, 10 December 1996; Resolution A/RES/54/44, December 23rd, 1999; Resolution A/RES/57/50, December 30th, 2002; Resolution A/RES/60/46, January 6, 2006; Resolution A/RES/63/36, January 13, 2009; Resolution A/RES/66/21, December 13th, 2011; Resolution A/RES/69/27, December 11th, 2014; Resolution A/RES/72/23, December 11th, 2017.

[14] Jayantha DHANAPALA, *International Law, Security, and Weapons of Mass Destruction*, Showcase Program, 2002 Spring Meeting of the Section of International Law and Practice, American Bar Association, New York, May 9, 2002, https://unoda-web.s3-accelerate.amazonaws.com/wpcontent/uploads/assets/HomePage/HR/docs/2002/2002May09_NewYork.pdf.

[15] COUNCIL OF THE EUROPEAN UNION, *Fight against the proliferation of weapons of mass destruction - EU strategy against proliferation of Weapons of Mass Destruction*, Doc.no. 15708/03, Brussels, Belgium: Council of the European Union, December 10th, 2003, Introduction no. 1.

Though the International Community's understanding of WMD is based on indicating chemical, biological, radiological or nuclear weapons as its principal forms, internationally binding definitions for all these subtypes do not exist.

A formal definition has merely been stated for chemical weapons in the *Chemical Weapons Convention (CWC)*[16] of January 13, 1993. Even though the definition is limited to the purposes of the convention, it serves as a strong indicator of what could be generally considered as a chemical weapon by the International Community. Article II no. 1 CWC states:

"Chemical Weapons" means the following, together or separately:

(a) Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes;

(b) Munitions and devices, specifically designed to cause death or other harm through the toxic properties of those toxic chemicals specified in subparagraph (a), which would be released as a result of the employment of such munitions and devices;

(c) Any equipment specifically designed for use directly in connection with the employment of munitions and devices specified in subparagraph (b)."

CWC's biological weapons counterpart, the *Biological Weapons Convention (BWC)*[17] of April 10, 1973, lacks such a formal definition. However, some conclusions about the comprehension of a biological weapon can be extracted from its article I:

"Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:

(1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;
(2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict."

Finally, for radiological and nuclear weapons, definitions or descriptions similar to the previously mentioned, are completely deficient on an international level. In the case of

[16] Organization of the Prohibition of Chemical Weapons (OPCW), *Convention on the Prohibition of the Development, Production and Stockpiling and Use of Chemical Weapons and on Their Destruction*, signed January 13, 1993, effective since April 29, 1997.
[17] *Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction*, signed April 10, 1973, in Washington, London, and Moscow, effective since March 26, 1975.

nuclear weapons however, at least on a regional level the so-called *"Treaty of Tlatelolco"*[18] between 33 Latin American and Caribbean States indicates in its article 5 that

"[…] a nuclear weapon is any device which is capable of releasing nuclear energy in any uncontrolled manner and which has a group of characteristics that are appropriate for use for warlike purposes."

Overall, the first problem encountered in any attempt to approach the subject derives from the absence of precise definitions of the main object of interest: Weapons of mass destruction. As has been explained so far, international regulation does not offer a univocal concept of weapons of mass destruction. Beyond the effects they are said to have - their capacity for mass destruction - the only certainty is that they include nuclear, biological and chemical weapons. From there the doubts begin, since we do not have internationally valid definitions for each of these categories, nor do we have criteria to know when any of them may have the required destructive capacity. Consequently, we do also not have a sure way to fill with content the generic clause that allows the inclusion of weapons of identical gravity to those expressly mentioned. This is the problem of definition to which the following paragraphs attempt to provide an answer.

1. Properties and modes of action of those weapons regarded as being of mass destruction

As nuclear and radiological weapons do not have an internationally binding definition and because the CWC's and BWC's descriptions on biological and chemical weapons do not provide further details on how these weapons are produced or applied and what their effects are, it is imperative to at least provide a basic understanding of the functionality and applicability of nuclear, radiological, biological and chemical weapons for subsequent considerations.

1.1. Nuclear weapons

Nuclear weapons are based on the devastating and enormous energy released in a chain reaction of atomic fissions.[19] Any nuclear weapon contains a core of material able to sustain an explosive nuclear chain reaction referred to as *fissile material*. The respective atoms

[18] Organismo para la Proscripción de las Armas Nucleares en la América Latina y el Caribe (OPANAL), *Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean*, signed February 14, 1967, effective since April 22, 1968.

[19] The editors of Encyclopedia BRITANNICA, *Atomic Bomb*, Encyclopedia Britannica, August 27, 2020, https://www.britannica.com/technology/atomic-bomb.

undergo fission after being shot by low-energy neutrons[20], dividing themselves into two or more new atoms of different chemical elements and release new neutrons that cause an impact on other atoms, which continues the chain of fissions and energy release intended. As will be shown below, it is exactly this uncontrollable autonomy of the destructive process that renders the nuclear weapon a WMD.

Theoretically, several elements, or rather isotopes[21], can be considered as fissile material and are therefore used within nuclear explosive devices. These are amongst others, uranium-235, uranium-233, plutonium-239 and other long-lived isotopes of plutonium, most long-lived isotopes of americium, and neptunium. However, the most manageable of these sources and therefore the preferentially used by nuclear weapon states as fissile material for their nuclear armament, are uranium-235 and plutonium-239.

As these isotopes do not occur naturally, or at least not with the concentration necessary for maintaining a nuclear chain reaction, special chemical and technical procedures must be undertaken in order to reach the required level of isotopes within a source.

In natural uranium ore, only about 0.7 % of the atoms are those of its fissile isotope uranium-235, while more than 99.2 % correspond to isotope uranium-238.[22] Such a source would be incapable of maintaining a chain reaction, as the neutrons released after a uranium-235 atom fission would be immediately absorbed in a stable manner by the surrounding uranium-238 atoms.

The process necessary to increase the concentration of fissile isotopes within an uranium source before being used in a nuclear weapon is called *enrichment*. In the last decades several methods of uranium enrichment have been tested by nation-states and relevant scientific institutions, including the gaseous diffusion, the utilization of centrifuges, the laser isotopes method, the chemical exchange "Chemex" process, and the electromagnetic isotope separation (EMIS).[23] Due to their comparatively good cost-benefit ratio, the utilization of

[20] "Neutrons": Subatomic particles with no electric charge. They constitute, together with the positively charged protons, the nucleus of an atom; see the editors of Encyclopedia BRITANNICA, *Neutron*, Encyclopedia Britannica, January 29, 2018, https://www.britannica.com/technology/atomic-bomb .

[21] "Isotopes": Atoms of a same element, containing therefore the same number of protons, that differ from other isotopes of their element in their number of neutrons. Isotopes are designated by their total number of neutrons and protons, e. g. "uranium-235" ("^{235}U"); see Gregory F. HERZOG, *Isotope*, Encyclopedia Britannica, May 10, 2021, https://www.britannica.com/science/isotope.

[22] Dai WILLIAMS, *Under the radar: identifying third-generation uranium weapons*, UNIDIR Disarmament Forum, 3/2008, pp. 35 – 45 (35).

[23] Kathleen C. BAILEY, *Die Verbreitung von Massenvernichtungswaffen. Die rüstungskontrollpolitische Herausforderung der 90er Jahre*, Bonn, Germany: Report Verlag, 1994, p. 25.

gaseous diffusion or centrifuges facilities represent the prevailing methods of enrichment, whereby uranium is converted into gaseous uranium hexafluoride UF_6 in order to separate the uranium-235 isotopes from the rest.[24]

When the isotopes of uranium-235 reach 20 % within the relevant material, it is generally considered as *High Enriched Uranium (HEU)*.[25] Although this value does not indicate the threshold theoretically necessary for building a nuclear weapon, as a chain reaction is also possible with a 6 % concentration of uranium-235, the quantity of material that would be needed with a concentration under this value would be practically unmanageable as weapon, for mere reasons of weight. In fact, states even seek to reach a higher level of fissile isotopes in order to reduce the mass of the fissile material needed, setting the standards of modern nuclear weapons on a uranium-235 percentage of more than 90 %.[26]

The elaboration of fissile material based on plutonium-239 on the other hand differs significantly from the enrichment process adopted for uranium. As plutonium-239 does not exist in natural ore, it has to be produced artificially by exposing uranium-238 to *neutron radiation*[27], making the respective atoms capture an additional neutron, thus converting them to uranium-239. Uranium-239 decays after a few minutes into neptunium-239, which in turn decays into the requested plutonium-239.

As plutonium-239 has the tendency to absorb an additional neutron, thus converting itself into undesired plutonium-240, and not every initially used uranium-238-atom captures a neutron, the end product never consists of pure plutonium-239. Since plutonium-240 has a high rate of potentially self-destroying spontaneous fissions[28], a fissile material based on plutonium only is considered and used as *weapon grade plutonium* when it contains more than 90 - 95 % of plutonium-239. The exact value applied differs among nuclear weapons states.[29]

[24] Wade MARCUM and Bernard I. SPINRAD, *Nuclear Reactor*, Encyclopedia Britannica, September 5, 2019, https://www.britannica.com/technology/nuclear-reactor.
[25] Non-technically also referred to as "Highly Enriched Uranium".
[26] Pavel PODVIG, *Fissile Material (Cut-off) Treaty: Definitions, Verification and Scope*, UNIDIR 2016, Geneva, Switzerland: UNIDIR Resources, p. 8.
[27] "Neutron radiation": Radiation of free neutrons emitted from a nuclear fission or nuclear fusion; see BRITANNICA, *Neutron*, op. cit.
[28] "Spontaneous fission": Form of radioactive decay; within a nuclear bomb it can cause a premature detonation that does not reach the expected explosion effect.
[29] PODVIG, op. cit., pp. 8 et seq.

In addition to the concentration of fissile isotopes within a uranium or plutonium based fissile material, the amount of the respective material is also a determining factor for its usability in nuclear weapons. The smallest amount needed for sustaining a chain reaction is termed *critical mass*. For pure uranium-235 the critical mass is about 52 kg, corresponding to a perfect sphere with a diameter of 11 cm, whilst for pure plutonium-239 it is of 10 kg corresponding to a perfect sphere with a diameter of 10 cm. In an amount smaller than the respective critical mass value, a high number of neutrons would simply leave the material without clashing against other atoms, thus impeding a stable nuclear chain reaction. Furthermore, the more impure a fissile material is, the higher its critical mass becomes in relation to the above-mentioned values, since additional neutrons would not only get lost by leaving the material without clashing against fissile atoms, but also by getting absorbed by non-fissile atoms.[30]

As weight reduction is crucial for missile and air-based weapons and the production of a critical mass of fissile material is a cost and time intensive process, nuclear weapon designers usually try to artificially reduce the critical mass needed for a self-sustaining nuclear chain reaction.

A principal method is the utilization of a neutron-reflecting layer encasing the fissile material, in order to enhance the possibility that neutrons, which otherwise would have left the fissile material without contact to fissile atoms, clash against these atoms. Materials that can serve as so-called *neutron reflectors* are most notably graphite, depleted uranium (uranium-238) and beryllium.[31] Other ways of reducing the critical mass include, amongst others: To shape the fissile material into the form of a perfect sphere, to reduce the temperature of the material in order to slow down neutrons and thus increase the probability of neutron absorption by the atoms, and to increase the density of the material by pressure or manipulation of its crystal structure.

The fissional material can be inserted in different nuclear weapon types, which can often be assigned to one of the following main designs: *Gun-typed fission weapons* and *implosion-type fission weapons*.

[30] With 20 % uranium-235 (the HEU-threshold), for example, the critical mass would be at over 400 kg.
[31] Thomas E. SHEA, *Dealing with Classified Materials in the Fissile Material Treaty*, in UNIDIR, *FM(C)T Meeting Series – Addressing Disparities in a Non-Discriminatory Fissile Material Treaty* (pp. 17 - 30), Geneva, Switzerland: UNIDIR Resources, 2017, p. 19.

Gun-typed fission weapons are based on the concept of colliding two uncritical pieces of fissile material that constitute a critical mass in sum. Therefore, the first piece is shot by means of a conventional explosive through a gun barrel within the bomb. At the other end of the gun barrel lies the second piece that is designed to fit perfectly together with the first in the sense of a key-lock principle. In the moment in which both pieces are unified, a neutron source starts emitting neutrons, provokes the chain reaction of fissions and the bomb explodes.[32]

Implosion-type fission weapons on the other hand, are heavier and have a spherical device inside the shell of the bomb. A similar spherical core of non-critical fissile material is covered by conventional explosives placed uniformly around the core. The simultaneous explosions of these explosives compress the core, thus provoking criticality of the fissile material by density incrementation. As simultaneity of the explosions is key for ensuring a uniform compression, and regular blasting caps cannot be coordinated that way, more precise *exploding-bridgewire detonators (EBWs)* have to be used for initiating the detonations. Alternatively, two detonators can be used to ignite a liquid explosive that covers the core and guarantees a uniform compression by forming a ring detonation that proceeds inwards to the core.[33]

Although implosion-type fission weapons are basically much more cumbersome than the gun-typed versions, their concept is used preferentially as they do not forfeit large parts of their effective force by losing criticality in the density-reducing expansion phase of the exploding core. Since two-detonators-version of the implosion-type fission weapons is sufficiently space-saving to be placed within a rocket suitable nuclear warhead, implosion-type fission weapons are the prevailing nuclear weapon type nowadays. In its technically enhanced version as so-called *boosted fission weapon*, a hollowed fissile material core is filled with a gas mixture of the two hydrogen isotopes tritium and deuterium. When the core starts to compress, the heat makes the hydrogen fuse into helium, thus releasing a large number of neutrons that exponentiates the chain reaction within the surrounding fissile material.

[32] Thomas B. COCHRAN & Robert S. NORRIS, *Nuclear Weapon*, Encyclopedia Britannica, October 22, 2021, https://www.britannica.com/technology/nuclear-weapon.
[33] P. J. RAE & P. M. DICKSON, *A review of the mechanism by which exploding bridge-wire detonators function*, The Royal Society Publishing online, July 17, 2020, https://royalsocietypublishing.org/journal/rspa, July 17, 2020.

In modern nuclear weapons this system is generally used in combination with a second implosion-type bomb within the same warhead. Hereby, the first bomb called *"primary"*, serves as trigger for the second one called *"secondary"*. The prior explosion of the primary emits x-rays that cause the shell of the secondary to vaporize to generate an extreme pressure on its core, with the correspondent enhancement of its destructive effects. This two-staged structure can also be found within so-called *"thermonuclear weapons"* (*"hydrogen bombs"* or *"H-bombs")*, where a primary fissile bomb explodes under the emission of extreme heat, thus provoking that the hydrogen within the second one fuses. The energy emitted by the fusion surpasses the effects of a regular nuclear bomb by a thousand times, thus deeming the thermonuclear weapon the most devastating weapon type known.[34]

1.2. Radiological weapons

Radiological weapons are based on the radioactive properties of unstable isotopes, like cesium-137, cobalt-60, iridium-192 and strontium-90. Unstable isotopes, also referred to as "*radioisotopes"*, emit ionizing radiation whilst decaying into new isotopes or elements. This ionizing radiation comes in three types: Alpha, beta and gamma radiation. All these radiation types can strip electrons[35] from atoms, thus leading to possible human cell damage. They differ in their ability to penetrate materials. Most alpha particles can be stopped by a piece of paper, for beta particles usually a thin piece of aluminum or glass is sufficient but for gamma radiation thick concrete or lead would be required. Therefore, externally applied alpha radiation is generally not dangerous for humans, as it cannot penetrate the outer dead layer of the skin, whilst the highly penetrating high-energy beta and gamma emissions are.[36]

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[34] Thomas MÜLLER, *Wasserstoffbombe – Der entfesselte Schrecken*, Stern.de, March 1st, 2004, https://www.stern.de/politik/geschichte/wasserstoffbombe-der-entfesselte-schrecken-3064404.html.

[35] "Electron": Negatively charged subatomic particle that can be bound to the nucleus of an atom; see the editors of Encyclopedia BRITANNICA, *Electron*, Encyclopedia Britannica, December 19th, 2019, https://www.britannica.com/science/electron.

[36] Charles D. FERGUSON, Tahseen KAZI, & Judith PERERA, *Center for Nonproliferation Studies Occasional Paper No. 11: Commercial Radioactive Sources: Surveying the Security Risks*, Monterey, California, USA: Monterey Institute of International Studies/CNS Publications, 2003, pp. 3 et seq.

The specific effects depend not only on the ionizing radiation type emitted, but also on the amount of radiation absorbed by the target[37], the distance from the radiation source to the target, and the way of its exposure, i. e. if it is absorbed by the skin, ingested or inhaled.[38]

Typical immediate effects of radiation exposure equivalent to more than 1.5 Sieverts include nausea, vomiting, and diarrhea. If radiation exposure is higher (2.5 – 6 Sieverts), immediate effects include loss of hair, vomiting of blood, nose bleeding, destruction of bone marrow and a decrease in blood cells. Radiation doses higher than an equivalent of 10 Sieverts cause immediate death, also known as "frying of the brain". Delayed health effects include premature aging, development of cancer and a shortened lifespan. Death within the following two months after exposure, is already highly probable when the radiation doses surpassed an equivalent of 2.5 Sieverts.[39]

Generally, two main types of radiological weapons are distinguished: *Radiological exposure devices (RED)* and *radiological dispersal devices (RDD)*.[40] A RED is a radioactive source that is used to externally irradiate the adversary without additional effects. A RDD on the other hand, combines the radioactive material with conventional explosives to disperse it over a wider area while causing additional damage from the thermomechanical blast. RDDs are therefore generally known as *"dirty bombs"*.[41]

As secure transportation and deposition of REDs is difficult to realize without self-harming of the attacker, and RDDs cause greater damage through the added explosive effect, the latter is likely to be the preferred system by most aggressors.

In fact, the explosion itself will generally cause more physical damage than the emitted levels of radiation. However, the usage of a radiation-emitting bomb has considerable psychological effects that can cause mass panics. Thus, they must be considered as far more

[37] The amount of radiation absorbed by the target is strongly linked to the length of the half-live of the respective radioisotop. Most radioisotops have to short or to long half-lives to be of concern. Suitable for radiological weapon purposes a merely those with an intermediate-length half-live from days to about thousand years. Accessible radioisotops that fit to this requirement are i. e. americium-241, californium-252, cesium-137, cobalt-60, iodine-131, iridium-192, polonium-210, plutonium-239, radium-226, and strontium-90; see Barry KELLMAN, *Bioviolence: Preventing Biological Terror and Crime*, Cambridge, United Kingdom: Cambridge University Press, 2007, pp. 178 et seqq.
[38] Office of Public Affairs of the UNITED STATES NUCLEAR REGULATORY COMMISSION, *Backgrounder: Dirty Bombs*, Washington, USA: USNRC Office of Public Affairs, 2020, chapter "Impact of a dirty bomb".
[39] FERGUSON, KAZI, & PERERA, op. cit., Appendix 1.1.; see also Ian FAIRLIE, *The health hazards of depleted uranium*, UNIDIR Disarmament Forum 3/2008, pp. 3 - 15 (9).
[40] Charles D. FERGUSON, *Radiological Weapons and Jihadist Terrorism*, in Gary Ackerman & Jeremy Tamsett, *Jihadists and Weapons of Mass Destruction*, (pp. 173 - 192), Boca Raton, Florida, USA: Taylor & Francis Group, 2009, pp. 184 et seq. This author also quotes the less common "Radiological Incendiary Device (RID)" as further radiological weapon type.
[41] KANE, *CNS Occasional Paper No. 22*, op. cit., p. 20.

dangerous than comparable conventional bombs. Consequently, some do not consider radiological weapons as real weapons of mass destruction but as so-called *"weapons of mass disruption"*.[42]

Although this seems reasonable for most REDs and RDDs, radiological weapon designs able to cause massive longtime killings, via the contamination of thousands of individuals with small ionizing doses are at least imaginable.[43] Their consideration within the group of WMD is therefore mandatory.

1.3. Biological weapons

Biological Weapons are designed to harm the adversary by exposing him either to micro-organisms of all kinds, which cause illness or death to their host or to the toxins obtained from this and other organisms. Although a vast number of bacteria, viruses and toxins could theoretically serve this purpose, further practical requirements must be fulfilled by the potential agent, in order to be useable within a weapon. These are, i. e., a relevant degree of effectivity, an adequate level of environmental stability, a short incubation period[44], a manageable production process, an efficient spreading method, and a good storage capacity.[45] The twelve most relevant biological agents meeting these requirements, and therefore widely used as biological warfare agents, are generally known as the *"Dirty Dozen"*. They comprise six bacterial agents (1 - 6), three viral types of agents (7 - 9) and three toxins (10 - 12), namely:

(1) *Bacillus anthracis* causing inhalational anthrax. With an incubation period of 2 - 7 days, it accesses the human body via inhalation, but is not transmissible between humans. The symptoms of an infection with bacillus anthracis are unspecific when used as biological weapon but generally consist of pneumonia, hemoptysis, high fever and shock reactions. The lethality rate amounts to 80 - 90 % if left untreated and < 60 % when medically treated.[46]

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[42] FERGUSON, KAZI, & PERERA, op. cit., p. 24.
[43] FERGUSON, KAZI, & PERERA, op. cit., p. vi, fn. 2.
[44] "Incubation period": Time elapsed between exposure to a pathogen and first appearance of its symptoms.
[45] Stefan SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, Elztal-Rittersbach, Germany: OWR AG, 2008, p. 12.
[46] Kenneth ALIBEK, Catherine LOBANOVA, & Serguei POPOV, *Anthrax: A Disease and a Weapon*, in I.W. Fong and Kenneth Alibek (Eds.), *Bioterrorism and Infectious Agents: A New Dilemma for the 21st Century* (pp. 1 – 35). New York, USA: Springer, 2009; editorial office of the PSCHYREMBEL, *Pschyrembel Klinisches Wörterbuch* (268th ed.), Berlin, Germany: De Gruyter, 2020, chapter "Milzbrand"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.1. Milzbrand, pp. 17 et seqq.

(2) *Versinia pestis* causing pneumonic plague. It has an incubation period of a few hours and is inserted into the human body via the bite flea (rat or human flea) or inhalation. Versinia pestis is highly transmissible between humans. The symptoms of an infection are high fever, head and body aches, pneumonia combined with sanguineous sputum, vomiting, pest sepsis, and meningitis. When left untreated, the lethality rate of versinia pestis is of more than 95 %.[47]

(3) *Brucella suis* and *brucella melitensis* causing brucellosis. The incubation period lasts between 3 and 60 days. They access the human body through inhalation, and transmission between humans is rare. The symptoms are fatigue, liver and spleen enlargement, cough, headache, body and muscle aches, vomiting, diarrhea, and fever. If left untreated the lethality rate is still relatively low with 5 %.[48]

(4) *Coxiella burnettii* causing Q fever. The incubation period amounts to 3 – 40 days and can generally be inserted via inhalation, in exceptional cases via direct exposure to cattle or by ingestion, i. e. by consuming contaminated food. Despite being highly infectious, human-to-human transmission is rare. Symptoms are flu-like, including head and body aches, fever, cough, bronchitis and pneumonia. The lethality rate is only about 1 %.[49]

(5) *Francisella tularensis* causing tularemia. It counts with an incubation period of 1 – 21 days and can be inserted into the human body via inhalation, ingestion or percutaneously. It is highly infectious but not transmissible human-to-human. Symptoms can vary, depending on the form in which the infection occurs, but generally comprises of headache, conjunctivitis, cough, pneumonia, vomiting, lymph node enlargement and fever. The lethality rate is > 30 % if left untreated and 5 % when medically treated.[50]

(6) *Burkholderia mallei* or *burkholderia pseudomallei* causing glanders and melioidosis. These infections have an incubation period that can last from only 2 days up to several years. The infectivity is high, but human-to-human transmission an exception. The symptoms are

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[47] David T. DENNIS, *Plague as a Biological Weapon*, in I.W. Fong and Kenneth Alibek, *Bioterrorism and Infectious Agents: A New Dilemma for the 21st Century* (pp. 37 – 70), New York, USA: Springer, 2009; PSCHYREMBEL, op. cit., chapter "Pest"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.4. Pest, pp. 29 et seqq.

[48] PSCHYREMBEL, op. cit., chapter "Brucellosen"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.2. Brucellose, pp. 21 et seqq.

[49] PSCHYREMBEL, op. cit., chapter "Q-Fieber"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.5. Q-Fieber, pp. 33 et seqq.

[50] Lisa HODGES and Robert L. PENN, *Tularemia and Bioterrorism*, in I.W. Fong and Kenneth Alibek (Eds.), *Bioterrorism and Infectious Agents: A New Dilemma for the 21st Century* (pp. 71 – 98), New York, USA: Springer, 2009, pp. 71 et seqq.; PSCHYREMBEL, op. cit., chapter "Tularämie"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.6. Tularämie, pp. 37 et seqq.

high fever, chills, muscle and breast aches, lymph node enlargement, pneumonia, diarrhea, and sepsis. Melioidosis in its pulmonary or septic form has a high lethality rate of around 50 %.[51]

(7) *Variola virus* causing smallpox. Its incubation period can be 7 – 18 days. It enters the body through inhalation and is highly transmissible between humans. The symptoms start with headache, backache, fever and an erythema. The subsequent typical exanthema spreads from face and arms to the torso, whilst developing from papules, over pustules to slough. The lethality rate is between 20 – 50 % when unvaccinated and of 3 % when previously vaccinated.[52]

(8) *VEE-virus* causing Venezuelan equine encephalitis (VEE). Incubation lasts 1 – 6 days and generally has a low grade of both infectivity and human-to-human transmission. However, cases of epidemic courses between humans are known. Its comparable easy production and good shelf life makes it interesting for biological weapons purposes. The symptoms are fever, chills, fatigue, headache, muscle aches, mental confusion and seizures. Lethality rate is low and does not surpass 1 % when expanding naturally but can reach higher degrees when disseminated via aerosol-based weapons.[53]

(9) Several viruses that cause *viral hemorrhagic fevers* such as Lassa fever, Argentinian hemorrhagic fever, Bolivian hemorrhagic fever, Venezuelan hemorrhagic fever, Hantavirus fever, Crimean-Congo fever, Rift Valley fever, Ebola, Marburg fever, Dengue fever, and Yellow fever. The incubation period varies between the different viruses[54], they are all highly infective and human-to-human transmission is possible. Shared symptoms are fever, headache, muscle aches, facial blush, internal bleeding, and respiratory and circulatory

[51] David ALLAN & Brett DANCE, *Melioidosis and Glanders as Possible Biological Weapons*, in I.W. Fong & Kenneth Alibek (Eds.), *Bioterrorism and Infectious Agents: A New Dilemma for the 21st Century* (pp. 99 – 145), New York, USA: Springer, 2009; PSCHYREMBEL, op. cit., chapter "Melioidose"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.3. Rotz/Melioidose, pp. 25 et seqq.

[52] J. Michael LANE and Lila SUMMER, *Smallpox as a Weapon for Bioterrorism*, in I.W. Fong and Kenneth Alibek (Eds.), *Bioterrorism and Infectious Agents: A New Dilemma for the 21st Century* (pp. 147 – 167), New York, USA: Springer, 2009, pp. 147 et seqq.; PSCHYREMBEL, op. cit., chapter "Variola"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.7. Pocken, pp. 41 et seqq.

[53] PSCHYREMBEL, op. cit., chapter "Pferdeenzephalitis"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.8. Venezuelanische Pferde-Enzephalitis (VEE), pp. 45 et seqq.

[54] Lassa fever, Argentinian/Bolivian/Venezuelan fever: 7 – 14 days; Hantavirus fever: 5 – 42 days; Crimean-Congo fever: 3 – 12 days; Rift Valley fever: 2 – 12 days; Ebola: 2 – 21 days; Marburg fever: 5 – 9 days.

failure. All viral hemorrhagic fevers are potentially lethal, reaching a lethality rate of up to 90 % in the case of Ebola.[55]

(10) The *neurotoxins obtained from clostridium botulinum* causing botulism. The toxin inhibits the release of the neurotransmitter acetylcholine, thus interrupting stimuli transfer between neuronal synapses. The corresponding effects are different signs of paralysis, such as blurred vision, language and swallowing disorders, and paralysis of the skeletal muscles. Under increasing muscle weakness, it can cause death by respiratory paralysis. The toxin is absorbable via both inhalation and ingestion, but especially suitable as aerosol warfare agent. The lethality rate is between 50 - 60 % when left untreated.[56]

(11) *Ricin toxin*, obtained from the beans of the caster-oil plant, causing ricinism. The symptoms vary depending on the form of ingestion and become evident after an incubation period of 4 – 8 hours. If inhaled, the symptoms are fever, chest aches, cough, nausea, joint pains and pulmonary edemas. If ingested it can cause nausea, vomiting, bloody diarrhea, significant weight loss and spasms. However, inhalation symptoms might be more common within warfare context as ricin toxin is especially suitable as aerosol agent. Ricin toxin's lethality rate is high.[57]

(12) *Staphylococcal enterotoxin B*, obtained from staphylococcus aureus, causing a SEB-intoxication. In case of inhalation the symptoms manifest after an incubation period of 2 – 12 hours and consist of fever up to 41 °C, shivers, headache and body aches, chest aches, as well as respiratory distress up to respiratory failure. Although in case of an aerosol application the lethality rate would be relatively low, the good storability and resilience of

[55] Allison GROSETH, Steven JONES, Harvey ARTSOB, & Heinz FELDMAN, *Hemorrhagic Fever Viruses as Biological Weapons*, in I.W. Fong and Kenneth Alibek (Eds.), *Bioterrorism and Infectious Agents: A New Dilemma for the 21st Century* (pp. 169 – 191), New York, USA: Springer, 2009, pp. 169 et seqq.; PSCHYREMBEL, op. cit., chapter "Ebola-Viruskrankheit"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.9. Virale Hämorrhagische Fieber, pp. 49 et seqq.

[56] Thomas P. BLECK, *Botulism as a Potential Agent of Bioterrorism*, in I.W. Fong & Kenneth Alibek, *Bioterrorism and Infectious Agents: A New Dilemma for the 21st Century* (pp. 193 – 204), New York, USA: Springer, 2009; PSCHYREMBEL, op. cit., chapter Botulinumtoxine and chapter Botulismus; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.10. Botulinumtoxin, pp. 55 et seqq.; Eberhard TEUSCHER & Ulrike LINDEQUIST, *Biogene Gifte: Biologie – Chemie – Pharmakologie – Toxikologie* (3rd ed.), Stuttgart, Germany: Wissenschaftliche Verlagsgesellschaft, 2010, 39.1.3 Bakterielle Exotoxine, Neurotoxine aus Clostridum botulinum, pp. 747 et seqq.

[57] Maor MAMAN and Yoav YEHEZKELLI, *Ricin: A Possible, Noninfectious Biological Weapon*, in I.W. Fong and Kenneth Alibek, *Bioterrorism and Infectious Agents: A New Dilemma for the 21st Century* (pp. 205 - 215), New York, USA: Springer, 2009, pp. 205 et seqq.; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.11. Rizin-Toxin, pp. 59 et seq.; TEUSCHER & LINDEQUIST, op. cit., 41.5 Stark toxische Lectine, pp. 776 et seqq.

staphylococcus aureus, as well as the high degree of deployability over several weeks, makes it interesting for warfare purposes.[58]

For high-quality and high-quantity production of these or other[59] biological weapon agents a prior fermentation process, the so-called *cultivation*, is essential. In case of bacteria and toxin producing fungi, the cultivation can occur directly via feeding and generating an adequate environment, while viruses need prior cultivated mammalian host cells for infection and subsequent duplication.[60]

Once produced, biological warfare agents have to be specially treated to enlarge their durability. Especially bacterial agents disintegrate fast and therefore have to be either freeze-dried via *lyophilization*, or chemically treated.[61] Virus warfare agents on the other hand, are easier to store, as they do not have any metabolic needs, i. e. they do not need the intake of food or oxygen. However, unlike bacteria they cannot regenerate themselves and must be protected from damaging external influences like sunlight, temperature changes and fluctuations in humidity during transportation.[62]

To enhance the resistance of bacteria or viruses, the insertion of genes of more resistant types in the genomes of biological warfare agents has been applied since the 1980s. Higher lethality or contagion can be equally reached by genetic manipulation of bacteria and viruses. According to statements of former top scientist of Soviet biological warfare programs, even the creation of new hybrid forms between highly contagious viruses (e. g. smallpox) and highly lethal viruses (e. g. Ebola) is possible and would have devastating consequences if released.[63]

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[58] PSCHYREMBEL, op. cit., chapter "Staphylococcus aureus"; SCHULZ-KIRCHRATH, *Kompendium Biologische Kampfstoffe*, op. cit., 2.12. Staphylokokken-Enterotoxin B (SEB), pp. 61 et seq.; TEUSCHER & LINDEQUIST, op. cit., 39.1.3 Bakterielle Exotoxine, Enterotoxine von Staphylococcus aureus, pp. 744 et seq.

[59] Alongside the Dirty Dozen, especially the pathogens of the following diseases can serve for biological weapon purposes: Typhus, cholera, psittacosis, Rocky Mountains spotted fever, Legionnaire's disease, Machupo virus infection, African swine fever, foot-and-mouth disease, rinderpest, monkey-pox, influenza.

[60] Julie A. CARRERA, Andrew J. CASTIGLIONI, & Peter M. HEINE, *Chemical and Biological Contract Manufacturing Services: Potential Proliferation Concerns and Impacts on Strategic Trade Controls*, STR 2017, volume 3, issue 4, pp. 25 - 46 (35).

[61] CARRERA, CASTIGLIONI, & HEINE, op. cit., p. 40.

[62] BAILEY, op. cit., p. 122; Cheryl LOEB, *Jihadists and Biological and Toxin Weapons*, in Gary Ackerman & Jeremy Tamsett (Eds.), *Jihadists and Weapons of Mass Destruction* (pp. 153 – 172), Boca Raton, Florida, USA: Taylor & Francis Group, 2009, p. 162.

[63] Hans RÜHLE, *Russland hat Ebola zur Waffe gemacht*, Welt.de, August 21, 2014, https://www.welt.de/politik/ausland/article131459175/Russland-hat-Ebola-zur-Waffe-gemacht.html; read for deeper insight: Kanatschan Alibekow "Ken ALIBEK" (former scientific head of Soviet biological weapons project "Biopreparat") & Stephen HANDELMAN, *Biohazard: The Chilling True Story of the Largest Covert Biological Weapons Program in the World – Told from Insight by the Man Who Ran It*, London, United Kingdom: Arrow Books, 1999.

There are countless options for possible carriers or dispersers of biological weapon agents, which serve either for inhalation, insertion or injection of the respective substances. Thus, biological weapons can include such different carrier systems as intentionally infected flees, mosquitos, and humans; contaminated water supply, food and ventilation systems; as well as aerosol or germs dispersing repositories, technical devices and bombs. Moreover, intercontinental missiles could theoretically serve as delivery vehicle for a biological attack. A warhead filled with only 100 kg of pre-tailored anthrax spores could, for example, kill up to three million people in a densely populated area, if optimal atmospheric conditions are present. Considering the existence of intercontinental missiles that can be equipped with five *multiple independently targetable reentry vehicles (MIRV)* of 500 kilotons each, the population of a city like New York could therefore be easily erased by means of a single missile loaded with an adequate biological-warfare agent.[64]

1.4. Chemical weapons

Chemical weapons utilize the toxicity of specific solid, liquid or gaseous agents in order to seriously harm or kill the adversary. Most chemical warfare agents are considered as lethal means by the military, although their lethality depends highly on the actual amount applied. They often occur as *binary weapon*, meaning that the weapon does not contain the final agent itself, but its less toxic or even non-toxic precursors, thus enabling safer handling of the weapon before chemical reactions produce the final deadly agent.[65]

Warfare agents are classified, depending on the direct effect on human beings, as nerve agents, blister agents, choking agents, blood agents or incapacitating agents.

Nerve agents produce a strong increase of the neurotransmitter acetylcholine by blocking its regulating enzyme acetylcholinesterase. The resulting uncoordinated increase in nerve activity leads to poisoning symptoms like impaired vision, miosis, headache, increased tear flow, profuse sweating and slow pulse, twitching of muscles, respiratory distress, intestinal cramps, vomiting and diarrhea, coma, respiratory paralysis, and death. Widely used nerve agents are *Tabun*, *Sarin*, *Soman* and *VX*, all absorbable via the respiratory tract, skin, eyes,

[64] ALIBEK & HANDELMAN, op. cit., p. 8, making reference to corresponding secret studies with Soviet intercontinental missile type "S-18".
[65] Barry R. SCHNEIDER, *Chemical Weapon*, Encyclopedia Britannica, January 3rd, 2020, https://www.britannica.com/technology/chemical-weapon.

and gastrointestinal tract. They are generally used in binary weapons, either for terrestrial or aerial poisoning.[66]

Blister agents, like *S-mustard*, *N-mustard* and *lewisite*, principally damage the skin of the exposed persons under burning pain, besides having negative systemic effects like the inhabitation of regular cell division. When inhaled they cause damage to the respiratory organs. Mustard weapons generally do not have long-term effects on the exposed. Lewisite, on the other hand normally causes long-term liver damages as well as long-term systemic damages on the affected body. They are absorbable via skin, eyes, respiratory tract and gastrointestinal tract.[67]

Choking agents, like *phosgene* and *chloropicrin*, damage the membrane of pulmonary alveoli, provoking an increasing accumulation of liquid in the lungs that impede gas exchange. The corresponding symptoms are severe respiratory distress, tracheal rale on both lungs, and cardio-vascular failure.[68]

Blood agents prevent the oxygen that is transported to human cells from being absorbed by suppressing the respiratory chain enzyme cytochrome oxidase. Therefore, even though the pulmonary respiration persists functioning, it causes asphyxiation symptoms that vary depending on the concentration applied. In case of a high intoxication, the symptoms are severe respiratory distress, circulatory collapse, unconsciousness, and death by immediate apnea. Important blood agents are *hydrogen cyanide ("Zyklon B")* and *cyanogen chloride*. Due to their high volatility, lethal combat concentrations are hardly reached in open field situations. However, progress in aerosol technique may enable open field dispersion of lethal concentrations in crystalline form.[69]

Incapacitating agents usually do not have a lethal outcome, but have effects on the motorial, intellectual and psychological sanity of humans by inhibiting the functioning of the central nervous system. Due to its easy manufacturability for military purposes the incapacitating

[66] Anthony TU, *Chemical and Biological Weapons and Terrorism*, Boca Raton, Florida: CRC Press, 2017, pp. 7 - 14; Max DAUNDERER, *Kampfstoffvergiftungen: Diagnostik und Therapie*, Kompendium der Klinischen Toxikologie, volume 6, Landsberg am Lech, Germany: Ecomed, 1991, III-6.3, Sarin, Soman, Tabun, VX; Stefan SCHULZ-KIRCHRATH, *Compendium Chemical Warfare Agents*, Elztal-Rittersbach, Germany: OWR AG, 2006, 2.1. Nerve Agents, pp. 21 et seqq.
[67] SCHULZ-KIRCHRATH, *Compendium Chemical Warfare Agents*, op. cit., 2.2. Blister Agents, pp. 25 et seqq.
[68] SCHULZ-KIRCHRATH, *Compendium Chemical Warfare Agents*, op. cit., 2.3. Choking Agents, pp. 31 et seqq.
[69] TU, op. cit., pp. 15 et seq.; SCHULZ-KIRCHRATH, *Compendium Chemical Warfare Agents*, op. cit., 2.4. Blood Agents, pp. 35 et seqq.

agent *BZ* is of particular interest. Its intoxication symptoms are mainly psychic effects like disorientation, hallucinations, schizoid psychoses, stupor and unconsciousness.[70]

Specific chemical industry procedures are necessary to produce chemical weapon agents. Herein, specific organophosphorus chemistries, highly specialized halogenation processes, as well as distillation and purification measures are of importance. Organophosphorus chemistries and halogenation processes, like fluorination and chlorination, are for example indispensable for the synthesis of advanced precursors of several nerve and blister agents.[71] In order to isolate significant quantities of chemical weapon agents, distillation and purification has to be undertaken with highly specialized corrosion-resistant equipment.[72]

Once produced, the chemical weapon agent or its precursors must be placed in a delivery system, in form of a regular or binary weapon. The choice of delivery system depends on the chemical agent used and the precise effect intended. If the purpose is a fast and wide effect, without long-term contamination, aerosols consisting of very small drops are used, as they evaporate more quickly. The diffusing density is generally chosen in a way that one breath contains a deadly dose of the relevant agent. Typical examples for these types of chemical weapons are therefore systems with widespread effects, like multiple rocket launchers or aerial bomb carpets, charged with fast evaporating agents like Sarin, Soman or Tabun.[73]

If a long-term effect is intended, e. g. to tactically disable relevant positions or facilities in warfare, substances composed of larger drops are used, as they fall faster and therefore reach the soil before completely evaporating. For this type of attack S-mustard, N-mustard and VX in a variety of delivery systems, like regular artillery, bombs, spraying aircrafts, and missiles, are especially suitable.[74]

2. Normative characterizability of the term "weapon of mass destruction"

The foregoing technical descriptions are not sufficient for the conceptualization of a weapon as a weapon of mass destruction. Rather, such a conceptualization depends on the specific effects it has, which, as we have seen, may vary according to the mode of attack, the quantity

[70] TU, op. cit., pp. 18 et seqq.; SCHULZ-KIRCHRATH, *Compendium Chemical Warfare Agents*, op. cit., 2.5. Incapacitating Agents, pp. 39 et seqq.
[71] CARRERA, CASTIGLIONI, & HEINE, op. cit., p. 28.
[72] CARRERA, CASTIGLIONI, & HEINE, op. cit., p. 34.
[73] SCHNEIDER, *Chemical Weapon*, Encyclopedia Britannica, op. cit.
[74] SCHNEIDER, *Chemical Weapon*, Encyclopedia Britannica, op. cit.

or concentration of the means employed. A chemical weapon, for instance, does not always have to kill a large number of individuals. It will be so or not depending on various factors determining its lethal potential.

It is thus the *inherent* destructive potential that must define a WMD. The search for an abstract ascertainability of it, and especially the related question of what is to be understood as "mass destruction", in the sense of sufficient severity and extent of harm, is therefore mandatory and has to take place by applying the normative criteria for definition.

2.1. "Weapon of mass destruction" as indeterminate concept

The WMD-definition recommended by the CCA in its first resolution of 1948[75] relies on an exhaustive catalogue composed of specific weapon types, i. e. nuclear, radiological, biological and chemical weapons, and to them analogue objects.[76] By these means, the definition should be able to remain in full force irrespective of possible technological developments leading to the creation of not yet existent or even inconceivable weapon types.[77]

Such a definition technique, however, goes hand in hand with dangers for the legal certainty, as the never absolute predictability of legal decisions cannot even be guaranteed for the explicitly mentioned cases, i. e. the CBRN, because there might be cases that do not reach the minimum required severity level. The subsumability of other types of weapons under the definition, on the contrary, will depend on a highly delicate establishment of analogies, covered and accepted by the judicial systems applying it. This presents us with a definition with two levels of legal certainty: A first level of casuistic descriptivity, with a high degree of legal certainty, and a second level of analogue application, with a much weaker degree of legal certainty.

This nevertheless most reasonable approach prevailed amongst representatives of the international disarmament community at least until the early 70s. Accordingly, JAMES

[75] Commission for Conventional Armaments, Resolution Adopted by the Commission at its Thirteenth Meeting, August 12, 1948, and a Second Progress Report of the Commission, UN document S/C.3/32/Rev.1, August 12, 1948, already mentioned above.
[76] Described as "*Listado de supuestos a título de ejemplo con cláusula de cierre por analogía*" in Spanish legal terminology.
[77] See, on the impact of the technological development on the design of new WMD and their proliferation, Maria del Mar HIDALGO GARCÍA, *Los futuros desafíos en la proliferación de las Armas de Destrucción Masiva*, in Instituto Español de Estudios Estratégicos, *Actores no estatales y proliferación de Armas de Destrucción Masiva La Resolución 1540: una aportación española,* Madrid, Spain: Ministerio de Defensa, Madrid, 2016, pp. 67 et seqq.

LEONARD, Assistant Director of the US Arms Control and Disarmament Agency, stated still in 1972 that

"[t]he term 'weapons of mass destruction' is one that has come into quite a number of international documents, treaties and so on, and it has, I think, generally the meaning of embracing nuclear weapons, embracing also chemical and biological weapons, and then being open-ended, if I may express it that way, in order to take care of developments which one cannot specify at the present time, some form of weapon which might be invented or developed in the future, which would have devastating effects comparable to those of nuclear or biological or chemical weapons, but which one simply cannot describe at the present time ."[78]

As said above, this to future developments open understanding of the term comes with a certain degree of uncertainty regarding the exact meaning of the term WMD and the realities that can be subsumed under it. Terms like this, whose content and comprehensiveness are uncertain, are known in legal sciences as *indeterminate legal concepts*.[79]

According to HECK, this indetermination however, is usually not absolute.[80] Most indeterminate legal concepts have at least a *term's core*, where their applicability on specific constellations and facts is certain, e. g. the undoubtful applicability of the term "darkness" on a star- and moonless night without artificial light. The core of the term, on the other hand, is surrounded by constellations and facts where its applicability becomes questionable and the term in turn truly indeterminate, e. g. the applicability of "darkness" to the early dawn or nights with dim moonlight.[81] HECK calls the sum of these unclear application cases the *term's halo*.[82]

When using this illustrative approach to assess Weapons of Mass Destruction as a term, we will certainly consider those future weapons, which must be comparable to those explicitly mentioned in the CCA's definition, as part of WMD's terminological halo. Where comparability is the connecting factor, questions on the relevant aspects to compare and on their actual nature will inevitably arise and consequently cause definitory uncertainty: Can a weapon, usually considered as conventional, become a WMD when causing a certain number of causalities in a specific context? Is the number of causalities even relevant? Or

[78] US Senate Committee on Foreign Relations, Seabed Arms Control Treaty, Hearing on EX.H.92-1, 92nd Cong., 2nd sess., Washington DC, January 27, 1972, GPO 1972, 22.
[79] See Karl ENGISCH, *Einführung in das juristische Denken*, (8th ed.), Stuttgart, Germany: Kolhammer Verlag, 1956, printed 1989, pp. 108 et seqq.; German: "*Unbestimmter Rechsbegriff*"; Spanish: "*Concepto jurídico indeterminado*".
[80] Philipp HECK, *Gesetzesauslegung und Interessenjurisprudenz*, Archiv für civilistische Praxis, volume 112, Tübingen, Germany: Mohr, 1914, p. 107.
[81] Example used in ENGISCH, op. cit., p. 108.
[82] Philipp HECK, *Begriffsbildung und Interessenjurisprudenz*, Tübingen, Germany: Mohr, 1932, p. 108; using the terms "*Begriffskern*" and "*Begriffshof*".

are the effects on the human body, which WMD have that are decisive? And what happens to effects that are not physiologically comparable to those of the WMD we know by now, but that nevertheless might cause unimaginable horrors in the future?

As it is the case for all indeterminate legal concepts, the terminological limits of the term "WMD" are difficult to identify. In the case of WMD this is also the case for its terminological core, which is equally controversial. A fact that admittedly might appear contradictory in first place, as the term's core should be characterized by a high degree of certainty. The ambiguity in the term's core, however, is a particularity of the term WMD, caused by its inconsistent use by international and national lawmakers and executive organs throughout the last decades.

In fact, most lawmakers worldwide have decided to adapt their official understanding of WMD notwithstanding the "open-ended" approach of the CCA from 1948 and choose different approaches: Some legal systems narrowed the concept to those weapons mentioned explicitly by the CCA, whilst discarding its element of analogy. Others, presumably the majority, formally synonymized it but without including radiological weapons. And still others avoided the term WMD entirely and referred directly to its certain sub-cases, i. e. chemical, biological, radiological and nuclear weapons.

In consequence, and similar to the results of a study published by the US National Defense University's Center for the Study of Weapons of Mass Destruction,[83] there seem to currently be seven prevailing understandings of the term WMD worldwide which can be assigned to three super ordinate groups of relevant criteria:

<u>Criteria Group "a") Definitions exclusively based on an exhaustive list of specific weapons</u>

Including:

(1) The understanding that the term WMD equals with nuclear, biological and chemical weapons (NBC), without referring to their specific potential effects.[84]

[83] W. Seth CARUS, *Center for the Study of Weapons of Mass Destruction Occasional Paper, No. 8: Defining Weapons of Mass Destruction*, Washington, D.C., USA: National Defense University Press, 2012. The mentioned study identifies 6 groups of definitions and is repeatedly unprecise when assessing the exact content of the relevant definitions, i. e. when differentiating exhaustive and non-exhaustive weapon type examples or when differentiating effects that shall be comparable from effects that are only mentioned exemplarily.

[84] E. g. *Australian Weapons of Mass Destruction (Prevention of Proliferation) Act 1995*, Interpretation of "Weapons of Mass Destruction program of WMD program", Act no. 38 of 1995.

(2) The understanding that the term WMD equals with NBC and radiological weapons (CBRN), without referring to their specific potential effects.[85]

(3) The understanding that the term WMD equals with CBRN and high explosive weapons (CBRNE), again without referring to their specific potential effects.[86]

Criteria Group "b") Definitions combining specific weapon types with potential effects

Including:

(1) The understanding based on an exhaustive listing of CBRN weapons, which have to be able to cause massive destruction or kill large numbers of people.[87]

(2) The understanding that the term WMD is composed by nuclear, radiological, biological and chemical weapons and weapons analogue to them in potential effects.[88]

Criteria Group "c") Definitions based on an exhaustive list of potential effects

Including:

(1) The understanding that the term WMD refers to weapons capable to cause destruction and killings on a large scale.[89]

[85] E. g. COUNCIL OF THE EUROPEAN UNION, *Fight against the proliferation of weapons of mass destruction*, op. cit., Annex. This is also the model followed in the criminalization of the possession, trafficking, and deposit of weapons in art. 566 CP, which inaccurately mentions "chemical, biological, nuclear, or radiological weapons" as a case distinct from weapons of war *("Si se trata de armas o municiones de guerra o de armas químicas, biológicas, nucleares o radiológicas […]")* and deserving of the same treatment as other weapons normally considered conventional, i. e., anti-personnel mines and cluster munitions.

[86] E. g. UNITED STATES JOINT CHIEFS OF STAFF, *Department of Defense Dictionary of Military and Associated Terms*, Washington, USA: Office of the Chairman of the Joint Chiefs of Staff, November 8, 2010 (as amended through November 15, 2014). Admittedly, the expression "high explosive weapons" has an immanent reference to its effects, i. e. massive explosions. However, for the relevant policymakers this is a relatively clear group of weapons, including bombs with an explosive power equivalent to a certain amount of TNT and/or bombs made from specific materials, i. e. plastic explosives.

[87] E. g. UNITED STATES AIR FORCE, *Dictionary of Basic Military Terms: A Soviet View*, Soviet Military Thought, volume 9, Washington, USA: Government Printing Office, 1976, p. 148.

[88] E. g. UN Commission for Conventional Armaments, Resolution Adopted by the Commission at its 13th Meeting, August 12, 1948, and a Second Progress Report of the Commission, UN document S/C.3/32/Rev.1, August 12, 1948. Unlike the aforementioned technique used in art. 566 CP, the definition of the terrorist crime of illegal possession of weapons in art. 574 CP resorts to this combined technique of an exemplifying list with a closing clause by analogy, defining as the object of the crime "nuclear, radiological, chemical or biological weapons, substances or devices, or any others of similar destructive power" *("[…] sustancias o aparatos nucleares, radiológicos, químicos o biológicos, o cualesquiera otros de similar potencia destructiva.")*.

[89] E. g. NATO, *NATO Glossary on Terms and Definitions*, AAP-6 2010, Brussels, Belgium: NATO Standardization Agency, 2010.

(2) The understanding that the term WMD refers to weapons that potentially cause massive destruction, kill large numbers of people or cause massive disruption, thus including even some forms of cyber-attacks.[90]

When considering this listing, the issue of defining the WMD's terminological core becomes clearer: The prevailing understandings do not only differ in the expansion of their applicability but already in their object of reference, thus making their subsumption under a shared core difficult. In fact, one stream of definitions refers to specific objects, i. e. specific weapons, by differing only in the number of relevant weapon-types included. The other stream focusses on the potential effects of relevant objects, differing only in the number of effect-types deemed relevant. Whereas some groups of definitions can be clearly assigned to only one of these two major streams, i. e. criteria group "c" to the effect-stream and definition 1 and 2 of criteria group "a" to the weapon-types-stream, others have overlaps between them, i. e. group "b" and the definitions that include specific weapons characterized by their potential effects, i. e. the "high explosive weapons" of definition 3 of criteria group "a".

However, if we do not consider those two streams as basically opposed approaches but as the *two axes of a single indeterminate legal concept*, we might be able to get closer to the WMD's actual terminological core.

On the *weapon-type axis*, we can determine that nuclear, chemical and biological weapons are always considered a WMD, while radiological weapons, high explosive weapons and disruptive weapons the more or less doubtful cases.

On the *effect axis,* the common denominators are the large-scale destruction or killings of individuals, whilst possible other effects caused by CBRN and mass disruption are the uncertain elements. If we overlay now the two axis, we reach the outcome that at least biological, chemical and nuclear weapons capable of causing a large scale of destruction or killings would be considered undoubtedly a WMD by the large majority of world's relevant policy makers. This, however, does not mean that one can thereby undoubtedly assign certain forms of biological and chemical weapons to the core of the term "WMD". For this

[90] UNITED STATES JOINT CHIEFS OF STAFF, *The National Military Strategy of the United States of America: A Strategy for Today A Vision for Tomorrow 2004*, Washington, USA: Office of the Chairman of the Joint Chiefs of Staff, 2004, p. 1, fn. 1.

the necessary element of capability to cause large scale destruction or killings is too ambiguous.

The situation differs for strategic nuclear bombs and thermonuclear weapons ("hydrogen bombs"), which can indeed be subsumed under WMD's terminological core. This is mandatory because although a "large scale of destruction and killings" is an imprecise specification, according to current state of knowledge those weapons are capable to cause the degrees of killings and destruction. It is a logically compelling consequence that at least nuclear bombs and thermonuclear weapons must meet the requirement of a "large scale of destruction and killings", without needing to know above which exact threshold this "large" scale is reached, as, otherwise, there would not exist WMD at all.

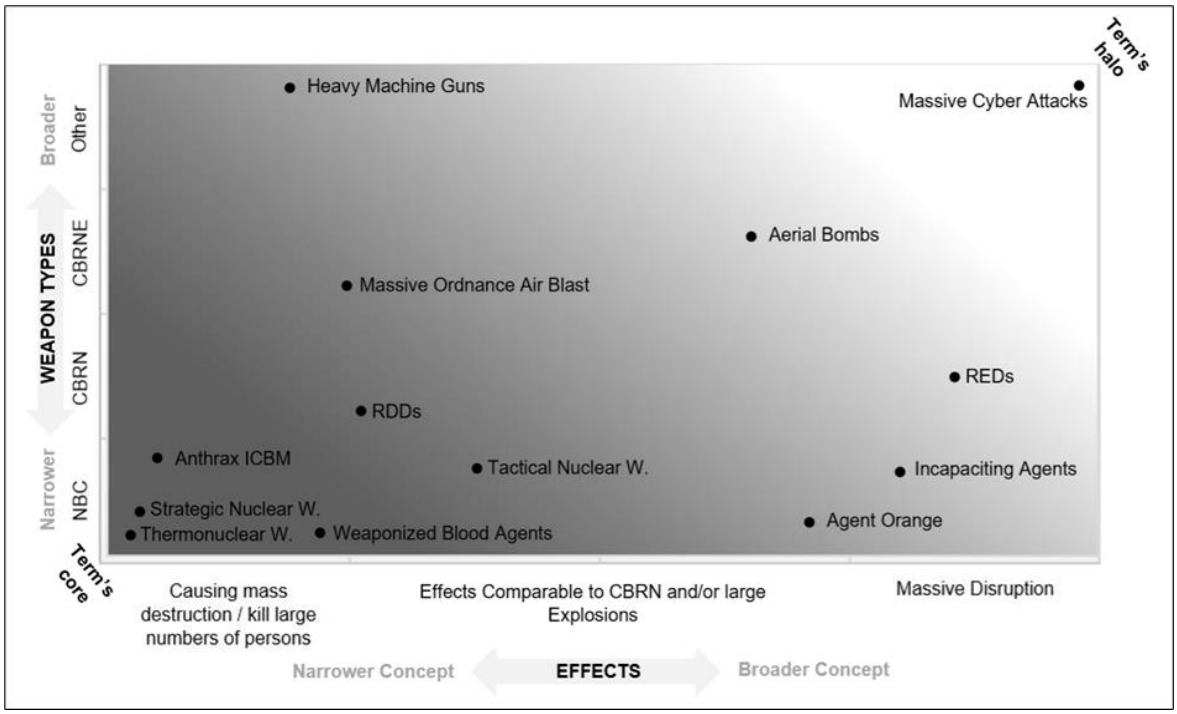

Image 1: Degree of certainty that an object can be considered a WMD

All the other potentially relevant weapons are therefore consequently excluded from WMD's terminological core and banished to the uncertain realm of its term's halo.

In the case of biological, chemical and tactical nuclear weapons[91], however, there is certainly a close proximity to the term's core. It is therefore highly likely that they are correctly classified as WMD. This is already evident from the great practical significance of those WMD definitions that even generally equate the concept of WMD with CBN weapons.

In contrast, there is the other extreme of those "weapons" that are to be assigned to the edge of the terms halo, i. e. massive cyber-attacks[92], heavy machine guns, and defoliants such as Agent Orange[93]. Their qualification as WMD therefore must be considered far-fetched.

The "indetermination" of the concept WMD thus manifests itself particularly regarding those weapons that are located in the middle of the term's halo, as is the case for RDDs and Massive Ordinance Air Blasts[94]. Whether these weapons are to be classified as WMD thus might present the greatest room for discussion.

2.2. "Weapon of mass destruction" as normative-evaluative term

Although the above uncertainties regarding the concept of WMD persist, the different prevailing definitions show at least a shared conceptual feature: All of them assume what makes a WMD a WMD - or more exactly - what differentiates a WMD from a conventional weapon, is that it must exceed a threshold of impact of some nature.

This is obvious for those definition groups relying explicitly on the potential effects of WMD, as all of them require a high extent of the relevant effects, i. e. a large number of causalities, a large-scale destruction or other truly massive impacts. But it is, under the surface, also true for those definitions relying on the listing of specific weapon types. In fact, already the mother definition of WMD as proposed by the CCA shows, that the above-average destructive capabilities of chemical, biological, radiological and nuclear weapons are the main reason for their exemplary listing as WMD. Therefore, it considers future

[91] According to the Encyclopedia Britannica, tactical nuclear weapons are "[…] small nuclear warheads and delivery systems intended for use on the battlefield or for a limited strike. Less powerful than strategic nuclear weapons, tactical nuclear weapons are intended to devastate enemy targets in a specific area without causing widespread destruction and radioactive fallout." See the editors of Encyclopedia BRITANNICA, *tactical nuclear weapons*, Encyclopedia Britannica, February 23, 2018, https://www.britannica.com/technology/tactical-nuclear-weapon.

[92] On artificial intelligence as a means of attack, see Roser MARTÍNEZ QUIRANTE & Joaquín RODRÍGUEZ ÁLVAREZ, *Inteligencia artificial y armas letales autónomas. Un nuevo reto para Naciones Unidas*, Bellaterra, Spain: UAB, 2018.

[93] "Agent Orange": Defoliant used by the US military during the Vietnam war. The agent is suspected to have caused miscarriages, skin diseases, cancers, birth defects, and congenital malformations within the Vietnamese population. See the editors of Encyclopedia BRITANNICA, *Agent Orange*, Encyclopedia Britannica, September 22, 2020, https://www.britannica.com/science/Agent-Orange.

[94] "Massive Ordinance Air Blast (MOAB)": Most powerful aerial bomb in the US Armed Forces that is not a CBRN. With an explosive force equivalent to 11 tons of TNT, it is also known as the "Mother of All Bombs".

weapons as WMD whenever they are comparable to this destructive feature of CBRN, and not to other features they might share.[95]

With the replacement of this open-ended definition through the apparently easier to handle list-based approaches mentioned, this defining feature has not changed. Instead, the differences between the list-based definitions themselves show that this element is the determining factor. Thus, some international laws and regulations add high-explosive weapons to their WMD catalogues, as a massive explosion could theoretically cause the same destruction as an NBC. Likewise, there is disunity with regards to the inclusion of radiological weapons, as their destructive effects will usually not be comparable to those of NBC, although radiological weapons causing high numbers of fatalities are at least conceivable. Finally, it can be confidently stated that even those definitions limiting on NBC, do not result from the assumption of a factual and exclusive identity of NBC with WMD, but because the indeterminate character of the term WMD forced policymakers to adopt a pragmatic and unchallengeable approach. In fact, the adoption of NBC as such, without considering their potentially massive destructivity, is politically unproblematic, as these weapons are widely and universally condemned by the international community in other treaties.[96] However, this is only a formal equation of WMD with NBC, which is only due to the need to convert a vastly indetermined concept into a practically manageable one, cannot change this term's actual meaning. A meaning that is mainly characterized by its distinctive feature to exceed a threshold of destructive impact other weapons do not reach.

Where this threshold lies is not an element identifiable by mere empirical means, as it would be the case for a so-called *"descriptive term"*.[97] The determination of such a threshold of sufficient destructive impact rather depends on a definition that implies evaluations[98] and has prescriptive pretensions as is proper to evaluative and normative elements.[99] Another

[95] Commission for Conventional Armaments, Resolution Adopted by the Commission at its 13th Meeting, August 12, 1948, and a Second Progress Report of the Commission, UN document S/C.3/32/Rev.1, August 12, 1948: "[…] and any weapons developed in the future which have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above."

[96] I. e. the CWC, BWC, NPT and other treaties described in Part One, Chapter, 3. of this thesis.

[97] See, on the distinction between descriptive and normative elements, Diego Manuel LUZÓN PEÑA, *Lecciones de Derecho penal. Parte general* (3rd ed.), Valencia, Spain: Tirant lo Blanch, 2016, p. 185.

[98] What would come closest to such an unambiguous numeric approach are definitions referring to a certain amount of explosive charge. See for example: United States Code, 2006 Edition, Supplement 5, Title 18 § 2332a: "(1) Any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than 4 ounces, or missile having an explosive or incendiary charge of more than one-quarter ounce, or mine or similar device; (2) any weapon that is designed or intended to cause death or serious bodily injury through the release, dissemination, or impact of toxic or poisonous chemicals or their precursors; (3) any weapon involving a disease organism; or (4) any weapon that is designed to release radiation."

[99] Cf. ENGISCH, op. cit., p. 125.

thing is that, as already mentioned, this is no guarantee of the absolute determination and certainty of its content, which opens a space for legal interpretation that, as always, will have to resort to all the criteria in use for its resolution.[100]

When searching for the most relevant view on determining WMD, one can certainly assume that supranational organizations have a central role in this matter. In fact, international (humanitarian) law is in a way an intrinsic part of those organizations and to work on the WMD threat and other threats to collective peace and the survival of entire peoples thus a genuine and essential goal. These organizations have not truly established an international common understanding of the term WMD, but rather promoted a widely accepted way of *practical handling* of this difficult term by promoting definitions exclusively based on an exhaustive list of specific weapons.[101]

The prevalence of this catalogue based WMD approach in international law and politics might explain the absence of debate, on what characteristics a weapon must meet to be considered a weapon of mass destruction.

National lawmakers have largely oriented themselves on the international community's catalogue approach and have created norms that directly refer to the relevant WMD subtypes. Legal practitioners had to focus on the question if a relevant object fulfilled the criteria constituting a chemical, biological, radioactive, or nuclear weapon, rather than those shared characteristics constituting their superordinate concept "WMD", which they rarely find in the legal texts they work with.[102]

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[100] See, on the problems of legal certainty caused by indeterminate normative elements such as the expression "serious" ("grave") in the ecological crimes of the CP, Fermín MORALES PRATS, in Quintero Olivares, *Parte General del Derecho Penal* (4th ed.), Cizur Menor, Spain: Aranzadi, 2010, p. 324.

[101] E. g. United Nations: UNODA, WMD Branch, https://www.un.org/disarmament/structure/ (accessed May 2nd, 2022): "[…] in the area of the disarmament of weapons of mass destruction (nuclear, chemical and biological weapons)."; North Atlantic Treaty Organization: NATO, *NATO's Response to Proliferation of Weapons of Mass Destruction - Facts and Way Ahead*, Press Release (1995) 124, November 29, 1995, https://www.nato.int/cps/en/natolive/news_24545.htm: "8. (2) WMD and NBC weapons can be used interchangeably."; European Union: COUNCIL OF THE EUROPEAN UNION, *Fight against the proliferation of weapons of mass destruction*, op. cit.: "(1) […] proliferation of weapons of mass destruction and means of delivery is a growing threat to international peace and security; the risk that terrorists will acquire chemical, biological, radiological or nuclear materials adds a new dimension to this threat."

[102] Even in the rare cases where the term WMD is directly used and defined by formal law, e. g. in Australia (*Weapons of Mass Destruction (Prevention of Proliferation) Act 1995*, Section 3 Interpretation: "Weapons of Mass Destruction program or WMD program means a plan or program for the development, production, acquisition or stockpiling of nuclear, biological or chemical weapons or missiles capable of delivering such weapons."), Tajikistan (*Criminal Code*, Section XV, chapter 34. Crime Against the Peace and Safety of Mankind, article 397 Production or Distribution of Mass Destruction Weapons: "Producing, purchasing, keeping, transporting or selling nuclear, neutron, chemical, biological (bacteriological), climatic or other kind of mass destruction weapons prohibited by international treaty […] is punishable by imprisonment for a period of 12 to 20 years.") and the USA, these definitions are usually limited to a synonymization of the term with CBN or CBRN weapons, thus causing a similar low incentive to define and further assess the WMD term *as such*. For a comprehensive overview of US state law, see CARUS, op. cit., Appendix D.

The situation in Germany corresponds to the usual international picture. There is no explicit use of the term "weapon of mass destruction" *("Massenvernichtungswaffe")* under German criminal law and foreign trade law either. Instead, the relevant regulations, i. e., the relevant supplementary penal provisions of the "Foreign Trade Act" *("Außenwirtschaftsgesetz" – "AWG")* and the German "War Weapons Control Act*" ("Kriegswaffenkontrollgesetz" – "KrWaffKontrG"),* always explicitly refer to biological, chemical, or nuclear weapons.[103]

In Spain, the Criminal Code does not include the term WMD either.[104] In the crime of possession, trafficking and storage of weapons of article 566 CP (chapter V of title XXII), "weapons or ammunition not authorized by law or by the competent authority" are made the object of the crime, providing for a qualified type (para. 1) for a closed list of them, which comprises "chemical[105], biological[106], nuclear or radiological[107] weapons". These weapons are defined in article 567 CP by referral to relevant international treaties; together with other weapons, commonly considered conventional, such as anti-personnel mines or cluster munitions.[108]

Together with the previous provision, the same list of weapons - chemical, biological, nuclear or radiological - can be found again as the object of the terrorist crime of illegal possession of weapons in article 574 CP (chapter VII of title XXII), now supplemented with a closing clause by analogy ("any others of similar destructive power"). It is not surprising that here, unlike in the case of the generic type of illicit possession of weapons of article 566 CP, an analogical clause of an openly expansive sense is added, since this goes perfectly in

[103] I. e., section 18 para. 7 AWG: "A prison sentence of not less than one year shall be imposed on anyone who […] 3. undertakes an action cited in subsections 1 or 1a which refers to the development, manufacture, maintenance or storage of missiles for chemical, biological or nuclear weapons."; section 19 KrWaffKontrG (Penal provisions against nuclear weapons), and section 20 KrWaffKontrG (Penal provision against biological and chemical weapons). The requirements of the German War Weapons Control Act will be discussed in detail in Chapter 2, 1.2., a.

[104] It does appear, however, in non-penal legislation such as Law 10/2010, of April 28, 2010, on the prevention of money laundering and the financing of terrorism (*de prevención del blanqueo de capitales y de la financiación del terrorismo)*, in whose art. 42. 1 on International Financial Sanctions and Countermeasures, it establishes the obligatory nature of compliance with the financial sanctions established by the United Nations Security Council Resolutions relating, among other matters, to the prevention, suppression and disruption of the proliferation of weapons of mass destruction and their financing; as well as the possibility of agreeing to the application of financial countermeasures with respect to third countries that pose higher risks, in accordance with the provisions of ap. 2 of the same article.

[105] Estas These were the only ones mentioned in the original version of the Code, together with the generic reference to weapons of war; see Ramón M. GARCÍA ALBERO*, Comentario al art. 567 CP*, in Gonzalo Quintero Olivares (Ed.), *Comentarios al Código Penal* (7th ed.), Cizur Menor, Spain: Aranzadi, 2016, p. 1853. Then the conducts referred to them were extended through LO 2/2000 to comply with the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction", made in Paris on January 13, 1993, which might serve as an interpretative orientation for the provision.

[106] Their inclusion was established by LO 15/2003.

[107] The inclusion of these two elements was established via LO 1/2015.

[108] These last two categories are introduced through the reform by LO 5/2010, in compliance with the Convention of September 18, 1997, on the prohibition of the use, stockpiling, production and transfer of anti-personnel mines and on their destruction.

line with the entire criminal policy against terrorism. The problem here is that the indeterminacy of the terrorist goal that must be verified in the conduct[109] is added to the indeterminacy of the analogical clause[110], resulting in accumulated problems of legal uncertainty.

Apart from the two previous offenses, weapons susceptible of falling under the concept of WMD appear again under another rubric within the regulation of the crimes of genetic manipulation and, more specifically, in article 160 CP (title V), which punishes the use of genetic engineering to produce biological weapons or weapons to exterminate the human species. As DE LA CUESTA ARZAMENDI emphasizes, the purpose of this provision is not to punish trafficking, stockpiling, etc. of weapons of mass destruction, but only the use of certain technical methods to create weapons.[111] Accordingly, this offense is designed as an offense of abstract endangerment.[112]

The problems posed by the legal formulation used here relate to the punitive equalization of behaviors of different harmful intensity, since, e. g., not all biological weapons endanger the subsistence of the human race[113] and those with such destructive potential are merely the

[109] See, on the concept of terrorism, Esther POMARES CINTAS & Nicolás GARCÍA RIVAS, VI Delitos contra el orden público (II) Delitos de sedición, desórdenes públicos y terrorismo, in Javier Álvarez García (Ed.), *Tratado de Derecho penal español. Parte especial*, Valencia, Spain: Tirant lo Blanch, 2021, pp. 132 et seqq. See, on the ambiguity of the term, José Luis GONZÁLEZ CUSSAC, *El Derecho penal frente al terrorismo*, in José Luis González Cussac, *Política Criminal, Reglas de imputación y Derechos fundamentales*, Bogota, Colombia: Editorial Ibáñez, 2007, pp. 96 et seqq.
See, on the difficulties of defining the concept of terrorism, with regard to the phenomenon of the use of weapons of mass destruction by international terrorism, Roberto LÓPEZ SÁEZ, *Viabilidad de uso de armas de destrucción masiva por redes terroristas*, 2013, p. 2, https://www.defensa.gob.es/portaldecultura/Galerias/actividades/fichero/2013_INVES_01_B_07.pdf. See, on the problem of the legal qualification of terrorism carried out by state power apparatuses, Mercedes GARCÍA ARÁN & Diego LÓPEZ GARRIDO, *Crimen internacional y jurisdicción universal. El caso Pinochet*, Valencia, Spain: Tirant lo Blanch, 2000, pp. 128 et seqq. See also, on "state terrorism" and its new international dimension, GONZÁLEZ CUSSAC, op. cit., pp. 96 et seqq.

[110] The same problems caused by the use of a definition clause by analogy arise, in Spain, in relation to article 563 CP, since the concept of "prohibited weapons" is constructed by reference to the provisions of the Weapons Regulation (RD 137/1993), which also contains a list of weapons that culminates in another residual clause (*"cualesquiera otros instrumentos especialmente peligrosos para la integridad física de las personas*", article 4 para. 1, h). The vagueness of the clause is such that the application possibilities could be unlimited. GARCÍA ALBERO, *Comentario al art. 567 CP*, op. cit., pp. 1833 et seqq., explains that after an initial period of restrictive jurisprudence, the majority of current Spanish case law is inclined to admit the application of the analogical clause to cases of special potential for harm in the specific case, which brings a crime conceived as one of abstract danger closer to the realm of concrete danger. In opposition, this author considers that the concept of prohibited weapon should be limited to the list of weapons specifically determined by regulation, and the criterion of dangerousness should only be used to select the most serious cases, but never to extend the type of crime to weapons not expressly mentioned (p. 1837). The contrary "capriciously transmutes the normative nature of an element of the crime (...) into a descriptive and evaluative one" (p. 1836).

[111] DE LA CUESTA ARZAMENDI, op. cit, p. 12.

[112] Mercedes GARCÍA ARÁN, *Los delitos relativos a la manipulación genética*, in Juan Córdoba Roda & Mercedes García Arán, *Comentarios al Código Penal*, Madrid, Spain: Marcial Pons, 2004, p. 162.

[113] Cf. Carlos ARÁNGUEZ SÁNCHEZ, *La producción de armas biológicas mediante ingeniería*, in Ignacio F. Benítez Ortúzar, Lorenz Morillas Cueva, & Jaime Miguel Peris Riera (Eds.), *Estudios jurídico-penales sobre genética y biomedicina: Libro-homenaje al Prof. Dr. D. Ferrando Mantovani*, Madrid, Spain: Dykinson, 2005, p. 4, who indicates that from a military strategic point of view, weapons that do not annihilate the population but only wound can be as or more useful for the purpose of demobilizing troops and absorbing resources in assisting the wounded, in addition to their special multiplying effect of damage through possible contagion to those who were not in the initial focus of the attack. DE LA

most serious of those considered of mass destruction.[114] In any case, this provision serves as a signal of attention to a specific method of arms production that should be in the focus of crime prevention plans to be adopted by professionals and companies operating in this environment.[115]

Finally, there is no doubt that the weapons under analysis also fall within the scope of application of the crimes against the international community of title XXIV CP even though they are not mentioned literally. In fact, they are a suitable means to achieve the goal of destruction of groups of people (reflected in the crime of genocide of article 607 CP)[116] as well as the civilian population (reflected in the crimes against humanity of article 607 *bis* CC). Likewise, they fit the definition of the typical means of the crime against persons and property protected in case of armed conflict under art. 610 CP[117], which punishes the use of "methods or means of combat prohibited or intended to cause unnecessary suffering or superfluous harm, as well as those designed to cause or which may be expected to cause extensive, lasting and serious damage to the natural environment, compromising the health or survival of the population".[118] They are also suitable for performing the conduct covered by article 611 CP, consisting of carrying out indiscriminate or excessive attacks, such as those that characterize weapons of mass destruction. In addition, there are other potentially relevant norms, i. e., articles 612 para. 8 CP and 613 para. 1 e) CP when the attack is aimed at the food sources of the population, or others, since the harmful potential of weapons of mass destruction is such that they could be used to achieve any of the typical results that include destruction and damage, although it should not be overlooked that the indiscriminate

CUESTA ARZAMENDI, op. cit., p. 240, indicates that the danger inherent in these weapons may arise from lack of control, which is one of the characteristics of weapons of mass destruction.

[114] Paz M. DE LA CUESTA AGUADO, *Protección penal del genoma y preembrión Análisis comparado y propuesta alternativa*, Revista Electrónica de Ciencia Penal y Criminología, no. 21, 2019, p. 12, points out the confusion between "biological weapons - by virtue of their composition - or exterminating weapons - by virtue of their effects."

[115] However, as ARÁNGUEZ SÁNCHEZ, op. cit., p. 3, emphasizes, the relative novelty of these technologies leads to their slow incorporation into the international texts on which the worldwide impact of the corresponding sanctioning and preventive norms depends.

[116] Cf. Ana M. GARROCHO SALCEDO, *Delitos de genocidio*, in Francisco Javier Álvarez García (Ed.), *Tratado de Derecho penal español. Parte especial*, Valencia, Spain: Tirant lo Blanch, 2019, p. 578. See, on this topic, Part Two, Chapter 3, 2.3., of this thesis.

[117] Without prejudice to the possibility, where appropriate, of considering them as military offenses, when the requirements of article 9 para. 2 of the Organic Law 14/2015, of October 14, of the Military Criminal Code are met. On the form of integration of the rules of the Criminal Code and the Military Criminal Code, see, even from before the 2015 reform, Francisco Javier DE LEÓN VILLALVA, *Condicionantes normativos y extranormativos del ilícito militar*, in Francisco Javier De León Villalva (Ed.), *Derecho penal militar. Cuestiones fundamentales*, Valencia, Spain: Tirant lo Blanch, 2014, p. 62.

[118] According to Mercedes GARCÍA ARÁN, *Delitos contra la comunidad internacional*, in Juan Córdoba Roda & Mercedes García Arán, *Comentarios al Código Penal*, Madrid, Spain: Marcial Pons, 2004, vol. II, p. 2713, this would include from nuclear weapons to anti-personnel landmines. In other words, both, weapons generally considered weapons of mass destruction and conventional weapons.

nature that characterizes them does not fit in well with very specific types of criminal offenses. This group of criminal offenses closes with the fallback provision of article 614 CP, which punishes anyone who "on the occasion of an armed conflict, carries out or orders to carry out any other infractions or acts contrary to the prescriptions of the international treaties to which Spain is a party and relating to the conduct of hostilities, regulation of the means and methods of combat, protection of the wounded, sick and shipwrecked, treatment of prisoners of war, protection of civilians and protection of cultural property in case of armed conflict". The penalty for this crime (from six months to two years imprisonment) is indicative of the lower intensity of the conducts punished here. A fact that is not always compatible with the intensity and extent of the devastation that these weapons can cause, wherefore its residual nature is only applicable to cases of lesser magnitude.[119]

2.3. Approaching the normative characteristics of weapons of mass destruction

From what has been said so far, the following conclusions can be drawn about the current situation and existing techniques regarding the definition of WMD:

(1) Despite the many different definitions and understandings of which weapons can be counted as WMD, intersections between the definitions are apparent. Thus, it can be stated that there must at least be consensus regarding the inclusion of the following weapons in the WMD concept: Hydrogen bombs, strategic nuclear weapons, and other CBN, with large destructive capabilities.

(2) In addition to the previously mentioned types of weapons recognized as WMD by international and national texts, radiological weapons are also often counted as WMD.

(3) There is no consensus on the criteria that classify a WMD as such. This can be attributed to the highly evaluative question of when the necessary threshold for sufficient harm is exceeded.

(4) Since the concept of WMD as such is difficult to grasp, two alternative legislative techniques have emerged in international and national texts when defining WMD: The use of a closed list system or the use of an open equivalence clause referring to a comparable destructive capacity.

[119] See, on jurisdictional issues between the International Criminal Court and the Spanish courts, GARCÍA ARÁN, *Delitos contra la comunidad internacional*, op. cit., p. 2718.

(5) The use of the closed list system may have advantages such as relative legal certainty. However, it also has disadvantages, such as the impossibility of adapting the norm to technological progress.

(6) The open equivalence clause at the end of some of the lists cannot be considered to solve the problem of defining WMD, because it extends the list by analogy to definitional elements whose exact characteristics are unknown, i. e., the threshold of minimum harm and destruction inflicted.

The weaknesses of both legislative techniques could be resolved by using a definition that succeeds in defining WMD as such while identifying clear distinguishing characteristics. It is needful to approach this issue by setting up the focus on the objective assessment of the term and its constituting elements. The highest degree of objectivity is hereby achieved by adhering to the laws of logic and legal interpretation as far as possible.

a) Considerations on the hierarchy of terms: Weapons and dangerous means

A first step in identifying the ambiguous normative characteristics of WMD is to analyze its superordinate term[120] and at the same time describe its constituent properties. This helps to draw the outer boundary of possible characteristics of WMD, since a more specific subordinate concept must necessarily have all the properties of its superordinate concept.

It is almost obvious to assume that "weapon" must be regarded as superordinate concept of WMD, meaning that every WMD is a weapon but not every weapon a WMD. WMD would therefore have to exhibit all the constitutive properties of a weapon.

The identification of something as a weapon, in turn, takes place within the framework of its superordinate concept "dangerous mean". Consequently, every weapon is a dangerous mean but not every dangerous mean is a weapon.[121] This understanding also governs the German and Spanish criminal codes, which explicitly refer to "weapons and *other* dangerous means" in several criminal offences.[122]

[120] Also referred to as “hypernym”, “umbrella term” or “blanket term”.
[121] For the differentiation between dangerous instruments and weapons, which itself is a normative discussion, see Sascha LANZRATH & Stefan FIEBERG, *Waffen und (gefährliche) Werkzeuge*, JURA 2009, volume 31, no. 5, pp. 348 – 353 (348 et seqq.).
[122] See for example: article 242 para. 3 CP: “[…] cuando el delincuente hiciere uso de armas u otros medios igualmente peligrosos […]” or section 224.1 no. 2 StGB: “ […] mittels einer Waffe oder eines anderen gefährlichen Werkzeugs[…]”.

A "dangerous mean" is understood to be any movable thing (in any aggregate state) which, by the nature of its specific use, constitutes a danger to life or limb. The term "thing" is understood broadly and also includes animals.[123] For example, a pencil that is stabbed in a person's eye and a revolver that is fired at a third person are both objects that pose a danger to life or limb due to the way in which they are actually used. They are therefore both dangerous instruments.

However, the fired revolver differs from the pencil in that the concrete dangerous use of shooting corresponds to the very purpose of a revolver, while the pencil, which usually serves as a writing utensil, was used in an atypical way. It is precisely this inherent purpose of the weapon to cause damage that is at the heart of the distinction between weapons such as the revolver and other dangerous means.[124]

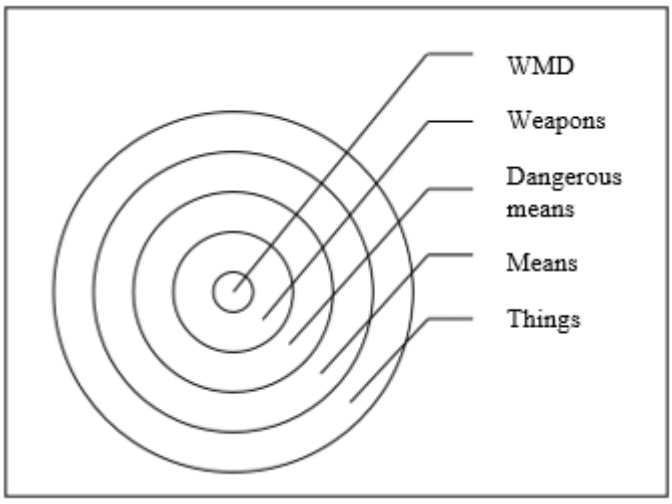

Image 2: Term hierarchy of "WMD"

In German criminal law, this requirement of purpose has taken on different forms, which are reflected in two valid definitions of the term weapon: A narrow definition, called "technical weapon concept", and a broad understanding, called "non-technical weapon concept". Both weapon concepts exist in parallel with each other. Which one is applicable in each case depends on the systematic position of the term in the criminal code.

[123] BGHSt 14, 152. On animals as "objects" of some crimes, see e. g. SAP Valencia (3rd Section) 127/2009, 26-2, which treats a cat as a possible object of the offense of criminal damage.
[124] Q. v. BGHSt 44, 103, 105; see, with further references, Urs KINDHÄUSER, *§§ 224, 244, 250*, in Gabriele Cirener et al. (Eds.), *Leipziger Kommentar Strafgesetzbuch* (12th ed.), Berlin, Germany: De Gruyter, 2019, § 244 para. 4 and § 250 para. 2.

In Spanish legal doctrine, the discussion on the distinguishing criterion between weapons and other dangerous means does not primarily revolve around their original purpose as around their intrinsic injurious potential.[125] In this way the terminological boundaries with dangerous means appear blurred, especially when not the technique of the closed list is used but that of a list complemented with an analogical closing clause. GARCÍA ALBERO, for instance, is therefore more in favor of restricting the concept of weapon to those cases expressly included in a list.[126]

Regardless of the criterion adopted for distinguishing a weapon from other dangerous means it is important to emphasize that in order to be considered a weapon of mass destruction it is not enough to establish the special damaging potential of a given means. Instead, the WMD's property as a weapon must be determined. As a result, e. g., a nuclear power plant is excluded from classification as a WMD, even though its malicious tampering could lead to major devastation.

b) Weapons of mass destruction as weapons in the technical sense

For a number of criminal provisions, the technical weapon concept is applied. It defines a weapon as any physical thing which, according to its objective nature and condition at the time of the offence, is capable of inflicting serious injury when used as intended.[127] Their dangerousness is thus not only the result of their specific use but follows from its underlying purpose.

Although the concept of weapons in criminal law is not in direct dependence on the weapons laws of public order legislation, under established case law the regulations contained therein are yet considered to provide a "certain orientation" *("gewisse Orientierung")* when it comes to applying the above definition in practice.[128] The Federal Constitutional Court even goes one step further and states that the definition of weapon in section 1 para. 2 German Weapons Act *("Waffengesetz" - "WaffG")* reflects the common meaning of the term "weapon".[129] Thus

[125] Defining characteristic mentioned in STC 24/2004, 24-2; see, for an overview of the jurisprudence on the concept of a weapon and the danger inherent to it, María José CRUZ BLANCA, *Régimen penal y tratamiento jurisprudencial de la tenencia ilícita de armas*, Madrid, Spain: Dykinson, 2005, pp. 60 et seqq.
[126] GARCÍA ALBERO, *Comentario al art. 567 CP*, op. cit., p. 1837.
[127] Petra WITTIG, *StGB Waffe*, in Bernd von Heintschel-Heinegg (Ed.), *Beck'scher Online Kommentar* (7th ed.), November 15, 2008, https://beck-online.beck.de/?vpath=bibdata%2Fkomm%2FBeckOK%5FStR%5F7%2FStGB%2Fcont%2Fbeckok%2EStGB%2EWaffe%2Ehtm, para. 2.
[128] See, with further references, BGHSt 48, 197, 203.
[129] BVerfG, decision of the 2nd Chamber of the 2nd Senate of September 1st, 2008 – 2 BvR 2238/07, para. 20.

making its content indirectly the subject of the grammatical interpretation of criminal law provisions referring to the concept of weapons.

According to this provision, weapons are understood to be "[...] things which, by their essence, have the purpose of eliminating or reducing the ability of persons to attack and defend themselves."[130] (hereinafter referred to as the "standard case of the technical weapon concept"). In addition, however, such things are also considered to be weapons which "[...] without having been intended for that purpose, are suitable, in particular because of their composition, handling or mode of action, to eliminate or reduce the ability of people to attack or defend themselves, insofar as they are mentioned in the Weapons Act"[131] (hereinafter: "Atypical case of the technical weapon concept").

For weapons mentioned in other laws as *lex specialis* preceding the WaffG, nothing else can apply. According to section 56 WaffG, the above-mentioned German War Weapons Control Act is such a special law that precedes the WaffG.

Looking at the things which are considered as (nuclear, chemical or biological) weapons by the War Weapons Control Act, shows why the criterion of the intended purpose in the sense of the regular case of the technical weapon concept alone cannot be sufficient for deeming something a weapon, and why the atypical case of the technical weapon concept is needed: The majority of them, i. e. radioactive isotopes[132], harmful insects and their toxic products[133], as well as the listed viruses and bacteria[134], originates from the *given* living or lifeless natural environment and not from the purposeful creative capacity of man.[135] Consequently, their existence is difficult to bring into line with a certain "purpose" shaped by human intention, but represents at most an end in itself.

In particular, it would seem wrong to assume that these living and non-living natural agents have a God-given, inherent destiny to harm humans. The example of harmful bacteria considered biological weapons makes this particularly clear: Their natural purpose is not to

[130] Section 1 para. 2 (a) WaffG.
[131] Section 1 para. 2 (b) WaffG.
[132] Part A, section I, no. 1, of the annex to section 1 para. 1 KrWaffKontrG (War Weapons List).
[133] Part A, section II, no. 3 (a), of the annex to section 1 para. 1 KrWaffKontrG (War Weapons List).
[134] Part A, section II, no. 3.1. (a) et seqq., of the annex to section 1 para. 1 KrWaffKontrG (War Weapons List).
[135] At times, even this seemingly clear dividing line between given environment and the products of human thought begins to blur. One thinks, for example, of the creation of isotopes such as plutonium-239, which do not occur in the natural environment, or the rapid developments in genetic engineering.

harm humans but to multiply and thus to preserve their species. The health damage they cause is merely an inevitable consequence of it.

However, the validity of the classification of these natural agents as weapons remains unaffected by what has been said. After all, the inclusion in the weapons list is not a mere formal labeling without any substantial content, but rather the expression of a generally recognized special suitability of these things to be dangerous. A suitability which, as section 1 para. 2 (b) WaffG concerning the atypical case of the technical weapon term makes clear, is in particular the consequence of the "composition, handling or mode of action" *("Beschaffenheit, Handhabung oder Wirkungsweise")* of these things.

It is important to remember that the aforementioned things are merely the chemical, biological, and radiological agents and not the complex weapon systems that make them operational in a particular form. The latter, i. e., gun-typed fission weapons, implosion type fission weapons, hydrogen bombs, REDs, germs dispersing repositories, binary weapons, and various forms of missiles, may *also* be WMD. However, for those complex man-made systems, unlike for the mere agents, it is unquestionable that they were specifically designed and intended to harm humans. These forms of WMD therefore already fulfill the purpose requirement of the standard case of the technical weapon concept and therefore do not require the resort to its atypical alternative.

c) Weapons of mass destruction as weapons in the non-technical sense

According to the non-technical weapon concept, any mean suitable for causing significant injury to human beings by its essence and specific form of use is considered a weapon. The boundaries to the superordinate concept “dangerous mean” are much more difficult to draw here, and base on the assumption of a special intrinsic dangerousness of certain elements. In German criminal law, however, the non-technical concept of weapon is applied precisely where the distinction from other dangerous means becomes at least a formal requirement: The criminal offences that refer to both together.[136]

[136] E. g. section 113 para. 2 StGB (resistance to enforcement officers): “[…] An especially serious case typically occurs where 1. the offender or another party to the offence carries a weapon or another dangerous instrument, […]; section 127 StGB (Forming armed groups): “Whoever unlawfully forms or commands a group which is in possession of weapons or other dangerous instruments, […]”; and section 224 para. 1 StGB (Dangerous bodily harm): “Whoever causes bodily harm […] using a weapon or other dangerous instrument […].

Unlike the technical weapon concept, the non-technical weapon concept does not require an inherent purpose to cause harm. Instead, similar to the atypical non-technical weapon concept, reference is made to its composition, specific form of use and suitability for causing significant injury to human beings. An explicit designation as a weapon in a legal text, on the other hand, is not required. The non-technical term of a weapon is thus limited to the material classification of a weapon and does not require any additional formal confirmation by way of an explicit designation in a list. Still, whenever such a listing exists, it always reflects the generally recognized weapon-typical dangerousness of the relevant mean. Every weapon considered a weapon under the technical weapon concept must therefore always be regarded as weapon in the non-technical sense as well.

Besides confirming that WMD are indeed to be qualified as weapons, the above findings help above all to guide the search for the distinguishing characteristic between WMD and other weapons (the conventional weapons). Thus, following the idea of the hierarchy of concepts, it seems reasonable to look for the (qualitative) distinguishing feature within the constitutive elements of the superordinate weapon concept, i. e., within the "purpose to cause damage" (regular case of the technical weapon concept) on the one hand and the "special suitability to be dangerous" (atypical case of the technical weapon concept and non-technical weapon concept) on the other hand.

d) A purpose to cause mass destruction as a distinctive element to be rejected

The distinguishing characteristic that renders a weapon a weapon of mass destruction could be seen in the fact that it could be the (design-related) purpose of this weapon to cause the killing of a large number of people.

However, such an understanding already fails because biological, chemical and radiological weapons can also consist of mere biological, chemical and radioactive agents that do not require any further technical device. As has been shown, these substances do not have the "purpose" to harm people. Thus, they can, *a fortiori*, not be intended to kill a large number of people as well.

A possible purpose to cause mass destruction is thus necessarily ruled out as a possible distinguishing characteristic between a conventional weapon and a weapon of mass destruction.

e) The capability to cause mass destruction as a valid but insufficient criterion

However, in view of the qualifying characteristics of a weapon described above, which need not be intended to cause harm, the capability of WMD to be dangerous to a particular degree could be considered as a distinguishing characteristic. In other words, their capability to kill a large number of people.

While there is no doubt that WMD are capable of this, the practicability of such an approach seems questionable, because it would presuppose that other weapons would not be suitable for this purpose.

However, whether or not a weapon is capable of killing a large number of people is not an abstract property that exists in and of itself. Rather, it is always the result of the interaction between the properties of the weapon and the temporal and spatial context of its use.

A revolver, for example, which is typically used to injure or kill one person, is also perfectly capable of killing several people. This may be because several shots are fired behind each other or several people standing in a row are killed with only one shot. To deny the abstract suitability of the revolver for killing a large number of people therefore seems hardly possible in a logically incontestable way.

But even when applying a more empirical understanding of a weapon's capability for mass killing, one encounters insoluble difficulties, since conventional weapons such as cluster bombs, incendiary aircraft bombs and massive ordinance air blasts can also cause a significant number of casualties.

If, nevertheless, one still wanted to adhere to the criterion of exceeding a certain threshold for "mass destruction," this would therefore have to be defined in the form of a quantifiable damage threshold. However, there is no practical example of such an approach in international or national legal and political practice, so that it can hardly form the basis of a collective understanding of WMD.

Furthermore, it would not be useful as a concept: On the one hand, because such a threshold could hardly be justified rationally and would therefore always be arbitrary. On the other hand, because it would lack a suitable reference value. Especially neither a potential number of casualties nor a certain explosive power (TNT equivalent) would come into question, since the former, as shown above, cannot be determined abstractly and the latter cannot

represent the explosion-independent effects of WMD, like poisoning, illness, and radiation damage.

However, there are a few types of weapons which not only are typically used for killing a single person, but which by their design can exclusively do so. This is for example the case for deadly syringes and other instruments for targeted assassinations that cannot have an effect on third parties and are not reusable either. The actual term WMD, which as a matter of fact requires a certain plurality of potential victims as indicated by the “mass” component in its name, can therefore at least be differentiated from this group of weapons. A relevant aspect, when considering that isolated political assassination attempts within the last years were allegedly performed by using nerve agents and radioactive substances, thus agents from the CBRN-group.[137]

Thus, it can be stated that a weapon whose design only allows the killing of an individual can never be deemed a weapon of mass destruction. The view of the members of criteria group "a" described above, according to which CBRN *per se* constitute a WMD, can therefore not be followed. This conclusion, nonetheless, does not affect the observation that the ability of WMD to kill a large number of people is not a suitable *general* criterion for distinguishing them from other weapons.

f) The characteristic capability to cause indiscriminate casualties in a perpetuated manner

The inherent capability of an object to be dangerous, however, does not only result from the potential harmful effects that can be caused by it, but and as shown also from its "composition", "handling" and "mode of action".

The first two are of limited use in distinguishing WMD from other weapons: Where living organisms, chemicals and radioactive substances in all aggregate conditions, and with or without technical carrier system, are considered WMD, such properties cannot serve as unique distinguishing feature. Therefore, the distinctive characteristics of WMD must be searched within their specific *mode of action*.

[137] E. g. the assassination of MI6-agent Alexander Litwinenko with Polonium-Isotope 210 in November 2006 and the failed assassination attempts with nerve agent “Novichok” against former Russian military officer Sergei Skripal in 2018 and Kremlin-critic Alexei Navalny in August 2020.

To this end, the indiscriminate nature of WMD's mode of action in time and space could be regarded as a characteristic inherent to all weapons of mass destruction. In contrast to other types of weapons, the potential victims of a WMD attack cannot be individualized at the time of the actual weapon deployment since the weapons' effects extend into an unpredictable future and perpetuate themselves there.

In the case of nuclear weapons, for example, the long-term radiation damage caused by such weapons makes them indiscriminate. This is especially the case, as the number of victims could even extend to yet unborn children who will be born clearly after the actual deployment with considerable genetic defects and reduced live expectancy.

Similarly, biological weapons based on human-to-human transmissible pathogens are indiscriminate, since after an individualized infection of the victims directly exposed to the use of a weapon, a further transmission from person to person can occur in an uncontrollable and numerically unpredictable manner.

But also pathogens, biotoxins and chemical weapons that cannot be transmitted from person to person contaminate a certain area for a certain period and cannot, at the time of deployment, be limited to harm only a limited number of individualized victims. Rather, there is a possibility that the toxic properties will perpetuate themselves for an indeterminate period of time in the contaminated territory and cause indiscriminate harm to uninvolved individuals in the future.

Finally, the same is true for radiological weapons, whose damaging effects are caused by their continuous radiation, which makes it impossible to individualize *a priori* specific victims affected by it.

WMD do not share this indiscriminate nature with other weapons. Of course, conventional weapons can also be used for performing indiscriminate attacks, i. e. when an aerial bomb is released over a densely populated city, where the number of potential victims is not known. However, a distinction must be made here between an indiscriminate *method* of using weapons and an *inherent indiscriminate nature* of certain weapons. The point is that whilst aerial attacks with such bombs can also be performed in an individualized manner, i. e. when sufficient information is available or the specific situation of deployment allows a distinctive application, *WMD deployments can never be not indiscriminate*. They are inherently

indiscriminate means of warfare that as such always can lead – independently from the method applied and the information available – to indiscriminate casualties.

Nevertheless, indiscriminate means and indiscriminate methods of warfare are not always easily distinguishable. Rather, certain weapons are often strongly connected to specific indiscriminate methods of warfare, which blurs the conceptual boundaries. Consequently, critical cases exist that can provide cause for discussion. For a better understanding of the WMD concept based on the indiscriminate nature, some of these borderline cases will be discussed subsequently:

(1) One could for example consider that *aerial bombs* are *per se* indiscriminate as they not only harm the sum of (theoretically) individualized victims but also cause damages that could led to future unspecific victims. This is for example the case when a building's static is damaged in a way that this building collapses a few days later and buries those individuals that incidentally entered it shortly before. A situation that could be surely compared to that of an area that continues being contaminated after a WMD deployment and thus leads to the death of future individuals entering it. The crucial difference, however, is that it is not possible to use a long-term contaminating chemical weapon without the lasting damage of contamination. Aerial bombings that cause potentially long-term damage to buildings, on the other hand, can also be dropped on undeveloped areas. The logical consequence of this is that there is no ongoing risk by damaged buildings. The perpetuated and indiscriminate danger of dying from building collapses is therefore a consequence of the method used (bombing of urban areas) and not of the weapons themselves. Aerial bombs are therefore not perpetuating indiscriminate weapons and therefore not WMD.

(2) Another critical case is certainly the use of *anti-personnel mines,* as they act against the person who triggers them, regardless of whether this person is a soldier, civilian, friend or foe. Furthermore, mine-affected areas can pose a danger to uninvolved third parties entering the affected area long after the end of a specific conflict, making an *a priori* individualization of the victims impossible.[138] Nevertheless, the mine itself should not be considered an indiscriminate means of warfare but rather a weapon that is usually applied in an indiscriminate method of warfare, namely the establishment of a minefield to protect an area

[138] Among the most affected countries are those where mines have been laid in conflicts that have been finished several decades ago, i. e. Afghanistan, Angola, Bosnia & Herzegovina, Cambodia, Colombia, Croatia, Egypt, Laos, Democratic Republic of Congo, Colombia and Vietnam.

against whoever intends to cross it. A thought experiment shows the difference: While it is possible to bury a mine and oblige a specific and individualized victim to run over it, it is never possible to limit the perpetuated and thus inherently indiscriminate effects of WMD only to the *a priori* individualized persons suffering the direct deployment of the weapon.

(3) Finally, a particularly difficult case to evaluate are *self-firing systems*. These could be considered inherently indiscriminate because they target any individual indiscriminately and automatically. However, it seems more convincing to assign the indiscriminate nature to the method rather than to the weapon also in this case. Through the weapon system, an individualization of the victim is carried out with each shot, which is fired based on the underlying programming. Consequently, the decision to fire the shot is not left to a person, which is again a question of the method used. Furthermore, self-firing systems lack the independent perpetuation of indiscriminate killing required for WMD. The shots fired are individual events that are limited in their potentially lethal consequences to the targeted victim. Once the self-firing system is switched off, the shots fired do not cause any additional deaths or serious damage to third parties. This differentiates the self-firing system from WMD, which can cause uncontrollable and unstoppable radiation, contamination and infection damage to others in the long term.

g) Resume

A universally valid definition of the term WMD does not exist. However, international treaties and executive working definitions tend to equate the term WMD with an exhaustive list of specific types of weapons, i. e. chemical, biological and nuclear weapons. A practice that national legislators and authorities have consistently implemented and whose underlying motivation is to achieve practical manageability of this dificult to define term.

However, this approach seems questionable. A definition of a concept via the totality of its manifestations and not via its characteristics is to a certain extent always arbitrary and can leave equivalent scenarios out of scope. Ultimately, such an approach leaves the question unanswered as to why, for example, biological weapons should be WMD, while other weapons, e. g. heavy machine guns, should not.

Also a conclusive catalogue of certain types of weapons as a definition is not a suitable basis for an adequate response to future weapons systems of mass destruction, which cannot yet be foreseen. However, a farsighted international policy, national legislation and internal

company compliance should be able to reflect such possible future developments in terms of definitions.

Furthermore, catalogues that define any of the mentioned CBRN as WMD are problematic, as this would also qualify CBRN used for targeted assassinations as WMD. A result that seems incompatible with the literal sense of the term, according to which a WMD must be suitable for killing a large number of individuals.

Integrationg the characteristic multiplicity of killings in WMD into an open but at the same time practically useful definition, is a challenge. This is especially the case because setting a minimum number of victims seems arbitrary and would disregard the fact that the number of killings is always also a question of the context of deployment and not only of the abstract nature of the weapon itself.

This study therefore aims to focus on how these weapons achieve the multiplicity of casualties rather than on the number of casualties themselves. A definition should be based on the indiscriminate nature that perpetuates independently and uncontrollably in time and space after the deployment of the weapon. A characteristic that is inherent to all commonly recognised WMD and which - as shown - distinguishes them from other weapons capable of causing a multitude of deaths.

As a result, the use of the following definition is proposed, which meets the requirements of good and far-sighted policymaking:

> Definition: **Weapons of mass destruction** are biological, chemical, radioactive, nuclear and other weapons capable of causing human death and whose indiscriminate harmful effects are perpetuated in time and space in an autonomous manner after their deployment.

Although this definition might hardly be acceptable today to the international community, which has so far been reluctant to adopt a definition of WMD that goes beyond a restricted list, this does not mean that this concept cannot be useful as a criterion of criminal policy orientation, in the light of which new elements can be integrated into national and international norms.

3. The use and effects of weapons of mass destruction in the historical experience

The roots of what we have identified in the prior chapter as weapons of mass destruction, date back to ancient times and pose since then a considerable threat to humanity. In fact, already the Third Book of Moses refers to the malevolent utilization of pest organisms, stating

"And I will bring a sword upon you that shall avenge the quarrel of My covenant; and when ye are gathered together within your cities I will send the pestilence among you, and ye shall be delivered into the hand of the enemy" (Leviticus 26, 25).

In ancient times, also Thucydides reports in his History of the Peloponnesian War that in the fifth century B.C. the Spartans used the fume of burning sticks previously soaked with pitch and sulfur to force the city of Delium to surrender.[139] The burning of sulfur produced the choking agent sulfur dioxide, which caused asphyxiation and serious damage to the opponents' respiratory tract. Therefore, sulfur may be considered the first reported chemical warfare agent.[140]

During the Middle Ages, in 1346, the Mongol-Tartar army used catapulted pest cadavers as biological weapon during the siege of the Genovese fortress of Caffa, in the Crimea. The survivors of this attack fled by ship to the European mainland carrying the virus with them, most likely laying the grounds for an epidemic that would cost the lives of around 25 million people, representing one-third of the population of Europe at the time.[141] During the colonialization of the Americas in the 18th century, the British Army took two blankets and a handkerchief from a hospital infested with smallpox and presented it as a gift for a meeting with two representatives of the Delaware Indians to infect and thereby eradicate the tribe.[142] The correlation between this attempt and the actual cause of the subsequent smallpox epidemic amongst different Native American tribes remains unclear, but smallpox indeed exterminated whole tribal societies on the American continent in the 1770s and 1780s.[143]

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[139] THUCYDIDES, *History of the Peloponnesian War* (Reprint), London, United Kingdom: Penguin Classics book, 460 BC (reprint), IV, chapter 100.
[140] SCHULZ-KIRCHRATH, *Compendium Chemical Warfare Agents*, op. cit., p. 9.
[141] Daneb CESANA, Ole J. BENEDICTOW, & Rafaella BIANUCCI, *The origin and early spread of the Black Death in Italy: first evidence of plague victims from 14th-century Liguria (northern Italy)*, Anthropological Science, 2017, volume 125, issue 1, pp. 15 - 24 (16).
[142] William TRENT, *Diary*, June 24, 1763 (relevant excerpts are available online at https://hsp.org/sites/default/files/legacy_files/migrated/excerptsfromwilliamtrent.pdf): "Out of our regard to them we gave them two Blankets and an Handkerchief out of the Small Pox Hospital. I hope it will have the desired effect."
[143] Charles C. MANN, *Amerika vor Kolumbus – Die Geschichte eines unentdeckten Kontinents*, Hamburg, Germany: Rowohlt Verlag, 2016, p. 181.

World War I revealed an entirely novel impact of chemical warfare, as the rapid advances in chemical science and industry during the end of the 19th century had brought forth the discoveries of new chemical agents suitable for war. After France and Germany had conducted in 1914 and 1915 several experiments with irritant agents, this military revolution manifested itself on April 22, 1915, when the German Supreme Army Command decided to employ gas as large-scale warfare source for the first time. Using around 177 tons of chlorine gas on the Belgian Ypres front, a six-kilometer wide and 900-meter-deep toxic cloud was produced that moved towards the French lineup, severely harming the French and Algerian forces on site. In the following years of war, Germany and the Allies subsequently enhanced their chemical weapon capabilities, utilizing agents like phosgene, hydrogen cyanide and mustard gas, whilst adapting them for the application in more sophisticated weapon systems. By the end of the war in 1918, a total amount of 124,000 tons of chemical warfare agents had been used, causing 1.3 million causalities with around 91,000 deaths.[144]

During World War II, the warring parties did not officially report the use of biological and chemical weapons in continental Europe's theatres of war. Moreover, on May 23, 1942, Hermann Ochsner, the German General for biological and chemical warfare issues at the time, expressed in a secret communique to the army's veterinary inspection that Hitler explicitly ordered not to prepare an active bacterial war.[145] Although the reason for this decision is unknown, potential drivers may have been a lack of logistical prerequisites, concerns about similar retaliatory strikes, or risks for the German troops when entering previously contaminated territory within a *"Blitzkrieg"* strategy. In Asia, however, the extensive use of biological and chemical weapons as tools of warfare have been reported of Japan against China between 1938 and 1945. Those devastating attacks included the utilization of toxic gas, pest, anthrax, cholera, typhus and paratyphoid against both enemy troops and civilians, causing upon hundreds of thousands of causalities.[146] Off the battlefield,

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[144] Richard HOLMES, *The Oxford Companion to Military History*, Oxford, Great Britain: Oxford University Press, 2001, chapter "chemical and biological weapons".

[145] Hermann OCHSNER, *USA-Versuche mit Bakterien / Lieferungen nach England - Geheime Kommandosache - 23.05.1942*: " […] Im Nachgang zum Bezugsschreiben wird mitgeteilt, daß der Führer nach Vortrag des Herrn Chef OKW befohlen hat, daß unsererseits Vorbereitungen für einen Bakterienkrieg nicht zu treffen sind. Der Führer fordert aber äußerste Bemühungen um Abwehrmittel und Abwehrmaßnahmen gegen etwaige Feindangriffe mit Bakterien. […]". Own translation: [...] As a follow-up to the letter of reference, it is announced that the Führer, after a presentation by the Chief of the OKW [High Command of the Armed Forces], has ordered that preparations for a bacterial war are not to be made on our part. The "Führer", however, demands utmost efforts for defensive means and defensive measures against possible enemy attacks with bacteria. […]."

[146] KELLMAN, *Bioviolence*, op. cit., p. 57; BAILEY, *Die Verbreitung von Massenvernichungswaffen*, op. cit., p. 116; Peter LI, *Japan's Biochemical Warfare and Experimentation in China*, in Peter Li (Ed.), *The Search for Justice – Japanese War Crimes* (pp. 289 – 300), New York, USA: Routledge, 2017, pp. 289 et seqq.

biological and chemical experiments with prisoners of war in Germany and Japan are known, e. g. with anthrax, cholera, and plague.[147] Germany also applied hydrogen cyanide, better known by its product name *"Zyklon B"*, for the holocaust of thousands of prisoners in the concentration camps of Auschwitz-Birkenau, Majdanek, Mauthausen, Sachsenhausen, Ravensbrück, Stutthof, and Neuengamme.

By the end of World War II, history's first operational atomic bomb was dropped by US forces over the Japanese city of Hiroshima on August 6, 1945. Nicknamed 'Little Boy' this gun-typed fission weapon was 3 meter long, used uranium-235, had the power of 12,500 tons of TNT and weighed more than 3 tons.[148] The death rate, caused by both the detonation and later radiation effects, can be estimated to be as high as 175,000 people, representing almost half of the population of Hiroshima then.[149] Three days later, on August 9, the second operational bomb nicknamed 'Fat Man' was dropped over the city of Nagasaki. The bomb, based on plutonium-239 and designed as implosion-typed fission weapon, had a weight of 4 tons, the power of 22,000 tons of TNT, and caused death to possibly as many as 74,000 people.[150] In both Hiroshima and Nagasaki, the subsequent effects on the population's health caused by radiation were severe, evident through high degrees of malformation and intellectual degenerations in the next generation.

During the Cold War (1947-1989), the NATO-block led by the United States of America and the Warsaw-Pact-states headed by the USSR, entered a nuclear arms race that should lead to the construction of a global weapons arsenal of more than 70,000 nuclear weapons by the mid-1980s. Only the mutual risk of self-eradication in a correspondent nuclear conflict, the so-called *"overkill"*, granted a situation of relative stability, based on mutual deterrence with an immediate devastating nuclear counterstrike in case of an attack. However, the situation threatened to escalate several times, i. e. in the Cuban Missile Crisis of 1962, after the positioning of nuclear missiles and cruise missiles type Pershing II and BGM-109 Tomahawk in Western Europe in the course of the NATO-Double-Track-

[147] Ivy LEE, *Probing the Issue of Reconciliation More than Fifty Years after the Asia-Pacific War*, in Peter Li (Ed.), *The Search for Justice – Japanese War Crimes* (pp. 19 – 31), New York, USA: Routledge, 2017, p. 25. Dieter MARTINETZ, *Vom Giftpfeil zum Chemiewaffenverbot – Zur Geschichte der chemischen Kampfmittel*, Frankfurt am Main, Germany: Verlag Harri Deutsch Thun, 1996, pp. 194 et seqq.
[148] Ian C. B. DEAR & Michael R. D. FOOT, *The Oxford Companion to the Second World War* (Reissue Edition), Oxford, Great Britain: Oxford University Press, 2005, chapter "Hiroshima".
[149] Michael CLODFELTER, *Warfare and Armed Conflicts: A Statistical Encyclopedia of Casualty and Other Figures, 1492 – 2015* (4th ed.), Jefferson, North Carolina, USA: McFarland & Co. Inc., 2017, chapter "Hiroshima and Nagasaki: The Atomic Bombings: 1945", pp. 599 et seq.; DEAR & FOOT, op. cit., chapter Hiroshima.
[150] CLODFELTER, op. cit., chapter "Hiroshima and Nagasaki: The Atomic Bombings: 1945", pp. 599 et seq.; DEAR & FOOT, op. cit., chapter "Nagasaki".

Decision of December 12, 1979, and on September 26, 1983, when Soviet computer surveillance reported a US attack with a few nuclear missiles launched from a military base in Montana. The lieutenant colonel in charge to inform the Soviet leadership of such incidents, Stanislaw Petrow, decided to report a false alarm only based on the review of indistinct satellite images and the conviction that a real US-attack would consist of more nuclear missiles than the few shown. Petrow's analysis was correct and the notification indeed a false alarm. However, would he have decided otherwise, the short-term response procedures established for these cases would have probably led to a massive Soviet nuclear strike against the US and an equally devastating counterattack.[151]

With regard to biological and chemical weapons, both superpowers conducted intense research and stockpiling activities, with a giant Soviet research program on biological weapons called *"Biopreparat"*.[152] US reports further indicate, that the USSR made selected use of toxic agents in attacks on Afghanistan, Laos and Cambodia in the early 1980s.[153] During the same period, in the Iran-Iraq War of 1980 - 1988, the Iraqi army under Saddam Hussein used mustard gas, tabun and sarin against Iranian and Kurdish troops and civilians, causing tens of thousands of causalities.[154] Sarin was also used in 1995 by the *"Ōmu Shinrikyō"* cult, for multiple simultaneous terrorist attacks in the Tokyo subway system, which, due to its low technical standards, only caused 19 deaths and several hundreds of injured people.

Since then, WMD continue being a global concern: In the ongoing Syrian Civil War, the utilization of Sarin by the troops loyal to Bashar al-Assad was confirmed by the OPCW in 2017[155] and Assad's massive utilization of chemical weapons against the civil population of Duma on April 7, 2018, seems also highly probable. On a global level, the current nuclear discourse has reached a level of criticality unseen since the end of the Cold War, including the threat of the total destruction of DPRK by US President Donald Trump in front of the

[151] Jochen LEFFERS, *Sowjet-Offizier Petrow ist tot: Der Mann, der die Welt rettete*, Spiegel Geschichte Online, September 19, 2017, https://www.spiegel.de/geschichte/stanislaw-petrow-der-mann-der-die-welt-rettete-ist-tot-a-1168721.html.
[152] ALIBEK & HANDELMAN, *Biohazard*, op. cit., pp. 57 et seqq.
[153] George P. SHULTZ (Secretary of State), *Special Report No. 104: Chemical Warfare in Southeast Asia and Afghanistan: An Update*, Washington, USA: United States Department of State, November 1982.
[154] TU, *Chemical and Biological Weapons and Terrorism*, op. cit., pp. 49 – 64.
[155] E. g. OPCW-Technical Secretariat, *Note by the Technical Secretariat: Report of the OPCW Fact-Finding Mission in Syria regarding an alleged incident in Khan Shaykhun, Syrian Arab Republic*, April 2017, UN document S/1510/2017, June 29, 2017.

UN General Assembly in September 2017[156] and Russia's recent insinuations not to hesitate from a potential nuclear confrontation with NATO in the context of the ongoing Ukraine War.[157] Furthermore, the risk of attacks with radiological or biological weapons that are relatively easy to build by terrorist groups like the Islamic State or Al-Qaeda, remains high.[158]

Further aspects must be added to this current situation that raise considerable doubt as to the future decrease of the threat-level posed by WMD: Since the 19th century, general development in warfare tends to a steadily increasing rate of civilian casualties within the total amount of deaths caused globally by wars. In World War I the percentage of civilian deaths was still at 5 %, which increased to 48 % in World War II and remains at 90 - 95 % since the 1990s.[159] Following this trend, it appears that the devastating effects that WMD generally have for the civilian population could be no argument for its non-application by the relevant political leaders. This is especially alarming, as the ultimate decision for applying intercontinental WMD missiles, relies on a small group of individuals or even a single person, such as a head of state. Impulsive or psychologically instable characters could make premature or emotional decisions, possibly causing a chain reaction of massive military reactions from other actors. This risk increases, as more states may attempt to build their own WMD arsenals, either because former protecting powers become observably unreliable or because deterrence is needed in an increasingly hostile world. In accordance

[156] "[…] If this is not twisted enough, now North Korea's reckless pursuit of nuclear weapons and ballistic missiles threatens the entire world with unthinkable loss of human life. […] The United States has great strength and patience, but if it is forced to defend itself or its allies, we will have no choice but to totally destroy North Korea. Rocket Man is on a suicide mission for himself and for his regime. The United States is ready, willing and able, but hopefully this will not be necessary […]", Remarks by President Trump to the 72nd Session of the United Nations General Assembly, United Nations, New York, September 19, 2017.

[157] "[…] Now a few important, very important words for those who may be tempted to intervene in ongoing events from the outside. Whoever tries to interfere with us, and even more so to create threats to our country, to our people, should know that Russia's response will be immediate and will lead you to such consequences as you have never experienced in your history. We are ready for any development of events. All necessary decisions in this regard have been made. I hope that I will be heard.", Speech to the Russian Nation by President Vladimir Putin on February 24, 2022. Three days after that, on February 27, 2022, Putin declared that Russia's nuclear deterrent forces would be placed on a "special regime of alert".

[158] Alethia H. COOK, *Terrorist Organizations and Weapons of Mass Destruction: U.S. Threats, Responses, and Policies*, Lanham, Maryland, USA: Rowman & Littlefield Publishers, 2017, pp. 201 et seqq.; Tanvir FAZAL, *Jihadi and The Weapons of Mass Destruction*, New Delhi, India: RVSBooks, 2010, pp. 25 and 41; on the probabilities of jihadist WMD attacks, see Gary ACKERMAN, *The Future of Jihadists and WMD – Trends and Emerging Threats*, in Gary Ackerman and Jeremy Tamsett (Eds.), *Jihadists and Weapons of Mass Destruction*, Boca Raton, Florida, USA: Taylor & Francis Group, 2019, pp. 359 – 400; Michael D. INTRILIGATOR & Abdullah TOUKAN, *Terrorism and weapons of mass destruction*, in Peter Katonga, Michael D. Intriligator, & John P. Sullivan (Eds.), *Countering Terrorism and WMD*, New York, USA: Routledge, 2007, pp. 77 – 80 (77 et seqq.); regarding the comparatively low risk of a nuclear terrorism act: Tom SAUER & Brecht VOLDERS, *Conclusion: nuclear terrorism – countering the threat*, in Brecht Volders & Tom Sauer, *Nuclear Terrorism – Countering the threat*, New York, USA: Routledge, 2016, pp. 249 et seqq.

[159] Mary KALDOR, *New and Old Wars: Organized Violence in a Global Era* (2nd ed.), Cambridge, United Kingdom: Polity Press, 1999, p. 107.

with this, the risk of WMD use as reaction on false attack information, based for example on system failures, misinterpreted satellite pictures of theoretically WMD-suitable cruise missiles[160], or cyber-attacks[161], also increases.[162] Especially less developed countries that dispose of WMD pose an additional risk, as they tend to political instability and insufficient security measures. These issues compel to stealing weapons as well as acquiring them from corrupt officials rendering this a viable option for terrorist groups, incapable of producing such complex weapon systems themselves. All this goes hand in hand with recent scientific and technical advances that could pose new threats, based on new knowledge about genetic manipulation, nanotechnology, molecular biology, and the development of three-dimensional printers capable of producing fundamental components of weapons of mass destruction anywhere when supplied with the necessary digital CAD-blueprints.[163]

Although the existence of WMD can be traced back to classical antiquity, the consideration of the contemporary security situation, the shift toward a warfare that accepts high numbers of civilian casualties, and especially the experience from late modern times to recent history, allows us to consider WMD as a weapon of our time. It is therefore not surprising, especially in the aftermath of more recent historical events, that the international community has taken up the issue of WMD and its proliferation and made it the subject of international conventions, which are presented in section 4 below.

The conventions, as a response to the new dangers and challenges of dealing with such weapons, have thereby been significant in shaping the concept of CBRN and thus that of WMD as such. Our understanding of CBRN and other WMD is thus inextricably linked to humanity's historical experience and will continue to be challenged and re-sharpened by new threats and newly identified gaps in the global security fabric. Just as the trench warfare of World War I impacted our understanding of chemical weapons, just as the atomic bombs dropped on Hiroshima and Nagasaki fueled the examination of the concept of nuclear weapons, new developments will bring new responses and defining dimensions to the concept of WMD.

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[160] John BORRIE, Tim CAUGHLEY, & Wilfred WAN, *Understanding Nuclear Weapon Risks*, UNIDIR 2017, Geneva, Switzerland: UNIDIR Resources, pp. 47 et seq.

[161] For a list of cyber vulnerable technologies in nuclear weapon systems, see BORRIE, CAUGHLEY, & WAN, op. cit., p. 62.

[162] United Nations, *Report of the Open Ended Working Group Talking Forward Multilateral Nuclear Disarmament Negotiations*, UN document A/71/371, September 1st, 2016, para. 55.

[163] Christopher GRANT, *3D Printing: A Challenge to Nuclear Export Controls*, STR 2015, volume 1, issue 1, pp. 18 - 25 (pp. 18 et seqq.); KELLMAN, op. cit., pp. 49 et seqq.

However, looking at history also allows the characteristics of WMD highlighted in the WMD definition of this thesis to be empirically substantiated and provided with practical comparative values. This serves the better understanding of the abstract definition and its easier application in governmental and business practice alike. In this sense, for example, even the devastating uncontrolled spreads of plague and smallpox in the fourteenth and eighteenth centuries, which were probably caused by rudimentary biological weapons, can serve as an empirical reference for the catastrophic effect that modern weapon systems based on genetically manipulated bacteria could unfold through their perpetuated indiscriminate mode of action.

4. How the historical experience shaped the world community's concept of these weapons

The currently installed framework of legal and institutionalized measures adopted by the International Community to mitigate the risks posed by weapons of mass destruction, is largely the result of several treaties adopted after some of the above mentioned negative historic experiences. The content of these international treaties is converted into national or EU supranational laws, thus showing a variety of specific legal arrangements, which depend on the respective legal system and further national wills to go even beyond the mere requirements accorded in the relevant treaty. The effects of these treaties are not limited to the subsequent implementation in the national laws of the signatory parties, but can be also driver for political decisions, police and customs cooperation and the establishment of "soft laws"[164] in the private corporate governance field. All of them equally centered in combating the production, trade and financing of WMD from different points of view, but in line with the internationally agreed goals and patterns. Even states not party to the relevant treaties may be influenced by their regulatory content, as their private sectors have to adapt to the standards required by their international business partners situated in countries subject to the relevant treaties, as mere necessity for doing business.

Thus, international treaties as well as potential individual state or corporate efforts in combating WMD related crime, lead to an interlinked and global *system of systems*, comprising formal and informal legal obligations, commodity and trade focused

[164] "Soft law": Instrument that has no strict legal value but constitutes an important statement or guideline in the sense of a non-legal norm system. Conventional (binding) legal acts are accordingly referred to as "hard law". See Matthias KNAUFF, *Der Regelungsverbund: Recht und Soft Law im Mehrebenensystem*, Tübingen, Germany: Mohr Siebeck, 2010, pp. 1 et seqq.

requirements, public and private measures as well as different national levels of corresponding requirements and applied scrutiny.[165] To a large extent, these obligations and measures are integrated *vertically* into the national systems, through the implementation of international conventions. However, they are also applied *horizontally*, through the adherence to requirements of third countries or alliances of third countries that use their political or economic power to promote their approaches globally. This system of systems is constantly evolving, as the underlying international treaties might be adapted to emerging challenges, new treaties might be concluded in order to close identify persisting gaps and states might adhere to already existing treaties they have not been part of yet. In its current configuration, it is also a form of global governance that may have legitimacy deficits due to the partly unilateral forces behind its implementation.

The first of these international treaties that are still a valid fundamental of our contemporary system of system of fighting WMD proliferation, are the *"Hague Conventions"* of 1899 and 1907.[166] Also not explicitly mentioning WMD nor CBRN, they condemn warfare means that in their essence show characteristics of WMD, by particularly prohibiting in their article 23 lit. a and e, "to employ poison or poisoned arms", as well as "[…] arms, projectiles, or material of a nature to cause superfluous injury".[167]

However, as the first use of chemical and biological warfare agents in a large scale occurred in later World War I, the World Community reacted to this newly emerged risk by adopting the *"Geneva Protocol on Poisonous Gases"* of 1925.[168] Having the devastating gas warfare methods of World War I in mind, this still valid protocol assesses more specifically biological and chemical weapons by stating as follows:

"The undersigned Plenipotentiaries, in the name of their respective Governments:

Whereas the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices has been justly condemned by the general opinion of the civilized world;

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[165] Leonard SPECTOR & Egle MURAUSKAITE, *CNS Occasional Paper No. 20: Countering Nuclear Commodity Smuggling A System of Systems*, Monterey, California, USA: Monterey Institute of International Studies/CNS Publications, 2014, p. ix.

[166] *Convention (II) with Respect to the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land*, signed at The Hague on July 29, 1899. The convention was revised in 1907, but the second version has not been ratified by all states party to the first version. However, the practical consequences of this will usually be negligible, as the two versions of the convention differ only slightly from each other.

[167] Violations of this prohibition under international law may constitute an international crime under the Statute of the International Criminal Court. This aspect is discussed in detail in Part Two, Chapter 3, 1., of this thesis.

[168] *Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare*, signed at Geneva on June 17, 1925; entered into force on February 8th, 1928; ratified by the United States on January 22, 1975.

Whereas the prohibition of such use has been declared in Treaties to which the majority of Powers of the World are Parties; […]

Declare:

That the High Contracting Parties, so far as they are not already Parties to Treaties prohibiting such use, accept this prohibition, agree to extend this prohibition to the use of bacteriological methods of warfare and agree to be bound as between themselves according to the terms of this declaration. […]"

As the Geneva Protocol exclusively centers on the *usage* of biological and chemical weapons, for many decades a gap regarding the prior steps for having access to this kind of weapons continued existing. Therefore, reaffirming the 1925 Geneva Protocol and its prohibition of using biological and chemical weapons, the *"Biological Weapons Convention (BWC)"*[169] signed by 173 states on April 10, 1972, additionally prohibited the development, production, stockpiling, acquisition and transfer of biological and toxic weapons. It represents the first time in human history that the destruction of biological weapons has been agreed under international law. The BWC lacks an obligation to declare current stocks of biological armament, as well as a verification mechanism that would enable states to verify and prove compliance with the convention. A clear weakness of the convention, which has not been adjusted by now. Nevertheless, if a state party of the convention finds and proves that another state is breaching BWC obligations, the UN Secretary-General may undertake a corresponding investigation.[170]

Unlike the BWC, its chemical weapons counterpart *"Chemical Weapons Convention (CWC)"*[171] that came into force on the April 29, 1997, contains an established verification mechanism. It obligates states to provide the *Organization for the Prohibition of Chemical Weapons (OPCW)* with information related to the states' weapon stockpiles, chemical weapons production facilities and other chemical weapon related aspects. Furthermore, they must provide plans for destroying weapons and facilities, as well as indicate all transfers or receipts of chemical weapons or chemical weapon-production equipment. The CWC

[169] *Convention in the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction*, signed at Washington, London and Moscow on April 10, 1972, entered into force on March 26, 1975.
[170] Competence established via UNGA resolution A/RES/42/37 C (1987) and reaffirmed with UNSC resolution S/RES/620 (1988).
[171] Organization for the Prohibition of Chemical Weapons (OPCW), *Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on Their Destruction*, signed on January 13, 1993, entered into force on April 29, 1997.

specifically prohibits the use of chemical weapons, as well as their development, production, acquisition, stockpiling and transfer.

The CWC contains an "Annex on Chemicals" where weapon-relevant chemicals and precursors are listed according to their export requirements in three different schedules (Schedules I – III). None of the listed chemicals is allowed to be transferred with the intention to serve as a chemical weapon agent. If this intention is not given, export requirements vary according to the persisting risk of misuse. Schedule 1 chemicals pose the highest risks, as they are known chemical warfare agents and precursors with few or no civil use. Thus, Schedule I requires for exports that a "[…] State Party may transfer Schedule 1 chemicals outside its territory only to another State Party and only for research, medical, pharmaceutical or protective purposes […]".[172] Hereby the "[…] types and quantities of chemicals are strictly limited to those which can be justified for such purposes […]", being limited to an absolute maximum of 1 ton.[173] Schedule II comprises chemicals with a potential chemical weapon applicability, which are used in moderate amounts for civil purposes. Those chemicals can be transferred to other state parties to the convention. Within a three-year interim period after the convention is implemented, member states are also allowed to export schedule II chemicals to third countries.[174] Schedule III chemicals, finally, comprise toxic chemicals with a large commercial applicability, like it is the case for phosgene, hydrogen cyanide, and sulfur monochloride. For those chemicals an end-use certificate is required when exported to non-member states. The content of these Schedules of the CWC significantly shapes the catalogs of prohibited chemical weapons in national legal systems and thus also the domestic concepts of both chemical weapons in particular and WMD in general.

As legal export breaches persisted and allowed, for example, Iraq to obtain biological and chemical weapons for the Iran-Iraq war in the 1990s, nation states enhanced their export legislations and tried to reach major export control uniformity via an informal panel known as the *Australia Group (AG)*. In order to accomplish the declarations to both the BWC and then the CWC, the group developed own control lists that not only include the biological or chemical agents themselves, but also technologies and equipment suitable for chemical and biological weapons' manufacturing and disposal. Since its foundation in 1985, the group has

[172] *Chemical Weapons Convention*, Annex on Implementation and Verification, Part VI, B, 3.
[173] *Chemical Weapons Convention*, Annex on Implementation and Verification, Part VI, A, 2 (a).
[174] *Chemical Weapons Convention*, Annex on Implementation and Verification, Part VII, C, 31.

grown from 15 to currently 43 members, including the European Union, and India becoming the newest member in January 2018. The Australia Group's approach of including delivery systems and not just biological or chemical agents is reflected in the described duality of the current WMD understanding, which includes both substances of the living and inanimate environment on the one hand, and complex weapons systems on the other.[175]

As with the different treaties on biological and chemical weapons, the world community concluded several treaties centered on the risks posed by nuclear and radiological weapons. In this context, the *"Treaty on the Non-Proliferation of Nuclear Weapons (NPT)"* that entered into force on March 5, 1968, can be considered of pivotal relevance. The first articles state as follows:

"Article I. Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

Article II. Each non-nuclear weapon State Party to the Treaty undertakes […]

Article III. […] 2. Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguard required by this article."

As this section shows, the NPT differentiates between nuclear weapon states and non-nuclear weapon states. According to article IX of the NPT, nuclear weapon states are those who manufactured and detonated a nuclear weapon or other nuclear explosive devices prior to January 1st, 1967. Accordingly, no state can become a nuclear weapon state within this treaty anymore, merely a non-weapon state. Thus, the treaty perpetuates the special position of its initiating powers: The United States of America, Russia, Great Britain, France and China. Although this represents both a considerable inequality in the ultimately global effort to reduce global nuclear arsenals and a significant military disadvantage for the non-weapon states, most states in the world – except for South Sudan, Israel, Pakistan, India and the DPRK – are party to the NPT.

[175] See Part One, Chapter 1, 2.3., b, of this thesis.

The above-mentioned disarmament and nonproliferation obligations for both non-nuclear weapon states and nuclear weapon states, are controlled by the *International Atomic Energy Agency (IAEA)*, which existed prior to the NPT but added this task to its already existing responsibilities. Controls are effectuated via so-called "safeguards", activities by which the IAEA can prove that a state complies with its commitment not to use nuclear programs for weapon development, e. g. nuclear material accountancy, IAEA installed cameras at facilities, and the assessment of environmental samples.[176] These safeguards are also relevant for legal nuclear-material-related commerce, as, according to article III para. 2 NPT, the provision of other (non-nuclear weapon) states with a "[…] (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material […]" is only permitted if the merchandise is subject to the IAEA safeguards.

A more precise interpretation of this requirement, particularly concerning equipment or material that can be considered as especially designed or prepared for the processing, use or production of special fissionable material, can be found in the *Consolidated Trigger List*[177] provided by the *Zangger-Committee*, an informal group of NPT-member states. The list is divided into a "Memorandum A" on nuclear materials and a "Memorandum B" on the related equipment. Goods listed under Section A include, for example, plutonium with an isotope concentration of plutonium-238 exceeding 80 %, for which any amount above a few grams is disregarded, as well as natural uranium, that can be exported to another country up to a sum of 500 kg within a period of one calendar year. Within Section B, a variety of detailed described goods are listed, and subdivided into seven categories: (1) Nuclear reactors, (2) non-nuclear materials for reactors, (3) plants and equipment for the reprocessing of irradiated fuel elements, (4) plants and equipment for the fabrication of nuclear reactor fuel elements, (5) plants and equipment for the separation of isotopes of natural uranium, depleted uranium or special fissionable material, (6) plants and equipment for the production or concentration of heavy water, deuterium and deuterium compounds, and (7) plants and equipment for the conversion of uranium and plutonium for use in the fabrication of fuel elements and the separation of uranium isotopes. These explicitly designated items, whose listing was

[176] For more information on possible IAEA Safeguards, see IAEA, *Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards*, INFCIRC/540 (corrected), Vienna, Austria: IAEA, September 1997.
[177] IAEA, *Communications Received from Members Regarding the Export of Nuclear Material and of Certain Categories of Equipment and Other Material*, INFCIRC/209 of August 22, 1974, as amended from time to time, latest version: INFCIRC/209/Rev. 4 of January 24, 2017.

ultimately the consequence of practical difficulties in implementing the requirements of the NPT, have also found their way into the national catalogs of WMD-relevant items and have thus shaped both the international and the national understanding of nuclear WMD.

However, as the NPT and the Zangger Trigger List are centered on goods designed for processing nuclear materials, some other nuclear weapon-relevant goods that serve both military and civil purposes, so-called "dual-use-goods", may not be covered by the legal scope of the NPT. Consequently, the IAEA has no mandate to tackle or report related issues, although it may become aware of them in an ongoing investigation.[178]

To close the corresponding gaps, the *Nuclear Suppliers Group (NSG)* was founded in 1974, after an Indian nuclear bomb testing showed that material provided for peaceful purposes could be misused for proliferation purposes. The NSG emits guidelines for both nuclear transfers and transfers of nuclear-related dual-use equipment, materials, software and related technology, as well as a corresponding trigger list.[179] Similarly the *Wassenaar Arrangement (WA)*, established between 33 states on December 19, 1995,[180] provides a register of relevant dual-use items, named *"List of Dual-Use Goods and Technologies; and Munitions List"*[181], that adds further commodities to the WMD focused export controls of the world. This includes, *inter alia*, equipment for the detection and protection of biological agents, radioactive material or chemical warfare agents ("Category 1": A.4. a - d); relevant electronics ("Category 3"), sensors and lasers suitable for missile technology ("Category 6"), and software especially designed for the development or production of relevant equipment. Finally, the *Missile Technology Control Regime (MTCR)*, established in 1987 by the G7, provides further guidelines for sensitive transfers of long-range missiles and cruise missiles, thus for conventional delivery-systems that might be used as weapons of mass destruction as well.

To guarantee the integration of the addressed controls and other safeguards in national legislations and boarder control systems, especially considering the risk of WMD acquisition

[178] Leonard S. SPECTOR, *CNS Occasional Paper No. 25: Outlawing State-sponsored Nuclear-procurement Programs and Pursuing Recovery of Misappropriated Nuclear Goods*, Monterey, California, USA: Monterey Institute of International Studies/CNS Publications, 2016, p. 12.
[179] IAEA, *NSG Guidelines for Nuclear Transfers and NSG Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software and Related Technology*, INFCIRC/254/Part 1 a. Part 2, as amended from time to time, latest version: INFCIRC/254/Rev. 10 of February 5, 2018.
[180] The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, *Final Declaration*, The Peace Palace in The Hague, the Netherlands, December 19, 1995.
[181] Wassenaar Arrangement Secretariat, *List of Dual-Use Goods and Technologies; and Munitions List*, Public Documents Volume II, December 2017.

by terrorist organizations, the United Nations Security Council adopted the *Resolution 1540 (2004)* on the April 28, 2004.[182] Acting under Chapter VII of the Charter of the United Nations, it indicates that the Security Council,

"1. Decides that all States shall refrain from providing any form of support to non-State actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery;

2. Decides also that all States, in accordance with their national procedures, shall adopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them;

3. Decides also that all States shall take and enforce effective measures to establish domestic controls to prevent the proliferation of nuclear, chemical, or biological weapons and their means of delivery, including by establishing appropriate controls over related materials and to this end shall:

(a) Develop and maintain appropriate effective measures to account for and secure such items in production, use, storage or transport;

(b) Develop and maintain appropriate effective physical protection measures;

(c) Develop and maintain appropriate effective border controls and law enforcement efforts to detect, deter, prevent and combat, including through international cooperation when necessary, the illicit trafficking and brokering in such items in accordance with their national legal authorities and legislation and consistent with international law;

(d) Establish, develop, review and maintain appropriate effective national export and trans-shipment controls over such items, including appropriate laws and regulations to control export, transit, trans-shipment and re-export and controls on providing funds and services related to such export and trans-shipment such as financing, and transporting that would contribute to proliferation, as well as establishing end-user controls; and establishing and enforcing appropriate criminal or civil penalties for violations of such export control laws and regulations;

[…]

8. Calls upon all States:

(a) To promote the universal adoption and full implementation, and, where necessary, strengthening of multilateral treaties to which they are parties, whose aim is to prevent the proliferation of nuclear, biological or chemical weapons;

[182] United Nations Security Council, Resolution 1540 (2004) Adopted by the Security Council at its 4956th meeting, on April 28, 2004, UN document: S/RES/1540 (2004), April 28, 2004.

(b) To adopt national rules and regulations, where it has not yet been done, to ensure compliance with their commitments under the key multilateral nonproliferation treaties;

(c) To renew and fulfil their commitment to multilateral cooperation, in particular within the framework of the International Atomic Energy Agency, the Organization for the Prohibition of Chemical Weapons and the Biological and Toxin Weapons Convention, as important means of pursuing and achieving their common objectives in the area of non-proliferation and of promoting international cooperation for peaceful purposes; […]."

This resolution with its corresponding obligations can be considered as one of the two pillars of United Nations Security Council's framework on combating WMD proliferation.[183] The other pillar consists of resolutions centered on countries which raised special concern due to their efforts to obtain WMD capacities, i. e. the Islamic Republic of Iran and the Democratic People's Republic of Korea (DPRK). They contain sanctions like freezing of assets and international travel bans for listed individuals and entities, who are either closely linked to the nuclear programs of both countries or known for being involved in nuclear commodity smuggling, as well as different trade embargoes.[184]

Besides the financial restrictions of the above-mentioned UNSC resolutions and in compliance with the requirements of paragraphs 2 and 3 (d) of Resolution 1540 (2004), other measures, specifically tackling the financing flows underlying WMD commerce, were established. A key example here is the *Financial Action Task Force (FATF)*, an international body based on the coordination of international efforts in combating the misuse of the financial system for illicit financing purposes, which incorporated the topic of WMD proliferation financing in its *International Standards on Combatting Money Laundering and the Financing of Terrorism & Proliferation*[185], commonly referred to as the "*FATF Recommendations*". These standards are implemented in the legislation of most countries and have a major impact on the requirements global financial institutions must adhere to when designing their anti-financial-crime procedures. In its recommendation no. 7, for example, the FATF Standards state as follows:

[183] Jonathan BREWER, *Proliferation Financing: The Potential Impact of the Nuclear Agreement with Iran on International Controls*, STR 2016, volume 2, issue 2, pp. 25 – 36 (27).
[184] Security Council Resolutions on Iran: UNSCR 1737 (2006); UNSCR 1747 (2007); UNSCR 1803 (2008); UNSCR 1929 (2010); Security Council Resolutions on North Korea: UNSCR 1718 (2006), UNSCR 1874 (2009), UNSCR 2087 (2013), UNSCR (2094 (2013).
[185] FATF, *The FATF Recommendations: International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation*, Paris, France: FATF/OECD, 2012, updated October 2021.

"R.7. Targeted financial sanctions related to proliferation

Countries should implement targeted financial sanctions to comply with United Nations Security Council resolutions relating to the prevention, suppression and disruption of proliferation of weapons of mass destruction and its financing. These resolutions require countries to freeze without delay the funds or other assets of, and to ensure that no funds and other assets are made available, directly or indirectly, to or for the benefit of, any person or entity designated by, or under the authority of, the United Nations Security Council under Chapter VII of the Charter of the United Nations."

Other financing centered actions focus on denying risk states access to the western money market and its benefits. This includes bans on transactions with certain banks located in the relevant countries, as well as broader measures like, for example, the termination of the electronic funds transfer services for the Iran Central Bank and other Iranian financial institutions by the *Society of Worldwide Interbank Financial Telecommunication (SWIFT)* in mid-2012.[186]

In summary, the international community's growing experience with the effects and control of WMD has led to a constant increase of the number of international treaties and agreements to handle the difficulties that have emerged over time. In particular, the practical problems encountered in identifying WMD and their components have led to an increasing reliance on highly technical lists that focus on the objective qualities of these goods rather than on their mode of action or effect. The globally prevalent handling of the WMD concept through the use of closed lists is not least a reflection of this international development.

Although this thesis proposes a generic definition of the term WMD, the importance of these lists should nevertheless not be overlooked. Particularly in the case of computer-aided monitoring of trading transactions and the banking services accompanying them, narrow concepts are a mandatory prerequisite for triggering compliance alerts. The use of a generic definition, such as for the design of policies and work instructions, and the use of list content, for the monitoring systems mentioned above, are, thus two pillars of effective and comprehensive counter-proliferation financing compliance.

[186] Rick GLADSTONE & Stephen CASTLE, *Global Network Expels as Many as 30 of Iran's Banks in Move to Isolate Its Economy*, New York Times, March 15, 2012; SPECTOR & MURAUSKAITE, op. cit., p. 118.

Chapter 2: Understanding weapons of mass destruction proliferation

The international treaties shown, i. e. the NPT, BWC, and CWC, prohibit the commerce of nuclear, biological or chemical agents and related weapon systems for the purpose of utilization as weapons of mass destruction. As most states acceded to these treaties, cross-border commerce of WMD is *de facto* impossible under international law and most of the corresponding national laws.[187] Therefore, the world is not aware of a legal cross-border market for weapons of mass destruction. However, the power inherent in WMD render them a sought-after commodity for various global actors. States and organized non-state groups, searching for military deterrence, stronger geopolitical weight or a mere mean of ideologically motivated mass killings, might therefore invest important efforts in obtaining such armament via illegal channels and without being detected by the world community.

Depending on their capabilities, states that officially adhere to the relevant conventions, states not party to relevant treaties, or interested non-state actors like terrorist organizations, will hereby try to obtain equipment, material, or technology in a degree and amount that corresponds to their specific situation. The determining drivers are the already existing infrastructure, military capability, technical know-how, scientific capacity, economic strength, natural resources, as well as the political or ideological motivation of the respective demander. In other words: Terrorist organizations might tend to obtain completely ready-made weapon systems or material suitable for building comparatively rudimentary devices[188] while less developed countries are more likely to search for machineries and know-how for building their own production facilities. Finally, states with a high level of industrialization and scientific capabilities will be more interested in newest technical know-how as well as in biological, chemical or nuclear agents that do not occur naturally in their respective territories.

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[187] Cf. Ramón MURO MARTINEZ, *El control del comercio exterior de material de defensa y de doble uso. El tratado sobre el comercio de armas*, Cuadernos de estrategia, no. 169: *Desarme y control de armamento en el siglo XXI: limitaciones al comercio y a las transferencias de tecnología*, 2014, pp. 113 – 156, 113: "Buena parte de los controles nacionales se sustentan en meros compromisos políticos derivados de la participación en determinados foros internacionales de no proliferación. A pesar de lo que pudiera creerse, son precisamente estos compromisos, además de una serie de directrices y acuerdos alcanzados en el seno de dichos foros, los que han servido a lo largo de todo este tiempo para dotar a aquellos países que cuentan con industrias de defensa y de fabricación de productos y tecnologías de uso dual de sólidos mecanismos nacionales de control y de intercambio de información."

[188] E. g. Chechen rebels placed a dirty bomb with Cs-137 in Moscow Ismailovsky Park in 1995; see COOK, op. cit., pp. 25 et seqq.; FAZAL, op. cit., pp. 45 seqq.

Accordingly, the commodities transferred within the WMD market can vary considerably, comprising of mere blueprints through to fully operational weapon systems. Therefore, the understanding of WMD "proliferation"[189] must be extensive. The shared definition of the German Domestic Intelligence Services meets this requirement and can therefore be used. In view of the identified definability of WMD, however, it should be modified in this regard to read as follows (inserts in italics):[190]

> Definition: **Proliferation** refers to the distribution of nuclear, biological, chemical*, and other* weapons of mass destruction, the distribution of the products used in their manufacture, the distribution of weapons of mass destruction delivery systems (e. g. missiles and drones), and the distribution of the therefore necessary know-how.

As these products are highly specialized or require a high level of technical capacity, potential sources and suppliers are scarce and generally located in industrial countries. Furthermore, these suppliers generally do not intend to participate in the proliferation of weapons of mass destruction but are law-abiding providers of highly specialized equipment, mainly for the energy, pharmaceutical, medical, scientific, metal processing, dye, or pesticide industries. WMD trade already differs structurally from other illegal trades, i. e. drug trade and human trafficking, which rely on widely exchangeable criminal suppliers that are willingly acting in the clandestine and usually do not need to possess particular technical capacities.

WMD demanders have to generate an appearance of lawfulness in order to obtain the required goods without causing mistrust among the suppliers, i. e. by using front companies apparently active in legal industries, by falsifying customs and transport documents, and by

[189] Term mainly used in two contexts: The reproduction of cells and the increase in weapon stocks through distribution; English Oxford Dictionary, "proliferation: Rapid increase in the number or amount of something", example sentence: 'A continuing threat of nuclear proliferation'; French: "*Prolifération*"; German: "*Proliferation*"; Portuguese: "*Proliferação*", Russian: "*пролифера́ция*" (med.) or "*распространение*" (weapons), Spanish: "*Proliferación*". The standard setter of the Spanish language, the Real Academia Española, interestingly limits the meaning of *"proliferar"* to "to reproduce in a similar way" *("reproducirse en formas similares")* and to "multiply abundantly" *("multiplicarse abundantemente")*, see https://dle.rae.es/proliferar. However, there are numerous uses in the official language of the Spanish authorities, which by *"proliferación"* or *"proliferar"* undoubtedly refer to the distribution and production of weapons of mass destruction, see, e. g., Departamento de Seguridad Nacional de la Presidencia del GOBIERNO DE ESPAÑA, *Informe Anual de Seguridad Nacional 2021*, Madrid, Spain: Editorial MIC, March 2022, pp. 71 et seqq.

[190] BUNDESAMT FÜR VERFASSUNGSSCHUTZ, *Proliferation – Wir haben Verantwortung*, Berlin, Germany: Bundesamt für Verfassungsschutz Print- und MediaCenter, March 2014, p. 2: "Als Proliferation bezeichnet man die Weiterverbreitung von atomaren, biologischen und chemischen Massenvernichtungswaffen, die Weiterverbreitung der zu ihrer Herstellung verwendeten Produkte, die Weiterverbreitung von Trägersystemen für Massenvernichtungswaffen (z.B. Raketen und Drohnen), die Weiterverbreitung des dafür erforderlichen Know-how."

obeying international trade practice, insurance standards and typical trade financing methods.

As relevant suppliers are generally located in states with high standards in production and customs controls, demanders also must evaluate if they can replace dual-use goods with rigorous controls by less WMD suitable alternatives with lower or no control requirements. The organization of the supply network cannot be effectuated without an important degree of specific technical understanding, necessary for the evaluation of relevant components and further processing steps. Often, the final purchasers lack this specific knowledge and the necessary engineering or scientific skills. Proliferation in the form of trade in relevant goods is thus regularly accompanied by proliferation in the form of knowledge transfer, be it through the procurement of detailed construction plans, university knowledge exchange or the employment of foreign experts by the criminal actors.

1. The initial procurement sources

Initial procurement sources of WMD components are mainly their manufacturers. Due to the high technological capabilities and safety measures required to produce most components of WMD, these manufacturers are generally industrial companies or specialized laboratories. However, some exceptions exist with regard to REDs and RDDs, where enriched nuclear material can be extracted from machines with radiological components, e. g. medical devices for radiation-based cancer treatment, devices for radiographic downhole mineralogical mapping in the oil and gas industry or radiographic cameras used in the construction sector.[191]

Abstractly spoken, the role of manufacturers in the WMD proliferation process can be distinguished in the light of two main aspects:

First, by the objective purpose of their products, namely if they produce military armament or civil goods suitable for misuse in a WMD context.

Second, by their degree of willingness to form part of the proliferation process. Hence, whether they are producers of legal products completely unaware of the intended misuse by

[191] George M. MOORE & Miles A. POMPER, *CNS Occasional Paper No. 23: Permanent Risk Reduction: A Roadmap for Replacing High-Risk Radioactive Sources and Materials. Monterey, California, USA: Monterey Institute of International Studies/CNS Publications*, July 2015, pp. 5 et seqq., pp. 11 et seqq., and pp. 13 et seq.; for a list of commercially available radioactive sources: KELLMAN, *Bioviolence*, op. cit., p. 180.

the purchaser, producers of legal products that ignore grounds of suspicion that their product will be misused, or perhaps even knowingly acting producers of WMD components that operate under the cloak of a legal enterprise.

1.1. Types of manufacturers: Defense industry and manufacturers of dual-use goods

Military armament manufacturers are those which produce weapons, or parts thereof, suitable for the purposes of larger armed conflicts. They are part of the defense industry that, in a broad sense, comprises of any company that contributes to military capability, or that is otherwise impacted by defense procurement practices and procedures.[192] Military armament manufacturers fabricate products like warheads, wheeled military vehicles, warships, military software, special munition and command and fire control systems. For purchasers of WMD and their components the products of manufacturers of nuclear weapon systems rockets and cruise missiles that can be armed with WMD warheads, and conventional and flying bombs are of special interest.

Manufacturers of dual-use goods, on the contrary, are part of a wide range of industries. Their purpose is to produce either for the civil market or both the civil and the military market. In any case, their products are potentially used as source materials, components or complete systems, suitable for the construction of weapons of mass destruction.[193] Accordingly, the EU defines dual-use items, as

"[…] items, including software and technology, which can be used for both civil and military purposes, and includes items which can be used for the design, development, production or use of nuclear, chemical or biological weapons or their means of delivery […]."[194]

Although the number of dual-use goods permanently increases due to general technical advancements,[195] highly detailed lists with a large amount of already identified dual-use goods exist. Coherent with the number of relevant products, the total number of dual-use manufacturers is high. When considering potential dual-use suppliers for a specific WMD-

[192] Cf. AeroSpace and Defence Industries Association of Europe's web: https://asd-europe.org/about-industry.
[193] Glenn ANDERSON, *Points of Deception: Exploring How Proliferators Evade Controls to Obtain Dual-Use Goods*, STR, 2016, volume 2, issue 2, pp. 4 - 24 (5, fn. 3).
[194] Regulation (EU) 2021/821 of the European Parliament and of the Council of May 20, 2021, setting up a Union regime for the control of exports, brokering, technical assistance, transit and transfer of dual-use items (recast).
[195] Examples of relatively new dual-use goods suitable for biological weapons: Raymond A. ZILINSKAS & Philippe MAUGER, *CNS Occasional Paper No. 21: Biotechnology E-commerce: A Disruptive Challenge to Biological Arms Control*, Monterey, California, USA: Monterey Institute of International Studies/CNS Publications, March 2015, pp. 15 - 34 (including algae photobioreactors; freeze-dryer gas sterilization upgrade kits; hand-held aerosol generators; DNA kits; synthetic biology kits; and 3D bioprinters).

type specific module or processing need, the number of relevant companies becomes manageable: For example, in 2016 biological weapon-relevant fermentation services were performed by only 15 companies resident in Germany and 3 in Spain. Likewise, companies offering chemical weapon-relevant chlorination and fluorination reactions amounted to 31 in Germany and 7 in Spain.[196]

1.2. Control of manufacturers on the example of Germany

Germany knows regulated control measures for the production of both military goods and civil dual-use goods. Within the production of military goods, especially the manufacturing of highly sensitive goods, called "war weapons", is regulated. The regulations regarding dual-use goods on the other hand are mainly a reflection of the requirements implemented by the international treaties Germany adheres to, i. e. the NPT and CWC.

a) Supervision of the production of war weapons

Specific legal requirements and official controls of the production of war weapons in Germany base on article 26 para. 2 of the German Constitution, which states that

"Weapons designed for warfare may be manufactured, transported or marketed only with the permission of the Federal Government. Details shall be regulated by a federal law."[197]

Thus, the German Constitution principally allows the manufacture of war weapons that shall be traded abroad but puts it under governmental supervision and permission. As the provision centers exclusively on war weapons in a strict sense, it does not represent a basic requirement for controls on the manufacturing of dual-use goods. Therefore, the federal law corresponding to the requirement of sentence 2 of article 26 para. 2, officially named "Implementing Law for article 26 para. 2 of the Constitution" but more generally known as "War Weapons Control Act" *("Kriegswaffenkontrollgesetz" - "KrWaffKontrG")*[198], does also not regulate dual-use good manufacturing but exclusively the production of war weapons.

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[196] Julie A. CARRERA, Andrew J. CASTIGLIONI, & Peter M. HEINE, *Chemical and Biological Contract Manufacturing Services: Potential Proliferation Concerns and Impacts on Strategic Trade Controls*, Strategic Trade Review, issue 04, Spring 2017, pp. 43 and 45.

[197] Grundgesetz für die Bundesrepublik Deutschland, article 26 para. 2: "Zur Kriegführung bestimmte Waffen dürfen nur mit Genehmigung der Bundesregierung hergestellt, befördert und in Verkehr gebracht werden. Das Nähere regelt ein Bundesgesetz.".

[198] Ausführungsgesetz zu Artikel 26 Abs. 2 des Grundgesetzes (Gesetz über die Kontrolle von Kriegswaffen) of April 20, 1961, Bundesgesetzblatt, Jahrgang 1961, part 1, p. 444, as amended from time to time.

The items, substances and organisms considered as war weapons *("Kriegswaffen")* under the KrWaffKontG are listed exhaustively in its annex named "War Weapons List" *("Kriegswaffenliste")*. The list comprises both war weapons that the Federal Republic of Germany has renounced to produce (Part A of the List), i. e. nuclear, biological and chemical weapons, and war weapons whose production is allowed (Part B of the List), e. g. guided missiles, rockets, mobile and fixed missile launch systems, specialized fighter planes, combat helicopters, warships, battle tanks, cannons, howitzers, mortars, some types of machine guns and fully automatic weapons, bombs, and mines.

The development and production of WMD in the sense of Part A of the War Weapons List, is generally prohibited in accordance with sections 17 and 18 KrWaffKontrG.[199] These prohibitions not only cover the complete weapon itself but also the manufacturing of parts, devices, modules and substances specifically designated for them. The manufacturing of comparable items and organisms designated for civil purposes or for scientific, medical or industrial research as well as the production of relevant chemical and biological agents for the purpose of prevention, protection and verification on the other hand, are not covered by the prohibitions under the KrWaffKontrG, as the introduction to Part A of the War Weapons List explicitly states.[200]

Unlike those war weapons listed in Part A of the list, the manufacturing of those under Part B is legally possible. However, whoever plans to manufacture weapons under List B of the KrWaffKontrG needs an official permit.[201] Manufacturers explicitly have no right of a granted permit when fulfilling the formal requirements, thus the authorization is subject to total discretion of the approving authority.[202] Furthermore, section 6 para. 3 KrWaffKontrG establishes different reasons when the permit shall not be granted, i. e. when there is a risk that the war weapon is used for an aggressive war or other activities tending to threaten peace, when they could result in a violation of the international legal obligations of the

[199] However, section 16 KrWaffKontrG excludes those nuclear weapons from these prohibitions that are developed and produced on behalf of a state member to the North Atlantic Treaty in order to guarantee the preparation and performance of NATO's so-called "nuclear participation" duties. This aspect will not be discussed further in this thesis.
[200] Ausführungsgesetz zu Artikel 26 Abs. 2 des Grundgesetzes, Anlage (zu § 1 Abs. 1) Kriegswaffenliste, Teil A Kriegswaffen, auf deren Herstellung die Bundesrepublik Deutschland verzichtet hat (Atomwaffen, biologische und chemische Waffen): "Von der Begriffsbestimmung der Waffen ausgenommen sind alle Vorrichtungen, Teile, Geräte, Einrichtungen, Substanzen und Organismen, die zivilen Zwecken oder der wissenschaftlichen, medizinischen oder industriellen Forschung auf den Gebieten der reinen und angewandten Wissenschaft dienen. Ausgenommen sind auch die Substanzen und Organismen der Nummern 3 und 5, soweit sie zu Vorbeugungs-, Schutz- oder Nachweiszwecken dienen. […]".
[201] Section 2 para. 1 KrWaffKontrG.
[202] Section 6 para. 1 KrWaffKontrG.

Federal Republic of Germany, or when there is reason to believe that the requesting manufacturer does not possess the trustworthiness required. To examine this trustworthiness, the German domestic intelligence service can be consulted.[203]

The permission for the manufacturing of such war weapons must be in writing and can be limited in terms of content, quantity, and time. It must contain information on the type of war weapons produced and can be granted in a permanent manner. According to article 26 para. 2 of the German Constitution, the permission is basically granted by the Federal Government. However, the Government has transferred this competence depending on the relevant area on different ministries, of which the Ministry of Economics and Energy will usually consider most permissions for the manufacturing of war weapons.[204] In the case of a grant, the competent ministry issues an instrument of approval that is verifiable by indication of a unique document number.

Once manufacturers of war weapons run an authorized production, they become subject to official controls and obligations to provide relevant evidence on their persisting compliance. Competent control authority is the Federal Office of Economics and Export Control *("Bundesamt für Wirtschaft und Ausfuhrkontrolle" - "BAFA")*, on which the Ministry of Economics and Energy has transferred the different control competences.[205] In order to carry out its control function - in particular the monitoring of war weapon stocks and their changes - the BAFA can demand all relevant information at any time, examine operational records and other documents and carry out on-site inspections.

Central document of the documents that are examined is the so-called "war weapons book" *("Kriegswaffenbuch")*. The war weapons book is a registry that allows for retracing the whereabouts of war weapons, which has to be filled out by the manufacturer with specifications to the respective opening balance, changes in inventories and the stocks on two fix days per year (March 31 and September 30).[206] It comprises separate sheets for every weapon type with information on serial numbers, names of licensing authorities, document numbers of the respective instruments of approval, as well as statements on reasons for stock changes. In addition to the manufacturers also carriers, purchasers, and lessors of war

[203] Section 11 para. 5 KrWaffKontrG.
[204] Section§ 11 para. 2 KrWaffKontrG in conjunction with section 1 KrWaffkontrGDV 1.
[205] Section 14 para. 1 KrWaffKontrG in conjunction with section 2 KrWaffKontrGDV 1.
[206] BAFA, *Merkblatt: Allgemeine Hinweise zur Kriegswaffenbuch- und Nachweisführung*, Eschborn, Germany: Bundesamt für Wirtschaft und Ausfuhrkontrolle, February 1st, 2007, pp. 1 et seqq.

weapons are obligated to maintain a war weapons book, posing an effective mean for authorities to understand transportation chains until the export into a foreign country.

b) Supervision of the production of dual-use goods

Legal requirements and official controls on manufacturers of nuclear, chemical and biological dual-use goods are to a large extend based on the implementation of the relevant international treaties.

Therefore, the manufacturing of chemical dual-use goods and the corresponding controls are mainly regulated under the "Implementing Law to the Chemical Weapons Convention" *("Ausführungsgesetz zum Chemiewaffenübereinkommen" - "CWÜAG")* in conjunction with the "Regulation Implementing the Chemicals Weapon Convention" *("Ausführungsverordnung zum Chemiewaffenübereinkommen" - "CWÜV")*. They stipulate that the production and processing of schedule 1 chemicals requires prior permit by the BAFA, unless the chemicals are treated for medical, pharmaceutical and scientific purposes and in an amount of less than 100 gram per institution and year. The manufacturing of schedule 2 and 3 chemicals requires no permits, as the risk they pose is considered sufficiently mitigated by the obligatory permits for the trade and export of these goods. Nevertheless, manufacturers of schedule 1, 2 and 3 chemicals may be equally subject to joint routine and challenge inspections by the OPCW and BAFA. Those inspections serve in particular to verify prior notifications, to proof the nonexistence of schedule 1 chemicals in a facility, and to control that schedule 2 chemicals are not diverted to purposes prohibited under the CWC. Ultimately granting not only the compliance of a specific facility to the provisions of the CWC, but of the Federal Republic of Germany as one of its signatory states.

With regards to the handling of nuclear material, the deposition and treatment of nuclear fuel outside official custody is subject to official permission. Likewise, the processing or fission of nuclear fuels needs a permit. However, according to section 7 para. 1 Atomic Energy Act *("Atomgesetz" - "AtG")* the second type of permits are not granted anymore, as Germany plans its nuclear phase-out within the next years. At the latest, this will be the case in 2022, when the permits for the last nuclear plants "Isar 2", "Emsland" and "Neckarwestheim 2" will expire.

2. The utilization of intermediaries

Once manufactured, the relevant products must be transported to the final (criminal) purchaser. Generally, this will occur via an international supply chain comprising different actors like logistics companies, brokerage firms, distributors and other intermediaries. Hereby legal and illegal market activities flow into each other: Whilst some actors might be unaware of being utilized for illicit purposes others are organized criminals that work independently or even under direct control of the purchasing state or organization.[207]

2.1. Purchase systems

How near the illicit part of the network reaches to the generally law-abiding manufacturer varies from case to case. However, three basic organizational systems can be identified: Procurement systems controlled by purchasing states, procurement systems relying on independent criminal actors, and exchange systems between two or more purchasers.[208]

(1) *Procurement systems controlled by purchasing states* are major state-controlled structures, where the state itself establishes front or shell companies, which purchase dual-use goods for seem-to-be legal purposes. Those companies are controlled and managed by covered officials, especially from the country's respective security and intelligence agencies. Behind a chain of front companies and obscure ownership structures, ultimately stands a person, which has to have the necessary power to decide to use funds of "black accounts" for top-secret proliferation purposes, i. e. high rank officials or the head of the respective state.

Procurement systems controlled by purchasing states may rely on existing national public actors and entities to misuse them. Diplomats, or rather secret agents acting as such, might serve as human intelligence sources, protected by the laws on diplomatic immunity and correspondence. They also can be carriers or senders of relevant goods, critical software or construction plans, whilst being protected under the laws on diplomatic bags of the *Vienna Convention on Diplomatic Relations*[209], which prohibits the hosting state to examine the diplomat's luggage. Although this baggage will be generally small and the transported goods therefore of a compact size, the Vienna Convention does not establish a maximum size for

[207] FATF, *Proliferation Financing Report*, 2008, Paris, France: FATF/OECD, p. 4, para. 13.
[208] For a different categorization, see Bruno GRUSELLE, *Proliferation Networks and Financing*, Paris, France: FRS Recherches & Documents, 2007, who differentiates between supplier networks and acquisition networks.
[209] *Vienna Convention on Diplomatic Relations*, done at Vienna on April 18, 1961.

diplomatic luggage. Therefore, also entire shipping containers are covered by the Convention, opening the possibility to misuse their respective cargo potential for proliferation purposes. Known cases of diplomats involved in illicit procurement activities, include North Korea's country representative to the IAEA who was running an illicit procurement network out of his office in Vienna between 1993 and 1998.[210] Furthermore, German intelligence services reported that North Korean intelligence officers working under diplomatic cover were repeatedly trying to obtain information on WMD-relevant metal processing knowledge in in the 2000s in Germany.[211]

Rogue states may also instruct public research institutions and universities to acquire extremely sensitive dual-use goods under the cloak of their scientific research.[212] Once acquired, the knowledge or product is generally passed on to a third secret WMD researching or producing facility. It is also conceivable that the same research institution or university counts with an own secret program on WMD, conducted by selected members in parallel to their official research work. Under the pretext of scientific research, several WMD developing countries have acquired highly sensitive goods: In 1980s the USSR obtained in the name of civil science highly virulent viruses, like the virus that causes Bolivian Hemorrhagic Fever from the USA or Marburg from Germany, and misused it for its biological weapons program.[213] Likewise in 1986, Iraqi Baghdad University purchased different types of anthrax, botulinum and brucella for research purposes from the American Type Culture Collection (ATCC). Shortly after, the Saddam Hussein regime produced twenty-five Al-Hussein warheads and two hundred R-400 aerial bombs loaded with botulinum toxins and anthrax spores.[214]

(2) *Procurement systems relying on independent criminal actors* are organizational structures where the purchasing state or non-state actor does not acquire the goods directly via covered agents or state-controlled organizations, but from a third criminal party specialized in the trade of relevant commodities and know-how. A prominent example of this variant of procurement system is the proliferation network of the Pakistani Abdul Qadeer

[210] June 2013 UNSCR 1874 Panel of Experts Report, para. 49.
[211] BUNDESAMT FÜR VERFASSUNGSSCHUTZ, *Verfassungsschutzbericht 2008*, Berlin, Germany: Bundesministerium des Innern, 2008, pp. 273 et seq.
[212] E. g. FATF, *Proliferation Financing Report*, op. cit., p. 26, case study 3.
[213] ALIBEK & HANDELMAN, *Biohazard*, op. cit., p. 18.
[214] KELLMAN, op. cit., p. 62; Richard O. SPERTZEL, *Prepared Statement*, in United States Congress, *Russia, Iraq, and other potential sources of anthrax, smallpox, and other bioterrorist weapons: hearing before the Committee on International Relations, House of Representatives, One Hundred Seventh Congress, first session, December 5, 2001* (pp. 5 – 7), Washington, USA: Government Printing Office, 2001, pp. 5 et seqq.

Khan ("Khan Network"), who is considered the "father of the Pakistani atomic bomb". After Khan had provided proliferation-related services for his home country Pakistan in the 1970s, a phase that can be described as a hybrid between the state procurement system described above and an independent system, his criminal enterprise became increasingly independent in the 1980s. Its clients included, among others[215], Iran, to which the network primarily provided design plans for gas centrifuges and instructions for uranium enrichment; North Korea, which purchased centrifuges, uranium hexafluoride, and components for uranium enrichment; and Libya[216], which agreed to purchase 10,000 centrifuges, 20 tons of uranium hexafluoride, and a complete nuclear weapons design. The Khan Network sourced its products from Pakistan's uranium enrichment program, its contacts in the European business sector and its own production facilities.[217]

(3) Finally, *exchange systems between two or more purchasers* exist. Those structures generally come in combination with one or both aforementioned procurement systems, as they require at least two parties with partially successful individual procurement efforts. As both states and independent criminal actors might have access to specific components for building a WMD but not to all relevant parts, certain components and knowledge might be exchanged between these actors as mutual support. In this respect, the cooperation between Iran and North Korea in the development of long-range ballistic missiles, which can be equipped with nuclear warheads, is known.[218] According to the UN, this cooperation has existed since the 1990s and was still active (at least) until 2020.[219]

2.2. Relevant trade documents

All three procurement systems have in common that at a certain point they have to interact with non-illicit actors, like manufacturers, non-criminal transport companies or government agencies. Even exchange systems between to criminal purchasers will at least have to

[215] In particular, contacts are said to have existed with Egypt, Iraq, the United Arab Emirates and Al-Qaeda, see Monika HEUPEL, *Das A.Q.-Khan-Netzwerk: Transnationale Proliferationsnetzwerke als Herausforderung für die internationale Nichtverbreitungspolitik*, Berlin, Germany: Stiftung Wissenschaft und Politik, 2008, p. 12.
[216] Gordon CORERA, *Shopping for Bombs: Nuclear Proliferation, Global Insecurity, and the Rise and Fall of the A.Q. Khan Network*, Oxford, Great Britain: Oxford University Press, 2006, pp. 59 et seqq. (Iran), pp. 106 et seqq. (DPRK), pp. 86 et seqq. (Libya).
[217] HEUPEL, op. cit., p. 10.
[218] Paul-Anton KRÜGER, *Nordkorea hilft Iran mit Atomprogramm: Gefährliche Hilfe aus Pjöngjang*, Süddeutsche online, August 24, 2011, https://www.sueddeutsche.de/politik/nordkorea-hilft-iran-mit-atomprogramm-gefaehrliche-hilfe-aus-pjoengjang-1.1134229; Jay SOLOMON, *Iran-North Korea Pact Draws Concerns*, The Wall Street Journal online, March 8, 2013, https://www.wsj.com/articles/SB10001424127887323628804578348640295282274.
[219] David WAINER, *Iran and North Korea Resumed Cooperation on Missiles, UN Says*, Bloomberg online, February 8, 2021, https://www.bloomberg.com/news/articles/2021-02-08/iran-and-north-korea-resumed-cooperation-on-missiles-un-says.

deceive customs and border controls during the transport of the goods between the destinations.

For this purpose, the use of specific trade documents is required, which can either provide valuable information about the underlying illegal transaction or show proof of falsification (in a potentially recognizable manner).[220] This relates in particular to the following documents:[221]

(1) *Commercial documents*, i. e. commercial invoices, pro forma invoices, consular invoices, packing lists, weight lists, certificates of origin, inspection certificates, and performance of test certificates.

(2) *Transport documents*, i. e. ocean bill of ladings, combined bill of ladings, CMR notes, air waybills (AWB), and forwarders certificates of receipt (FCR).

(3) *Insurance documents*, i. e. cover notes, open policies, insurance policies, and interest contingency insurances.

(4) *Financial documents*, i. e. corporate cheques, bills of exchange, and promissory notes.

2.3. Control of intermediaries in Germany

According to section 1 Foreign Trade Act *("Außenwirtschaftsgesetz" - "AWG")*, in Germany the commerce with foreign economic territories is free. However, in order to guarantee public safety and protect foreign policy interests this freedom can be limited by law via the establishment of statutory duties and prohibitions, i. e. the establishment of permit requirements or trade limitations for certain products. Due to the risk they pose to national and international security, such limitations exist for both the trade with military armament and dual-use goods. In Germany they are covered by three main pillars: The need of official permits for goods comprised in the Part 1 of the national "Export List" *("Ausfuhrliste")*, the control of goods listed in the European *Dual-Use Regulation*[222], and

[220] FATF, *Proliferation Financing Report*, op. cit., p. 6, para. 22, and pp. 69 et seq.
[221] The documents listed as well as their categorization was excerpted from the following reference guide to international trade finance: Anders GRATH, *The Handbook of International Trade and Finance– The complete guide for international sales, finance, shipping and administration* (4th ed.), Philadelphia, Pennsylvania, USA: Kogan Page, 2016, p. 69, table 2.2.
[222] Regulation (EU) 2021/821 of the European Parliament and of the Council of May 20, 2021, setting up a Union regime for the control of exports, brokering, technical assistance, transit and transfer of dual-use items (recast). Please note that with this regulation the previous Regulation (EC) 428/2009 has been repealed.

the existence of catch-all provisions centered on the intended use of specific commodities for weapons of mass destruction purposes.

Part 1 of the Export List lists armament and dual-use goods identified by Germany that require an official permit when exported. The Dual-Use Regulation determines shared processes and permit requirements for further dual-use goods in the European Union whilst unifying the products listed in different international treaties like the Wassenaar Arrangement, the Nuclear Suppliers' Group, the Australia Group and the CWC. Thus, the regulation comprises a variety of goods, covering nuclear material, biological and chemical agents, as well as related material, sensitive electronics and technology. It establishes the requirement of an authorization for the export or brokerage of both dual-use goods listed in the regulation's annex 1 and of dual-use goods not listed but identified as relevant by the national authorities. Competent authority for granting the corresponding permits in Germany is the BAFA.

Once the exporting company is declaring the export of the goods in the customs office, it must furnish proof that the mentioned authorizations have been granted and that it complies with further control measures. These measures consist of registers of the traded goods, detailing the products properties, quantity, the exporters address and, if possible, the end-use and end-user of the product, as well as other national measures to permit the relevant authorities to gather the necessary information and to ensure the effectiveness of their controls.

Although the Export List and the Dual-Use Regulation are the key norms for regulating WMD-relevant goods, more specific or even additional national regulations exist that must be taken into account. Thus, the exporter of war weapons needs permits in accordance with the requirements of the KrWaffKontrG and is obliged to maintain (as the manufacturer does) a war-weapons book. At customs control, the transporter has to show unsolicited his own permit and the one of the manufacturer.

Also, in the case of chemicals listed in the annexes of the CWC, the CWÜV establishes further requirements and limitations, which vary depending on the schedule, in which the specific chemical is listed. All chemical types have in common that the requestor has to provide an end-use statement in order to become the permit granted by the German authorities. These statements describe the relevant trade with respect to type, quantity, value

and intended end-use of the chemical. Furthermore, both the private end-user and its country's government must sign the statement, whilst declaring that the chemical will not be used for other purposes than the indicated, will not be re-exported and that the further usage will fully meet the demands of the CWC.

Additionally to this system of export controls centered on the mere commodity type, the German law knows catch-all norms centered on the intended use of the product in WMD-relevant contexts, e. g. section 9 Foreign Trade Ordinance *("Außenwirtschaftsverordnung" - "AWV").*[223] These norms serve to cover in the best possible way those goods that, because of the constantly evolving technology, have not been yet identified as potential dual-use items.

3. The ultimate purchasers

The final purchaser forms the end of the supply chain. The purchaser can be an interested state represented by one of its bodies, a terrorist organization or any other armed non-state group interested in acquiring WMD-capacities.

Although every state is theoretically a possible purchaser, the world community views some of them as especially critical. These states are generally referred to as *risk states.* A state is considered a risk state when it is to be feared that CBRN weapons are used from its territory in armed conflicts or when they are threatened to be used to achieve political objectives.[224] Obviously, such considerations can be biased and influenced by political interests outside direct security concerns. Especially after the unsuccessful attempts of the US Bush administration to detect weapons of mass destruction presumably controlled by Iraqi dictator Saddam Hussein, calls for serious questioning of similar allegations against other states.[225] However, some countries show *themselves* a current behavior that leaves little doubt that there is indeed a risk of WMD use by them.

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[223] Section 9 para. 1 AWV: "The export of goods which are not cited in the Export List or Annex I of Council Regulation (EC) No. 428/2009 of May 5, 2009, setting up a Community regime for the control of exports, transfers brokering and transit of dual-use items […] shall be subject to a license if the exporter has been informed by the Federal Office of Economics and Export Control (BAFA) that 1. These goods are or can be wholly or partly destined for the construction or the operation of a facility for nuclear purposes […]. Section 9 para. 2 AWV: If the exporter is aware that goods which he would like to export and which are not cited in the Export List or in Annex I of Regulation (EC) No. 428/2009 are destined for a purpose cited in subsection 1 […] he must inform the Federal Office of Economics and Export Control (BAFA) of this. The latter shall decide whether the export is subject to a license. […]"

[224] BUNDESAMT FÜR VERFASSUNGSSCHUTZ, *Proliferation*, op. cit., p. 2.

[225] For a fact-based account of the role of politics and intelligence in this context, see Glenn KESSLER, *The Iraq War and WMDs: An intelligence failure or White House spin?*, The Washington Post, March 22, 2019, https://www.washingtonpost.com/politics/2019/03/22/iraq-war-wmds-an-intelligence-failure-or-white-house-spin/.

3.1. The most notorious risk states

Particularly the Islamic Republic of Iran, the Democratic People's Republic of Korea (DPRK), the Syrian Arab Republic and the Islamic Republic of Pakistan show current behaviors that deem them especially notorious risk states.

a) The Islamic Republic of Iran

The Islamic Republic of Iran launched its nuclear program in the 1950s as a consequence of the US American "Atoms for Peace" program and signed the NPT as non-nuclear weapon state in 1968, before ratifying it in 1970. Although being subject to IAEA safeguards and controls, Iran did not indicate the construction of an enrichment plant in Natanz and a nuclear reactor in Arak in the late 1990s. Permitting controls in both facilities after their involuntary exposure in 2002, Iran again secretly commenced with the construction of another uranium enrichment plant in Fordow.[226] This consistent secrecy surrounding its nuclear program and the inability to explain certain nuclear technology related activities to the IAEA, was therefore referred by it to the UN Security Council.[227]

The Security Council reacted to the risk posed by Iran with five resolutions between 2006 and 2010.[228] Those resolutions created a ban on the supply of nuclear related goods, increasingly freezing assets of individuals and companies relevant for the nuclear program and imposed a general embargo on arms. Furthermore, it recommended states party to apply enhanced scrutiny when inspecting cargo related with Iran.[229] Besides implementing the UN provisions, the EU and the US accompanied these measures with additional economic sanctions. In 2013, those restrictions were limited in an agreement between Iran and the permanent members of the Security Council plus Germany, the so-called "P-5+1", in return to freeze certain critical elements of its nuclear program. Ongoing negotiations let to the *2015 Joint Comprehensive Plan of Action (JCPO)*, which stated that sanctions will be mitigated as soon as the IAEA confirms central steps by Iran to dismantle its nuclear

[226] SPECTOR op. cit., p. 18.
[227] See, in particular, UN Security Council, Statement by the President of the Security Council, S/PRST/2006/15, March 29, 2006: "[…] The Security Council notes with serious concern the many IAEA reports and resolutions related to Iran's nuclear program, reported to it by the IAEA Director General, including the February IAEA Bord Resolution (GOV/2006/14). The Security Council also notes with serious concern that the Director General's report of February 27, 2006 lists a number of outstanding issues and concerns, including topics which could have a military nuclear dimension, and that the IAEA is unable to conclude that there are no undeclared nuclear materials or activities in Iran. […]".
[228] UN Security Council Resolutions: S/Res/1696, July 31, 2006; S/Res/1737, December 27, 2006; S/Res/1747, March 24, 2007; S/Res/1803, March 3rd, 2008; S/Res/1929, June 9, 2010.
[229] For a more detailed resume of the different resolutions, see SPECTOR & MURAUSKAITE, *Countering Nuclear Commodity Smuggling*, op. cit., pp. 44 et seqq.

program.[230] On January 16, 2016, the IAEA confirmed those steps on the so-called *Implementation Day*, thus leading to immediate repeal of EU and US sanctions, including the lifting of trade limitations on precious metals, diamonds, currency exchange, and key technologies for the oil industry.[231] However, on May 8, 2018, the US Trump administration declared, under massive critique by the international community, to withdraw from the JCPO, thus re-implementing US sanctions on Iran and generating a situation of uncertainty on how this might influence the previously positive development of Iran's nuclear program in the future.[232]

b) The Democratic People's Republic of Korea

The Democratic People's Republic of Korea ("North Korea" or "DPRK") ratified the NPT as non-nuclear weapon state in 1985 but withdrew from it in 2003, stating that aggressive US politics forced it to.[233] However, different secret services already detected first signs of a clandestine uranium enrichment program in 2002.[234] The DPRK counts with the only active nuclear test site in the world in Punggye-ri, where nuclear devices were tested in 2006, 2009, 2013 and twice in 2016.[235] One of the latter claimed by North Korean leadership as successful H-Bomb test, although this seems unlikely.[236] Albeit not at the technological level officially declared by its leadership, world's security community has no doubts that North Korea is in possession of nuclear weapons.[237] Furthermore, since 2017 the DPRK is capable of building intercontinental ballistic missiles with a range of at least 3,800 km, which could be armed with a nuclear warhead. The DPRK also possesses missiles with a range of up to 13,000 km, i. e. the "Hwasong-15", for which the capability to carry heavy nuclear warheads remains unclear, potentially posing a WMD threat for targets on European and US-American soil. Besides the nuclear threat, an armament of these missiles with chemical and biological

[230] See UNSC resolution S/RES/2231 (2015).
[231] US DEPARTMENT OF THE TREASURY, *Guidance Relating to the lifting of certain U.S. Sanctions pursuant to the joint comprehensive Plan of Action on Implementation Day*, January 16, 2016, available at: https://home.treasury.gov/system/files/126/implement_guide_jcpoa.pdf.
[232] Mark LANDLER, *Trump Abandons Iran Nuclear Deal He Long Scorned*, The New York Times, May 8, 2018, https://www.nytimes.com/2018/05/08/world/middleeast/trump-iran-nuclear-deal.html.
[233] Editorial office of SPIEGEL ONLINE, *Atomstreit: Nordkorea kündigt Sperrvertrag*, Spiegel Online, January 10, 2003, https://www.spiegel.de/politik/ausland/atomstreit-nordkorea-kuendigt-sperrvertrag-a-230022.html.
[234] SPECTOR, op. cit., p. 11, fn. 21.
[235] Melissa HANHAM, Catherine DILL, Jeffrey LEWIS, Bo KIM, Dave SCHMERLER, & Joseph RODGERS, *CNS Occasional Paper No. 28: Geo4nonpro.org: A Geospatial Crowdsourcing Platform for WMD Verification*, Monterey, California, USA: Monterey Institute of International Studies/CNS Publications, 2017, p. 19.
[236] Ian SAMPLE, *Nuclear Weapons: Did North Korea just test a hydrogen bomb?*, The Guardian, September 3rd, 2017.
[237] IISS, *The Military Balance 2017 – The Annual Assessment of Global Military Capabilities and Defense Economics*, New York, USA: Europa Publications/Routledge, 2017, p. 303.

agents is also thinkable, as intelligence circles affirm corresponding efforts by the North Korean leadership.[238]

Since 2006 the United Nations Security Council applied several resolutions as reaction to the developments in the DPRK.[239] Although these resolutions are similar to those applied on Iran, they are structurally not identical, and comprise of additional embargoes on nuclear related material and luxury goods, intended to penalize the North Korean political and military elites behind the nuclear program.[240]

c) The Syrian Arab Republic

The Syrian Arab Republic is a non-nuclear weapon state party to the NPT since 1963. Nevertheless, potential ambitions of the Syrian government to build a nuclear weapon became public knowledge in September 2007, when the Israeli Air Force bombed a facility in Syrian Dair al-Zour presumed to be a secret nuclear reactor.[241] Despite the time passed since the bombings and a prior clean up conducted on the side by Syrian government in 2011, an IAEA investigation confirmed with high probability that the facility has been a nuclear reactor.[242] After this event, rumors of intelligence on the construction of a further secret nuclear reactor in Kusair, codenamed "Zamzam", circulated in the press, although questioned by international experts.[243] With regard to biological weapons, the Syrian program officially rests since the 1980s. However, US deputy director for intelligence James

[238] Porter J. GOSS (then Director of US Central Intelligence Agency), Current and Projected National Security Threats to the United States: Wednesday, February 16, 2005, in United States Senate 109th Congress, Current and Projected National Security Threats to the United States, Washington, USA: U.S. Government Printing Office, 2005, p. 11: "We believe North Korea has active CW and BW programs and probably has chemical and possibly biological weapons ready for use."; John R. BOLTON, *Beyond the Axis of Evil: Additional threats from Weapons of Mass Destruction, Remarks to the Heritage Foundation*, Heritage Lecturers, no. 743, May 6, 2002, p. 3: "[…] the leadership in Pyongyang has spent large sums of money to acquire the resources, including a biotechnology infrastructure, capable of producing infectious agents, toxins, and other crude biological weapons. It likely has the capability to produce sufficient quantities of biological agents for military purposes within weeks of deciding to do so and has a variety of means at its disposal for delivering these deadly weapons."

[239] UN Security Council Resolutions: S/Res/1718, October 14, 2006; S/Res/1874, June 12, 2009; S/Res/2087, January 22, 2013; S/Res/2094, March 7, 2013.

[240] See for a more detailed description, see SPECTOR & MURAUSKAITE, op. cit., pp. 46 et seqq.

[241] Indications, however, have existed prior to this event. See, for example, John R. BOLTON, *To Stop Iran's Bomb, Bomb Iran*, The New York Times, March 26, 2015.

[242] IAEA, *Implementation of the NPT Safeguards Agreement in the Syrian Arab Republic - Report by the Director General*, GOV/2011/30, Vienna, Austria: IAEA, May 24, 2011: "[…] 2. […] the Dair Alzour site in Syria, destroyed by Israel in September 2007, had been a nuclear reactor that was not yet operational […] the reactor was a gas cooled graphite moderated reactor, that it was not configured to produce electricity, that it had been built with the assistance of the Democratic People's Republic of Korea (DPRK) […] 5. Environmental samples taken during the visit to the Dal Alzour site in June 2008 contained particles of anthropogenic natural uranium, graphite and stainless steel. […] 24. […] the Agency concludes that the destroyed building was very likely a nuclear reactor and should have been declared by Syria […]".

[243] Erich FOLLATH, *Assads Geheimnis*, Der Spiegel, January 10, 2015.

Clapper expressed his concern about the potential ability of the Assad Regime to build such weapons.[244]

The possession of chemical weapons, on the other hand, was officially acknowledged by the Syrian government on July 23, 2012, thus before the state's accession to the CWC on September 14, 2013.[245] In 2014, all chemical weapons and facilities declared by Syria, including 581 metric tons of a precursor chemical for sarin gas, were confiscated, neutralized and destroyed by a joint UN and OPCW mission.[246] However, chemical weapons attacks on both civil war combatants and the non-armed population persisted during and after this mission. Those attacks included the usage of Sarin, VX, chlorine gas and mustard gas, which were attributed by the OPCW to the Syrian government and implicated a prior incomplete disclosure of its stocks.[247] Although the usage of WMD by the Syrian leadership seems indisputable, the UNSC has not adopted resolutions comparable to those against the DPRK and Iran for Syria. Nevertheless, wide-ranging sanctions against Syria have been installed on regional and national level, i. e. by the EU and the United States.

d) The Islamic Republic of Pakistan

The Islamic Republic of Pakistan never signed the NPT and supposedly possesses over 80 nuclear weapons. Already before the denial of India to join the NPT in 1968, Pakistan was convinced about Indian efforts to obtain a nuclear weapon capacity. Pakistani President Zulfikar Ali Bhutto stated in 1965 that the answer to this threat would be to obtain an own nuclear weapon for Pakistan, also this would mean that the population would be obligated to "eat grass" to be financially able to acquire it.[248] India's first nuclear test in 1974 shocked Pakistan and enhanced its efforts to obtain the relevant technology as quickly as possible. Efforts that led to the probably first systematic illicit procurement system for nuclear weapon relevant goods applied by a state.[249]

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[244] James R. CLAPPER, *Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community, written statement for the record*, April 18, 2013, Washington, USA: Senate Committee on Armed Forces, p. 8.
[245] Marc FINAUD, *Syria's Chemical Weapons: Force of Law or Law of Force*, GCSP Policy Paper 2012/10, p. 1.
[246] United Nations, Depositary Notification regarding the Accession of the Syrian Arab Republic to the Convention on the Prevention of the Development, Production, Stockpiling and Use of Chemical Weapons and their Destruction, September 14, 2013, Reference: C.N.592.2013.TREATIES-XXVI.3.
[247] OPCW Executive Council, *Report by the Director-General: Progress in the Implementation of Decision C-SS-4/DEC.3 on Addressing the Threat from Chemical Weapons Use*, EC-97/DG.13, June 22, 2021, para. 8.
[248] Patrick KEATLEY, *The Brown Bomb*, Manchester Guardian, March 11, 1965, p. 10.
[249] ANDERSON, op. cit., p.5.

In 1991 Pakistan officially declared to have reached the nuclear weapon status.[250] In the following decades, several nuclear tests were performed and the nation maintained its will to increase its capacities of producing uranium and plutonium based nuclear weapons. A recent example includes the construction of a fourth reactor to produce weapon grade plutonium in Khushab in 2014.[251] In the ongoing Kashmir conflict, the possibility of a nuclear strike remains a realistic threat. In 2016, Pakistani Defense Minister Khawaja Asif threatened the use of nuclear weapons against India, stating that Pakistan has "[…] not made an atomic device to display it in a showcase".[252] Tensions were additionally increased by Pakistan's first ever test of a nuclear warhead suitable cruise missile launched from a submarine in January 2017, which India perceived as a clear provocation.[253]

3.2. Terrorist organizations and other non-state actors

Besides illicit state-owned programs, states can also be critical places of destination, when they domicile well-organized terrorist organizations or militias, which might even control parts of their territory.[254] Such groups may aim at enhancing their strike capabilities by obtaining WMD on all levels of technical sophistication. Many of these groups operate transnationally and within larger networks. In 2015, the *Islamic State (IS)* for example effectively controlled a territory, which crossed the Syrian-Iraqi border. Today, the organization has a presence in most countries in the greater Sahel region. *Al-Qaeda* counted and still counts with an international network of several regional organizations. When targeting terrorist organizations or other non-state actors, the transportation of relevant goods between different territories yet within the purchaser's organization is therefore an aspect that should additionally be taken into account when considering the proliferation chain.

The will and efforts of terrorist organizations to obtain WMD is no theoretical issue but a reported fact. Already in the 1993, car-bombing attacks in the parking garage of the World Trade Center, Al-Qaeda utilized cyanide gas that should additionally harm the victims, but

[250] George GRAHAM, *US Wary on Nuclear Claim by Pakistan*, London Financial Times, October 23, 1991, p. 4.
[251] SPECTOR & MURAUSKAITE, op. cit., p. 22.
[252] Pakistani Defence Minister Khawaja Asif on Pakistani TV channel "Samaa" on September 26, 2016, as cited in Sarah DEAN, '*We have not made an atomic device to display in a showcase': Pakistan threatens to destroy India with a nuclear bomb as Kashmir crisis edges closer to the brink*, Dailymail, September 30, 2016: "We will destroy India if it dares to impose war on us. Pakistan army is fully prepared to answer any misadventure of India […] We have not made an atomic device to display in a showcase. If a such a situation arises we will use it and eliminate India.".
[253] BORRIE, CAUGHLEY, & WAN, *Understanding Nuclear Weapon Risks*, op. cit., p. 21.
[254] The definition of what terrorism is can be problematic; see Héctor OLÁSOLO ALONSO & Ana Isabel PÉREZ CEPEDA, *Terrorismo internacional y conflicto armado*, Valencia, Spain: Tirant lo Blanch, 2008; Gonzalo QUINTERO OLIVARES, *Definiendo el terrorismo: normatividad y materialidad*, in Miguel Revenga Sanchez (Ed.), *Terrorismo y derecho bajo la estela del 11 de septiembre*, Valencia, Spain: Tirant lo Blanch, 2014.

that would not yield major effect as the gas was incinerated by the explosion itself.[255] During the same period, Al-Qaeda reportedly made efforts to acquire uranium as well as relevant knowledge in order to build a radiological or nuclear weapon.[256] In 1998, then Al-Qaeda leader Osama bin Laden publicly declared the acquisition and use of WMD as his Islamic duty and integral part of his *jihad*,[257] and tried to acquire nuclear weapons components in the following years *inter alia* trough the Khan network and from the Russian mafia in 2001.[258] Furthermore, findings obtained from interrogations of Al-Qaeda senior operatives as well as thwarted attacks, including several disrupted ricin and cyanide attacks, revealed the existence of a broader nuclear, biological and chemical program ran by Al-Qaeda. [259]

Regarding the later founded Islamic State in Iraq and the Levant (ISIL), less information on efforts of obtaining and using WMD exist. This may be due to less corresponding effort or because relevant information is still of strategic interest, thus being under disclosure by the respective security authorities. However, indications of ISIL's will to obtain and use nuclear, radiological and biological armament exist, as e. g. an Islamic States operative's laptop recovered during a raid in Idlib with instructions on how to build and use biological weapons shows.[260] Solely effective chemical weapons attacks in the form of mustard gas with relation

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[255] COOK, *Terrorist Organizations and Weapons of Mass Destruction*, op. cit., p. 32.

[256] United States District Court Southern District of New York, United States of America v. Usama bin Laden, Muhammed Atef, a.o.; Indictment S(9) 98 Cr. 1023 (LBS), Overt Acts, 12.z.; Charles P. BLAIR, *Jihadists and Nuclear Weapons*, in Gary Ackerman & Jeremy Tamsett (Eds.), *Jihadists and Weapons of Mass Destruction* (pp. 193 - 240), Boca Raton, Florida, USA: Taylor & Francis Group, 2009, pp. 213 et seq.

[257] Interview with Osama BIN LADEN, *Osama bin Laden: Conversation with Terror*, Time Magazin, January 11, 1999: "Acquiring such weapons for the defense of the Muslims is a religious duty."; as an example for similar voices within Al-Qaeda, see Suleiman Abu GHAYT (Al-Qaeda spokesman), *In the Shadow of Lances*, Centre for Islamic Studies and Research website, June 2002: "We have the right to kill 4 million Americans, 2 million of them children […] and cripple them in the hundreds of thousands. Furthermore, it is our obligation to fight them with chemical and biological weapons, to afflict them with the fatal woes that have afflicted Muslims because of their chemical and biological weapons.", cited translation in Magnus RANSTORP & Magnus NORMARK, *Unconventional Weapons and International Terrorism – Challenges and new approaches*, New York, USA: Routledge, 2009, p. 34; see, for further Jihadist statements and discussion on WMD, the list compiled by Erin McNERRY, *Selected Jihadist Statements and Discussion on WMD*, in Gary Ackerman & Jeremy Tamsett, *Jihadists and Weapons of Mass Destruction* (pp. 449 – 473), Boca Raton, Florida, USA: Taylor & Francis Group, 2009.

[258] Rolf MOWATT-LARSSEN, *Al Qaeda's Pursuit of Weapons of Mass Destruction*, Foreign Policy, January 25, 2015; for further examples of relevant press commentaries on Al-Qaeda purchasing WMD or WMD-relevant material, see Brian Michael JENKINS, *Will Terrorists Go Nuclear?* Amherst, New York, USA: Prometheus Books, 2008, pp. 258 – 276.

[259] See the chronological list of Al Qaeda's CBRN activities compiled by Erin McNERREY & Matthew RHODES, *Al-Qa`ida's CBRN Activities*, in Gary Ackerman & Jeremy Tamsett, *Jihadists and Weapons of Mass Destruction* (pp. 421 - 448), Boca Raton, Florida, USA: Taylor & Francis Group, 2009; KELLMAN, *Bioviolence*, op. cit., pp. 77 et seqq.; John STEELE & Sandra LAVILLE, *Six Arrested in Poison Terror Alert*, Daily Telegraph, January 8, 2003; Warren HOGE, *British Officer Slain, 4 Hurt as Terror Suspects are Seized*, New York Times, January 15, 2003.

[260] Stephen HUMMELS, *The Islamic State and WMD: Assessing the Future Threat*, CTC Sentinel 2016, volume 9, issue 1, pp. 18 – 21 (18 et seqq.); Harold DOORNBOS & Jenan MOOSA, *Found: The Islamic State's Terror Laptop of Doom*, Foreign Policy, August 28, 2014; see, on the possibility of the use of weapons of mass destruction for terrorist purposes, Rafael PÉREZ MELLADO, *La amenaza biológica, actores no estatales y biocustodia*, in Instituto Español de Estudios Estratégicos, *Actores no estatales y proliferación de Armas de Destrucción Masiva La Resolución 1540: una aportación española*, Madrid, Spain: Ministerio de Defensa, 2016, pp. 49 et seqq.

to ISIL are officially reported, including both attacks against military forces and civil population in Syria and Iraq.[261]

Although not only well organized and financially strong organizations like Al-Qaeda or ISIL may try to obtain and use WMD, as e. g. the 1995 Sarin attacks in the Tokyo subway by dooms-day-cult *Ōmu Shinrikyō* showed, only these kind of groups can develop the capabilities necessary for large scale attacks of international concern.[262] Thus, the UN Security Council reacted to the threat posed by the major terrorist organizations by adopting several resolutions, comparable to the above-mentioned against states, targeting groups and its most relevant members. While the resolutions on Iran and the DPRK are targeted responses of the risk posed by WMD, the purpose of the resolutions on terrorist groups is more general and covers all kinds of terrorist threats. The Security Council is aware of chemical, biological, radiation, or nuclear weapons-based terrorist attacks as part of this general threat, explicitly including them in the recitals as a substantial reason for adopting the relevant resolutions.[263]

The relevant resolutions establishing the so-called "smart sanctions" against non-state actors like ISIL, Al-Qaeda and the Taliban, refer to lists in which members of these groups are specifically named and thus made the target of the restrictive measures imposed.[264] The listings always follow the same structure, indicating the person's name and surname, date and place of birth, known aliases, nationality, other personal data, a short information on the individual's criminal background, as well as a reference to INTERPOL's more detailed special notice, e. g.:

> "**QDi.124 Name:** 1: YAZID 2: SUFAAT 3: na 4: na
> **Title:** na **Designation:** na **DOB:** 20 Jan. 1964 **POB:** Johor, Malaysia **Good quality a.k.a.:** na **Low quality a.k.a.:** a) Joe b) Abu Zufar **Nationality:** Malaysia **Passport no:** A 10472263 **National identification no:** 640120-01-5529 **Address:** a) Taman Bukit Ampang, State of Selangor, Malaysia (previous address) b) Malaysia (in prison since 2013) **Listed on:** 9 Sep. 2003 (amended on 3 May

[261] Eric SCHMITT, *ISIS Used Chemical Arms at Least 52 Times in Syria and Iraq, Report Says*, The New York Times, November 21, 2016; COOK, op. cit., p. 33.
[262] For an overview of other non-state actors that acquired or used CBRN, e. g. Amerithrax, Basque Fatherland and Freedom (ETA), Hamas, Hezbollah, Liberation Tigers of Tamil Eelam, Real Irish Republican Army, FARC and the Taliban, see COOK, op. cit., pp. 44 et seqq.
[263] See, for example, UN Security Council Resolution, S/RES/1617 (2005), recital 11: "The Security Council […] Expressing its concern over the possible use by Al-Qaida, Usama bin Laden, or the Taliban, and their associates of Man-Portable Air Defense Systems (MANPADS), commercially available explosives and chemical, biological, radiation, or nuclear weapons and material, and encouraging Member States to consider possible action to reduce these threats […]".
[264] See, for example, Resolutions 1267 (1999), 1333 (2000), 1373 (2001), 1390 (2002), 1562 (2004), 1989 (2011), 1267 (1999), 1526 (2004), 1988 (2011) and its successor resolutions.

2004, 1 Feb. 2008, 10 Aug. 2009, 25 Jan. 2010, 16 May 2011, 11 Oct. 2016, 22 Sep. 2017) **Other information:** Founding member of Jemaah Islamiyah (JI) (QDe.092) who worked on Al-Qaida's (QDe.004) biological weapons program, provided support to those involved in Al-Qaida's 11 Sep. 2001 attacks in the United States of America, and was involved in JI bombing operations. Detained in Malaysia from 2001 to 2008. Arrested in Malaysia in 2013 and sentenced to 7 years in Jan. 2016 for failing to report information relating to terrorist acts. Due for release in Feb. 2020. Review pursuant to Security Council resolution 1989 (2011) was concluded on 6 Mar. 2014. Photos included in INTERPOL-UN Security Council Special Notice […]"[265]

3.3. The targeting of relevant persons through embargoes and sanctions

In addition to the restrictions in commerce, which are merely linked to the nature of the product itself, i. e. whether the product is a war weapon or dual-use good,[266] further restrictions are imposed on the intended end user. These purchaser-centered restrictive measures, called *"sanctions"* or *"embargoes"*, exist for both listed states and specific persons. In Europe, there are embargoes for most of the above-mentioned states and non-state actors. Embargoes generally exist in three different degrees: As weapon embargoes, partial embargoes, or total embargoes.[267]

Weapon embargoes prohibit the export of armament to the relevant country or the relevant non-state actor. Partial embargoes comprise embargoes on different products and services, generally including embargoes on arms too. Total embargoes, prohibit every type of economic interaction with the other party. Currently, the EU or its member states have implemented no total embargo on third countries, but extensive partial embargoes including export prohibitions on financial services, luxury goods and software exist, i. a. for Syria and the DPRK.[268]

In Germany, weapons embargoes are mainly regulated under sections 74 et seq. of the "Foreign Trade and Payments Regulation" (*Außenwirtschaftsverordnung - AWV*) in conjunction with Part I Section A of the Export List, which comprises amongst others all war weapons listed in the War Weapons List. The sections states that

[265] UNSC, The List established and maintained pursuant to Security Council res. 1267/1989/2253, Res. 1267/1989/2253 List, as generated on October 5, 2018.
[266] Other product-centered restrictions exist for example for torture instruments, rough diamonds, and fruits and vegetables.
[267] The characteristics of these different types of embargoes are described in detail in Part Three, Chapter 1, of this thesis. The following overview-like explanations are therefore only intended to help the reader to appreciate this condition of the criminal actors' activities as part of the reality of the proliferation financing phenomenon as a whole.
[268] These and other relevant sanctions and embargoes are discussed in detail in Part Three of this thesis.

"1) The sale, export and transit of goods cited in Part I Section A of the Export List from Germany or via Germany or their shipment using a ship bearing the Federal flag, or an aircraft bearing the national insignia of the Federal Republic of Germany to the following countries shall be prohibited: […] 5. Democratic People's Republic of Korea, […] 8. Iran, […] 16. Syria, […].

2) The sale, export and transit of goods covered by Part I Section A of the Export List […] shall be prohibited to natural or legal persons, groups, organizations or establishments which are cited [in different mentioned EU regulations on fighting terrorism, the Islamic State and Al-Qaida]."[269]

This provision is - as it is the case for analogous weapon-embargo provisions of other EU-member states - supplemented by several European partial embargo regulations. Those regulations are directly applicable on all EU member states. In the case of Iran, the Iran Embargo Regulation[270] prohibits selling weapons and dual-use goods listed in the annexes I and II of the regulation. The provision of technical, intermediary and financial services related to these products are equally forbidden. Comparable EU embargo regulations, also prohibiting the commerce with weapons and related services, exist for the DPRK[271] and Syria[272]. However, the Syrian embargoes are not ultimately based on an UNSC resolution but exclusively on a Common Foreign and Security Policy of the European Union.[273]

For Pakistan, neither national nor EU embargoes are implemented. Considering the nations aggressive threats within the Kashmir Conflict and the consideration of this state, as risk state by different national security agencies, the lack of a similar international response might at least surprise, thus explaining corresponding discussions in some national parliaments.[274] Even with the lack of an actual embargo, German law implemented a country-specific additional control on Pakistan: According to section 9 para. 1 AWV, the export of goods not cited in the EU Dual-Use-Regulation

[269] Namely Council Regulation (EC) No 2580/2001 of December 27, 2001, on specific measures directed against certain persons and entities with a view to combating terrorism"; Council Regulation (EC) No 881/2002 of May 27, 2002, imposing certain specific restrictive measures directed against certain persons and entities associated with the ISIL (Da'esh) and Al-Qaida organizations as amended from time to time; and the annex to Council Decision (CSFP) 2016/1693 of September 20, 2016, concerning restrictive measures against ISIL (Da'esh) and Al-Qaeda and persons, groups, undertakings and entities associated with them and repealing Common Position 2002/402/CFSP as amended from time to time.
[270] Regulation (EU) 267/2012, as last amended by Council Implementing Regulation (EU) 2017/1124.
[271] Regulation (EU) 2017/1509, as last amended by Council Implementing Regulation (EU) 2018/324.
[272] Regulation (EU) no. 36/2012, as last amended by Council Implementing Regulation (EU) 2018/282.
[273] Council of the European Union, Council Decision 2011/273/CFSP of May 9, 2011, concerning restrictive measures against Syria, 10.5.2011; repealed by Council Decision 2011/782/CFSO of December 1st, 2011, concerning restrictive measures against Syria and repealing Decision 2011/273/CFSP.
[274] E. g. in the UK: Richard NORTON-TAYLOR, Ewen MACASKILL, Rory McCARTHY, & Luke HARDING, *No arms embargo on India and Pakistan*, The Guardian, May 29, 2002.

"[…] shall be subject to a license if the exporter has been informed by the Federal Office of Economics and Export Control (BAFA) that

1. These goods are or can be wholly or partly destined for the construction or the operation of a facility for nuclear purposes within the meaning of Category 0 of Annex I of Regulation (EC) No. 428/2009 or for installation in such a facility and
2. The country of destination is Algeria, Iraq, Iran, Israel, Jordan, Libya, the Democratic People's Republic of Korea, Pakistan or Syria. […]"

In the case of Spain, the obligation to comply with international embargoes is regulated – on the one hand - in article 8. para. 1 d) of Law 53/2007, of December 28, on the control of foreign trade in defense and dual-use material, which provides that: "1. Requests for authorization shall be denied and the authorizations, referred to in Article 4, suspended or revoked, in the following cases: (...) d) When the limitations deriving from international law are contravened, such as the need to respect embargoes imposed by the United Nations and the European Union, among others". On the other hand, in article 7 d) of Royal Decree 679/2014, of August 1st, approving the Regulation on the control of foreign trade in defense material, other material and dual-use products and technologies.

In accordance with article 2 para. 2 c), no. 1 of Organic Law 12/1995, of December 12, 1995, on the Repression of Smuggling, the import, export, introduction, dispatch or any other operation of "defense material, other material or dual-use products and technologies without the authorization referred to in Chapter II of Law 53/2007, or having obtained it either by applying for it with false data or documents in relation to the nature or final destination of such products or in any other unlawful manner" shall constitute the crime of smuggling. The penalty foreseen for such cases is contained in article 3, which for natural persons provides for a basic penalty for these offenses of three to five years imprisonment and a fine of three to six times, with a qualified penalty (five years and one day to seven years and six months imprisonment and a fine of six to nine times) for cases in which "the offense is committed by means of or for the benefit of persons, entities or organizations whose nature or activity is of a nature or nature of activity of a person, entity or organization", entities or organizations from whose nature or activity could derive a special facility for the commission of the same", and for legal persons the fines and deprivation of rights provided for in part. 3 of the same article.

This does not prevent the application of the crime of arms trafficking provided for in art. 566 PC, or in art. 574 for cases of terrorism, when applicable. Thus, articles 3 of LO 12/1995 for

the repression of smuggling, 566 CP, and 574 CP are the reference norms for article 10 of Law 53/2007, of December 28, on the control of foreign trade of defense and dual-use material, according to which: "The infractions to the present Law that constitute a crime, misdemeanor or administrative infraction shall be governed, as the case may be, by the provisions of both the Criminal Code and the special legislation for the repression of smuggling".

Embargoes against individuals, organizations or entities identified by the relevant UN resolutions against terrorism are implemented as directly applicable law by EU regulations. They comprise a regulation specifically centered on persons, groups and corporations linked to Al-Qaeda or ISIL, a regulation centered on the special situation in Afghanistan, mainly listing Taliban members, and another regulation establishing embargoes on all further suspected terrorists or terrorist groups of concern.[275] Those regulations are amended constantly in order to adapt them and their respective lists of individuals to latest developments and insights of the competent security authorities. Thus, issues concerning WMD proliferation, representing the most relevant regulation on ISIL and Al-Qaeda, Regulation (EC) No. 881/2002, was amended more than 320 times since its adoption in 2002.[276] All of them are similar in their intended effects, as they primarily focus on freezing financial assets as well as prohibit any form of provision of funds or other economic resources. These "economic resources" include a trade prohibition on almost every thinkable trade good, thus nearly establishing a total embargo for the individuals and entities listed in the mentioned regulations against terrorism.[277] Despite these *de facto* total embargoes, additional targeted sanction regulations may exist for transactions concerning particularly critical goods such as weapons or dual-use goods. Violations of these embargoes are usually subject to stricter sanctions.[278]

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[275] The topic of embargoes targeting individuals and terrorist groups is addressed in detail in Part Three, Chapter 1, 3. and Part Three, Chapter 4, 3., of this thesis.

[276] See Commission Implementing Regulation (EU) 2021/1016 of June 21, 2021, amending for the 321st time Council Regulation (EC) No 881/2002 imposing certain specific restrictive measures directed against certain persons and entities associated with the ISIL (Da'esh) and Al-Qaeda organizations. Changes from 2002 until now included a modification of the regulation's title from "Council Regulation (EG) No 881/2002 of May 27, 2002, imposing certain specific restrictive measures directed against certain persons and entities associated with Usama bin Laden, the Al-Qaida network and the Taliban, and repealing Council Regulation (EC) No 467/2001 prohibiting the export of certain goods and services to Afghanistan strengthening the flight ban and expanding the freeze of funds and other financial resources in respect of the Taliban of Afghanistan." to its current title "Council Regulation (EC) No 881/2002 of May 27, 2002, imposing certain specific restrictive measures directed against certain persons and entities associated with the ISIL (Da'esh) and Al-Qaeda organizations".

[277] BAFA, *Merkblatt Länderunabhängige Embargomaßnahmen zur Terrorismusbekämpfung,* Eschborn, Germany: Bundesamt für Wirtschaft und Ausfuhrkontrolle, August 28, 2009, p. 5.

[278] E. g. section 74 para. 2 AWG.

Chapter 3: Understanding weapons of mass destruction proliferation financing

The proliferation chain described in the previous chapter, with its producers, transporters, intermediaries and final buyers, is dependent on the performance of parallel services by the financial industry. For instance, the payment from the black accounts of the interested state or the interested criminal organization must ultimately find its way to the account of the manufacturer or initial seller.

However, direct transfers from the end user to the producer are not to be expected. Instead, the payment is rather oriented towards the trade chain and passed on by the respective intermediary companies to avoid leading the concealment effect of the proliferation chain *ad absurdum*.

Thus, the provision of the participants with their respective sums of money usually goes hand in hand with the execution of a number of (regularly cross-border) individual transactions, effectuated from each account to the respective subsequent account. Since the *bona fide* actors in the proliferation chain are likely to expect a regular bank transfer, cash transactions and transactions with other means of payment (i. e. cryptocurrencies) are practically inapplicable for large parts of the proliferation chain.[279] Even those parts of the proliferation chain operating in the shadows are likely to frequently prefer misusing regular banking services than recurring to other transaction methods that involve significant logistical obstacles, such as transporting large amounts of cash.

These transactions are not only sent or received by the account-holding financial institutions, but often also forwarded by other institutions, so-called "correspondent banks", which usually do not have in-depth knowledge of the parties to the transaction. All of these being traditional banking services, which will be discussed below (see "1. Proliferation financing through traditional banking services").

Cross-border trade is also being confronted with special challenges that require tailor-made banking services, with a particular focus on reducing the financial risks of the parties involved. Even if the criminal end users themselves might be less concerned with these forms

[279] FATF, *Proliferation Financing Report*, op. cit., p. 8, paras. 35 et seq.

of financial risk mitigation, trade finance services are of considerable importance in the context of proliferation financing. This is already the case as possible *bona fide* counterparties usually use and expect such financial products so that any deviating behavior might appear suspicious to them (see "2. Proliferation financing through trade finance services").

Several other banking services and financial products play a role, which are used to disguise the origin of the funds themselves and are therefore *not directly* linked to the trading transactions. This is particularly relevant in the context of the initial integration of the funds into the proliferation chain, as well as in the context of WMD transactions with criminal counterparts on both sides (see "3. Proliferation financing through the layering of funds").

The provision of all these traditional and special banking services can constitute acts of proliferation financing. The classification as an *act* of proliferation financing, however, must be considered separately from *mens rea* elements such as knowledge, intention, and negligence of the bank employees involved.[280]

This thesis is therefore in line with the FATF's official definition of proliferation financing, which covers the above-mentioned banking services and excludes *mens rea* from the phenomenological consideration.[281] Unlike the FATF, however, the understanding of proliferation financing should not be limited merely to proliferation acts relating to "nuclear, chemical, or biological" weapons. Rather, as shown above, a general reference to WMD is preferable in terms of farsighted legal policy and can be defined with sufficient precision for practical purposes.

In this sense, proliferation financing should be understood according to the following modified FATF definition[282]:

[280] Nevertheless, the *mens rea* element is certainly of central importance for the subsequent evaluation of these acts under criminal law and the law on administrative offences, as will be shown in Parts Two, Three and Four of this thesis.
[281] FATF, *Combating Proliferation Financing*, p. 5, fn. 2.
[282] FATF, *Combating Proliferation Financing*, p. 5: "Proliferation financing refers to: The act of providing funds or financial services which are used, in whole or in part, for the manufacture, acquisition, possession, development, export, trans-shipment, brokering, transport, transfer, stockpiling or use of nuclear, chemical or biological weapons and their means of delivery and related materials (including both technologies and dual-use goods used for non-legitimate purposes), in contravention of national laws or, where applicable, international obligations."

Definition: **Proliferation financing** refers to the act of providing funds or financial services which are used, in whole or in part, for the manufacture, acquisition, possession, development, export, trans-shipment, brokering, transport, transfer, stockpiling or use of WMD and their means of delivery and related materials (including both technologies and dual-use goods used for non-legitimate purposes), in contravention of national laws or, where applicable, international obligations.

1. Proliferation financing through traditional banking services

The most fundamental point of connection between the banking world and the participants in the proliferation process lies in the classic client relationship. Regardless of whether the customer is an unwitting business, a front company or an institution infiltrated by criminal structures, the constraints of the international financial system and the need for the appearance of law-abiding behavior regularly make it necessary for these actors to maintain a bank account from which they can order and receive wire transfers. This includes the consequence that the criminal actors must also maintain the appearance of legitimacy when interacting with the account-holding financial institutions, in order to be able to misuse their services for their own criminal purposes.

1.1. Account provisions and customer relationships

In order to prevent criminal actors from inserting incriminated funds into the legal money circuit, banks are subject to far-reaching so-called *"Know Your Customer (KYC)"* obligations when maintaining a customer relationship. These obligations are intended to provide the banks with a sound knowledge of the customer and his or her expected behavior and, in this respect, help to recognize inconsistent or otherwise conspicuous behavior.

The KYC obligations are based on the globally applied standards of the FATF and are implemented internationally via largely homogeneous legislative acts. Within the European Union, the requirements are set by European legislative acts, which are also grounded in the aforementioned FATF standards. There is thus a particularly high degree of homogeneity of the KYC obligations required within the member states of the European Union, which include the following duties:

(1) *The identification of the contracting party via adequate documents*. In the case of natural persons, this is primarily done by checking official identity documents. In the case of legal

entities, excerpts from the commercial register and founding documents come into particular consideration.[283]

(2) *The identification of the beneficial owner of a company*. This refers to the natural person who ultimately controls a bank's client. This is particularly relevant for clients who are legal entities and part of a complex beneficial ownership and control structure. However, it may also be relevant in the case of natural persons and legal entities that are under the control of another person due to other *de facto* forms of control, such as political or family power structures.[284]

(3) *The identification of politically exposed persons (PEPs)*. PEPs are individuals entrusted with a prominent public function, i. e. heads of state, ministers, members of parliament, high-ranking diplomats, defense attachés, members of the management bodies of state-owned companies, as well as high-ranking military officers.[285] According to the FATF, many of these persons are in positions that potentially can be abused for the purpose of committing money laundering, corruption, bribery, as well as conducting activities related to terrorist financing. A bank must therefore be aware of the special position of such clients to be able to react to the corresponding risks.[286]

(4) *The determination of the nature and purpose of the client's business*. This should enable the bank to assess whether the business and transaction behavior takes place with the expected transaction volumes and counterparties or, if applicable, is to be qualified as

[283] See FATF, *The FATF Recommendations*, op. cit., recommendation 10: "[…] The principle that financial institutions should conduct CDD should be set out in law. Each country may determine how it imposes specific CDD obligations, either through law or enforceable means. The CDD measures to be taken are as follows: (a) Identifying the customer and verifying that customer's identity using reliable, independent source documents, data or information. […]."

[284] See FATF, *The FATF Recommendations*, op. cit., recommendation 10: "[…] (b) Identifying the beneficial owner, and taking reasonable measures to verify the identity of the beneficial owner, such that the financial institution is satisfied that it knows who the beneficial owner is. For legal persons and arrangements this should include financial institutions understanding the ownership and control structure of the customer. […].". In Spain, the mandatory application of international sanctions aimed at the prevention, suppression and disruption of the proliferation of weapons of mass destruction and their financing is provided for in article 42 Law 10/2010; infringements in article 51, and sanctions for non-compliance in article 56.

[285] FATF, *FATF Guidance: Politically Exposed Persons (Recommendations 12 and 22)*, Paris, France: FATF/OECD, June 2013, pp. 4 et seq.

[286] See FATF, *The FATF Recommendations*, op. cit., recommendation 12: "Financial institutions should be required, in relation to foreign politically exposed persons (PEPs) (whether as customer or beneficial owner), in addition to performing normal customer due diligence measures, to: (a) have appropriate risk-management systems to determine whether the customer or the beneficial owner is a politically exposed person; (b) obtain senior management approval for establishing (or continuing, for existing customers) such business relationships; (c) take reasonable measures to establish the source of wealth and source of funds; and (d) conduct enhanced ongoing monitoring of the business relationship. […]."

unusual or otherwise conspicuous, e. g. if incoming payments are received for sales of goods that have no recognizable connection to the client's business field.[287]

These KYC checks are an obstacle for the malevolent actors in the proliferation chain who want to benefit from an account relationship. Be it because there are no identification documents for a fictitious company, the controlling end-users of WMD could be revealed via the verification of the ownership structure, or the increased scrutiny of political or diplomatic staff could lead to their exposure as part of the proliferation apparatus. Criminal participants in proliferation will therefore regularly try to avoid negative consequences from the KYC assessment by falsifying documents, using straw men or making other false statements.

For respectable and diligent financial institutions, all these measures of concealment and falsification of documents may involve identifiable discrepancies and other irregularities that may prevent the bank from entering the business relationship. If the bank does not recognize the attempts of deception and enters the customer relationship, it puts itself in danger of being misused as a proliferation financier that maintains accounts for criminal parts of the proliferation chain and executes or receives payments for them.

1.2. Bank transfers

The purchase price owed by the buyer/importer of goods is usually transferred by the buyer/importer's bank to that of the seller/exporter. This can be done as a payment in advance (before shipment of the goods), as an "open account" payment (after receipt of the goods and invoice) or as a partial payment upon shipment and receipt of the goods.[288] For the parties involved, a bank transfer is the simplest, cheapest and most flexible method of payment. It is therefore not surprising that an estimated 80 % of payments in international trade are made in this way.[289]

To carry out international bank transfers, most banks use the system of the Society for Worldwide Interbank Financial Telecommunications (SWIFT). This closed

[287] See FATF, *The FATF Recommendations*, op. cit., recommendation 10: "[…] (c) Understanding and, as appropriate, obtaining information on the purpose and intended nature of the business relationship. (d) Conducting ongoing due diligence on the business relationship and scrutiny of transactions undertaken throughout the course of that relationship to ensure that the transactions being conducted are consistent with the institution's knowledge of the customer, their business and risk profile, including, where necessary, the source of funds. […]."
[288] FATF, *Proliferation Financing Report*, op. cit., p. 12, paras. 58 et seqq.
[289] GRATH, *The Handbook of International Trade and Finance,* op. cit., p. 40.

telecommunication system enables its more than ten thousand member banks to transmit orders including relevant payment information to each other via standardized message types (MTs). Upon receipt of the SWIFT message, it is automatically analyzed and the actual payment is initiated. The automated reading of the SWIFT message is possible because the SWIFT message format is standardized and consists of various predefined fields that are intended for specific information, e. g. for the name of the ordering party, name of the recipient, address, bank identifier code including country code, and purpose of payment.

All this information can be used to verify the plausibility of the own client's transactions. It can also serve as starting points for research on the legitimacy of the other transaction parties with which the own client does business, but which are clients of third-party banks.

This verifiability by means of the content of the SWIFT messages becomes even more relevant if the bank also carries out transactions in which it has no customer relationship with either the originator or the beneficiary of the transaction and consequently has no KYC documents to access. This happens within the framework of so-called *correspondent banking services*, where third-party transactions are executed as a banking service of one bank, the *"correspondent bank"*, to another bank, the *"respondent bank"*.[290]

The need for these correspondent banking services is closely linked to the nature of the SWIFT communication system, which is not a payment platform for its members, but a mere communication channel for ordering payments to be executed. The payment "flow" itself, instead, takes place via the settlement of business accounts that banks maintain with each other. However, if the originator's bank does not maintain a business account with the beneficiary's bank, an intermediary bank must be found at which both account-holding institutions maintain business accounts and through which the payment can be settled: The correspondent bank. If no bank can be found that meets these requirements, a chain of correspondent banks must be found between the two account-holding institutions, which pass the transaction amount through successive account settlements to the payee's house bank. Each of these individual transactions is accompanied by independent SWIFT messages, which always contain the payment order to the subsequent bank, but also include the information on the "actual" transaction between ordering party and beneficiary described above.

[290] FATF, *FATF Guidance: Correspondent Banking Services*, Paris, France: FATF/OECD, 2016, pp. 7 et seq.

Thus, correspondent banks can carry out proliferation financing acts that are particularly difficult for them to recognize as such, since they do not maintain a customer relationship with the transaction parties and consequently do not have the means to carry out the KYC measures. In addition, the high daily transaction volume in a bank renders it practically impossible to check all transactions for plausibility.

For this reason monitoring systems are used that evaluate transaction patterns and SWIFT information based on algorithms and defined parameters, to recognize potentially relevant transactions. The transactions preselected in this way are then checked by trained compliance staff. An adequate and efficient anti-financial crime (AFC) monitoring is thus a fundamental element in preventing involvement in proliferation financing and other financial criminal activities.[291]

However, KYC measures are not entirely without significance in the correspondent banking business. Since financial institutions must, to some extent, rely on the preceding respondent bank to adequately conduct customer due diligence, they must implement comprehensive KYC measures with respect to the respondent bank as such. This includes a good understanding of the bank's risk profile, its customer due diligence processes, and overall AFC frameworks.[292]

In the context of preventing proliferation financing, however, the in-depth examination of correspondent banking relationships takes on a special significance, since it is not only a matter of identifying banks with weak compliance standards that could be misused by proliferators for their own purposes. Rather, due to the often state-driven motivation of a proliferation event, it is conceivable that entire shell banks are founded whose central purpose is to enable proliferation financing and other state crimes, or that state-owned banks and their foreign branches are misused for such activities.[293] Such financial institutions must be identified as untrustworthy as part of the KYC checks before the correspondent banking relationship is established, in order to prevent subsequent misuse as a forwarding institution for proliferation-relevant payments from the outset.

[291] Specific parameters for risk-based monitoring of potential proliferation financing activities are provided in Part Four, Chapter 5, 4., of this thesis.
[292] FATF, *Proliferation Financing Report*, op. cit., p. 20, paras. 99 et seq.
[293] FATF, *Proliferation Financing Report*, op. cit., p. 10, para. 51; for practical examples of state-owned banks being used for proliferation purposes, see case studies 5 - 8 on p. 28 of the aforementioned report.

2. Proliferation financing through trade finance services

Every international purchase of goods is based on a mutual contract of sale which obliges the parties to provide performance and consideration, i. e. to deliver goods free of defects by the exporter and to pay the purchase price by the importer. The importer can generally meet this payment obligation by using the above-mentioned forms of classical bank transfers.

In practice a classical bank transfer encounters considerable difficulties, especially when it is related to counterparties in less-developed countries and high-priced products like WMD-suitable dual-use goods.

A particular problem is that it is difficult for the parties to assess in advance whether the respective counterparty will comply with its contractual obligations. Often, they will have little or no experience with each other and verification of the creditworthiness, integrity, and quality of the other party may be subject to significant linguistic, institutional and other practical hurdles. If advance payment has been agreed upon, the importer runs the risk that the paid goods will never be shipped. *Vice versa*, if payment upon receipt of the goods has been agreed upon, the exporter faces the risk of never receiving a purchase price for the products he has sent.

In this context it is also important to understand that the potential judicial enforcement of claims often does not provide sufficient protection for the parties involved. This is especially true if at least one of the companies involved is in a country with non-transparent legislation, inefficient jurisdiction, or insufficient official cooperation. However, even with a functioning judicial system, the duration to implement the judgment can cause considerable problems of liquidity for the prejudiced party and place a heavy burden on its ability to pay in the short to medium term.

2.1. The letter of credit ("L/C")

In order to limit this counterparty risk for both parties to the international purchase of goods, banks offer the provision of so-called *"letters of credit (L/C)"* as an alternative to a simple wire transfer.[294] In this case, the exporter receives a priority payment claim against a bank in addition to the continuing payment claim against the importer. This claim for payment

[294] It should be noted that the International Chamber of Commerce refers to letters of credit as "documentary credits" or "DC". However, as "letter of credit" or its abbreviation "L/C" continues to be the predominant term in international trade, it will be the term used in this thesis.

arises when the importer "opens" the letter of credit at his bank, which is why the importer is referred to as the *"applicant"* and his bank as the *"issuing bank"*. In return, the issuing bank receives a payment claim against the importer in the amount of the agreed price of the goods plus a surcharge representing the bank's profit.

a) The issuing bank as proliferation financier

When opening a letter of credit, the importer instructs the issuing bank to make an irrevocable promise to the exporter that the purchase price will be paid to the latter if certain agreed commercial documents are handed over and other agreed conditions are fulfilled. The documents to be presented are those which prove the quantity, nature and shipment status of the goods, i. e. transport documents, invoices, export licenses, transport insurance policies and certificates of origin.

As soon as the exporting company receives this promise of payment, it hands over the goods to the carrier. In return, the latter hands over the so-called "*duplicate consignment note*" to confirm the acceptance of the goods and, if international sea freight traffic is involved, also the so-called *"bill of lading" ("B/L")*. Among others, these documents are then submitted to the issuing bank. Upon presentation of these documents, the promise of payment is activated and the exporter receives his money. In the context of a letter of credit transaction, he is therefore referred to as the *"beneficiary"*.

The involvement of the issuing bank or the use of an L/C thus not only reduces the counterparty risk for the exporter, in the sense of payment security, but also that of the importer, who gains the assurance of payment with the agreed condition and that the goods are already on their way. The issuing bank itself secures its payment claim against the importer by being in possession of the shipping documents it received from the exporter to activate the promise to pay. These do not only serve as proof of the receipt of the goods by the carrier, but also represent the goods and thus constitute a security that only entitles the owner of the shipping documents to demand the hand-over of the goods from the carrier. Only when the importer pays the purchase price to the issuing bank does he receive the shipping documents from the bank and thus the goods from the carrier.

Since the proliferation of WMD-related materials largely originates in *bona fide* companies in technically advanced countries and is usually routed through less stable countries or regions, exporters of WMD-related goods will therefore regularly push for such a trade

finance arrangement.[295] The criminal importer will regularly agree to this form of financing, in order not to arouse suspicion on the part of the exporter. Counterproposals by the importer that he would also be willing to pay in advance, on the other hand, would be very unusual from an economic perspective and could therefore also be considered suspicious.[296]

If the L/C is ultimately agreed upon, it is with the issuing bank to identify the potential criminal background of the activity. If it fails to do so, it engages in an act of proliferation financing once the promise to pay is activated.

b) The advising and confirming banks as proliferation financiers

In addition to the issuing bank, other banks are often involved in a letter of credit transaction. This is regularly the case with the so-called *"advising bank"*. This is a bank in the exporter's country - often the exporter's house bank - which acts on the instructions of the issuing bank. It checks the documents submitted on behalf of the issuing bank and, in the case of existing correspondent bank relationships, also carries out disbursements to the exporter on its behalf. After checking the documents, the advising bank forwards them to the issuing bank so that it can hand them over to the importer against payment of the purchase price. Unlike the issuing bank, it does not in principle assume independent payment obligations towards the exporter.

The exporter may wish the advising bank to assume such a supplementary payment obligation. This will regularly be the case if the importer's country risk is considered so high that the assumption of the payment obligation by the importer's bank is also not considered to be sufficiently certain. In such a case, the advising bank can guarantee payment of the purchase price in the event of non-performance by the issuing bank and receives a fee for this either from the issuing bank or the exporter. In this context, the advising bank is therefore referred to as the *"confirming bank"* and the letter of credit is accordingly referred to as *"confirmed L/C"*.[297]

If the confirming bank classifies the default risk of the issuing bank as too high or if the internal settlement limit of the bank regarding the issuing bank or the country of domicile of

[295] On the practical significance of L/Cs in the context of proliferation financing, see FATF, *Proliferation Financing Report*, op. cit., pp. 25 et seqq., case studies 1 - 11.
[296] FATF, *Proliferation Financing Report*, op. cit., p. 5, para. 20.
[297] Of course, a banking institution other than the advising Bank could act as confirming Bank. However, this is very unusual.

the issuing bank is largely exhausted, the business risk can be distributed by the confirming bank to other banks. In this transaction, known as *"risk participation"*, the confirming bank sells sub-packages of its potential payment obligation to one or more third party banks.

As these sub-participations are usually not further communicated, the importer and exporter usually have no knowledge of the involvement of these third parties. Consequently, there is also no communication between the sub-participating institutions and the parties directly involved in the commodity transaction. In case of questions of understanding regarding the nature of the underlying commodity transaction, these banks can consequently only contact the confirming bank and must accordingly rely on the completeness and correctness of the information provided.[298] If the confirming bank examines the business circumstances only superficially or even colludes in an illegal WMD goods transaction, the sub-participating banks will find it difficult to recognize this and as a result will unwillingly participate in the financing of the underlying WMD proliferation.

Even the issuing bank in front of the sub-participating banks or the advising bank that carries out the due diligence properly, can easily overlook the criminal purpose of an accompanied commodity transaction. On the one hand, the identification of the parties involved in the commodity transaction can be considerably more difficult if the applicant for the letter of credit is part of a complex holding structure or, in a way not recognizable to the bank, is merely an intermediate and not the end buyer of the goods. On the other hand, documentary credit banks are subject to a clearly regulated and limited verification function, which does not cover goods but, according to the International Chamber of Commerce Uniform Customs and Practice for Documentary Credits (UCP 600), only the completeness of documents and their conformity with the letter of credit.[299] If the documents are professionally forged, the banks' ability to detect illegal transactions is therefore considerably reduced.[300]

[298] In addition to the risk participation model, the risks arising from the confirmation of a letter of credit can also be insured in some countries. Especially export-strong nations have authorized companies to issue export guarantees in the name of, on behalf of and for the account of the country, i. e. Euler Hermes. The purpose of such state export credit insurance is the continued promotion of foreign trade.

[299] International Chamber of Commerce, *ICC Uniform Customs and Practice for Documentary Credits (UCP 600)*: "Banks must examine a presentation to determine on the basis of the documents alone, whether or not the documents appear on their face to constitute a complying presentation". Practically every L/C worldwide is issued under the rules of the UCP 600.

[300] Nevertheless, the detection of forgeries is possible in many cases, provided that the bank has sufficient expertise in this field. Since this work is not intended to be misused as a guideline for document forgers, the relevant details must unfortunately be omitted.

In both cases banks can therefore quickly and unconsciously become financiers of an illegal WMD proliferation.

c) Transferable letters of credit as critical case

Trading parties have several payment and usage options at their disposal to adapt the letter of credit to their respective risk appetite, financial scope and economic needs. Depending on the chosen clauses, special forms of documentary credits are created, which have led to the use of common terms in commercial transactions.

One such variant of the L/C is the so-called "transferable letter of credit". This is a documentary letter of credit in which the beneficiary is entitled to instruct the paying bank to make the letter of credit available in whole or in part to one or more other beneficiaries. If the beneficiary is an intermediary, he may thus make the letter of credit available to his previous traders.

This has the advantage that he does not have to provide his own letter of credit to his upstream suppliers, which could otherwise be a problem if his creditworthiness is poor. At the same time, the intermediary also binds the upstream suppliers to the documentary requirements of his letter of credit and thus indirectly to the scheduling, qualitative and quantitative requirements to which he has committed himself *vis-à-vis* the importer.[301] In order to conceal the identity of the buyer from the pre-dealer and thus protect his future intermediary activities the exporter can - when transferring the original letter of credit to the pre-supplier - replace the name of the final buyer with his own and the final prices with the purchase prices with the pre-dealer.

This possibility, which in principle protects the legitimate interests of intermediaries, can also be misused in the context of proliferation as a means of concealing criminal actors. A front company established for proliferation purposes can act as an intermediary and offer a manufacturer of proliferation-sensitive goods the prospect of transferring a letter of credit. If the manufacturer is interested, it can only examine the intermediary during its due diligence and not the importer who is unknown to it. Unlike in the case of a processing company with a specific business field, due diligence based on the economic traceability of

[301] Siegfried G. HÄBERLE, *Handbuch der Akkreditive, Inkassi, Exportdokumente und Bankgarantien: Arten, Abwicklungen, Fallbeispiele, Problemlösungen, Prüflisten, Richtlinien und Kommentare*, Munich, Germany: Oldenbourg, 2000, p. 107.

a purchase of goods from a trading company is usually unproductive. For a pure intermediary company, trading with *anything* that finds a buyer somewhere, is economically speaking plausible and does not provide for a grounded suspicion of potentially criminal behavior.

Even a verification of the credibility of the other party via the age of the company and its web presence will often not yield results. Criminal actors can disguise the true age of a company by buying so-called *shelf companies* that already have "general trading" as their corporate purpose and exist for several years. Nowadays, professional websites can be created without much effort and technical knowledge. Not even conspicuous features in the solvency and financial resources of the intermediary company would be considered, since the risk of non-payment is precisely what the letter of credit bank is securing.

Moreover, the transferable letter of credit has other aspects that play into the hands of criminal actors. Since it is the (legitimate) purpose of it to conceal the identity of the actual importer for the manufacturer - *and vice versa* - only a minimum of documentary evidence can be demanded from the manufacturer in a comprehensible manner, since many document types could allow unwanted conclusions to be drawn about the manufacturer. From the manufacturer's point of view, this would not only appear comprehensible and hardly arouse suspicion but will also often be regarded a welcome reduction of the administrative efforts that usually come with such document duties. For the criminal actor, however, any reduction of documents means a reduction of the risk of being noticed by the counterparty or the banks accompanying the letter of credit due to inconsistencies or other errors.

Furthermore, the manufacturer will usually agree to organize the shipment of the goods directly himself. Since the name and address of the importer must not be known to him, he will usually accept to send the goods to the address of a trusted third party of the importer, the so-called *"notify address"*.[302] The verification of this third party, which might be a shell company established by the criminal actors, is likely to be a fruitless endeavor.

From a criminal point of view, this process is rounded off by the fact that the B/L for the relevant goods in such constellations must be endorsed in blank, as otherwise the actual importer would not be able to dispose of the goods. The criminal network is thus given the opportunity to use several companies serving to conceal the goods and to transfer the power of disposal over the goods to one another without a documented trail. If the notification

[302] HÄBERLE, op. cit., p. 119.

address is located at an international free port, transshipment and on-shipment to risk states can hardly be controlled.

All this is impossible for the manufacturer to keep track of.

It is the accompanying banks that have the best overview of the parties actually involved in the business. They know both the identity of the letter of credit originator and the identity of the manufacturer. Although the letter of credit ordering party does not have to be identical with the ultimate beneficiary, it is in any case structurally closer to the latter. If the beneficiary is another purely commercial enterprise or is in a location that makes no sense from a logistics point of view in relation to the notify address, the letter of credit banks should become skeptical, conduct further investigations and critically examine the lawfulness of the transaction being accompanied.

Confirming banks should carry out the same examination and supplement it with an enhanced due diligence check on the issuing bank, since in the worst-case scenario the latter could be cooperating with the criminal actors. If the issuing bank has in the past attracted attention through compliance violations, financial criminal activities, or connections to risk states, this should give additional grounds for an examination and possible rejection of the business.

If the banks fail to carry out such an assessment successfully, they not only loose the opportunity to uncover proliferation crimes, but also subject themselves to criminal actors with the associated legal, reputational, and financial risks for their entities.

2.2. Documentary collection

A so-called *"documentary collection"* aids to distinguish documentary foreign transaction from a documentary letter of credit. As in the case of a documentary letter of credit, the bank acts as an intermediary between the exporter and importer and reduces the counterparty risk by culminating in the reciprocity of the importer's payment obligation and the exporter's delivery obligation.

In contrast to the documentary letter of credit, the initiative in this case comes from the exporter who issues the collection order to his bank, the so-called "*exporter or remitting bank*". He hands over to the bank the commercial and export documents, the receipt of which is linked to the ownership/possession of the exported goods; on the condition that the

importer hands over these documents as soon as the payment obligations are met under the purchase contract. The bank thus becomes the exporter's collection agency, which collects the purchase price on behalf of the exporter and hands over the documents to the importer or the exporter's bank.

Considering the risk, this form of trade finance is significantly more disadvantageous for the exporter than the documentary letter of credit, since it does not give him any certainty that he will receive the amount owed by the importer. In the worst-case scenario, his goods are even in the port of destination where he encounters an insolvent or unwilling importer, leading the exporter to be left with the production and transport costs. As a rule, the exporter will therefore only grant documentary collection to importers whose creditworthiness and reliability is doubtless and whose domicile is in countries with no discernible political risks.[303]

When accompanying a WMD-relevant commercial transaction, documentary collection is therefore likely to be the exception, as the exporter, who is usually in good faith, is likely to decide against based on the new business contact alone. This applies more so because, due to the high degree of specialization of the manufactured goods, an alternative sale to third parties at the destination port in the event of a feared default of payment seems practically impossible from the exporter's point of view.

Nevertheless, the choice of a collection order by the parties involved is imaginable, as it involves at least a lower risk than the mere agreement to transfer after receiving the goods. In such cases, it is possible for the banks involved to find indications of a possible proliferation transaction based on the structure of the parties involved, the transport routes chosen, and the goods traded. This is due to the fact that, although they are only obliged to check the completeness of the submitted documents, in practice the contents of the collection order are also regularly checked as part of an additional noncommittal service for the client.[304]

3. Proliferation financing through the layering of funds

The alternatives described above of using classic bank transfers or special trade finance services are closely linked to the criminals' need for interacting with the law-abiding

[303] HÄBERLE, op. cit., p. 434.
[304] HÄBERLE, op. cit., p. 472.

economic world, i. e. with dual-use manufacturers. After all, the latter expects an, in a sense, "common" behavior not only in the trade and transport acts themselves but also in the financial transactions accompanying them.

This also means that as soon as the proliferation chain no longer relies on this interaction with the law-abiding economic world, there is no longer any need to carry out legitimate parallel payments. The payment of criminal proliferation service providers and the provision of front companies with funds from dark state accounts can be carried out via other channels that do not have to show parallelism, i. e. no immediately recognizable connection with the trade and transport steps.

The proliferation financing activities that take place in this context are thus aimed at disguising the origin of the assets rather than supporting trade activities that must appear legitimate. The concealment of the origin of the assets can be achieved through a variety of sometimes complex financial transactions, often using offshore shell companies.

We can refer to the totality of this concealment actions as the "*layering system*" or "*black box*".

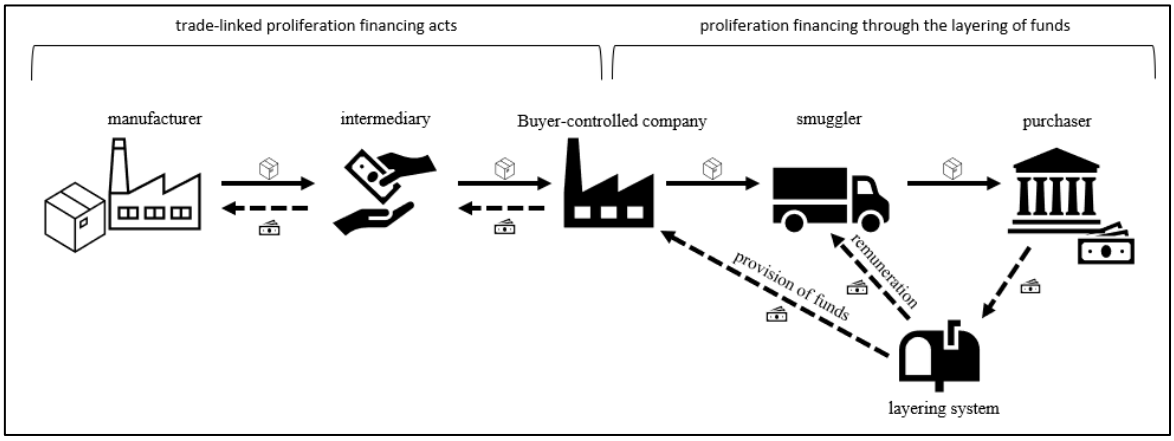

Image 3: Proliferation financing acts

"Layering", as the utilization of the layering system, is not unique to proliferation financing. It is also an integral part of the money laundering process. According to the prevailing three-phase model of money laundering, the money laundering process is divided into three

successive stages: "Placement," the mentioned "layering," and "integration."[305] During placement, the dirty money from illegal activities is introduced into the financial cycle for the first time, e. g. when cash from drug trafficking or forced prostitution is deposited into a bank account. During “integration" the money is made usable for official economic life and therefore usually flows into business holdings, investments on the stock market, or the purchase of high-value real estate to benefit the criminals of the predicate offence.[306] The purpose of the “layering” (which is performed between placement and integration) is to conceal the criminal source of these acquired assets and to render the paper trail to the underlying criminal act as difficult to trace as possible.[307] This is an objective comparable to that of layering as part of proliferation financing, since it also involves concealing the origin of the assets used.

There is no apparent reason why layering activities in the context of proliferation financing should be substantially different from those of money laundering since the methods of concealment of assets are detached from the underlying criminal motivation. Instead, it is rather conceivable that proliferation financiers could even use existing money laundering layering systems provided by criminal third parties, for the concealment of proliferation-related funds as well.

The possible layering acts for proliferation financing are thus likely to be as diverse as those used in the context of money laundering. In particular, it is possible to imagine a series of different techniques within the layering system, turning it into a veritable "black box" for the investigating authorities. For this reason, only a few classic layering methods shall be mentioned as examples:

- Transfers to and from companies, which merely simulate a business transaction or are mere shell companies.

[305] ACAMS, *Studienführer: CAMS-Zertifizierungsprüfung* (6th ed.), Miami, USA: ACAMS, 2018, pp. 3 et seq.; on ML modalities, María José RODRÍGUEZ PUERTA, *Blanqueo de dinero procedente del tráfico de drogas. Responsabilidad de las personas jurídicas y físicas. Exclusión de la consideración de blanqueo de capitales de las acciones de mero disfrute o aprovechamiento de las ganancias provenientes del delito por parte del cónyuge u otros familiares*, Revista de Derecho y Proceso Penal, no. 49, 2018; and from the same autor, Nuevamente sobre la relevancia penal del autoblanqueo cuando con los bienes proceden de un presunto delito de tráfico de drogas no se han realizado maniobras tendentes a ocultar o encubrir el origen ilícito de los mismos, Revista de Derecho y Proceso Penal, no. 62, 2021.
[306] Felix HERZOG & Olaf ACHTELIK, *Einleitung*, in Felix Herzog, *Geldwäschegesetz (GwG)* (4th ed.), Munich, Germany: C. H. Beck., 2020, para. 11.
[307] HERZOG & ACHTELIK, op. cit., para. 10.

- Trade-based money laundering activities, e. g. over-invoicing, fictitious trading ("ghost shipping"), and multiple invoicing.

- Withdrawal of account funds in cash and deposit into other bank accounts.

- Purchase and sale of shares and other securities.

- Purchase and sale of real estate, precious metals and luxury goods.

- Splitting and remerging money amounts through several bank transfers.

- Fictitious repayments of non-existent loans.

Chapter 4: General remarks and consequences for the counter-proliferation financing program

As shown, "*proliferation financing"* refers to every act of providing funds or financial services which are used, entirely or partially, for the manufacture, acquisition, possession, development, export, trans-shipment, brokering, transport, transfer, stockpiling or use of WMD and their means of delivery and related materials (including both technologies and dual-use goods used for non-legitimate purposes), in contravention to national laws or, where applicable, international obligations.[308] Whereas "*WMD*" are biological, chemical, radioactive, nuclear and other weapons that are capable of causing death and whose indiscriminate harmful effects are perpetuated in time and space in an autonomous manner after their deployment.[309]

The reality of proliferation financing is subject to special conditions and necessities that shape the typical appearance of this crime. Financial institutions can use these typologies as the cornerstone of a counter-proliferation financing program (CPF program) to identify and

[308] Modified FATF definition explained in the introductory paragraphs of Part One, Chapter 3, of this thesis.
[309] Own definition explained in Part One, Chapter 1, 2.3., f, of this thesis.

prevent relevant behavior and report it to the competent investigative authorities more efficiently.

1. Key characteristics of proliferation financing

Although proliferation financing is a multifaceted crime, there are some general observations that must be addressed when designing an efficient and risk-based CPF program:

(1) In principle, all economically relevant banking services are eligible as proliferation "financing" acts, i. e. account provisions, receiving and sending transactions, services within the scope of trade financing, services within the scope of security purchases and lending.

(2) The financing act may be carried out with or without the knowledge of the executing bank employee or institution and regularly relates only to particular stages of the proliferation process. Depending on the stage, however, either the maintenance of a legitimate overall appearance of the underlying trade or the concealment of the originators of the funds is the principal purpose of the arrangement.

(3) Transactions that serve to preserve the legitimate overall impression must appear business-typical, lawful, and economically plausible to law-abiding business partners. This includes the use of regular business accounts, traditional payment methods and trade finance services. This requirement to maintain the appearance of legitimacy may go hand in hand with atypical behavior patterns, falsified documents, and other inconsistencies, potentially recognizable to banks.

(4) PF transactions that serve to conceal the originator of the funds are not necessarily linked to the underlying commodity transaction in an externally recognizable manner. Nevertheless, they must take place to provide the criminal actors with funds or to remunerate them for their services. The design of these transactions is unlikely to differ from those also potentially used in the layering phase of money laundering.

(5) Proliferation regularly involves (apparent) members of certain industries and professions, i. e., highly specialized high-tech companies, logistics companies, intermediaries, universities, scientific research institutions, and diplomatic representations. Consequently, banking activities involving such parties have an increased risk of being associated with WMD proliferation. Similarly, the end users are mainly certain states with proliferation efforts or terrorist organizations that are particularly established in certain countries. The

examination of holding structures, nationalities, and criminal records of the parties involved can thus also enable a risk-optimized selection of possibly relevant behavior.

(6) Proliferation is ultimately about the commodity underlying the proliferation, i. e., the finished weapon system, warfare agents, delivery system, and relevant dual-use goods. References to the commodity, such as those contained in the remittance information of the SWIFT message or in the text of the L/C, can therefore also provide valuable clues to potentially relevant conduct, and may give rise to more in-depth examination of documents, economic profiles of the parties involved, and the plausibility of the overall transaction.

2. The first hurdle: The risk-based selection of cases to be examined

An in-depth examination of potentially relevant proliferation financing activities requires that the responsible compliance staff become aware of these cases in the first place. Given the organizational complexity and size of some financial institutions on the one hand, and the very large volume of transactions routed to and from financial institutions on the other, this represents a key challenge to the CPF program. This represents a challenge that an effective CPF has in common with anti-money laundering and counter-terrorist financing programs.

Herein, a risk-based categorization is made based on certain parameters as to whether, how often, or to what depth a customer relationship, transaction, or other business activity should be assessed by compliance employees. Typical risk parameters are country risk, industry risk and business risk, which form the relevant *overall risk*.

For the customer relationship, the risk categorization influences, for example, the extent to which documents and evidence are requested when the customer relationship is established, how often the know-your-customer documents are checked to ensure that they are up to date, and whether a closer look is kept at the account activities of the individuals or companies concerned.

Within the framework of transaction monitoring, the risk parameters are supplemented by so-called *indicators*, which automatically screen all transactions for certain transaction patterns, words and other aspects and assign a risk score. If the risk score reaches a threshold, the transaction or transaction bundle is filtered out by the monitoring system and submitted to the compliance employee for review.

In the case of largely manually executed banking transactions, as is likely to be the case with many trade finance transactions, the submission to compliance can, on the other hand, depend on whether the bank's policies and procedures provide for high risk businesses and whether the corresponding requirements are adhered to by the employees.

For an efficient CPF program, it is therefore of fundamental importance that the potentially relevant cases of proliferation financing take the first hurdle of automated or procedural pre-selection and prioritization and reach the compliance department for review. This requires the use of risk parameters that are designed for the specifics of proliferation financing and are linked to a screening of relevant risk states, transactional behaviors, product descriptions, and industries.

If this does not prove successful, the act of proliferation financing will regularly remain undetected already because it could not be subjected to an assessment in the actual sense.

3. The second hurdle: Recognizing criminal behavior

If a customer relationship, transaction, or trade finance transaction reaches the compliance department for review, the research may reveal a reasonable probability for the existence of a proliferation finance activity.

For these research, the compliance staff has access to comprehensive internal bank analysis tools, criminal-record and bad-news databases, open-source research and, if necessary, the recourse to paid private intelligence services. Furthermore, it is possible to request additional information on the respective customers as well as documents from other banks involved in the transaction by means of a so-called *"Request for Information* (*RFI)"*.

Nevertheless, the capabilities of private financial institutions are, of course, far from those that government investigative agencies and intelligence services can draw upon. Furthermore, the view of the entire proliferation process is often denied. Instead, financial institutions are given a single transaction from the chain without being able to place it in the larger context.

The resulting reduced data availability forces compliance departments to make a certain assessment of the risk of the existence of criminal behavior. Detached from a precise classification as proliferation financing (third hurdle), such an assessment is also strongly

dependent on the approach and the interpretive attitudes of the compliance employee in charge.

The following two fictitious case studies are intended to illustrate how limited released data usually is and how different an assessment - both in transaction monitoring and in the review of a trade finance transaction - can therefore turn out to be:

3.1. Case study 1: Transaction monitoring

Compliance officer Alice of "Hometown Bank" notices a transaction that shall be performed via the correspondent bank accounts of "Far Away Bank". The "Far Away Bank", as well as the ordering party of the transaction "Delicious Foods Inc.", are headquartered in Freeland a country with important AFC deficits. The round amount of EUR 40,000.- as well as the imprecise purpose of transfer "invoice for goods" seem suspicious to her. She therefore searches the beneficiary "Jupiter Ltd." via a search engine to check its web presence. It seems that "Jupiter Ltd." has no web presence. Additionally, further investigations reveal that the address of "Jupiter Ltd." appears to be that of a normal single-family home in a mid-class residential area in the Netherlands.

How should Alice rate this case?

Considering the case's alarming signals, it would be easy for Alice to suspect a criminal purpose behind this transaction. She could argue that it is highly unlikely that the sum of the alleged purchased goods results in a round amount, instead of any arbitrary number, and that the indicated purpose of transfer is a mere pretext for hiding a transaction related to a criminal activity. Furthermore, as the ordering party's home country is vulnerable to money laundering purposes, the ordering side of the involved parties should not seem trustworthy to her. Finally, the information she gained regarding the beneficiary of the transaction could convince her entirely about the criminal nature of the transaction. That a business performing single international trades over several thousand euros does not have a web page, and is located in a place that apparently lacks storage facilities for foodstuffs, is in fact suspicious. Alice could consider Jupiter Ltd. as a mere shell company, established as a channel for integrating dirty money into the legal market.

Alice could also conclude results differently, giving the case a more favorable interpretation. She could assume – or maybe even verify - that "Delicious Foods Inc." is a wholesaler for

food that buys bigger amounts of homogenous products in the international market in order to resell it to retail businesses in its country. As the price per unit of most foodstuffs is very low and some products are even sold by weight rather than units, a round price could have been fixed. This is especially plausible when dealing with durable products that can easily be stored and resold over a longer period of time, e. g. rice, sugar, or flour, so that an exact demand calculation would not be vital for "Delicious Foods Inc.". Regarding "Jupiter Ltd.", Alice could assume it to be a one-man company of a professional commercial intermediary that buys and resells foodstuff without having to temporary store it, as the products are shipped directly from the actual producer to the purchaser. As the trader can work remotely, he does not require any office premises, wherefore he formally registered his office at his private home. Furthermore, as "Jupiter Ltd." maybe does its business exclusively via professional trading platforms, Alice could conclude that there is simply no need for it to maintain a web presence.

3.2. Case study 2: Trade finance

Later that same day, Alice receives a phone call from her colleague Bob who is the responsible account manager for several key clients of Hometown Bank. He wants her approval for a trade finance opportunity: Hometown Bank was asked to confirm a L/C issued by "Desert Bank", which is domiciled in the politically instable and underdeveloped African country Desertland. Applicant of the L/C is a company named "Deluxe Materials LLC", which is domiciled in a little tropical island in the Pacific Ocean, considered an offshore location. Beneficiary of the L/C is the internationally known "Super Trade Corp.", which is one of Hometown Bank`s clients with the highest revenues and which actively asked Hometown Bank for the confirmation. The underlying trade business is in "ceramic composites" and amounts up to EUR 85,720.-. As port of discharge the L/C establishes any port in Desertland.

Should Alice give her approval?

Alice could have a valid preoccupation regarding the role of Deluxe Materials LLC as purchaser in the underlying trade. As there is no geographic proximity between its domicile and the port of destination, she could assume that the letter of credit is a mere cover-up established by Super Trade Corp to launder money via a shell company in an offshore location. The transported goods, assuming their existence, could be worth less than the price

used, thus rendering the transaction to be a form of trade-based money laundering. As Alice cannot estimate if EUR 85,720.- is a reasonable price for ceramic composites, she conducts further investigations regarding relevant prices. However, the information she obtains, does not help her: There are only a few examples available on the internet with a broad range of prices, as there are many assortments of ceramic composites, including high-priced high-tech types. As she is also unaware of who will be the actual recipient of the products in Desertland, she cannot verify the plausibility of the trade and its volume by checking the recipient's business activity. Finally, the general context of Desertland, which - due to its high level of corruption and presumable lack of effective custom inspections and financial supervision - seems highly vulnerable for money laundering purposes, which could lead to her refusing the approval for the presented business opportunity.

On the other hand, the long, profitable and until now inconspicuous relationship with Super Trade Corp. could encourage Alice to take a more benevolent look at the offer. She could argue that the offshore domicile of Deluxe Material LLC is not *per se* an indicator for illicit financial activities but may instead be part of a legal tax-saving scheme applied by the Super Trade Corp.'s factual counterparts in Desertland. Additionally, these counterparts in Desertland might have a legitimate interest to establish such a front company in a far-off jurisdiction to remain anonymous in the insecure and highly corruptive environment of their homeland, where being considered wealthy might be even life-threatening. The aspect that there is such a factual counterpart could seem highly probable to her, as the issuing bank as well as the port of discharge are located both in Desertland. Finally she could argue that it seems very unlikely to her that a global player like Super Trade Corp., which is worth billions and never attracted adverse attention, would risk incriminating themselves for money laundering or other financial crimes for the relatively small amount of EUR 85,720.-.

3.3. Key issues and their consequences for the counter-proliferation financing program

As the two case studies show, the evaluation of potentially relevant cases is bristled with uncertainty, risk estimations and economic pressure. Furthermore, plausible explanations can regularly be found even for transactions and trades, which seem unusual at first glance. There is a real risk that a proliferation financing case will be considered presumptively legitimate and the case will not be pursued further or reported to the authorities.

The uncertainty when evaluating such cases revolves around some repetitive issues present in various suspicious transactions or critical trade finance proposals, which also are reflected in both case studies above, namely:

(1) The difficult evaluation of whether the price of goods underlying a transaction is reasonable or not. Especially in the case of goods from niche markets, high-tech goods, and luxury goods.

(2) The lack of information inherent to payments. It is not obligatory to indicate the purpose for transfer in a bank transfer's SWIFT-message. In the case of a L/C often only a rudimentary description of the relevant goods is provided.

(3) The role of trade intermediaries and the verification of their legitimacy. Shipments can be performed directly without the need of an interim storage at the intermediary's premises. Verifiable aspects like the existence of storage facilities and office spaces at the intermediary's address may therefore be reasonably lacking.

(4) The involvement of entities or individuals with addresses in offshore locations. Such addresses may serve for tax evasion, money laundering, terrorist financing, or other criminal activities. They can, however, also serve legal tax avoidance, to register ships under legally more attractive conditions, or to hide one' s own assets for legitimate reasons.

An effective CPF program must be designed to provide the most comprehensive response to these issues.

This includes enabling the compliance officer to recognize potentially relevant goods as such, even if they have only been rudimentarily designated. Similarly, the recognition of such goods must induce an established process to better understand them, i. e. by requiring formalized inquiries, compelling documents, or the evaluation by external experts.

In addition, banks engaged in trade finance should have access to monitoring systems that enable live and retrospective tracking of merchant vessels. In many cases this can be used to verify the credibility of the trade information provided by the intermediary or other potential proliferators. A CPF program should ensure that transactions involving intermediaries that meet additional risk parameters, are subject to queries to the intermediary's principal bank, i. e., regarding the length of the business relationship, typical trading activities, and the existence of negative experiences with the customer.

Finally, there should be a uniform way of dealing with parties that have offshore addresses. Such an approach could, for example, those transactions involving an offshore party must always be reported to the authorities if other certain proliferation financing indicators are present, i. e., the involvement of certain industries or high risk countries.

4. The third hurdle: Classifying the behavior as proliferation financing

As has been discussed, even the non-specific identification as a potentially criminal transaction or business activity presents a significant challenge. However, attributing the relevant business to an act of potential proliferation financing presents an additional hurdle.

This is particularly the case for transactions that take place within the context of the layering activities of proliferation financing. When viewed as isolated events, these will regularly come into question in equal measure as potential money laundering, terrorist financing, or tax evasion offences.

Yet, also trade finance transactions that are considered criminal and have a recognizable proximity to the underlying commodity transaction could be misinterpreted as a form of trade-based money laundering. This is particularly imaginable when the parties involved are mere non-specific intermediaries who do not belong to any WMD-relevant industry, or when the underlying commodity could not be identified as a WMD-relevant (dual-use) good.

To illustrate this, we will suppose that the two case studies above had in fact an illicit nature. However, the stories behind those transactions will not be those of a money laundering or terrorist financing scheme, as might be reasonably assumed by the responsible compliance officer, but of proliferation financing cases:

4.1. The story behind case study 1

The dictatorial leadership of Badland wants its country to become a nuclear power to strike fear in the hearts of its enemies. Although Badland is rich in natural resources, it neither comprises a broad and sophisticated industry nor university or research facility personnel capable of building the bomb. Badlands' secret service elaborates a multi-stage process together with paid foreign scientists, in order to obtain the required ability within the next years. One of these steps consists of acquiring gas centrifuges from the black market. The seller, an old acquaintance of the involved secret service agents, agrees to deliver the centrifuges for a multimillion price payable in monthly instalments of EUR 200,000.-, which

shall be paid to five different shell companies in inconspicuous partial amounts of ***EUR 40,000.-****. The companies he names them, are distributed all over the world and have unspecific names: "Red Sun LLC" in Hong Kong, "Sicon Ltd." in Cyprus, "Omega Corp." in the United Kingdom, "Jones & Jones Import Export Ltd." in Zimbabwe and "****Jupiter Ltd.****" in the Netherlands. From there the money will be transferred through different channels to the individuals he represents, the seller explains. The secret agents agree and establish, via a complex holding structure ultimately controlled by the government of Badland, a front company named "****Delicious Foods Inc.****" in Freeland, a country generally known for its weak anti-financial crime legislation. They open a bank account at the regional bank "Faraway Bank", whose responsible relationship manager and compliance department seem to have no further questions regarding the business model, ownership structure, and source of funds of "Delicious Foods Inc.".*

4.2. The story behind case study 2

Super Trade Corp.'s *business is doing badly. There have been rumors that the management will dismiss many employees based on their sales figures. Sales Manager Carla has no intention to be one of them. Just recently, she was promoted to Country Sales Manager for Desertland. Although it's a small market and she manages it alone, she really likes the big scope of discretion that Super Trade Corp. granted her for managing it. Thus, she accepts a purchase request from a Desertlandian company named "****Deluxe Materials LLC****", which is formally registered in an offshore location abroad. As the counterpart is somehow non-transparent and she has no reliable data on its solvency, she only accepts the trade in form of a L/C confirmed by Super Trade Corp's principal bank Homebank. She calls the responsible relationship manager from Homebank, Bob, who is happy to help his number one client Super Trade Corp. As* ***ceramics*** *do not possess a recognizable reputational risk, both agree that the missing information regarding the end-use of the products is acceptable. Meanwhile, the good news spread amongst the members of Badlands' nuclear weapons program. Their front company "****Deluxe Materials LLC****", which they control over a complex holding structure, seems to almost have achieved to buy the high-tech ceramics they need for building the nose-tips of its nuclear missile's arsenal. The overland transport from the nearby ports of Badland's neighboring country Desertland will not pose a problem, as the border controls are extremely weak and the border officials highly corrupt. Now the success*

of their undertaking depends solely on the internal permission of Homebank's compliance department, in the person of its Compliance Officer Alice.

4.3. Key issues and their consequences for the counter-proliferation financing program

It is indisputably of primary importance that potential financial crimes are recognized as such. Indeed, such conducts - regardless of its precise categorization as money laundering, terrorist financing or proliferation financing - are reported to the authorities and countered by the bank with different risk-mitigating measures. Thus, from the perspective of protecting the specific financial institution, it could appear that it makes little difference if, for example, the trade finance transaction from case 2 is rejected because of (a wrong) suspicion of possible trade-based money laundering instead of the (correct) possibility of a proliferation financing event.

Nevertheless, an accurate identification of the transaction as possible proliferation financing, seems worth pursuing for the following reasons:

(1) The severity of the mitigating measure may depend on the classification as potential money laundering or proliferation financing act. Thus, a financial institution may decide to report a transaction as potential money laundering activity to the authorities but allow the business relationship to continue unless it receives feedback that substantiates the suspicion. In many cases this is perfectly legitimate because the financial institutions do not have the means to check mere suspicious circumstances for their actual criminal relevance. In the case of proliferation financing, which is much less common than the *potential* money laundering, a more rigorous approach may be appropriate. Here, in case of doubt, it may be preferable to completely refrain from the transaction in question (despite the existing uncertainty) and not to accompany any transactions with the relevant transaction parties in the future.

(2) The classification as potential proliferation financing guides and sharpens a comprehensive investigation of further possibly relevant transactions or business relationships with the transaction parties, i. e. whether previous transactions have already been conducted with counterparties that fulfill typical risk indicators of proliferation financing. Aspects that might not be given sufficient importance in the context of an investigation under the pretext of potential money laundering.

(3) All suspicious activity reports (SARs) submitted to the competent authorities (i. e. the so-called *"Financial Intelligence Units"*) are prioritized by them for further investigation, due to their large number. Cases relating to money laundering, however, represent the vast majority of reports received by these agencies. Therefore, they might often not be considered to be more urgent than other reports. As a result, a case that may be incorrectly classified as potential money laundering act will frequently be examined by the investigating authorities with a considerable time delay. A time delay that affects the timely identification of the transaction as actual PF activity. If, on the other hand, the SAR (also) refers to a possible proliferation financing act from the outset, prioritized processing by the authorities can be assumed. This is crucial, because it means that a proliferation apparatus can be uncovered even before all the necessary parts for the construction of the WMD could be gathered and the construction of the weapon could be completed. Banks that clearly identify relevant transactions as potential proliferation financing thus contribute significantly to countering and preventing the underlying threats of proliferation.

The CPF program must thus be geared toward the specific identification of suspicious behavior as potential proliferation financing.

This requires that it provides appropriate training on PF for compliance staff so that they can actively consider the possibility of proliferation financing in the first place. Furthermore, it may be appropriate to specify in internal work instructions that suspicious activity reports must explicitly refer to the possibility of the existence of proliferation financing if relevant risk indicators are present. Finally, the bank's policies and procedures should also provide for standardized mitigating measures that reflect the financial institution's risk appetite in potential proliferation cases.

PART TWO: INTERNATIONAL CRIMIAL LAW

Across border, the utilization of WMD in both armed conflicts and terrorist attacks can have devastating effects on high numbers of human lives and the survival of entire peoples. Thus, in its very nature, WMD relate to international and humanitarian law and explains the creation of several corresponding international treaties like those mentioned in the previous chapters.

Even though these international treaties are all formally international law, on a material level they are not restricted to interstate public or administrative law. Rather they can also include provisions typically attributed to the field of criminal law, i. e. the typification of certain behaviors and the linkage of criminal consequences to them.

The international provisions that meet these criminal characteristics can be divided into two groups, depending on the way of their legal enforcement:

The first group relies on an indirect legal enforcement system, meaning that the respective convention that identifies a certain conduct as international crime, establishes a duty upon the parties to include and punish this crime in their respective national criminal law systems.[310] This is the case for conventions like the "International Convention for the Suppression of Acts of Nuclear Terrorism"[311], the "Convention on the Physical Protection of Nuclear Material"[312], the "Convention for the Suppression of Terrorist Bombings"[313], and the "International Convention for the Suppression of the Financing of Terrorism"[314]. The mentioned treaties contain - in a more or less explicit way - international crimes that are at least related to the use of WMD and its financing, i. e. the crimes of "nuclear terrorism",

[310] M. Cherif BASSIOUNI, *International Criminal Law* (3rd ed.), Leiden, The Netherlands: Koninklijke Brill NV, 2008, p. 158.
[311] United Nations, International Convention for the Suppression of Acts of Nuclear Terrorism, New York, April 13, 2005, adopted by resolution A/RES/59/290: "Article 5: Each State Party shall adopt such measures as may be necessary: (a) To establish as criminal offences under its national law the offences set forth in article 2; (b) To make those offences punishable by appropriate penalties which take into account the grave nature of these offences."
[312] IAEA, *Convention on the Physical Protection of Nuclear Material of 26 October 1979*, INFCIRC/274 (November 1979): "Article 7: 1. The intentional commission of: […] (c) an embezzlement or fraudulent obtaining of nuclear material […] shall be a punishable offence by each State Party under its national law. 2. Each State Party shall make the offences described in this article punishable by appropriate penalties which take into account their grave nature."
[313] United Nations, International Convention for the Suppression of Terrorist Bombings, New York, December 15, 1997, adopted by resolution A/RES/52/164: Article 2 in conjunction with article 4 (cf. fn. 176).
[314] International Convention for the Suppression of the Financing of Terrorism, New York, December 9, 1999, adopted by resolution A/RES/54/109: Article 2 in conjunction with article 4 (cf. fn. 176).

"fraudulent obtaining of nuclear material", "use of explosives" and "financing of terrorism".[315]

The second group consists of material criminal law provisions, which are also gathered in sources of international law, but whose legal enforcement does not require a prior implementation in a national law system. The whole set of these directly applicable provisions of supranational criminal law is what we generally refer to as "*international criminal law*".[316] As international criminal law is formally international law; its provisions can be found within all types of legal sources applicable for international law. The legal sources of international law that are generally accepted in legal science and international jurisprudence, are those listed in article 38 of the *Statute of the International Court of Justice (ICJ-Statute)*, namely the "international conventions", "international custom" and the "general principles of law".[317]

An international convention in the sense of article 38 ICJ-Statute with criminal law characteristics is the *Statute of the International Criminal Court (ICCS)*, also known as "Rome Statute", according to the place of its negotiation and adoption by 148 states in 1998.[318] The ICCS is the contractual basis of the *International Criminal Court* (ICC) in The Hague and contains the international agreement of its establishment, as well as rules of court organization, procedural law and a catalogue of international criminal offences punished with a penalty range of thirty years up to life.

In this part of the thesis it will be shown that proliferation financing can constitute punishable aid to several of these international criminal offences, which thus can lead to the corresponding conviction of bankers and other financiers by the ICC.

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[315] For a comprehensive study on international crimes, see BASSIOUNI, op. cit., pp. 134 et seq., who identifies 267 conventions with penal characteristics that comprise a total of 28 international crimes, e. g. the crime of aggression, genocide, crimes against humanity, war crimes, piracy, slavery, human trafficking, torture and the four mentioned.

[316] Kai AMBOS, *Internationales Strafrecht: Strafanwendungsrecht – Völkerstrafrecht – Europäisches Strafrecht – Rechtshilfe* (5th ed.), Munich, Germany: C. H. Beck, 2018, p. 99; with further references Gerhard WERLE & Florian JESSBERGER, *Völkerstrafrecht*, Tübingen, Germany: Mohr Siebeck, 2016, p. 43, fn. 207.

[317] Prosecutor v. Kupreškić et al. (Judgement), ICTY-95-16-T, Trial Chamber (January 14, 2000), paras. 540 et seq.; Stephan HOBE, *Einführung in das Völkerrecht – Begründet von Otto Kimminich* (9th ed.), Tübingen, Germany: Narr Francke Attempto Verlag, 2008, p. 179; Helmut SATZGER, *Internationales und Europäisches Strafrecht – Strafanwendungsrecht, Europäische Straf- und Strafverfahrensrecht, Völkerstrafrecht* (8th ed.), Baden-Baden, Germany: Nomos, 2018, p. 288, fn. 17; Wolff HEINTSCHEL VON HEINEGG, *Die völkerrechtlichen Verträge als Hauptrechtsquelle des Völkerrechts*, in Knut Ipsen (Ed.), *Völkerrecht* (7th ed.) (pp. 390 – 470), Munich, Germany: C. H. Beck, 2018, p. 388; please note that the in article 38 ICJ-Statute stated "judicial decisions" and "opinions of the most highly qualified publicist" are no types of legal sources, but subsidiary means for the interpretation and determination of the mentioned three sources.

[318] Adopted by 120 to 7, with 21 states abstaining, see WERLE & JESSBERGER, op. cit., para. 67.

Chapter 1: The scope of considerations: The International Criminal Court and its competencies

Like the ICC, other courts have been established by multi-national or international bodies in order to prosecute international crimes exclusively on an international criminal law basis.[319] Such courts were i. e. the International Military Tribunal (IMT) in Nuremberg, the International Military Tribunal For the Far East (IMTFE) in Tokyo, the International Criminal Tribunal for the Former Yugoslavia (ICTY) in The Hague, and the International Criminal Tribunal for Rwanda (ICTR) in Arusha.[320] In a broader sense, the post-IMT US military tribunals in Nuremberg can also be included in this group of courts, which - although national courts - were built on the basis of a multi-national act between the victorious allies in order to uniformly apply international criminal law in the four German zones of occupation.[321]

1. The Court as reference point for international criminal law

All these courts were empowered by their respective statutes to prosecute in whole or in part the crimes of "genocide", "crimes against humanity", "war crimes" and the "crime of aggression".[322] The same international crimes on which article 5 ICCS extends the competence of the ICC. However, this similarity in the field of prosecutable crimes should not distract from the fact that the ICC significantly differs from the other international courts in some central aspects:

[319] Santiago URIOS MOLINER, *Antecedentes históricos de la Corte Penal Internacional*, in Juan Luis Gómez Colomer, José Luis González Cussac, & Jorge Cardona Llorens (Eds.), *La Corte Penal Internacional: Un estudio interdisciplinar*, Valencia, Spain: Tirant lo Blanch, 2003, pp. 23 et seqq. Besides these courts, which apply exclusively international criminal law, a number of courts exist that have both national and international legal bases ("hybrid courts"). Such courts are e. g. the Special Court for Sierra Leone, the Special Tribunal for Lebanon, and the Extraordinary Chambers in the Courts of Cambodia.

[320] After the closure of the ICTR in 2015 and of the ICTY in 2017, the International Residual Mechanism for Criminal Tribunals (IRMCT) has assumed their central functions, i. e. the tracking and prosecution of remaining fugitives. Thus, the IRMCT is an additional independent international court like the others mentioned.

[321] Control Council, Law No. 10 – Punishment of Persons Guilty of War Crimes, Crimes Against Peace And Against Humanity, Berlin, December 20, 1945: "In order to give effect to the terms of the Moscow Declaration of October 30, 1943, and the London Agreement of August 8, 1945, 'Concerning Prosecution and Punishment of Major War Criminals of European Axis' and the Charter issued pursuant thereto and in order to establish a uniform legal basis in Germany for the prosecution of war criminals and other similar offenders, other than those dealt with by the International Military Tribunal, the Control Council enacts as follows: Article I: The Moscow Declaration […] and the London Agreement […] are made integral parts of this law. […]"

[322] Although with slide differences in wording and systematics: I. e. the designation of the crime of aggression as "crime against peace" and the creation of genocide as crime for its own and not as subset of a crime against humanity.

(1) All the other courts were limited to pass sentences on a specific and delimitable event in history. The IMT and the following US military tribunals served for judging the atrocities committed in Germany during National Socialism and World War II, as did the IMTFE analogously for Germany's Axis ally Japan. The ICTY was constituted on an *ad hoc* basis, to treat the crimes committed during the armed conflicts in the Balkans in the 1990s. Similarly, the ICTR was founded *ad hoc* for those committed during the mass slaughter of Tutsi in Rwanda in 1994. The ICC on the contrary is a *permanent* court with a potentially universal and temporally unlimited jurisdiction over international crimes.[323] Thus, since the beginning of its functioning in July 2002, the ICC handled several proceedings consisting of independent events, e. g. the Ituri conflict in the Democratic Republic of Congo from 1999 to 2003, the armed conflicts between the Seleka and Anti-Balaka in Central African Republic from 2013 to 2014, and the conflicts in Ivory Coast during the presidency of Laurent Gbagbo in 2010 and 2011.

(2) The approaches, methodologies and interpretations elaborated by the courts can vanish with the termination of their mandate, as they have no direct or binding influence on other international criminal law courts. A feasible influence only exists when fundamental decisions of an international court are generally accepted by the international community and thereby become binding customary law, or when the judges of one court align their thinking to interpretations of other international tribunals by using them as subsidiary means for the determination of rules of law. The existence of the ICC, however, is not linked to a certain event and is therefore principally unlimited. This allows ICC's jurisprudence to evolve in a long-term and *consistent* manner, by basing its legal considerations on an increasing number of own previous decisions and established methodologies.[324]

(3) The Statutes of the other international courts do not compare to the criminal codices of national law systems with regard to detail and especially lack regulations concerning general criminal law topics, e. g. on forms of action, intent and participation. Consequently, the judges of these courts frequently turned to the alternative legal sources of custom and general

[323] Ambos even speaks of an "institutionalization" of criminal law.

[324] Article 21 para. 2 ICCS: "The Court may apply principles and rules of law as interpreted in its previous decisions"; cf. Prosecutor v. Jean-Pierre Bemba Gombo (Judgement pursuant to Article 74 of the Statute), ICC-01/05-01/08, Trial Chamber III (March 21, 2016), para. 74: "[…] Yet, the use of the modal "may" indicates that the Chamber is not obliged to apply previous decisions, affording the Chamber a considerable degree of discretion concerning the use of the Court's case law. While mindful of its discretion, the Chamber considers that, where appropriate, following the Court's previous jurisprudence – and in particular the findings of the Appeals Chamber – is desirable in the interests of expeditiousness, procedural economy, and legal certainty."; AMBOS, *Internationales Strafrecht*, op. cit., p. 109; WERLE & JESSBERGER, op. cit., p. 111, para. 249.

principles to identify the applicable law. The much more *detailed* ICCS reduces the importance of these two alternative sources drastically. On the one side formally, by establishing a hierarchy of application in article 21 para. 1 ICCS that states a primacy of application of the ICCS over them. On the other side materially, by including the content of existing customary law in its text and by setting explicit rules on aspects of general criminal law, which heretofore had to be deduced principally from the general principles of law.[325]

(4) The Military Tribunals in Nuremberg and Tokyo as well as the International Tribunals for the former Yugoslavia and Rwanda, had significant weaknesses concerning their legitimation and perceived neutrality. The Allies installed the IMT and the IMTFE after their victory over the German Third Reich and the Empire of Japan in World War II, limiting the accusations exclusively against members of the losing side. As such, highly critical actions by the victorious Allies – like the bombings of the cities of Dresden, Hiroshima and Nagasaki[326] – were left unattended and fueled the allegation of political victor's justice.[327] The ICTY and ICTR, on the other hand, were unilaterally installed by the United Nations Security Council (UNSC), acting under Chapter VII of the United Nations Charter.[328] Some consider this to be an over-extension of the wording and meaning of Chapter VII, which violates the principle of state sovereignty and undermines the court's independence from political interest.[329] However, the ICC does not have a legitimation deficit comparable to those of the other courts, as it underlies its competence on a statute, which was accorded in a free and equal manner between all its signatory states. This gives it a unique *legitimacy* to apply and develop international criminal law.

These four points in mind, the supreme relevance of the International Criminal Court for the current and future development of international criminal law appears indisputable. For this

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[325] Cf. WERLE & JESSBERGER, op. cit., pp. 109 et seq., para. 245.

[326] Hans-Peter KAUL, *Von Nürnberg nach Kampala – Reflexionen zum Verbrechen der Aggression*, ZIS 11/2010, pp. 637 - 643 (641); Malte Lehmann, *Atombomben auf Hiroshima und Nagasaki: Mord bleibt Mord, auch im Krieg*, Tagesspiegel, August 9, 2019; Jochen Buchsteiner, *Luftangriffe auf Dresden: Militärisch legitim oder Kriegsverbrechen?*, Frankfurter Allgemeine Zeitung, February 13, 2020.

[327] Q. v. WERLE & JESSBERGER, pp. 10 et seq., para. 25: "In terms of legal and political assessment, the actions of the victorious powers after the Second World War remained controversial. [...] The accusation of victors' justice was mainly fed by the fact that criminal proceedings for Allied war crimes were never carried out."

[328] For Jugoslavia: SR-Res. 827 v. 25.5.1993, UN-Doc. S/RES/827 (1993); for Rwanda: SR-Res. 955 v. 8.11.1994, UN-Doc. S/RES/955 (1994).

[329] Kosta CAVOSKI, *The Hague Against Justice (Part I): International Criminal Tribunal Fiasco in the Case of Tribunal Prosecutor v. Gen. Djordje Djukic*, Belgrade, Serbia: Center for Serbian Studies, 1996; Konstantinos D. MAGLIVERAS, *The Interplay Between the Transfer of Slobodan Milosevic to the ICTY and Yugoslav Constitutional Law*, EJIL 2002, volume 13, no. 3, pp. 661 - 667 (661 et seqq.); Norman PAECH, *Sinn und Missbrauch internationaler Gerichtsbarkeit*, lecture at a conference in Berlin on March 2nd, 2002, text available at http://www.ag-friedensforschung.de/themen/Voelkerrecht/paech.html.

reason, the following analysis will be limited to the coverage of WMD proliferation financing by the international criminal law provisions of the ICCS.[330]

2. The potential subsumption of proliferation financing under the crimes of the Statute

The Statute of the International Criminal Court (ICCS) includes, in a similar way as most national criminal law codices, a *General Part* and a *Special Part.*[331] The General Part contains provisions on general principles, punishments, rules of procedure, jurisdiction, judicial cooperation and the execution of sentences. The *Special Part* consists of the four so-called *core crimes* of Genocide (article 6 ICCS), Crimes against Humanity (article 7 ICCS), War Crimes (article 8 ICCS), the Crime of Aggression (article 8 *bis*) and their respective catalogues of subsets.

Despite the broad range of these subsets, none of the four crimes mentions the financing of WMD proliferation as possible offence. In fact, there is no criminal provision that would consider any form of financing as an autonomous criminal offence. Furthermore, there is no provision that deals with WMD in general, or explicitly with nuclear weapons or chemical weapons. Finally, those provisions that explicitly mention biological weapons are - as will be shown below - only applicable to a very limited group of signatories to the ICCS.[332]

The court practice of the ICC reflects this apparent regulatory deficit: The ICC, to the present day, ruled no case in which WMD were used. Furthermore, there was never a banker nor any other representative of the private sector in the dock, but heads of state, highly ranked military personal and other public servants.

Admittedly, the commission of genocide, crimes against humanity, war crimes and the crime of aggression are strongly linked to positions, organizational structures and capacities usually limited to state or quasi-state actors. Thus, an employee of a bank or another private

[330] Please note that while many of the following considerations are likely to be transferable to the statutes of other international or hybrid courts, significant differences may arise, in particular, from the respective interplay of the relevant offence with the general penal provisions of the respective statute, i. e. its specific rules on perpetration and participation.
[331] AMBOS, *Internationales Strafrecht*, op. cit., p. 100.
[332] Article 8 para. 2 (b) (xxvii) ICCS and article 8 para. 2 (e) (xvi) ICCS were introduced via an amendment adopted by the Assembly of States Parties at its 16th Session held in New York in December 2017 (Resolution ICC-ASP/16/Res. 4). However, the amendment enters only into force for those State Parties which have accepted the amendment one year after the deposit of their instruments of ratification or acceptance (see article 121 para. 5 ICCS). As at May 2021 this is the case for only 9 of the States party to the ICCS. According to Article 121 para. 4, general applicability of the provisions requires the deposit of instruments of ratification or acceptance by a still distant majority of 7/8 of the member states.

corporation may be perceived as a separate actor, unrelated to the frame of persons potentially responsible under international criminal law.

However, the fact that trials against representatives of the private sector had already been a part of international criminal law's legal precedents in the post-World War II military tribunals, counters this impression. Amongst the accused of committing war crimes and crimes against humanity during National Socialism were not only ministers, generals of the *Wehrmacht* and concentration camp supervisors, but also the heads of chemical companies, steel manufactories and major German banks.[333]

The ICC seems to consider itself as acting in tradition of these post-World War II trials. In 2003, ICC prosecutor Luis Moreno-Ocampo explicitly announced in his first public speech after being elected the intention of the Office of the Prosecutor, to investigate both, business actors that trade in arms and the banking system that helps fund these illegal business operations.[334]

Hence, there is a basic willingness by the ICC to prosecute members of the banking sector involved in the financing of illegal arms trade, as well as precedents in the history of international criminal law, in which bankers had been accused of war crimes and crimes against humanity, without the existence of an explicit subset of financing in the relevant statute's provisions. A criminal accountability of WMD proliferation financing under the ICCS therefore seems similarly possible. As there is no indication of financing as autonomous offence, this accountability is only conceivable in form of a participation or other form of subsidiary contribution to a principal offence conducted by a perpetrator directly using WMD. Numerous modalities of the core crimes, which, *inter alia*, criminalize the use of certain types of weapons and actions with particularly fatal effects on the life, physical integrity and property of many, appear to be promising starting points in this regard.

Chapter 2 is dedicated to the question, whether WMD-related acts could *a priori* be excluded from the judicial competence of the ICC. A question that requires clarification due to the

[333] I. e. the proceedings before the IMT and follow-up trials before US military courts against Reichsbank President Emil Puhl, Dresdner Bank CEO Karl Rasche, and members of the management of Krupp Group and I. G. Farben.
[334] Luis Moreno-Ocampo, Speech at the International Bar Association (IBA) Annual conference in San Francisco, September 14 – 19, 2003, found in editorial office of the LEGAL WEEK, *New ICC Chief puts Business Lawyers on Spot*, Legal Week, September 18 – 24, 2003, archive.globalpolicy.org/intljustice/icc/2003/0923presicc.htm; the prosecutor of the ICC, *Communications Received by the Office of the Prosecutor of the ICC*, Press Release no.: pids.009.2003-EN, July 16, 2003, pp. 3 et seq. (III. b), available on https://www.icc-cpi.int/sites/default/files/NR/rdonlyres/9B5B8D79-C9C2-4515-906E-125113CE6064/277680/16_july__english1.pdf.

special creation history of the ICC and its statute. Chapter 3 then identifies possible offences of WMD proliferation and use to which a proliferation financier could be an accessory. The legal requirements for such an act of assistance are then dealt with in Chapter 4. Chapter 5 provides an overview of possible shifts that could occur in the national prosecution of proliferation financing acts as nationally prosecutable international crimes.

Chapter 2: The Court's subject-matter competence in the light of the *voluntas legislatoris*

Immediately after the United Nations Diplomatic Conference of Plenipotentiaries on the Establishment of an International Criminal Court of 1998 in Rome ("Rome Conference"), the opinions of participants regarding the inclusion of WMD in the jurisprudence of the ICC, were highly negative. Hermann von Hebel, then chair of the working group on the definition of war crimes, stated in a text he wrote jointly with Darryl Robinson, member of the Canadian delegation, the following observation on the inclusion of WMD in the ICCS:

"In a solution described as 'Solomon-esque', the Bureau broke the impasse in the only way possible: By excluding all weapons of mass destruction from the Statute for the time being. The weapons provisions were restricted to those weapons subjects to most clearly established classical prohibitions, now appearing in paragraphs (xvii) to (xix)."[335]

Likewise, Philippe Kirsch, Chairman of the Committee of the Whole, and John T. Holmes, member of the delegation of Canada, published an article in 1999, where they seem to arrive to a similar conclusion as their co-participants, also detailing more the contextual issues:

"The inclusion of nuclear weapons was not possible in view of the current state of international law and the loss of support that the court would suffer if there were an attempt to outlaw nuclear weapons through this forum. On the other hand, excluding nuclear weapons while including the 'poor man's weapons of mass destruction' (e. g. biological and chemical weapons) proved equally impossible, as to do so would have sent a political signal unacceptable to many delegations. Therefore, none of these weapons are included in the list of prohibited weapons in article 8 para. 2 (b) of the ICC statute […]"[336]

[335] Hermann von HEBEL & Darryl ROBINSON, *Crimes Within the Jurisdiction of the Court*, in Roy S. Lee (Ed.), *The International Criminal Court: The Making of the Rome Statute; issues, negotiations, results* (pp. 79 - 126), The Hague, Netherlands: Kluwer Law International, 1999, p. 116.
[336] Philippe KIRSCH & John T. HOLMES, *The Rome Conference on an International Criminal Court: The Negotiating Process*, AJIL 93 (1999), pp. 2 - 12 (11, fn. 32).

1. The "Rome Compromise": An alleged exclusion of weapons of mass destruction related acts

The assumption that nuclear, biological and chemical weapons had been excluded from the scope of the ICCS is the result of a discussion that shaped the entire conference in Rome. In fact, already at an early stage of the negotiation process, the discussion revolved around the question whether the use of nuclear weapons should become a criminal offence under the ICCS as one of four formulation options in the Preparatory Committee's ICC Draft Statute explicitly proposed.[337]

Many non-nuclear weapon states, mainly from the Middle East, Asia and Latin America, advocated for the adoption of this formulation or likewise modifications of the other options. They based their position mainly on the general need for punishment concerning the usage of nuclear weapons, as well as on an in their view already existing prohibition of nuclear weapons under current humanitarian law.[338] Unsurprisingly, this opinion was not shared by the official nuclear weapons states Russia, China, United States, France and Great Britain which, together with Israel and a few NATO members, argued that the usage of nuclear weapons was not a violation of current customary international law and was not suitable for an inclusion into the ICCS that should reflect existing humanitarian law rather than having a legislative character.[339]

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[337] Preparatory Committee on the Establishment of an International Criminal Court, Draft Statute for the International Criminal Court, A/AC.249/1998/CRP.8, April 2nd, 1998, Part 2, War Crimes, Section B, (o) Options 1 – 4, Option 4 (vi).

[338] United Nations, United Nations Diplomatic Conference of Plenipotentiaries in the Establishment of an International Criminal Court – Rome, June 15 - July 17, 1998 - Official Records, A/CONF. 183/13 (Vol.II), New York, 2002, p. 154 (4th meeting, June 17, 1998), paras. 44 (Syrian Arab Republic), 48 (Lebanon), 62 (Costa Rica), 63 (Libyan Arab Jamahiriya), 66 (United Arab Emirates), 70 (Bahrain), 71 (Islamic Republic of Iran): "[…] nuclear weapons, which were the most devastating weapons of mass destruction, should be considered for inclusion in the draft Statute. The recent advisory opinion of the International Court of Justice made it clear that nuclear weapons were covered by humanitarian law, and States must respect such law.", 75 (Sweden), 76 (Sudan), p. 162 (5th meeting, June 18, 1998), paras. 10 (Kuwait), 14 (again Lebanon), 20 (Saudi Arabia), 23 (Tunisia), 26 (Thailand): "[…] He was in favor of including the use of nuclear weapons as a war crime, being an active party to the South-East Asia Nuclear Weapon-Free Zone. […]", 33 (Egypt), 48 (Algeria), 50 (Venezuela), 52 (Indonesia), 58 (Switzerland), 69 (Cuba), 74 (Mexico), 83 (Senegal), 88 (India), 92 (Chile), 93 (Bangladesh), 96 (South Africa): "Nuclear weapons and other weapons causing indiscriminate injury or suffering should be included. […]", 98 (Iraq).

[339] United Nations Diplomatic Conference of Plenipotentiaries in the Establishment of an International Criminal Court – Rome, June 15 - July 17, 1998 - Official Records, A/CONF. 183/13 (Vol.II), New York, 2002, p. 154 (4th meeting, June 17, 1998), paras. 53 (United States of America): "[…] the inclusion of nuclear weapons […] was legislative in nature. […]", 65 (China), 73 (Denmark); p. 162 (5th meeting, June 18, 1998), paras. 28 (France), 36 (Russian Federation): "[…] any list of banned weapons should include nuclear weapons. Since, however, it did not believe that international law contained any direct prohibition of the use of nuclear weapons, the Russian Federation was in favor of option 1 [which does not include nuclear weapons][…]", 40 (United Kingdom of Great Britain and Northern Ireland), 63 (Norway), 80 (Israel).

Due to the strong positioning of this group *contra* the inclusion of nuclear weapons during the negotiation process[340] that followed in the working groups, the Bureau of the Conference of Plenipotentiaries decided to draft a new proposal in which, even though the use of biological and chemical weapons remained criminalized, nuclear weapons were not mentioned any more.[341]

When presenting it to the Plenipotentiaries on July 10, 1998, this adjustment resulted in a heated debate, as some states considered it an unfair treatment of those parties, as they would not have the capacities for acquiring nuclear weapons, but only the remaining "poor" state's WMD.[342] Hereby, biological and chemical weapons whose inclusion in the ICCS had until then not been a real point of discussion, have become a critical topic for the successful conclusion of the Statute.

Shortage of time and the risk of a non-adoption of the entire ICCS due to this issue, forced the Bureau to take a pragmatic solution. It removed all explicit references to biological and chemical weapons from its final draft and circulated it between the plenipotentiaries on July 16, 1998.[343] The so-called "Rome Compromise" was born and the way paved for the adoption of the ICCS the following day.

Nevertheless, the exact outcome of the "Rome Compromise" remained unclear, and the participants of the conference went home with different understandings of what had been agreed upon. The positions oscillated from a mere exclusion of the mentioned articles with no further effects on the rest of the statute, a general exclusion of nuclear weapons related issues from the entire ICCS, to a general exclusion of all kinds of WMD related topics from the subject-matter jurisdiction of the International Criminal Court.[344]

2. Applicability of the Vienna Convention on the Law of Treaties

It is surprising with which certainty the representatives of the latter view advocate it, although the text of the ICCS does not explicitly mention such an exclusion of competence at any point. Although an explicit written exclusion could normally be expected for a topic

[340] Q. v. Ines PETERSON, *Die Strafbarkeit des Einsatzes von biologischen, chemischen und nuklearen Waffen als Kriegsverbrechen nach dem IStGH-Statut*, Berlin, Germany: Berliner Wissenschafts-Verlag, 2009, pp. 158 et seqq.
[341] Bureau of the Conference of Plenipotentiaries, *Bureau Proposal*, A/CONF.183/C.1/L.59, July 10, 1998.
[342] KIRSCH & HOLMES, op. cit., p. 7.
[343] Draft Statute of the International Court, A/CONF, 183/C.1/L.76/Add1 to Add 14, July 16, 1998.
[344] For a more detailed description of the positions and interpretations regarding the Rome Compromise, see PETERSON, op. cit., p. 139.

of such relevance and political magnitude, they seem to assume that the Rome Compromise *as such* has a legal effect on the interpretation of the content of the ICCS, i. e. by causing a teleological reduction of its content.

For this assumption to be valid, one must consider the interpretation norms applicable to the ICCS. The ICCS, as well as its "Rules of Procedure and Evidence"[345], do not include any provisions on how to interpret the ICCS that could be relevant for determining if and how the Rome Compromise could influence the interpretation of the Statute.

This lack of norms of interpretation in the treaty itself could allow subsidiary recourse to the *Vienna Convention on the Law of Treaties of May 23, 1969 (VCLT).*

The VCLT implements the interpretation of international treaties concluded after the adherence of the VCLT by the relevant parties, and is expressly applicable on such treaties that serve to constitute international organizations like the ICC.[346] As the VCLT is principally a treaty on the same formal level as the ICCS and not a kind of superordinate international law, from a strictly formalistic point of view a ratification of the VCLT by all states party to the ICCS would be necessary, in order to create a binding effect on the interpretation methods of the ICCS.

This requirement would not be met, as not all states party to the ICCS are also parties to the VCLT, like it is the case with France, Iceland, Jordan, Norway, Romania, South Africa, Uganda and Venezuela.

Nevertheless, the prevailing opinion considers the provisions of the VCLT regarding the interpretation of international treaties, as applicable on treaties between states not party to the VCLT. This is rationalized either by considering the VCLT itself has having become customary law or by considering it as already existing customary law.[347] Especially the ICJ, which according to article 119 ICCS would be the last instance for resolving disputes on the interpretation or application of the ICCS, has repeatedly emphasized and applied the latter

[345] The "Rules of Procedure and Evidence" are, together with the ICCS and the "Elements of Crimes", one of the three primary sources of law applied by the ICC (article 21 para. 1 ICCS).
[346] Articles 4 and 5 ICCS; This must be distinguished from the regulations on treaties between states and already existing international organizations, which are governed by the "Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations", done at Vienna on March 21, 1986.
[347] Territorial Dispute (Libyan Arab Jamahiriya/Chad), Judgment, I.C.J. Reports 1994, p. 19, para. 41; Oil Platforms (Islamic Republic of Iran v. United States of America), Preliminary Objections, Judgement , I.C.J. Reports 1996 (II), p. 812, para. 23; Kasikili/Sedudu Island (Botswana/Namibia), Judgement, I.C.J. Reports 1999, p. 1059, para. 18.

view.[348] As there is no reason to believe that the ICJ would treat the ICCS differently from other international treaties, the interpretation of the ICCS can be conducted by following the rules of the VCLT. Hereby, reference can be made directly to the relevant articles of the VCLT, instead of merely describing the customary law reflected in them. This corresponds to the judicial practice of the ICJ when interpreting treaties between non-party states of the VCLT.[349]

3. Evaluation of the "Rome Compromise" according to the Vienna Convention

According to article 31 para. 1 VCLT as general rule of interpretation

"[a] treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose […]".

The interpretation centers on the wording of the treaty in conjunction with its context. This *textual approach* does not ignore the actual contractual intent of the parties, but formalizes its determination by establishing a mandatory interpretation methodology. This methodology, despite starting its considerations at the wording itself, does not constitute a hierarchy of the mentioned wording, systematic and teleological elements of interpretation, but rather represents a "single combined operation"[350] between them.

When assessing the wording of the treaty, it must be stated that neither CBRN nor WMD in general are named explicitly in the initial version of the ICCS. Similarly, an explicit exclusion of WMD is not given. Thus, as a non-mentioning of WMD does not have the ordinary meaning to express the will of the contracting parties to exclude WMD from the ICCS in its totality, only the context of the ICCS could lead to the result that WMD are excluded from the Statute.

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[348] Kasikili/Sedudu Island (Botswana/Namibia), Judgement, I.C.J. Reports 1999, p. 1059, para. 18: "[…] As regards to the interpretation of that Treaty, the Court notes that neither Botswana nor Namibia are parties to the Vienna Convention on the Law of Treaties of May 23, 1969, but that both of them consider that Article 31 of the Vienna Convention is applicable inasmuch as it reflects customary international law. The Court itself has already had occasion in the past to hold that customary international law found expression in Article 31 of the Vienna Convention […]".

[349] Kasikili/Sedudu Island (Botswana/Namibia), Judgement, I.C.J. Reports 1999, p. 1059, para. 18: "[…] Article 4 of the Convention, which provides that it "applies only to treaties which are concluded by States after the entry into force of the … Convention with regard to such States" does not, therefore, prevent the Court from interpreting the […] Treaty in accordance with the rules reflected in Article 31 of the Convention. According to Article 31 of the Vienna Convention on the Law of Treaties […]".

[350] ILC, *Yearbook of the International Law Commission 1966: Documents of the second part of the seventeenth session and of the eighteenth session including the reports of the Commission to the General Assembly*, A/CN.4/SER.A/1966/Add.1, New York, USA: United Nations Publication, 1967, vol. II, p. 229; HEINTSCHEL VON HEINEGG, in *Völkerrecht*, op. cit., p. 411.

According to article 31 para. 2 VCLT this "context" shall comprise the text and its annexes itself, as well as

"[a]ny agreement relating to the treaty which was made between all the parties in connection with the conclusion of the treaty [and] [a]ny instrument which was made by one or more parties in connection with the conclusion of the treaty and accepted by the other parties […]".

Regarding the intra-statutory context, it is striking that the ICCS contains - in articles 8 para. 2 (b) (xvii) to (xx) - the criminalization of the employment of certain weapons, like bullets which expand or flatten easily in the human body. One could systematically argue that as the ICCS apparently requires the positive naming of some weapons in order to criminalize them, this must apply for all kinds of weapons, as otherwise the articles 8 para. 2 (b) (xvii) to (xx**)** would have no own legal objective. When following this understanding, the non-mentioning indeed would equal to an explicit exclusion of WMD from the Statute, being this a valid formal reflection of the Rome Compromise.

Articles 8 para. 2 (b) (xvii) to (xx) ICCS are subsets of war crimes that reflect the distinction in international humanitarian law between the prohibition of *means* of war and the prohibition of *methods* of war. On the one hand, prohibited methods of war are behaviors and tactics, like the intentional attack of civilians, civilian objects or members of humanitarian assistance, which - regardless of the instruments used - constitute a violation of international humanitarian law. On the other hand, prohibited means of war on the other hand, are all those instruments whose use is always considered a violation of existing humanitarian law, *regardless of the specific context of its usage* in an armed conflict. As articles 8 para. 2 (b) (xvii) to (xx) ICCS are the criminal reflection of this prohibited use of certain weapons *per se*, a conclusion *a contrario* that all other types of weapons would be excluded as possible instrumentalities for committing criminalized methods of war is not permissible. This is even more the case for those crimes that are not even war crimes, e. g. genocide, crimes against humanity or the crime of aggression. Consequently, the intra-statutory context does not lead to a total exclusion of WMD related matters from the ICCS.

Thus, the Rome Compromise is not reflected in wording and systematic of the statute itself. A contextual influence though could be established by an extra-statutory "agreement" or "instrument" in the sense of article 31 para. 2 VCLT, in which the Rome Compromise could be reflected.

As "agreement" only the Rome Compromise itself comes into question. Although the dispute on the integration of WMD was extensive and a crucial point of the negotiation process, it never reached a degree of formalization that could be considered as an agreement. The "Rome Compromise", despite being often referred to, is not clearly defined, and even the participants of the Rome Conference are not in unison when it comes to its exact content.

Even under the assumption that the Rome Compromise would have reached the formal and material degree of an agreement, it could only have an effect on the ICCS, if it would have had a connection with the conclusion of the treaty and if it had been made by all the parties to the ICCS. Whilst concluding the ICCS, several states formally declared that in their understanding WMD of all kinds are not excluded from the ICCS.[351] An absolute position that opposes all possible understandings of the Rome Compromise and that makes a parallel existing WMD-excluding agreement between all states highly unlikely, if not impossible.

Other states made contrary declarations whilst concluding the ICCS in which they expressed their understanding of the ICCS or parts thereof, as not being applicable to WMD related issues. Especially the representation of France was distinct in this regard, declaring as follows:

"I. Interpretive declarations:

> 1. […]
>
> 2. The provisions of article 8 of the Statute, in particular paragraph 2 (b) thereof, relate solely to conventional weapons and can neither regulate nor prohibit the possible use of nuclear weapons nor impair the other rules of international law applicable to other weapons necessary to the exercise by France of its inherent right of self-defense, unless nuclear weapons or the other weapons referred to herein become subject in the future to a comprehensive ban and are specified in an annex to the Statute by means of an amendment adopted in accordance with the provisions of articles 121 and 123.
>
> 3. […]
>
> 4. The situation referred to in article 8, paragraph 2 (b)(xxiii), of the Statute does not preclude France from directing attacks against objectives considered as military objectives under international humanitarian law.
>
> […]"[352]

[351] Rome Statute of the International Criminal Court, Rome, July 17, 1998, United Nations Treaty Series, vol. 2187, no. 38544, pp. 3 et seqq., pp. 622 et seq. (New Zealand), p. 631 (Sweden); The declarations and reservations of Egypt upon signature can be consulted on the website of the UN Treaty Depositary: https:// treaties. un.org /Pages/ ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII10&chapter=18&clang=_en#EndDec.

[352] Rome Statute of the International Criminal Court, Rome, July 17, 1998, United Nations Treaty Series, vol. 2187, no. 38544, pp. 3 et seqq., pp. 614 et seqq.

Consequently, the Rome Compromise is not an "agreement" in the sense of the article 31 para. 2 VCLT and therefore cannot have any influence as such on the interpretation of the ICCS.

The above statement by could constitute an "instrument" in the sense of 31 para. 2 VCLT. If this were the case, the Rome Compromise could manifest itself in it and thus have an influence on the interpretation of the ICCS. Instruments within the meaning of this article include the so-called "reservations" as well as the so-called "interpretative declarations".

According to article 1 (d) VCLT, reservations are unilateral statements made by a state during the adoption of the treaty, which declare the exclusion or modification of the legal effect of certain provisions of the treaty in their application to that state. They must be distinguished from the mentioned interpretative declarations, which are also unilateral statements made by single states, which do not purport to modify, but merely specify or clarify the content of the treaty or its provisions.[353]

Although the French statement is entitled "Interpretative declaration", article 1(d) VCLT expressly establishes that the naming of a statement has no influence on its identification as reservation. In fact it even appears that states tend to deliberately entitle their reservations as "interpretative declarations" to conceal their true nature.[354] The French statement lies materially on the fringe between an interpretative declaration and a reservation by postulating its understanding of article 8 in a very sharp and absolute way and with an isolated view on the effects on France, thus making a clear allocation complicated. In "interpretative declaration" no. 4 – although not being directly relevant for the question whether WMD are included in the ICCS – France even states that a provision does not "preclude" it from behaving in a certain way, thus showing that it certainly does not hesitate to entitle manifest reservations as mere "interpretative declarations".

Thus, it is more than justifiable to also consider the French statement under no. 2, despite its title, as a reservation.

However, according to article 19 (a) VCLT a state, when ratifying, may formulate a reservation, unless the treaty itself prohibits any reservations. This is the case in article 120

[353] ILC, *Guide to Practice on Reservation to Treaties*, in ILC, *Yearbook of the International Law Commission 2011: Report of the Commission to the General Assembly on the work of its sixty-third session*, A/CN.4/SER.A/2011/Add.1 (Part 2), New York, USA: United Nations Publication, 2018, vol. II, Part Two, chapter 1.2.
[354] HEINTSCHEL VON HEINEGG, in *Völkerrecht*, op. cit., p. 433.

ICCS, which provides that no reservations may be made to the ICCS. A hidden French reservation would therefore constitute a violation of article 19 (a) VCLT.

Nevertheless, the consequences of an infringement of the conditions in article 19 (a) VCLT remain unclear. Possible answers range from an invalidation of the reservation to the possibility of rectifying the infringement through the – even tacit – acceptance of its content by the other states party.[355] As other states expressly denied the French position during ratification, a tacit acceptance is out of the question. Thus, there is no need to solve the question of an infringement as in any case the reservation would not meet the objective requirements to create a binding effect on the interpretation of the ICCS. Consequently, if one regards France's statement as a "reservation", the Rome Compromise would not have any effect on the interpretation of the ICCS by that means.

When understanding the French statement in accordance with its title as mere interpretative declaration, the results are comparable: Interpretative declarations are, like reservations, instruments in the sense of article 31 para. 2 VCLT. Also not having a binding effect on the relevant treaty, their content must be taken into account when interpreting it. However, the mentioned contra statements of other states in favor of an inclusion of WMD into the ICCS substantively neutralize a possible influence of the negative but formally equivalent French statement. This is especially obvious in the case of the Egyptian declaration, which reads like a counter-model to the French statement:

"Declarations:

[…]

4. The Arab Republic of Egypt declares that its understanding of article 8 of the Statute of the Court shall be as follows:

(a) The provisions of the Statute with regard to the war crimes referred to in article 8 in general and article 8, paragraph 2 (b) in particular shall apply irrespective of the means by which they were perpetrated or the type of weapon used, including nuclear weapons, which are indiscriminate in nature and cause unnecessary damage, in contravention of international humanitarian law.

(b) […]

[…]"

[355] For a provisional nullity of the reservation, see ILC, op. cit., chapters 3.3.2 and 3.3.3.; for a general primacy of application of the consensus principle, see HEINTSCHEL VON HEINEGG, in *Völkerrecht*, op. cit., p. 437.

Thus, also the context of the ICCS does not provide a base for interpreting the statute in the sense that it does not include WMD.

It should be noted that the preparatory work of the treaty and the circumstances of its conclusions, which, after all, contained a Rome Compromise in some form or another, do not form part of the "context" in the sense of article 31 para. 2 VCLT. This understanding is mandatory, as the preparatory work and the circumstances are means of interpretation, which pursuant to article 32 VCLT are strictly subsidiary to those mentioned in article 31 VCLT. To determine the meaning of the treaty, recourse may be only possible, when the interpretation according to article 31 either leaves the meaning ambiguous or obscure, or when it leads to a result which is manifestly absurd or unreasonable.

As the shown interpretation according to article 31 VCLT leaves no doubts on the inclusion of WMD into the ICCS and this inclusion is reasonable, a potential inclusion of a negative view via a consideration of the negotiation process itself is mandatorily precluded by prevailing international law. WMD are therefore principally in the scope of the ICCS.

Finally, and in order to comply with the single combined operation required by article 31 VCLT, this result must be in line with the object and purposes of the statute. The identification of object and purpose of the ICCS must be based on the text of the statute in order to not circumvent the formal requirements of the textual approach by considering merely subjective aspects as valid teleological elements. In international treaties, the reflections on the motivations and views of the parties are mostly contained in the preambles and recitals of the respective conventions.

This is also the case for the ICCS. According to its Preamble,

"[t]he States Parties to this Statute, […] Mindful that during this century millions of children, woman and men have been victims of unimaginable atrocities that deeply shock the conscience of humanity, recognizing that such grave crimes threaten the peace, security and well-being of the world, […] Determined to put an end to impunity for the perpetrators of these crimes and thus contribute to the prevention of such crimes […]."

The prevention of high-scale atrocities is thus a central object of the ICCS. The inclusion of WMD, which by their very nature are instruments capable to cause high numbers of causalities, therefore complies with this object. Whereas an exclusion of WMD related criminal acts from the material jurisdiction of the ICC could even lead to motivate international criminals to opt for this kind of weapon rather than less harmful conventional

weapons in order to avoid prosecution by the ICC. An absurd result that would pervert the general preventive function of the ICCS by turning it into its opposite.

As a result it can be stated that the Rome Statute is not *a priori* precluded from being applied to WMD-related cases and that especially the Rome Compromise has no effect on its interpretation.

Chapter 3: Relevant principal offences

If the Rome Compromise did indeed provide for an exclusion of WMD-related cases from the scope of application of the ICCS, this ultimately had no impact on the interpretation of the ICCS and the subject-matter competence of the ICC. Thus, the consequential question arises whether and, if so, to what extent the ICCS offences cover the reality of WMD proliferation. Only if relevant acts are punishable as principal offences under the ICCS is it conceivable that there might also be an accessory liability for proliferation financing acts related to them.

Since the examination of a sufficiently comprehensive criminal policy response to the phenomenon is the focus of this work, it is obvious to start with criminal offences that have the potential to cover most of the relevant acts. These are undoubtedly the *per se* prohibited means of warfare mentioned above, as they could enable a criminal response to any conduct involving the use of relevant weapons.

However, also the other relevant articles of the ICCS must be assessed in order to determine if they provide for a coverage of WMD related matters. In this regard, all four core crimes of the ICCS - war crimes (article 8), crimes against humanity (article 7), genocide (article 6), and the crime of aggression (article 8 *bis*) - come into question. They, or rather their relevant sub-forms, are therefore subsequently examined for their applicability to WMD-related acts.

1. The war crime of employing poison or poisoned weapons

Article 8 - War crimes

1. The Court shall have jurisdiction in respect of war crimes in particular when committed as part of a plan or policy or as part of a large-scale commission of such crimes.

2. For the purpose of this Statute, "war crimes" means:

(a) […]

(b) Other serious violations of the laws and customs applicable in international armed conflict, within the established framework of international law, namely, any of the following acts:

[…]

(xvii) Employing poison or poisoned weapons;

[…]

The vast majority of offences in the catalogues of articles 6 – 8 *bis* ICCS require as result crimes *("Erfolgsdelikte")* the occurrence of a specific consequence of the criminal act, whether through the violation of a legal interest *("Rechtsgut")* or its concrete endangerment. A few subsets of war crimes, however, criminalize already as abstractly dangerous conduct crimes *("Tätigkeitsdelikte")* the mere use of certain means *per se*, without requiring the concrete endangering of somebody or something.

In its initial version of 1998, the ICCS already contained for such provisions, criminalizing the *per se* usage of certain types of weapons; namely of

- poison or poisoned weapons, in article 8 para. 2 (b) (xvii) ICCS;

- asphyxiating, poisonous or other gases, and all analogous liquids, material or devices, in article 8 para. 2 (b) (xviii) ICCS;

- bullets which expand or flatten easily in the human body, in article 8 para. 2 (b) (xix) ICCS; and

- weapons which are of a nature to cause superfluous injury or unnecessary suffering or which are inherently indiscriminate in violation of the international law of armed conflict, provided that such weapons are the subject of a comprehensive prohibition and are included in an annex to the ICCS, by an amendment in accordance with the

relevant provisions set forth in articles 121 and 123 of the ICCS, in article 8 para. 2 (b) (xx) ICCS.

As these conduct crimes are all war crimes in the sense of article 8 ICCS, the usage of these weapons must take place in the context of war. Their employment in times of peace is therefore not a crime under article 8 ICCS.[356] This context of war can be given either in international armed conflicts or non-international armed conflicts. The presence of an international armed conflict requires the performance of armed hostilities between two or more states. The identification of non-international armed conflicts depends on a certain degree of intensity of the actions as well as a typically hierarchical organization and command structure of the opposing groups, in order to allow their distinction from common criminality and minor insurgencies.[357]

The classification in international and non-international armed conflicts is reflected in the structure of article 8 ICCS, which follows the so-called *two box approach*: Articles 8 para. 2 (a) and (b) ICCS constitute the first box that comprises behaviors in international armed conflicts considered a war crime. Article 8 para. 2 (c) to (e) ICCS, the second box, comprise those behaviors, which in a non-international conflict would constitute a war crime.[358] Although there are several substantive duplications in both boxes, the list of subsets of non-international war crimes is considerably shorter than those referring to international armed conflicts. Firstly, because international war crimes are in great part a criminal law reflection of already existing treaties on humanitarian law, which regulate the *jus in bello* between states rather than minimum standards in non-international human conflicts. Secondly, because corresponding restrictions on internal armed conflicts were partly perceived as intervention in the right of states to handle sovereignly their national security issues, wherefore their acceptance amongst the contracting states of the Rome Conference was more limited.[359]

The above-mentioned penalized use of certain types of weapons *per se* is also based on already existing prohibitions in international humanitarian law, being article 8 para. 2 (b)

[356] BASSIOUNI, op. cit., p. 145.
[357] AMBOS, *Internationales Strafrecht*, op. cit., p. 292.
[358] AMBOS, *Internationales Strafrecht*, op. cit., p. 290.
[359] HEBEL & ROBINSON, op. cit., pp. 104 et seq.; cf. WERLE & JESSBERGER, op. cit., p. 25, para. 62, and pp. 539, paras. 1173 et seqq.

(xvii) ICCS directly derived from article 23 (a) Hague Regulations[360]; article 8 para. 2 (b) (xviii) from the 1925 Geneva Convention[361]; article 8 para. 2 (b) (xix) ICCS from the 1899 Hague Declarations[362], and article 8 para. 2 (b) (xx) ICCS on both the 1907 Hague Regulations and the Additional Protocol I to the Geneva Conventions of 1949.[363] Furthermore, the Conference of Plenipotentiaries exclusively included them in the first box of article 8 ICCS. Thereby leaving *inter alia* the employment of poison and asphyxiating gases in civil war scenarios – as crime *per se* - completely outside of the then material jurisdiction of the ICC.

However, since the adoption of the ICCS in 1998, the text was subject to a few amendments, which in part also related to the criminalization of *per se* prohibited weapons. The General Assembly of States Parties decided in its first Revue Conference in Kampala in 2010 to extend the scope of the mentioned weapon prohibitions to non-international conflicts by inserting mirrored provisions to them as new articles 8 para. 2 (e) (xiii), (xiv) and (xv) ICCS into the second box.[364] Seven years later, in its 16th Session held in New York in 2017, the Assembly even adopted provisions related to entirely new types of weapons, which should be integrated in both boxes, thus directly criminalizing their usage in international as well as non-international conflicts.

[360] Article 23 Regulations concerning the Laws and Customs of War on Land (Hague Regulations): "In addition to the prohibitions provided by special Conventions, it is especially forbidden (a) To employ poison or poisoned weapons; […]".
[361] Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva June 17, 1925 (1925 Geneva Protocol):"The undersigned Plenipotentiaries, in the name of their respective Governments: Whereas the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, has been justly condemned by the general opinion of the civilized world […] Declare: That the High Contracting Parties, so far as they are not already Parties to Treaties prohibiting such use, accept this prohibition […]".
[362] Declaration (IV,3) concerning Expanding Bullets, The Hague, July 29, 1899: "The undersigned, Plenipotentiaries of the Powers […] Declare as follows: The Contracting Parties agree to abstain from the use of bullets which expand or flatten easily in the human body, such as bullets with a hard envelope which does not entirely cover the core or is pierced with incisions. […]".
[363] Article 23 Regulations concerning the Laws and Customs of War on Land (Hague Regulations): "In addition to the prohibitions provided by special Conventions, it is especially forbidden […] (e) To employ arms, projectiles, or material calculated to cause unnecessary suffering; […]"; article 35 para. 2 Protocol Additional to the Geneva Conventions of August 12, 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), June 8, 1977: "It is prohibited to employ weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering."
[364] United Nations, Treaty Series, vol. 2868, p. 195. Resolution RC/Res.5 of the Review Conference of the Rome Statute: "Amendment to article 8 – Add to article 8, paragraph 2 (e), the following: (xiii) Employing poison or poisoned weapons; (xiv) Employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices; (xv) Employing bullets which expand or flatten easily in the human body, such as bullets with a hard envelope which does not entirely cover the core or is pierced with incisions."; Roger S. CLARK, *Amendments to the Rome Statute of the International Criminal Court Considered at the first Review Conference on the Court, Kampala, 31 May - 11 June, 2010*, GoJIL 2010, volume 2 (2010), issue 2, pp. 689 - 711 (707 et seqq.).

These weapons were

- weapons, which use microbial or other biological agents, or toxins, whatever their origin or method of production: See article 8 para. 2 (b) (xxvii) and article 8 para. 2 (e) (xvi) ICCS;[365]

- weapons the primary effect of which is to injure by fragments which in the human body escape detection by X-ray: See article 8 para. 2 (b) (xxviii) and article 8 para. 2 (e) (xvii) ICCS;[366] and

- laser weapons specifically designed, as their sole combat function or as one of their combat functions, to cause permanent blindness to unenhanced vision, that is to the naked eye or to the eye with corrective eyesight devices: See article 8 para. 2 (b) (xxix) and article 8 para. 2 (e) (xviii) ICCS.[367]

Although adopted by the General Assembly, these new articles had neither an immediate nor generally binding effect for all states party to the ICCS.[368] As amendments to article 8 ICCS, they rather also require formal acceptance by the individual states, generally via a ratification in order to enter into force for them after a period of one year since the acceptance. For the remaining states which have not accepted the relevant amendment, article 121 para. 4 and 5 ICCS establish that the court shall not exercise its jurisdiction regarding the relevant crime unless seven-eighths of the States party to the ICCS have deposited their instruments of ratification or acceptance with the Secretary-General of the United Nations. Consequently, the material jurisdiction of the ICC is not uniform for all states party but can reach different dimensions depending on the level of unanimity in later amendment initiatives.

For the list of *per se* criminalized employments of certain weapons, this means that only the employments of the initially mentioned four weapon types in an international armed conflict constitute a crime for all the states parties to the Statute. Regarding the expansion of their criminalization also to non-international conflicts from the Kampala amendments, many

[365] Resolution ICC-ASP/16/Res.4; circulated by the Secretary-General under cover of depositary notification C.N.116.2018.Treaties-XVIII-10 of March 8, 2018.
[366] Resolution ICC-ASP/16/Res.4; circulated by the Secretary-General under cover of depositary notification C.N.125.2018.TREATIES-XVIII-10 of March 8, 2018.
[367] Resolution ICC-ASP/16/Res.4; circulated by the Secretary-General under cover of depositary notification C.N.126.2018.TREATIES-XVIII-10 of March 8, 2018.
[368] Therefore, these articles may not be displayed in the current versions of the Rome Statute.

states party (especially from crisis-torn regions) did not ratify the corresponding provisions. In the case of the biological agents-based weapons, as introduced in the 16th session of the Assembly of States Parties in New York, only nine (exclusively European) countries have deposited their instruments of ratification of acceptance with the Secretary-General.[369] Article 8 para. 2 (b) (xxvii) and article 8 para. 2 (e) (xvi) ICCS on the *per se* prohibition of biological weapons therefore currently can be considered to have no practical relevance.[370]

When assessing the subsumability of WMD under all the indicated provisions relating to the *per se* criminalization of certain means of war, a consideration of WMD in their totality will not give any results. All the mentioned provisions put more emphasis on the technical properties of the prohibited weapons rather than to the general devastating effects caused by them through their perpetuated indiscriminate characteristics. This would have been the only possible common factor between the different types of WMD.[371] Even article 8 para. 2 (b) (xx) ICCS that starts from such an effect-based view, by referring to the superfluous injury, unnecessary suffering or indiscriminate nature of the weapons prohibited under it, finally limits its applicability to specifically named weapons listed in an annex to the ICCS. An annex that has not been filled with any content yet, making the norm practically obsolete.

The assessment cannot be based on an evaluation of the employment of WMD in general but has to be undertaken by assessing the employment of chemical, biological, nuclear and radiological weapons separately.[372] Only this way it can be determined if their specific properties correspond to what is considered a *per se* prohibited weapon in the sense of articles 8 para. 2 (b) (xvii) – (xx) ICCS. Since the other *per se* weapons prohibitions do recognizably not fit the characteristics of chemical, biological, nuclear or radiological weapons, the question narrows down in particular to whether these WMD types are to be regarded as "poison", "poisoned weapons" or prohibited "poisonous gases" and analogous liquids, materials or devices within the meaning of article 8 para. 2 (b) (xvii) and (xviii) ICCS.

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[369] Status as of August 1st, 2021. The countries are as follows: Croatia, Czech Republic, Latvia, Luxembourg, Netherlands, New Zealand, Norway, Slovakia, and Switzerland. The current status can be found on the website of the Treaty Section of the Office of Legal Affairs of the Secretary-General: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-10-d&chapter=18&clang=_en.

[370] Therefore, these articles may not even be displayed in most current versions of the Rome Statute.

[371] See Chapter 1, 1.1., cc.

[372] Although WMD - according to the understanding underlying this thesis - also includes future weapon types (see Chapter 1, 2.), such an assessment can of course only refer to known weapon types, i. e. nuclear, biological, chemical and radiological weapons.

1.1. The clear coverage of chemical weapons

Both article 8 para. 2 (b) (xvii) ICCS and article 8 para. 2 (b) (xviii) ICCS refer to poison as a prohibited mean of war. Be it directly as "poison" as such or indirectly, as “poisoned weapon” or “poisonous gas” and analogous liquids and materials. Despite the therefore obvious relevance of the poison concept to the ICCS, the term is not defined or further circumscribed in either the ICCS or in the “Elements of Crime”[373]. Similarly, the international treaties on which the two penal norms are based, i. e.: The Hague Convention and the 1925 Geneva Convention, do not contain such a definition.

Following the classical canon of interpretation, it is best to first asses the term’s ordinary meaning. When assessing the ordinary meaning of “poison”, it can be stated that it did not change over the last decades and even centuries.[374] So, as early as 1933, the Oxford English Dictionary defined “poison” as “any substance which, when introduced into or absorbed by a living organism, destroys life or injures health, irrespective of mechanisms, means or direct thermal changes.”[375] Similarly, the most recent print version of the Encyclopedia Britannica, defines poison as “a substance which, when taken into the mouth or stomach or when absorbed into blood is capable of affecting health seriously or of destroying life by its action on the tissues with which it comes into contact immediately or after absorption.”[376]

Following this ordinary understanding of “poison”, the concept would undoubtedly cover all types of chemical weapons as described in Part 1 of this thesis, namely nerve agents, blister agents, choking agents, blood agents, and incapacitating agents. And indeed, even in the academic discourse in international law, there seems to be little doubt that chemical WMD fall under the poison term of the Hague Convention and the 1925 Geneva Convention. Instead, the discussion focuses on the question if “poison” within the meaning of international humanitarian law also comprises less drastic means like riot control agents or defoliants.[377]

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[373] The “Elements of Crime” are, together with the ICCS and the “Rules of Procedure and Evidence”, one of the three primary sources of law applied by the ICC (article 21 para 1 ICCS).

[374] Nevertheless, the moral evaluation of the use of poison may have changed over time. In earlier centuries, the aspect of cowardice and dishonor of its use was certainly in the foreground, whereas nowadays human rights considerations might be more dominant.

[375] James A. H. MURRAY, *The Oxford English Dictionary*, Oxford, United Kingdom: Oxford University Press, 1933, Volume 3, III.

[376] The editors of Encyclopedia BRITANNICA, *Encyclopedia Britannica*, XVIII, p. 117.

[377] Michael BOTHE, *Das völkerrechtliche Verbot des Einsatzes chemischer und biologischer Waffen – Kritische Würdigung und Dokumentation der Rechtsgrundlagen*, Bentheim, Germany: Carl Heymanns Verlag, 1973, p. 3.

For the context of the ICCS, however, this question of the existence of a concept-immanent materiality threshold level of "poison" in international law does not arise. The Preparatory Commission, even though having avoided the challenge of creating an own definition of poison in the ICCS or its Elements of Crime,[378] implemented a threshold in the Elements of Crimes relating to the minimum effects of the substances used that does set less drastic means out of scope of the ICCS: The requirement that the substance has to cause death or serious damage to health in the ordinary course of events, through its toxic properties, in order to constitute an international crime.[379] Effects that riot control agents and defoliants typically do not cause. For the chemical WMDs, on the other hand, this ability to cause human death is, as shown, part of their defining properties.[380] The effect threshold of the Elements of Crime does therefore not preclude the application of the Statute's poison concept on WMD.

Nevertheless, and although neither the ordinary meaning of poison nor the Elements of Crimes indicate such a limitation, it could seem doubtful whether article 8 para. 2 (b) (xvii) ICCS covers all types of chemical WMD. From the perspective of the systemic argument it rather also seems possible that WMD gaseous chemicals are not covered by the provision. In this regard, article 8 para. 2 (b) (xviii) ICCS could represent a *lex specialis* to article 8 para. 2 (b) (xvii) ICCS, as it explicitly criminalizes the employment of poisonous gases.

Such an understanding, however, would stand on feet of clay as the same article 8 para. 2 (b) (xviii) in turn expands its scope of application on all "analogous liquids, materials or devices", thus to every thinkable aggregate state poison or a poisonous weapon could take.

To draw a dividing line between the two articles is therefore impossible and the identification of a primacy of application consequently not feasible. Although such a duplication does not seem very satisfactory from a *lex certa* point of view it can at least be explained in view of the peculiarities of international law, where nearby identical topics can be accorded, reaffirmed or specified in various treaties.

Articles 8 para. 2 (b) (xvii) and (xviii) ICCS are the literal copies of the content of two such treaties: The Hague Convention that prohibits the use of poison in war, and the 1925 Geneva

[378] Knut DÖRMANN, *Article 8*, in Otto Triffterer, *Commentary on the Rome Statute of the International Criminal Court – Observers' Notes, Article by Article* (2nd ed.) (pp. 323 et seqq.), Munich, Germany: C. H. Beck., 2008, p. 414.
[379] Elements of Crimes: Article 8 (2) (b) (xvii), element no. 2.
[380] See Part One, Chapter 1, 2., g, of this thesis.

Convention, which expressly reaffirms the Hague Convention, but centers more on the horrors of poison gas warfare as experienced in World War I. Existing consolidation effort between the content of both norms for the criminal law purposes of the ICCS fell victim to the pragmatism and time pressure driven decisions of the last days of the Rome Conference, which preferred to pay the price of uncertainty rather than to risk the non-inclusion of poison-weapons at all.

Although this does not discard the mentioned concerns regarding the *lex certa* principle it must be noted that the practical consequences of this ambiguous constellation should be almost nonexistent. The ICCS knows only the penalty range of article 77 ICCS, which equally applies to all articles of the ICCS, and independently of them being fulfilled cumulatively or alternatively. In other words: A potential war criminal who uses a chemical weapon might expect the same punishment before the ICC, regardless of the specific criminal offences identified by the judges.

As a result, it can be therefore at least stated that the usage of chemical agent based WMD in international armed conflicts would always constitute an international crime, regardless of the weapon's design or aggregate state. Only the formal question remains whether the punishment would be based on article 8 para. 2 (b) (xvii) ICCS, article 8 para. 2 (b) (xviii) ICCS or both in conjunction.

In the context of non-international conflicts, the provisions of articles 8 para. 2 (b) (xvii) and (xviii) ICCS find their counterpart in the identically worded articles 8 para. 2 (e) (xiii) and 8 para. 2 (e) (xiv) ICCS. In terms of content, the above considerations on the delimitation of the two provisions therefore apply accordingly. However, it must be stated that article 8 para. 2 (e) (xiii) and article 8 para. 2 (e)(xiv) ICCS do not apply to all contracting parties to the Rome Statute equally.

Rather, their application is currently limited to those states that deposited their instruments of ratification or acceptance regarding the Kampala Amendment of 2010 with the Secretary General of the United Nations.[381] Currently, this is the case for 40 - mainly European and South American - countries.[382]

Result: The ICCS considers any use of chemical WMD in international armed conflicts to be a criminal offence. Merely the applicable law in the individual case might be unclear. However, there is a considerable gap in terms of punishability with regard to the use of chemical weapons in non-international conflicts, i. e. in civil war situations. Whereas the use of chemical weapons in a civil war situation would constitute a war crime for approximately 40 states, the majority of these are stable Western democracies. The risk of a civil war using chemical weapons is low for these countries and the practical significance of the respective ICCS therefore very limited. For the majority of countries - including the practically more relevant ones, whose recent history has been marked by political instability and human rights violations - the use of chemical weapons in internal conflicts does not constitute an international crime under the ICCS.

1.2. The unclear coverage of biological weapons

Regarding biological weapons a possible classification under the "poison" term of article 8 para. 2 (b) (xvii) ICCS is far more disputable than in the case of chemical weapons. It is logical to doubt the fact that the targeted contamination with a disease could represent a poisoning in the sense of the ICCS, as pathogens cause an infection, which in a second step, by multiplication of the agents within the host, cause the relevant damage. Thus, they differ from harmful chemical substances, which interact with the body immediately and without further increase of the stock.

Authors like BRUNGS[383] and VAN WYNEN THOMAS/THOMAS[384] therefore deem the subsumption of pathogens under the concept of poison as undue extension of the general meaning of this term.

However, looking at the way the Oxford Dictionary and the Encyclopedia Britannica understand the concept of poison, it must be stated that both representatives of English

[381] Please note that in accordance with article 121 para. 4 ICCS, the amendment will enter into force for all states party one year after the date on which seven eighths of them deposited their instruments of ratification or acceptance with the Secretary-General of the United Nations.
[382] Status as of August 1st, 2021. For 2 of those 40, namely New Zealand and Mongolia, the provisions will enter into force within the next months, as soon as the one-year period of article 121 para. 5 ICCS has expired. The current number of submitted instruments of ratification or acceptance can be found on the website of the Treaty Section of the Office of Legal Affairs of the Secretary-General: *https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-10-a&chapter=18&clang=_en*.
[383] Bernard J. BRUNGS, *The Status of Biological Warfare in International Law*, MLR 24 (1964), pp. 47 - 95 (58 et seq.).
[384] Ann VAN WYNEN THOMAS & Aaron J. THOMAS, *Legal Limits on the Use of Chemical and Biological Weapons*, Dallas, USA: Southern Methodist University Press, 1970, p. 53.

language do not seem to consider this point decisive in their understanding of the term. Instead, both works focus on the harmful effects of the substances used on living organisms. These effects can come equally with both, chemical and biological agents. Doubts on the comparability of the cruelty of effects of chemical and biological weapons in individual cases, as presented by MCDOUGAL/FELICIANO[385], do not change this general classification. In the context of the ICCS, they might even be considered completely irrelevant, as the Statute's effect-based threshold requirement of death or serious damage to health would exclude potential less drastic biological agents already *a priori* from the statute's scope.

Furthermore, both Oxford Dictionary and Encyclopedia Britannica, do not limit the substances to non-biological substances or such of non-biological provenance. Living organisms and their toxic derivates would therefore be covered by the respective definitions. Hence, harmful germs, fungi and toxins can be considered as being covered by the ordinary meaning of the term "poison".

Outside the sphere of everyday language, strong indications for a general understanding of harmful germs, fungi and toxins as "poison" can be found. In the military context, especially the unmistakable definition of the United States Department of the Airforce seems noteworthy: It describes "poison" as "biological or chemical substance, causing death or disability with permanent effects when, in even small quantities, they are inserted, enter the lungs or bloodstream, or touch the skin."[386] Also international legal science includes pathogens since the 19th century under the "poison" term of the Hague Regulations and thus under international law's mother-provision of article 8 para. 2 (b) (xvii) ICCS.[387] GREENSPAN even sees bacteriological warfare as one of the "particular instances of infringements against the general prohibition of poison or poisoned weapons in war".[388] Similarly, DETTER considers the prohibition of poison and poisoned weapons the first prohibition of biological and chemical weapons at all, whilst stating that "it is clear that it covers weapons deliberately contaminated with germs or poisonous agents."[389]

[385] Myres S. McDOUGAL & Florentino P. FELICIANO, *Law and Minimum World Public Order: The Legal Regulation of International Coercion*, New Haven, Connecticut, USA: Yale University Press, 1961, pp. 639 et seq.
[386] UNITED STATES AIR FORCE, *International Law – The Conduct of Armed Conflict and Air Operations*, AF Pamphlet 110 - 31, Washington, USA: Government Printing Office, 1976, pp. 6 et seq.
[387] BOTHE, op. cit., p. 17, fn. 96.
[388] Morris GREENSPAN, *The Modern Law of Land Warfare*, Berkeley, USA: University of California Press, 1959, p. 359.
[389] Ingrid DETTER, *The Law of War* (3rd ed.), Oxford, United Kingdom: Routledge, 2016, p. 252.

With regards to state practice, which is highly relevant in international law, it should be noted that the US army instructions on Land Warfare of 1914 and 1940 prohibit the spread of infectious diseases explicitly in view of article 23 (a) of the Hague Land Warfare Convention.[390] As equally does its German counterpart "*Kriegsbrauch im Landkriege*" from 1902.[391] Although those two national understandings of "poison" in the context of the Hague Land Warfare Convention are not sufficient to deduce a correspondent international custom based understanding of the term, it is still a strong indication for a widespread understanding in this sense.

The wording and systematic interpretation thus argues in favor of a subsumability of biological weapons under the criminal offence of using poison and toxic weapons in article 8 para. 2 (b) (xvii) ICCS.

It is questionable whether biological weapons are also subsumable under the following article 8 para. 2 (b) (xviii) ICCS. Such a conclusion, however, could be supported by the argument that articles 8 para. 2 (b) (xvii) and (xviii) ICCS appear to be interchangeable with regard to chemical weapons and that therefore an interchangeability with regards to biological weapons could be likewise imaginable. Moreover, the wording that refers to "all analogous liquids, material or devices" indicates a wider scope than in (xvii), which could make it possible to cover biological weapons even without any remaining doubts about overstretching the wording. Finally, article 8 para. 2 (b) (xviii) ICCS is based on a provision of the 1925 Geneva Protocol for the Prohibition of the use in war of Asphyxiating, Poisonous or other Gases and Bacteriological Methods. Consequently, on an international treaty which not only contains the ban on bacteriological methods in its name, but about which the UN General Assembly - by way of a resolution - stated in 1969 that it:

"[…] embodies the generally recognized rules of international law prohibiting the use in international armed conflict of all biological and chemical weapons, regardless of any technical developments."[392]

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[390] US War Department - Office of the Chief of Staff, *Rules of Land Warfare*, Washington, Government Printing Office, 1914, p. 57, paras 176 et seq.; US War Department, *Rules of Land Warfare*, War Department Field Manual, FM 27-10, October 1st, 1940, United States Government Printing Office, Washington 1947, p.8: "28. […] It is especially forbidden to employ poison or poisoned weapons (H.R., art. 23, par. (a)). Application of rule. – This prohibition extends to the use of means calculated to spread contagious diseases […]".

[391] Kingdom of Prussia, Großer Generalstab – Kriegsgeschichtliche Abteilung I, *Kriegsbrauch im Landkriege*, Kriegsgeschichtliche Einzelschriften, Ernst Siegfried Mittler und Sohn, Berlin 1902, p. 10: "[…] gewisse, unnötige Leiden herbeiführende Kampfmittel von jeglicher Anwendung auszuschließen sind. Hierhin gehören: Der Gebrauch von Gift dem einzelnen Feinde sowohl, als auch den Waffen gegenüber (Vergiftung von Brunnen und Lebensmitteln, Verbreitung von ansteckenden Krankheiten, etc.) […]".

[392] General Assembly, Resolution 2603 (XXIV) Question of chemical and bacteriological (biological) weapons, A, 1836th plenary meeting, December 16, 1969.

Nonetheless and notwithstanding the aforementioned strong arguments in favor of a coverage of biological weapons under article 8 para. 2 (b) (xviii) ICCS, biological weapons are not eligible for subsumption under this provision, for the following reason:

In its mother norm, the 1925 Geneva Protocol after the actual prohibition of the use of "asphyxiating, poisonous or other gases, and all analogous liquids, material or devices", it is stated:

"That the High Contracting Parties […] accept this prohibition [and] agree to extend this prohibition to the use of bacteriological methods of warfare […]".

A contrario, bacteriological methods of warfare - which according to the prevailing opinion and in UN terminology are to be equated with biological methods in general - are not already included in the above-mentioned prohibition norm. A different understanding would undermine the formally interpreted will of the parties, who recognizably considered that an extension of the prohibition of the existing prohibition was necessary to have a comparable prohibition of biological weapons.[393] However, since the prohibition was integrated in the ICCS without a comparable widening annex referring to biological weapons, the clear limitation of the mother norms scope prohibits the application of article 8 para. 2 (b) (xviii) ICCS on biological weapons.

This has the consequence that there is no single poison term underlying the ICCS but two: "Poison and poisoned weapons" in article 8 para. 2 (b) (xvii) ICCS which covers both biological and chemical substances. And "poisonous gases, liquids, materials and devices", in article 8 para. 2 (b) (xviii) ICCS which does not cover biological substances.

It remains questionable, whether at least biological toxins, such as ricin, would be included by the poison concept of article 8 para. 2 (b) (xviii) ICCS, as they do not act like other biological weapons through the multiplication of pathogens in the host, but rather in a way comparable to chemical toxins. However, due to the term "bacteriological" weapons used in international law as a synonym for all biological weapons and the exclusion of these weapons from the relevant ban of the 1925 Geneva Poison Gas Protocol, an exclusion of biological toxins seems more correct.[394] In the context of the ICCS, such an understanding

[393] Cf. DÖRMANN, in *Commentary on the Rome Statute*, op. cit., pp. 419 et seq.
[394] In order to avoid misunderstandings that "bacteriological" weapons could actually only mean weapons with germs, the explanatory notation in brackets has become standard at the UN. See, e. g., GA Resolution 2603 (XXIV) of 1969 B: "The General Assembly […] Emphasizing the urgency of the need for achieving the earliest elimination of chemical and bacteriological (biological) weapons […]".

also serves the preferable approach in criminal law of choosing the narrower interpretation in case of doubt.

Nonetheless, the above academic reflections on the coverage of biological weapons through article 8 para. 2 (b) (xvii) and (xviii) ICCS, should not obscure the fact that the international judiciary is likely to consider a *per se* criminalization of the use of biological weapons by both articles as a highly sensitive topic. In fact, the diverging views on the content of the Rome Compromise still have an impact here and are likely to significantly increase the risk of individual member states withdrawing from the Rome Statute in case of an application of article 8 para. 2 (b) (xvii) ICCS on biological weapons.

This might explain why the ICCS was amended in 2017, with two articles punishing the use of biological weapons as such. For those states that will ratify this amendment, the using of biological weapons in both international (article 8 para. 2 (b) (xxvii) ICCS) and non-international conflict (article 8 para. 2 (e) (xvi) ICCS) will be punishable.[395] In contrast to the relationship between article 8 para 2 (b) (xvii) and (xviii) ICCS in the case of chemical weapons, this new article 8 para. 2 (b) (xxvii) ICCS is the more specific law, and thus preempts the more general article 8 para. 2 (b) (xvii) ICCS.

For those states which are a party to the Rome Statute but did not sign the 2017 amendment, a punishability of biological weapon use in international conflict continues to exist through article 8 para. 2 (b) (xvii) ICCS. However, the political reality also requires a broad agreement among the states party to the Statute on its regulations and interpretation in order not to undermine the contractual foundation of the International Criminal Court. A cautious understanding of the ICCS is therefore conceivable, when dealing with the sensitive issue of biological weapons criminalization.

It is also to be expected that the introduction of the amendment to explicitly include biological weapons will give the opponents of a subsumability under article 8 para. 2 (b) (xvii) ICCS the additional argument that the need for introducing a new article 8 para. 2 (b) (xxviii) ICCS for biological weapons shows that biological weapons have not been covered so far, i. e. neither through article 8 para. 2 (b) (xvii) nor article 8 para 2 (b) (xviii) ICCS.[396]

[395] Please note that due to the very limited number of states that have ratified the respective amendments, these articles may not be displayed in the current versions of the Rome Statute.
[396] Similarly with regard to the earlier Kampala negotiations, see Amal ALAMUDDIN & Philippa WEBB, Expanding Jurisdiction over War Crimes under Article 8 of the ICC Statute, *JICJ 8 (2010)*, pp. 1219 - 1243 (1228).

It therefore remains to be seen whether the introduction of an explicit *per se* prohibition of bioweapons in the ICCS will be ultimately beneficial or counterproductive to the purpose of their actual criminalization.

Result: The offence of using biological weapons, formally introduced by the 2017 New York Amendment to the ICCS, is not yet relevant in practice. However, the wording and systematics of the ICCS speak for a classification of biological weapons as "poison" and thus for a *per se* punishability of the use of biological WMD in international armed conflict. The same applies to non-international conflicts, provided that the relevant state has signed the Kampala Amendment. So far, however, mainly states have signed the amendment whose practical relevance as perpetrator or crime scene states is likely to be extremely limited. Nevertheless, it must be noted that it remains doubtful, whether a classification of biological weapons as poison in the sense of the Statute would be politically feasible for the ICC at all. Concerns about the withdrawal of some member states from the ICCS could rather push the court towards a very restrictive interpretation of the "poison" concept, which would not include biological weapons.

1.3. The polemic non-coverage of nuclear weapons

As in the case of biological weapons, the prohibition of nuclear weapons by international law on the basis of the poison bans of the Hague Convention on Land Warfare and the 1925 Geneva Protocol, is a contentious issue in jurisprudence, international politics and international law.

In fact, in 1963, the first international decision on the legality of the use of nuclear weapons, their illegality due to a possible violation of the two bans on poisonous substances was considered. In the proceedings before the Tokyo District Court, known as the "Shimoda Case"[397], Ryuchi Shimoda and four other victims of the Hiroshima and Nagasaki bombings sued for compensation from the USA. Although the claim for damages was not granted, the court held that the atomic bombing of Hiroshima and Nagasaki violated international law. The judges concluded that nuclear weapons had similar consequences than chemical and biological weapons previously known. By way of a first-instance conclusion, they ruled that the use of nuclear weapons violates international law's prohibition on causing unnecessary suffering:

"It is indeed a fact to be regretted that the atomic bombing of the cities of Hiroshima and Nagasaki took away the lives of tens of thousands of citizens, and that among those who have survived are those whose lives are

[397] District Court of Tokyo (Japan), Ryuichi Shimoda et al. v. The State, December 7, 1963; see also Yoshiro MATSUI, *The Historical Significance of the Shimoda Case Judgement, in View of the Evolution of International Humanitarian Law*, Summary of the keynote speech delivered at the Memorial Symposium for the 50th Anniversary of the Shimoda Case Judgement in Tokyo, Japan Association of Lawyers Against Nuclear Arms, December 8, 2013.

still imperiled owing to its radioactive effects even now after eighteen years. In this sense it is not to much to say that the sufferings brought about by the atomic bomb are greater than those caused by poisons and poisonous gases; indeed, the act of dropping this bomb may be regarded as contrary to the fundamental principle of the law of war which prohibits the causing of unnecessary suffering."[398]

Although the court does not go any further into the question whether the atomic bomb can be regarded as a poison or a poisoned weapon, it does address an elementary point: The effects of nuclear radiation on the human organism are in no way inferior to chemical and biological poisons. They rather appear to be identical with certain chemical poisonings, such as heavy metal poisonings that can regularly lead to metabolic damage and chromosomal aberrations.[399]

NATO and its member states are also aware of this "toxic effect" nuclear weapons have. In Annex II to the Protocol on Arms Control of the Paris Agreements of October 23, 1954, on the accession of the Republic of Germany to the North Atlantic Treaty Organization, they even consider it - together with its destructive thermo-mechanical effect - a defining characteristic of nuclear bombs:

"I.) a) An atomic weapon is defined as any weapon which contains, or is designed to contain or utilize, nuclear fuel or radioactive isotopes and which, by explosion or other uncontrolled nuclear transformation of the nuclear fuel, or by radioactivity of the nuclear fuel or radioactive isotopes, is capable of mass destruction, mass injury or mass poisoning."[400]

However, nuclear weapons' toxic or at least poison-like effects on the human organism as such are not sufficient to regard a nuclear weapon as "poison" or "poisoned" weapon. Rather, the common understanding of the word "poison" requires that the poisonous agent is also a substance that is absorbed by the body and thus damages it.[401]

The view of some authors that nuclear weapons can be regarded as poison or poisoned weapon simply because of the high toxicity of the fissile material used in them, i. e. uranium

[398] District Court of Tokyo (Japan), Ryuichi Shimoda et al. v. The State, 32 ILR pp. 626 - 634, para 11.
[399] Georg SCHWARZENBERGER, *The Legality of Nuclear Weapons*, The Library of World Affairs, volume 43, London, United Kingdom: Stevens, 1958, pp. 37 et seq.; Christopher Weeramantry, *Dissenting Opinion of Judge Weeramantry*, in ICJ, International Court of Justice, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, I.C.J. Reports 1996, pp. 509 et seq.
[400] NATO, Annex II to the Protocol no. III on the "Controls of Armaments, of the Brussels Treaty of Economic, Social and Cultural Collaboration and Collective Self-Defense signed at Brussels on Mach 17, 1948", of October 23, 1954.
[401] See above.

or plutonium, is therefore not convincing.[402] When a nuclear weapon explodes, it is not the poisonous uranium or plutonium ore that is absorbed by the body, but the radiation emitted by its nuclear fission. The chemicals uranium and plutonium as such do not interact with the body.

Same applies to the poisoning effect caused by contact with so-called "nuclear fallout", i. e. the radioactive dust that turns into rain and is thrown into the atmosphere after a nuclear weapon explodes. Some authors consider that the dust or rain represent the necessary materiality which is required for the affirmation of poison.[403] This view, however, fails to recognize that the fallout is merely the carrier platform of the harmful radioactive radiation and not the harmful substance itself, as it is the case with harmful chemicals or microbes.[404]

The question remains whether radioactive radiation itself could be a substance. This would be the case if it had materiality and was not like a ray of light that impinges on an object but did not necessarily bring a substance into contact with that object.[405]

In the case of a nuclear weapon explosion it is primarily the high-energy gamma radiation, which can penetrate the human body unhindered that is responsible for most of the radiation damage. Gamma radiation is an electromagnetic radiation that, like light and radio waves, has no material form. Alpha and beta radiation which also occur regularly, are particle radiations that enter the human body directly or through inhalation and cause biochemical damage there. Similarly, the (always present) harmful neutron radiation has the necessary materiality itself. Therefore, at least a part of the damage caused by a nuclear explosion is caused by substances that interact directly with the body and cause the corresponding symptoms of poisoning themselves.[406]

Alpha, beta and neutron radiation are poison and their emission during a nuclear weapon explosion makes the nuclear weapon a poisoned weapon. It is hereby irrelevant whether - in

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[402] Martin C. NEY, *Der Einsatz von Atomwaffen im Lichte des Völkerrechts– Summary: The Use of Nuclear Weapons and International Law*, Berlin, Germany: Peter Lang GmbH, 1985, p. 170; Richard FATF, Lee MEYROWITZ, & Jack SANDERSON, *Nuclear Weapons and International Law*, Princeton, New Jersey, USA: University of Princeton, 1981, pp. 26 et seq.

[403] Q. v. the references cited in PETERSON, *Die Strafbarkeit des Einsatzes von biologischen, chemischen und nuklearen Waffen*, op. cit., p. 259, fn. 1096.

[404] NEY, op. cit., pp. 171 et seq.

[405] See the considerations at Christopher WEERAMANTRY, *Dissenting Opinion of Judge Weeramantry*, in ICJ, International Court of Justice, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, pp. 288 et seq.

[406] H. Dertinger and H. Jung, *Molekulare Strahlenbiologie: Vorlesungen über die Wirkung ionisierender Strahlen auf elementare biologische Objekte*, 2013.

the case of a specific deployment - the radiation damage to the victims would be mainly due to gamma radiation and not to alpha, beta or neutron radiation. In the case of a *per se* prohibition of certain types of weapons only the objective characteristics of the weapon itself are decisive. In a nuclear weapon, the objective characteristic of poisonousness is objectively given by the mentioned radiation types.

Nuclear weapons or their radioactive radiation are poisoned weapons or poison and their use in international armed conflicts would be an international offence under article 8 para. 2 (b) (xvii) ICCS.[407]

The same arguments apply to article 8 para. 2 (b) (xviii) ICCS. The open wording of the provision with its addition of "similar liquids, substances and types of processes" even allows critics of the above-mentioned subsumption of radioactive radiation under the term poison to acknowledge that a coverage at least under the variant of the “similar type of process” would be conceivable.[408] Others also reject this classification on the grounds that the material must be gaseous within the meaning of article 8 para. 2 (b) (xviii) ICCS, since the provision deals with materials "analogous" to gases.[409] Radioactive radiation does not fulfil this requirement, which is why the use of nuclear weapons cannot constitute an offence under article 8 para. 2 (b) (xviii) ICCS.

This opinion is not convincing. At first, it is already a contradiction to demand that an analog material must be equal to the explicitly mentioned material. Analogy means comparability and not equality. In addition, the two-parted structure of the norm shows that "similar liquids, substances and types of processes" cannot mean gases. This entire formulation would be otherwise redundant, as the norm expressly prohibits "other gases" in the prior part of the norm.

However, the awkward sentence structure and wording can be explained by the fact that the authors of the 1925 Geneva Protocol did not want to create any loopholes regarding the

[407] Cf., with further references, Eberhard MENZEL, *Legalität oder Illegalität der Anwendung von Atomwaffen*, Tübingen, Germany: J.C.B. Mohr, 1960, pp. 35 et seqq.; SCHWARZENBERGER, op. cit., pp. 37 et seqq.
[408] NEY, op. cit., p. 185.
[409] Not totally clear: WERLE & JESSBERGER, op. cit., p. 671, para. 1499.

substances treated as gases in the military terminology of the First World War, which are not considered as gases in the scientific sense but as liquids or aerosols (i.e., mustard gas).[410]

This is also the background against which the widespread view should be understood, which does not deny the toxicity of radioactive radiation or at least does not discuss it further, but which rejects the subsumption of nuclear weapons under the 1925 Geneva Protocol and the Hague Ban on Poisons, because nuclear weapons were simply unknown to the authors of the mentioned treaties. Both, the Hague Poison Ban and the 1925 Geneva Protocol should therefore be limited to those weapons existing at the time of their adoption.

In fact, there is no doubt that the authors of both treaties had no nuclear weapons in mind. Nor was there any sign of development of such a technology which can surely be described as unimaginable at the time. However, there is no apparent reason why it should be assumed that the rules of the Hague Conventions should not cover future weapons if they are to be classified as poison. With the 1925 Geneva Protocol's ban on poison, such an assumption seems even more devious, as its explicit coverage of "analogous liquids, substances and types of processes", makes a dynamic understanding even an integral part of the norm.

Accordingly, the UN General Assembly recognized in its 1969 Resolution that

"[…] the Geneva Protocol embodies the generally recognized rules of international law prohibiting the use in international armed conflict of all biological and chemical weapons, regardless of any technical developments […]".[411]

Although a subsumption of nuclear weapons use under the poison bans of Hague Convention on the Law of War on Land and the Geneva Protocol thus seems obvious, the International Court of Justice (ICJ) comes to a different conclusion in an advisory opinion on the question if the threat or use of nuclear weapons is in any circumstance permitted under international law. The relevant paragraphs 54 to 56 of the ICJ Advisory Opinion state on this question:

"54. In this regard, the argument has been advanced that nuclear weapons should be treated in the same way as poisoned weapons. In that case, they would be prohibited under: […] b) Article 23 (a) of the Regulations respecting the laws and customs of war on land annexed to Hague Convention IV of 18 October 1907, whereby

[410] SIPRI, *The Problem of Chemical and Biological Warfare*, Stockholm, Sweden: SIPRI Publications, 2000, volume III, p. 45; Christopher WEERAMANTRY, *Dissenting Opinion of Judge Weeramantry*, in ICJ, International Court of Justice, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, p. 511; Nagendra SINGH & Edward McWHINNEY, *Nuclear Weapons and Contemporary International Law* (2nd ed.), Dordrecht, The Netherlands: Martinus Nijhoff Publishers, 1988, p. 126.

[411] United Nations General Assembly, Resolution 2603 (XXIV): "Question of chemical and bacteriological (biological) weapons", 1836 plenary meeting, December 16, 1969.

it is especially forbidden: . . . to employ poison or poisoned weapons' ; and c) the Geneva Protocol of June 17, 1925, which prohibits 'the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices.

55. The Court will observe that the Regulations annexed to the Hague Convention IV do not define what is to be understood by "poison or poisoned weapons" and that different interpretations exist on the issue. Nor does the 1925 Protocol specify the meaning to be given to the term "analogous materials or devices". The terms have been understood, in the practice of States, in their ordinary sense as covering weapons whose prime, or even exclusive, effect is to poison or asphyxiate. This practice is clear, and the parties to those instruments have not treated them as referring to nuclear weapons.

56. In view of this it does not seem to the Court that the use of nuclear weapons can be regarded as specifically prohibited on the basis of the above-mentioned provisions of the Second Hague Declaration of 1899, the Regulations annexed to the Hague Convention IV of 1907 or the 1925 Protocol (see paragraph 54 above)."[412]

Consequently, the ICJ does not address the ordinary wording of the provisions nor their systematic interpretation. The Court bases its view merely on the finding that state practice limits the prohibition to weapons whose at least primary effect is to poison the victim. Primary effect of nuclear weapons, however, is the mechanically destruction via heat and pressure, whilst radioactive radiation is considered a by-product of it.

This view has been adopted surprisingly uncritically by the majority of the international law literature and can probably be regarded as the now prevailing opinion.[413] Nevertheless, it seems worthy of review, both regarding the assumption of the existence of a state practice under customary law and regarding the fundamental consideration that a primarily toxic effect is required.

[412] International Court of Justice, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, p. 226.
[413] Erik BRÜEL, *Observations de M. Erik Brüel,* in *Annuaire de l'Institute de Droit International* (pp. 101 - 104), 1967, vol. 52, t. II, p. 103: *"qualité incidentelle"*; Michael COTTIER, *Article 8*, in Otto Triffterer (Ed.), *Commentary on the Rome Statute of the International Criminal Court – Observers' Notes, Article by Article* (2nd ed.) (pp. 275 et seqq.), Munich, Germany: C. H. Beck., 2008, p. 420; WERLE & JESSBERGER, op. cit., p. 658; PETERSON, op. cit., pp. 261 et seq., with further references in fn. 1108; in as similar way already in 1914: Karl STRUPP, *Das Internationale Landkriegsrecht*, Frankfurt am Main, Germany: Verlag Joseph Baer, 1914, p. 58.

With regard to existing state practice, the ICJ does not explain how it came to this view.[414] This would be necessary against the background that there are historical examples of weapons which undoubtedly fall under the ban on poison, but which do not have a primarily poisonous but mechanical effect. This i. a. applies to the mother of all poisoned weapons, so to say: The poisoned arrow. Its primary effect is, as with the poisoned bullet, the ballistic wounding of the enemy and not its possible additional damage by poison in case of the survival of the target.[415]

It is true that structurally there is a considerable difference between the poisoned arrow and the nuclear weapon. The poisoned arrow can act mechanically as an arrow without being poisoned. The thermo-mechanical effect of the nuclear weapon is only possible if the poisonous radiation is released at the same time. However, the international practice established by the ICJ does not take this difference into account. It does not exclude those weapons that must be poisonous in order to be primarily mechanical, but all those that are primarily thermo-mechanical, detached from their additional toxicity. The ICJ is therefore unable to explain, how and when this understanding of state practice is supposed to have changed from the times of non-acceptance of the poisoned arrow to the acceptance of nuclear weapons.

Such a well-founded statement of a corresponding change in state practice would have been decisive here, as no legal or logical reasons can be identified to justify the exclusion of weapons that only act secondarily as poison.

Moreover, the exclusion of such weapons involves, as ICJ Judge WEERAMANTRY rightly stated in his Dissenting Opinion on the Advisory Opinion, "[…] the legally unacceptable

[414] Q. v. Eric DAVID, *L'avis de la Cour International de Justice sur la licéite de l'emploi des armes nucléaires*, Revue Internationale de la Croix-Rouge, February 28, 1997, pp. 823 et seqq., para. 7, who claims to recognize in the preamble of General Assembly resolution 1653 (XVI) and in the subsequent resolutions referring to it a state practice of subsuming nuclear weapons under the two poison prohibitions. The passage referred to, however, does not provide such an understanding: "The General Assembly, […] Recalling that the use of weapons of mass destruction […] was in the past, prohibited as being contrary to the laws of humanity and to the principles of international law, by international declarations and binding agreements, such as […] the Conventions of the Hague Peace Conferences of 1899 and 1907, and the Geneva Protocol of 1925, to which the majority of nations are still parties, Considering that the use of nuclear and thermonuclear weapons would bring about indiscriminate suffering and destruction to mankind and its civilization to an even greater extent than the use of those weapons declared by the aforementioned international declarations and agreements to be contrary to the laws of humanity and a crime under international law […]".
[415] DAVID, op. cit., para 10.

contention that if an act involves both legal and illegal consequences, the former justify or excuse the latter."[416]

In the case of nuclear weapons, this nonsense is particularly evident. If one would disregard its thermo-mechanical effects, a nuclear weapon would remain a poisonous radiation weapon that causes long-term damage and kills thousands of people over the years. Its use would undoubtedly be a violation of the Hague and Geneva Protocols.

If an additional thermo-mechanical explosion is added to the ignition of the same weapon, which hereby becomes capable of killing a much higher number of people than solely via its poisonous rays, the weapon as a whole suddenly becomes legal under international law.

The only admissible assessment of this result was aptly described by the representatives of Solomon Islands in their observations on the written statements accompanying the request:

"He who does more cannot do less; the greater the destruction the more likely the legality of the weapon. The absurdity of this conclusion is only matched by the absurdity of the reasoning."[417]

However, despite the justified criticism it must be accepted that the ICJ's Advisory Opinion has also created facts under international law whose juridical-practical relevance can hardly be disputed. The understanding that the use of nuclear weapons is not covered by the poison bans of the Hague Convention and the Geneva Gas Protocol must therefore be the basis of a mother norm compliant interpretation of article 8 para. 2 (b) (xvii) and (xviii) ICCS. Consequently, and despite the legal-theoretical more convincing arguments, the use of nuclear weapons in international armed conflicts cannot be considered to constitute *per se* a war crime under the ICCS.

Of course, what has been said about article 8 para. 2 (b) (xvii) and (xviii) ICCS must also apply to the corresponding provisions of the non-international conflict, article 8 para. 2 (e) (xiii) and 8 para. 2 (e) (xiv) ICCS. The use of nuclear weapons as such would therefore also in the context of non-international conflicts do not constitute an offence under the ICCS.

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[416] Christopher WEERAMANTRY, *Dissenting Opinion of Judge Weeramantry*, in ICJ, International Court of Justice, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, p. 512.

[417] WHO and Solomon Islands, *Request by the World Health Organization for an Advisory Opinion on the Legality of the Use of Nuclear Weapons in View of their Effects on Human Health and the Environment – Written Observations Submitted by the Government of Solomon Islands to the International Court of Justice (II)*, June 20, 1995, para. 4.21; see also WHO and Solomon Islands, *Written Observations*, June 10, 1995.

Result: Although the better legal arguments speak for a classification of a nuclear weapon deployment as a *per se* prohibited use of poison, the reality of international law practice does not allow such a classification. The use of nuclear weapons therefore does not *per se* lead to criminal liability under the ICCS, neither in international nor non-international armed conflict.

1.4. Reflections on the coverage of radiological weapons

As shown in the previous chapter, radiation must be considered a poison in the sense of article 8 para. 2 (b) (xvii) ICCS, article 8 para. 2 (b) (xviii) ICCS, and their respective duplications in article 8 para. 2 (e) ICCS. The use of radiological exposure devices (RED) would therefore undoubtedly constitute a criminal offence under these articles, as their damaging effects are solely based on their toxic radiation. In contrast to nuclear weapons, they do not have a primary thermo-mechanical effect, which – in accordance with the ICJ Advisory Opinion – would elude their classification as poison or poisoned weapons.

Restrictions in the applicability of the mentioned articles arise from the threshold requirement in the Elements of Crime, which requires that the weapon must cause death or serious damage to health in the ordinary course of events, through its toxic properties.[418] Most REDs will not reach this threshold requirement as the emitted radiation will usually not be sufficiently strong. However, individual cases of REDs reaching this threshold are imaginable. If the use of a RED constitutes a war crime according to articles 8 para. 2 (b) and (e) ICCS therefore strongly depends on the potency of the respective RED.

The situation is similar with radiological dispersal devices (RDD). These cause damage primarily through the explosive device and less through the radiating substances added to it, whose main purpose is the psycho-terrorist effect of the use of such substances. The threshold requirement of the Elements of Crimes, however, requires considerable damage "through its toxic properties" and not through other elements of the specific weapon. Furthermore, when applying the ICJ Advisory Opinion *mutatis mutandis* on RDDs, the criminal liability of their usage under articles 8 para. 2 (b) (xvii) and (xviii) ICCS could be precluded because of their primarily thermo-mechanical effect. If this were the case, the same reasoning would consequently apply for their duplicated provisions in article 8 para. 2 (e) ICCS.

[418] Elements of Crime: Article 8 (2) (b) (xvii) element no. 2 and article 8 (2) (b) (xviii) element no. 2.

It is imaginable that the international jurisprudence will sharpen the understanding of poison to the effect that only thermo-mechanical weapons with inevitable toxic by-products would be excluded. This would be justifiable in so far as the "dirty bomb" - like a poisoned arrow - develops its mechanical effects technically detached from the merely added poisonous elements, thus differing considerably from nuclear weapons in structural terms. A decision different to the content of the ICJ's Advisory Opinion on nuclear weapons would therefore be reasonable and could be justified without substantially contradicting the past ICJ's line of reasoning.

Result: The use of radiological weapons (RED and RDD) in international armed conflict can constitute a criminal offence *per se*. The prerequisite for this is that the specific weapon is capable of causing death or serious damage to health in the ordinary course of events, through its toxic properties. Most radiological weapons, however, are unlikely to meet this threshold.

2. Other potentially relevant international crimes

Since WMD are not explicitly mentioned in the ICCS' text and in the light of conclusion of Chapter 2 that the ICCS is nevertheless applicable to WMD related facts, it is necessary to identify those criminal offences which, although not explicitly tailored to WMD, may nevertheless apply to their use.

In the same way as it has been shown that some WMD may fall under the Statute's "poison"-crimes, it is necessary to assess how the use of WMD can result in the commission of other international crimes, i. e. other war crimes not centered on the *per se* use of certain weapons, crimes against humanity, genocide and the crime of aggression.

In contrast to the prior chapter on the criminalization of *per se* prohibited types of weapons, which concentrates on the characteristics of the weapon itself, the focus here has to be on the effect on the protected legal interests, i. e. life, physical integrity and property. It is therefore crucial to keep in mind the typical effects of WMD as described in Part One, Chapter 1 of this thesis, i. e. their effects on a high and usually not limitable number of individuals and their long-term damaging effects.

2.1. Other relevant war crimes

Although almost any factual constellation is theoretically conceivable, there are several war crimes in the catalogue of offences of article 8 ICCS, whose requirements seem to fit particularly well with the characteristics and effects of WMD deployment. This applies in

particular to those war crimes provisions which contain life, physical integrity and property in general as protected legal assets *("Rechtsgüter")*. Such provisions, which come naturally to mind when considering the typical effects of WMD, can be found both in article 8 para. 2 (a) ICCS, which is based on the "grave breaches" of the Geneva Conventions, article 8 para. 2 (c) ICCS, which refer to article 3 common to the four Geneva Conventions, as well as in the elements of article 8 para. 2 (b) ICCS and article 8 para. 2 (e) ICCS, which reflect the prohibited methods of Hague Law.

War crimes that are tailored to punish actions against specific types of targets with special characteristics, e. g. such directed against persons involved in humanitarian assistance, prisoners of war and religious buildings, will be not dealt with any further. In fact, although their (parallel) fulfillment in a WMD deployment is not unlikely, their practical significance is likely to lag behind or be supplanted by more general provisions, which reflect better the indiscriminate nature of a typical WMD-use.

Other war crimes do not even theoretically fit in with the reality of WMD deployment and its effects, e. g. the improper use of special emblems, the deportation of parts of the population or the enlisting of children into the armed forces. They are therefore also excluded from the following analysis.[419]

a) War crimes against human life

WMD operations manifest their immeasurable horror above all in the sheer mass of human fatalities. Those ICC provisions that penalize acts against human life are thus by their very nature potentially suitable for WMD operations of all kinds. Although warlike conflicts naturally involve the killing of people, international humanitarian law by no means permits any kind of killing in the context of such a conflict. Rather, there is a multitude of prohibitions that pursue the killing of certain groups of people, killing using certain methods of warfare and killing without a sufficient militarily comprehensible purpose. Many of these prohibitions under humanitarian law are reflected in the catalogue of offences in article 8 of the ICCS. They will be examined in the following for their applicability to WMD operations.

[419] Also not discussed further are offences that criminalize torture or bio-experiments (on prisoners). While such acts might conceivably involve the use of life-threatening chemical or biological substances, the provisions are tailored more for acts directed against individual victims than to the high victim numbers typically caused by WMD attacks.

aa) Wilful killing

Article 8 ICCS – War crimes

1. The Court shall have jurisdiction in respect of war crimes in particular when committed as part of a plan or policy or as part of a large-scale commission of such crimes.

2. For the purpose of this Statute, "war crimes" means:

> (a) Grave breaches of the Geneva Conventions of 12 August 1949, namely, any of the following acts against persons or property protected under the provisions of the relevant Geneva Convention:
>
> > (i) Wilful killing;

[…]

The offence of "wilful killing"[420] in article 8 para. 2 (a) (i) ICCS and the other offences listed in article 8 para. 2 (a) ICCS, are based on prohibitions under international law known as "grave breaches" of the Geneva Conventions. Due to the accessoriness of war crimes to the relevant international humanitarian law, article 8 para. 2 (a) (i) ICCS must therefore be read in the light and borders of the corresponding mother norms. The chapeau of article 8 para. 2 (a) (i) ICCS highlights this mandatory approach, by declaratorily limiting the applicability of the i - viii to those offences that are directed "against persons or property protected under the provisions of the relevant Geneva Convention".

The identification of the relevant Geneva Convention is crucial, as each of the four Geneva Conventions aims to protect a different group of persons: The First Geneva Convention (GC I) protects the wounded, the sick, and medical and religious personnel in the field; the Second Geneva Convention (GC II) the wounded, the sick and shipwrecked, and medical and religious personnel on the high seas; the Third Geneva Convention (GC III) prisoners of war; and the Fourth Geneva Convention (GC IV) aims to protect civilians in the event of conflict.

Since suitable victims of a crime under article 8 para. 2 (a) (i) - (viii) ICCS can only be those of the "relevant" conventions, it must first be examined in which conventions the respective war crime is explicitly listed as a "grave breach". In the case of "wilful killing", this is the

[420] The Spanish version of the text uses the term *"homicidio intencional"*, indicating a limitation to *dolus directus* of the first degree, which is not equally evident in the "wilful" of the English version. According to article 128 ICCS in conjunction with article 33 para. 1 VCLT, the Spanish and English versions (together with the Arabic, Chinese, French and Russian versions) are equally authentic, which deems the Spanish text a strong interpretative argument for limiting article 8 para. 2 (a) (i) ICCS to this *mens rea* type. Furthermore, as will be shown below, to require *dolus directus* of the first degree is also consistent with the result of the systematic argumentation, which concludes that attacks with *dolus directus* of the second degree are not covered by article 8 para. 2 (a) (i) ICCS.

case in all four Geneva Conventions.[421] Accordingly, all persons and groups of persons protected by the four Geneva Conventions are suitable victims of the ICCS war crime of wilful killing.

If such a person is deliberately killed in an international conflict, the requirements of article 8 para. 2 (a) (i) ICCS are therefore met.[422] In which way and by which means the killing takes place is irrelevant. Accordingly, in "*The Prosecutor v. Pavle Strugar"*, the ICTY considered the bombing of the old city of Dubrovnik and the associated killing of two civilians as "wilful killing" in the sense of the Geneva Conventions.[423] A comparable bombing of a place with chemical, biological or nuclear weapons cannot lead to a different result, wherefore it would fulfil the *actus reus*.

Regarding the *mens rea*, the requirements are less clear. In the case mentioned above, the judges concluded that the perpetrator ordering the bombing has to act at least with "indirect intent". A type of intent specific to international criminal law that could be described as *dolus eventualis* with an awareness of increased risk.[424] In doing so, they required a higher subjective threshold for committing a "wilful killing" than is laid down in the mother norms of the Geneva Conventions, where, according to the prevailing opinion, the word "wilful" even includes the so-called "recklessness". A concept originating in common law, which from a continental European perspective could be described as a combination of *dolus eventualis* and deliberate negligence.[425]

Especially when using WMD, the consequences of considering indirect intent or even recklessness as sufficient *mens rea* thresholds are considerable: Strategic nuclear weapons

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[421] See article 50 GC I; article 51 GC II; article 130 GC III; and article 147 GC IV.

[422] The fact that article 8 para. 2 (a) (i) ICCS only applies to international armed conflict is again made explicitly clear in the Elements of Crimes (element no. 4).

[423] Prosecutor v. Pavle Strugar (Judgement), ICTY-01-42-T, Trial Chamber II (January 31, 2005), paras. 234 et seqq. Please note that in this judgement "wilful killing" is referred to under its synonym "murder".

[424] ICRC, *Commentary on the First Geneva Convention – Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field* (2nd ed.), Cambridge, United Kingdom: Cambridge University Press, 2016, para. 2958; "Indirect intent" is thus to be distinguished in particular from the term *"dolo indirecto"* used by Spanish legal science, which is another term for *dolus directus* in the second degree.

[425] ICRC, *Commentary on the First Geneva Convention*, op. cit., para. 2956; Yves SANDOZ, Christophe SWINARSKI, & Bruno ZIMMERMANN (Eds.), *Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), June 8, 1977 - Commentary on the Additional Protocols*, Geneva, Switzerland: ICRC/Martinus Nijhoff Publishers, 1987, para. 3474: "[T]he accused must have acted consciously and with intent, i. e., with his mind on the act and its consequences, and willing them ('criminal intent' or 'malice aforethought'); this encompasses the concepts of 'wrongful intent' or 'recklessness', viz., the attitude of an agent who, without being certain of a particular result, accepts the possibility of it happening; on the other hand, ordinary negligence or lack of foresight is not covered, i. e., when a man acts without having his mind on the act or its consequences […]"; cf. Prosecutor v. Tilhomir Blaškić (Judgement), ICTY-95-14-T, Trial Chamber (March 3rd, 2000), paras. 152 and 179.

and pathogen-based biological weapons in particular are characterized by their limited controllability. Unintentional exposure of persons that are not involved in direct combat operations to radiation or the spread of pathogens can rarely be ruled out.

It appears rather to be a highly probable and predictable rule in the sense of indirect intent. Any attack with the WMDs mentioned above (also attacks that are not specifically directed against persons protected by the Geneva Conventions with *dolus directus* of the first degree) could thus lead to criminal liability under article 8 para. 2 (a) (i) ICCS. If, contrary to the ICTY, recklessness as embedded in international law were to be considered to be sufficient for the standards of the ICCS this would even be the case more so. For especially potent nuclear and biological WMD, this would amount to a quasi-criminalization of their use, as an attack without at least a fraction of victims belonging to a Geneva Convention protected group is hardly conceivable.

Therefore, it is of great importance to discuss whether the "indirect intent" or even the "recklessness" of the Geneva Conventions - found to be sufficient in the context of the ICTY Statute - is also the subjective threshold to be applied for the *mens rea* of article 8 para. 2 (a) (i) ICCS.

Within the ICCS, article 30 ICCS sets out the requirements normally applicable to the *mens rea* of the offender.[426] The provision presupposes that the offender must act with *dolus directus* of the first or second degree for the offences listed in the ICCS and therefore excludes *dolus eventualis* and recklessness from its general scope.[427] At the same time, the opening clause "unless otherwise provided" also opens up the possibility of allowing other subjective requirements, provided that a corresponding deviating regulation exists. This exception may not only lead to stricter *mens rea* requirements but also to lower requirements, such as in the case of the responsibility of superiors in article 28 ICCS. For the *mens rea* of

[426] Article 30 ICCS, mental element: "1. Unless otherwise provided, a person shall be criminally responsible and liable for punishment for a crime within the jurisdiction of the Court only if the material elements are committed with intent and knowledge. 2. For the purposes of this article, a person has intent where: (a) In relation to conduct, that person means to engage in the conduct; (b) In relation to a consequence, that person means to cause that consequence or is aware that it will occur in the ordinary course of events. 3. […]."

[427] Prosecutor v. Jean-Pierre Bemba Gombo (Decision Pursuant to Article 61(7)(a) and (b) of the Rome Statute on the Charges of the Prosecutor Against Jean-Pierre Bemba Gombo), ICC-01/05-01/08, Pre-Trial Chamber II (June 15, 2009), paras. 357 et seqq.; this is also the prevailing academic opinion; see, with further references to Ambos, Cassesse, Eser, Guilfoyle, Sadat, Schabas, and Werle: WERLE & JESSBERGER, op. cit., pp. 250 et seq., para. 547, fn. 105; and, for the same author in Spanish, Gerhard WERLE, *Tratado de Derecho Penal Internacional* (2nd ed.), Valencia, Spain: Tirant lo Blanch, 2011, pp. 264 et seqq.; see also, for a different view, Miren ODRIOZOLA-GURRUTXAGA, *Autoría y Participación en Derecho Penal Internacional: Los Crímenes de Atrocidad*, Granada, Spain: Editorial Comares, 2015, pp. 279 et seq.

article 8 para. 2 (a) (i) ICCS, *dolus directus* of the first or second degree would thus be required, unless a derogation would allow a lower subjective threshold.

Such a derogation could constitute the subjective threshold of "recklessness" included in the Geneva Conventions. Whether the opening clause of article 30 ICCS also applies to subjective requirements included outside the text of the ICCS or not, was controversial for a long time. In any case and as far as the provisions based on the Geneva Conventions are concerned, the prevailing opinion for a long time was that they could be applied.[428] In its judgment on *"Prosecutor v. Jean-Pierre Bemba"* of 2016, the ICC has practically put an end to this dispute and – contrary to the prevailing opinion in literature - expressly limited the scope of application of the opening clause of article 30 ICCS to provisions contained within the Statute and the Elements of Crimes.[429]

However, even if one follows this approach, it could be argued that the term "wilful" in article 8 para. 2 (a) (i) ICCS itself is such an internal exception to article 30 ICCS. As war crime provisions in article 8 ICCS have to be read in the light of their mother norms - i. e. in the light of the Geneva Conventions - the lower subjective requirement of "recklessness" could be considered as quasi immanent to the term "wilful" as contained in the ICCS. With regards to the killing of persons not actively involved in acts of war and others protected under the Geneva Conventions, "recklessness" would be sufficient to constitute the criminal offence of article 8 para. 2 (a) (i) ICCS.

With the *"Bemba"* judgement such an understanding was practically put a stop to, although the observations of the court referred to the criminal offence of "murder" pursuant to article 8 para. 2 (c) (i) ICCS - which is based on article 3 of the Geneva Conventions - and not to article 8 para. 2 (a) (i) ICCS. The prevailing opinion is that murder and wilful killing differ only with regard to the protected group of persons, without showing further differences.[430] In fact, they are treated equally in the Geneva Conventions. "Willfullness", i. e., is described as the required *mens rea* of murder. The considerations of the ICC in the *"Bemba"* judgement that for the context of the ICCS the *mens rea* threshold of the Geneva

[428] C. f. WERLE & JESSBERGER, op. cit., pp. 566 et seq.
[429] Prosecutor v. Jean-Pierre Bemba Gombo (Judgment pursuant to Article 74 of the Statute), ICC-01/05-01/08, Trail Chamber III (March 21, 2016), paras. 95 et seq.
[430] Prosecutor v. Zejnil Delalić et al. (Judgement), ICTY-96-21-T, Trial Chamber (November 16, 1998), para 422: "[…] there can be no line drawn between "wilful killing" and "murder" which affects their content".

Conventions is not sufficient for the crime of murder but the higher requirement of article 30 ICCS, must therefore apply equally to "wilful killing" of article 8 para. 2 (a) (i) ICCS.[431]

The *mens rea* of article 8 para. 2 (a) (i) ICCS must therefore meet the general requirements of article 30 ICCS, so that *dolus directus* of the first or second degree is needed. A WMD attack on a military base in the confidence that no civilians will be harmed by it, is not covered by article 8 para. 2 (a) (i) ICCS, irrespective of the actual occurrence of deaths. Cases in which WMD are used precisely for the purpose of killing civilians and other groups of persons protected by the Geneva Conventions (*dolus directus* of the first degree), are on the other hand punishable as war crimes under article 8 para. 2 (a) (i) ICCS.

Whether also the killing of civilians and other protected persons with *dolus directus* of the second degree is likewise punishable under article 8 para. 2 (a) (i) ICCS appears - despite the declared coverage of this type of intent according to article 30 ICCS - doubtful in the end.[432] Situations in which the killing of uninvolved persons in an armed conflict is recognized as certain and consciously accepted, without their killing being the actual aim of the attack, have become generally known under the NATO term of "collateral damage".[433]

Human collateral damage is not *per se* prohibited by international humanitarian law. Rather, the killings of civilians and other groups of persons protected by the Geneva Convention do not constitute a violation of international humanitarian law if the killings are proportionate to the military necessity of achieving the objective pursued. The standard of "military necessity" is recognized under customary international law and is also reflected in several provisions of international treaties, such as article 54 para. 5 Additional Protocol I (AP I). Since article 8 ICCS is accessory to the requirements of international humanitarian law, a criminal liability according to article 8 para. 2 (a) (i) ICCS would therefore be excluded in cases where deliberate but unintentional killing of civilians is in proportion to the military necessity of the attack.

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[431] ICRC, *Commentary on the First Geneva Convention*, op. cit., para. 598: "International case law on wilful killing can […] be consulted for the meaning of murder and vice versa".

[432] cf. Prosecutor v. Germain Katanga (Judgment pursuant to article 74 of the Statute), ICC-01/04-01/07, Trial Chamber II (March 7, 2014), para. 802; and Prosecutor v. Callixte Mbarushimana (Decision on the confirmation of charges), ICC-01/04-01/10, Pre-Trial Chamber I (December 16, 2011), para. 142, which both correctly recognize that those cases are to be distinguished from those in which military and civilian targets are to be hit equally by the attack. For the latter, the perpetrator undoubtedly (also) acts with *dolus directus* of the first degree in relation to the killing of civilians.

[433] Cambridge Dictionary, definition of "collateral damage": "During a war, the unintentional deaths and injuries of people who are not soldiers, and damage that is caused to their homes, hospitals, schools, etc."; as a reaction to the use of this term in connection with the civilian victims of the Kosovo war, it was declared the "taboo-word of the year 1999" in Germany ("*Unwort des Jahres 1999*").

Whether the killing of civilians and other protected persons - which is disproportionate to military necessity - would fulfill the criminal offence of article 8 para. 2 (a) (i) ICCS or not, remains questionable. This could be the case if one were to assume that the killing of civilians would be generally prohibited and only justifiable in individual cases - when weighed against military necessity. International humanitarian law does not regard military necessity as a defense (justification), but follows the approach that causing disproportionate collateral damage constitutes an independent violation of international law, in addition to the targeted killing of civilians.[434] In this sense, Additional Protocol I also treats the targeted killing of civilians and the causing of disproportionate incidental damage in article 51 para. 2 AP I and article 51 para. 5 (b) AP I separately from each other and sees them as independent behaviors, each of which is prohibited for itself.

The ICCS reflects this separation and criminalizes the causing of disproportionate collateral damage in the separate offence of article 8 para. 2 (b) (iv) ICCS.[435] The coexistence of article 8 para. 2 (a) (i) ICCS and article 8 para. 2 (b) (iv) ICCS is therefore an expression of the regulatory content of the common mother treaty, the Additional Protocol I. The interpretation in conformity with international law therefore requires that the cases of disproportionate incidental killing covered by article 8 para. 2 (b) (iv) ICCS cannot at the same time be covered by article 8 para. 2 (a) (i) ICCS as well.

Consequently, WMD attacks with *dolus directus* of the second degree for both, proportionate and disproportionate collateral damage cases, do not constitute an offence under article 8 para. 2 (a) (i) ICCS. The applicability of article 8 para. 2 (a) (i) ICCS is limited to those uses of WMD in which the use is specifically for the purpose of killing civilians or other persons protected by the Geneva Conventions.

However, it must be remembered that article 8 para. 2 (a) (i) ICCS is only applicable to international armed conflict. For non-international conflicts, the catch-all provision of article 8 para. 2 (c) (i) ICCS applies, which criminalizes "violence to life and person, in particular murder of all kinds [...]". The norm does not contain an explicit reference to the required subjective element, but due to its regulatory nature as a catch-all norm, it will hardly go below the requirement thresholds of parallel norms regarding international conflict. This

[434] DÖRMANN, in *Commentary on the Rome Statute*, op. cit., p. 327.
[435] Article 8 para. 2 (b) (iv) ICCS: “Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life […] to civilians […] which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.”

becomes particularly clear regarding the mentioned offence of "murder", as it is an identical concept to wilful killing.[436] It therefore requires acting with *dolus directus* in a conceptually immanent manner.

Result: The killing of civilians with any type of WMD for this specific purpose (*dolus directus* of the first degree) constitutes a criminal offence under the ICCS in both international and non-international armed conflict. Criminal liability in the case of *dolus directus* in the second degree is ultimately excluded due to the lawfulness of proportionate collateral damages in the context of armed conflicts.

ab) Intentionally directed attacks against the civilian population

Article 8 ICCS – War crimes:

1. […]

2. For the purpose of this Statute, "war crimes" means:

(a) […]

(b) Other serious violations of the laws and customs applicable in international armed conflict, within the established framework of international law, namely, any of the following acts:

(i) Intentionally directing attacks against the civilian population as such or against individual civilians not taking direct part in hostilities;

[…]

The criminal offence of article 8 para. 2 (b) (i) ICCS is based on article 51 para. 2 AP I and article 13 AP II, which codify principles of customary international law already existing. It presupposes that the civilian population or parts thereof are as such the target of an attack. By way of a systematic interpretation of its principles under international law, article 8 para. 2 (b) (i) ICCS understands by “civilian” any person who is not part of the armed forces of a party to the conflict, member of militias or volunteer corps.[437] As follows from the terms "intentionally", "directing" and "as such", the attack must be carried out with *dolus directus* of the first degree, thus precisely for the purpose of killing or injuring civilians.[438] On the side of the required *mens rea*, articles 8 para. 2 (b) (i) and 8 para. 2 (a) (i) ICCS thus do not differ in the result, despite the different concepts of "willfulness" and "intention".

[436] ICRC, *Commentary on the First Geneva Convention*, op. cit., para. 598: “International case law on ‘wilful killing’ can […] be consulted for the meaning of ‘murder’ and vice versa”.
[437] Article 50 para. 1 AP I in conjunction with article 4 (A) (1), (2), (3), (6) GC III and article 43 AP I.
[438] This is also explicitly stated in the Elements of Crimes regarding article 8 para. 2 (b) (i) ICCS.

The two provisions differ considerably from each other on the *actus reus* side: Unlike article 8 para. 2 (a) (i) ICCS, article 8 para. 2 (b) (i) ICCS sets out in its clear wording that there is no result requirement. Article 8 (2) (b) (i) ICCS is therefore a mere abstractly dangerous conduct crime ("*Tätigkeitsdelikt*"). Thus, the commission of a targeted attack as such is sufficient – regardless of possible victims - to affirm the elements of this crime.

In the case of an actual killing of civilians by a WMD attack specifically directed against them, article 8 para. 2 (b) (i) ICCS would thus be preempted by the more specific article 8 para. 2 (a) (i) ICCS. In case of a mere attempted killing of civilians, however, article 8 para. 2 (b) (i) ICCS would still be the pertinent norm.

For non-international conflicts, a provision with identical wording to article 8 para. 2 (b) (i) ICCS can be found in article 8 para. 2 (e) (i) ICCS. The attempted intentional killing of civilians with WMD in a civil war scenario therefore would also constitute an offence under the ICCS.

Result: The attempt of specifically killing civilians with any type of WMD (*dolus directus* of the first degree) constitutes a criminal offence under the ICCS in both international and non-international armed conflict.

ac) The excessive killing of civilians as collateral damage

> […]
>
> (iv) Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated;
>
> […]

The ICCS handles fatal collateral damages in article 8 para. 2 (b) (iv) var. 1 ICCS, a provision based on several articles of the Additional Protocol I (AP I), like articles 51 para. 4 and 5 (b), 57 para. 2 (a) (iii) and 85 para. 3 (b) AP I, amongst others.[439] It criminalizes the launching of an attack in the knowledge that such an attack will cause incidental loss of life clearly excessive in relation to the concrete and direct overall military advantage anticipated.[440]

[439] WERLE & JESSBERGER, op. cit., p. 646, para. 1435; who, in addition to the articles named, also identify article 35 para. 3 AP I, article 55 para. 1 AP I , and article 83 para. 3 AP I as joined mother norms of article 8 para. 2 (b) (iv) ICCS.
[440] Due to the chosen sentence structure in article 8 para. 2 (b) (iv) ICCS, doubts could arise as to whether the requirement of disproportionality ("excessive") should apply exclusively to the damage to the environment (var. 3) or also to the first two variants. The Elements of Crimes, however, eliminate this doubt by explicitly stating their applicability to all three variants of the offence.

Article 8 para. 2 (b) (iv) ICCS thus again makes clear what in any case a mandatory principle of international law: The killing of civilians is not *per se* contrary to international law but may be legitimate and acceptable because of the requirements of war.

The deliberate acceptance of safe civilian fatalities corresponds to what is known in criminal law as *dolus directus* of the second degree. Although the causing of collateral damage would be equally possible with negligence, recklessness or *dolus eventualis* as *mens rea*, these degrees of mental elements are excluded from the scope of article 8 para. 2 (b) (iv) ICCS, both by the provisions of article 30 ICCS and by the wording of article 8 para. 2 (b) (iv) ICCS itself, which requires knowledge and certainty of incidental loss of life.[441]

The pivotal point when applying article 8 para. 2 (b) (iv) ICCS is the determination of when or in which constellations the killing of civilians is to be regarded as excessive in relation to the military advantage. However, neither the Rome Statute, the Elements of Crimes nor the mother norm AP I give further guidance to legal practitioners, on how to determine this excessiveness. Instead, article 8 para. 2 (b) (iv) ICCS contains an additional requirement, not contained in the AP I mother norm, requiring that the excessive nature of the effects in relation to the military advantage must be "clear". Consequently, not all disproportionate collateral damages prohibited under international law are also deemed international crimes. Instead, the circle of criminally relevant cases is limited to particularly obvious violations of the principle of proportionality.[442]

In state practice it seems to be common understanding that the assessment of exessivity has to be made from the point of view of an honest judgement of a responsible commander and that the assessment has to be made *ex ante* on the basis of the available information, whilst

[441] Article 8 para. 2 (b) (iv) ICCS: "Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life […]" (emphasis added).
[442] This view is subject to academic debate. In favor: WERLE & JESSBERGER, op. cit., p. 635; Roberta ARNOLD & Stefan WEHRENBERG, *Article 8: War Crimes*, in Otto Triffterer & Kai Ambos (Eds.), *Rome Statute of the International Criminal Court* (3rd ed.) (pp. 295 - 579), Oxford, United Kingdom: C. H.Beck/Hart/Nomos, 2016, article 8, para. 247; against it: DÖRMANN, *Elements of War Crimes under the Rome Statute of the International Criminal Court – Sources and Commentary*, Cambridge, Great Britain: ICRC/Cambridge University Press, 2003, p. 169.

taking into account the typically difficult situation of decision making in military contexts.[443] Although this does not answer what is ultimately considered "excessive", it clarifies at least the question of the methodology that shall be used.

In order to identify how proportionality is assessed, one is limited to the relevant judgments of the international criminal courts, which at least might serve as comparative points of reference for the individual case under consideration.[444] The problem of the dogmatic fuzziness of the proportionality requirement was also recognized by them and described particularly vividly by the ICTY:

"[…] The main problem with the principle of proportionality is not whether or not it exists but what it means and how it is to be applied. It is relatively simple to state that there must be an acceptable relation between the legitimate destructive effect and undesirable collateral effects. For example, bombing a refugee camp is obviously prohibited if its only military significance is that people in the camp are knitting socks for soldiers. Conversely, an air strike on an ammunition dump should not be prohibited merely because a farmer is plowing a field in the area. Unfortunately, most applications of the principle of proportionality are not quite so clear cut. It is much easier to formulate the principle of proportionality in general terms than it is to apply it to a particular set of circumstances because the comparison is often between unlike quantities and values. One cannot easily assess the value of innocent human lives as opposed to capturing a particular military objective."[445]

[443] Australia: Australian Defense Headquarters, *The Manual of the Law of Armed Conflict*, Australian Defence Doctrine Publication 06.4, May 11, 2006, § 5.11; Belgium: Ecole Royale Militaire, *Droit Pénal es Disciplinaire Militaire et Droit de la Guerre*, Deuxième Partie, Droit de la Guerre, D/1983/1187/029, 1983, p. 29; Canada: Office of the Judge Advocat General, *The Law of Armed Conflict at the Operational and Tactical Level*, 1999, p. 4-2/4-3; Ecuador: Academia de Guerra Naval, *Aspectos Importantes del Derecho Internacional Marítimo que Deben Tener Presente los Comandantes de los Buques*, 1989, § 8.1.2.1.; Germany: Declarations made upon ratification of the 1977 Additional Protocol I, February 14, 1991: "It is the understanding of the Federal Republic of Germany that in the application of the provisions of Part IV, Section I, of Additional Protocol I, to military commanders and others responsible for planning, deciding upon or executing attacks, the decision taken by the person responsible has to be judged on the basis of all information available to him at the relevant time, and not on the basis of hindsight."; Israel: Ministry of Foreign Affairs, *The Operation in Gaza 27 December 2008 – 18 January 2009*; § 125; Italy: Declarations made upon ratification of the 1977 Additional Protocol I, February 27, 1986; South Africa: School of Military *Justice, Advanced Law of Armed Conflict Teaching Manual*, April 1st, 2008, as amended to October 25, 2013, Learning Unit 3, p. 181 - 182; Spain: Interpretative declaration made upon ratification of the 1977 Additional Protocol I, April 21, 1989: "It is the understanding […] that the decision made by military commanders, or others with the legal capacity to plan or execute attacks which may have repercussions on civilians or civilian objects or similar objects, shall not necessarily be based on anything more than the relevant information available at the relevant time and which it has been possible to obtain to that effect."; United Kingdom, Declarations made upon signature of the 1977 Additional Protocol I, December 12, 1977; United States of America: Department of the Navy a.o., *The Commander's Handbook on the Law of Naval Operations*, NWP 1-14 M/MCWP 5-12.1/COMDTPUB P5800.7, July 2007, § 8.3.1.: "[…] the commander must determine whether the anticipated incidental injuries and collateral damage would be excessive, on the basis of an honest and reasonable estimate of the facts available to him.".

[444] Q. v. ICTY, *Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia*, B)iii) The Bombing of the RTS (Serbian TV and Radio Station) in Belgrad on 23/4/99.

[445] ICTY, *Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia*, May 1999, para. 48.

It is questionable whether - despite this general lack of clarity - there are constellations in which collateral damage must always be regarded as disproportionate. This could be the case if the collateral damage to civilians is the result of an act of war that is itself a prohibited method of warfare. This approach could be supported by the idea that otherwise acts prohibited under international humanitarian law could be justified to a certain extent via the criterion of military necessity.

Such a prohibited method of warfare can be found in article 51 para. 4 AP I, which prohibits indiscriminate attacks.[446] Indiscriminate are all those methods of warfare that are of a nature to strike military objectives and civilians or civilian objects without distinction.

A provision that seems to be tailor-made for WMD deployments: Regularly the explosion and radiation effects of a strategic nuclear weapon will be so extensive that considerable civilian casualties are to be expected. Similarly, biological pathogens do not distinguish between soldiers and civilians, but spread indiscriminately from person to person. Depending on weather and wind conditions, chemical gases are also difficult to control in their propagation and can therefore claim both military and civilian victims.[447]

However, as already mentioned, one of the mother norms of article 8 para. 2 (b) (iv) ICCS is article 51 para. 5 (b) AP I.[448] This article deems attacks which may be expected to cause incidental loss of civilian life and are excessive in relation to the concrete and direct military advantage anticipated as an example case of an indiscriminate attack. Article 51 para. 5 (b) AP I refers to a mere subset of indiscriminate attacks as they are prohibited in their entirety by article 51 para. 4.

This means that the Conference of Plenipotentiaries has not converted the broader article 51 para. 4 AP I but the narrower content of article 51 para. 5 (b) AP I into criminal law.

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[446] Article 51 para. 4 AP I: "Indiscriminate attacks are prohibited. Indiscriminate attacks are: (a) those which are not directed at a specific military objective; (b) those which employ a method…of combat which cannot be directed at a specific military objective; or (c) those which employ a method…of combat the effects of which cannot be limited as required by this Protocol; and consequently, in each such case, are of a nature to strike military objectives and civilians or civilian objects without distinction."

[447] Nevertheless, warfare methods using WMD are conceivable in individual cases, which could not be regarded as indiscriminate attacks. For example, when tactical nuclear weapons or biological or chemical weapons are directed against extremely isolated military targets, or when certain liquid chemical weapons become entrenched at the bottom of the attacked battlefield and thus do not leave the military context.

[448] Article 51 para. 5 AP I: "Among others, the following types of attacks are to be considered as indiscriminate:
(a) an attack by bombardment by any methods or means which treats as a single military objective a number of clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects; and (b) an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated."

Consequently, its participants have decided to criminalize through article 8 para. 2 (b) (iv) ICCS only one manifestation of indiscriminate attacks prohibited under international law and not to criminalize indiscriminate attacks in their entirety. If one were to assume the disproportionality of the attack whenever an act prohibited under international law is present one would end up criminalizing every indiscriminate attack. This would not reflect the formally identifiable will of the states party to the ICCS and is therefore not permissible.

Consequently, the mere use of prohibited indiscriminate methods of warfare, like they will be given in many WMD-deployment scenarios, does not *per se* lead to an assumption of the excessiveness of collateral damage in relation to the military advantage. The excessiveness has rather to be assessed in a case-by-case manner.

Yet this only applies to the international conflict. For non-international conflict, there is no provision corresponding to article 8 para. 2 (b) (iv) ICCS. To intentionally launch a WMD-attack, in the knowledge that such attack will cause incidental loss of life, which would be clearly excessive in relation to the military advantage anticipated, thus would not constitute an international crime in a civil war scenario.

Result: The use of WMD of any kind that results in civilian collateral damage in international armed conflict can constitute a criminal offence under the ICCS. What is required for this is that such collateral damage is clearly disproportionate to the military necessity of the WMD deployments. However, this disproportionality is not already given because of the indiscriminate mode of action of WMD. Rather, it depends on the context of the individual case. Furthermore, the criteria for this clear excessiveness are unclear. Yet it can at least be postulated that the probability of the existence of a clear disproportionality increases with the increasing destructive power of the WMD used. For non-international conflict, on the other hand, there is a complete lack of a corresponding regulation. WMD operations in civil war situations, which are even only directed against insignificant military targets but have fatal effects on the civilian population, therefore would not constitute a criminal offence under the ICCS.

ad) Killing treacherously individuals belonging to the hostile nation or army

[…]

(xi) Killing or wounding treacherously individuals belonging to the hostile nation or army;

[…]

In article 8 para. 2 (b) (xi) ICCS the treacherously killing of the opponent is criminalized. Although this criminal offence is based on an old principle of customary international law, which already existed before it was codified in article 23 (b) of the 1907 Hague

Regulation[449], its exact scope of application has not been conclusively clarified by now. The application of article 8 para. 2 (b) (xi) ICCS is additionally made difficult since "treacherously", as the central term of the norm, has never been defined in an international instrument.[450] Likewise, the Conference of Plenipotentiaries did not make use of the possibility to explicitly define the term "treacherously" in the ICCS or in the Elements of Crimes.

However, element no. 1 of the Elements of Crimes at least serves as a more detailed description of "treacherous killing". According to the content of the Elements of Crimes, a criminal liability under article 8 para. 2 (b) (xi) ICCS requires that

"1. The perpetrator invited the confidence or belief of one or more persons that they were entitled to, or were obliged to accord, protection under the rules of international law applicable in armed conflict. [and] 2. The perpetrator intended to betray that confidence of belief. […]"[451]

Consequently, the proximity between the poisonous character of a WMD[452] and a treacherous act of homicide, which in general language use could seem obvious, is therefore not decisive for the applicability of article 8 para. 2 (b) (xi) ICCS. Rather, what is required is an active act of concealment by which the adversary is led to believe that guarantees of international law are being observed, with the aim of exploiting his reduced attention and defensive attitude for an attack.[453]

Although the use of WMD will frequently violate international humanitarian law, the use of a WMD does not contain the implicit declaration that it is not intended to be such a weapon. If one were to argue that the opponent must be able to assume that only means of war accepted under international law are used, the scope of application of article 8 para. 2 (b) (xi) ICCS would lose its contours. In fact, any deliberate violation of international humanitarian law that would cause a victim would establish a criminal liability under article 8 para. 2 (b) (xi) ICCS. This, however, would be contrary to the basic idea of article 8 ICCS,

[449] Article 23 Hague Regulation (1907): "In addition to the prohibitions provided by special Conventions, it is especially forbidden (a) […], (b) To kill or wound treacherously individuals belonging to the hostile nation or army; (c) […]."

[450] Wilhelm-Jan VAN DER WOLF, *War Crimes and International Criminal Law*, The Hague, The Netherlands: International Courts Association, 2010, p. 121.

[451] Elements of Crimes: Article 8 (2) (b) (xi) War Crime of treacherously killing or wounding, element no. 1.

[452] See chapter 3, 1.

[453] See, for example, the catalogue of examples of prohibited "perfidious" acts in article 37 para. 1 AP I, all of which require an active act of deception. "Perfidy" is understood by the prevailing opinion in literature as a synonym for "treachery"; q. v., with further references, COTTIER, op cit., para. 2 (b) (xi), p. 385.

which, in the sense of a conclusive catalogue, seeks to elevate only the most serious violations of international humanitarian law to the rank of an international crime.

Acts of killing by using WMD are therefore not already an offence under article 8 para. 2 (b) (xi) ICCS because of their toxic nature and the broad prohibition of their use in international humanitarian law. Rather an additional act of deception regarding the granting of these guarantees under humanitarian law is necessary. Theoretically, constellations are imaginable, in which the exclusive use of conventional weapons is expressly guaranteed, the opponent relies on this and consequently does not initiate sufficient NBC defense measures against the WMD attack that then takes place. However, such situations are likely to be extremely rare in practice. Article 8 para. 2 (b) (xi) ICCS is therefore not a provision tailored to the reality of WMD operations.

For the equivalent provision for non-international conflict, article 8 para. 2 (e) (ix) ICCS, the said applies accordingly.

Result: Killing individuals with WMD does not as such constitute the international crime of killing individuals “treacherously”.

b) War crimes against physical integrity or health

The war crimes listed in article 8, which are directed against physical integrity or health, are structurally very similar to the war crimes directed against human life, which have been addressed above.

Thus - as for wilful killing in article 8 para. 2 (a) (i) ICCS - for the criminal offence of "wilfully causing great suffering, or serious injury to body or health" in article 8 para. 2 (a) (iii) ICCS, there is no serious doubt that WMD can cause the effects required by the *actus reus*. In addition, the essence of article 8 para. 2 (a) (iii) ICCS is also considered a "grave breach" in all four Geneva Conventions, so that all persons protected under the Geneva Conventions are suitable victims of this crime.[454]

Likewise, the considerations regarding the *mens rea* of “Wilful killing“ are also applicable. Thus, according to article 30 ICCS, the perpetrator must have acted either with *dolus directus* of the first degree or *dolus directus* of the second degree. However, the cases of *dolus directus* of the second degree, i. e. collateral damages, are excluded in the result. To the

[454] Article 50 GC 1, article 51 GC 2, article 130 GC 3 and article 147 GC 4.

military necessity proportionate collateral damages because they are not prohibited by international law, and disproportionate collateral damages because they are covered by the separate international crime of article 8 para. 2 (b) (iv) ICCS.[455]

What is stated in the context of acts against life applies accordingly in comparison to article 8 para. 2 (b) (i) ICCS.[456] Since it does not require any success in injury, article 8 para. 2 (b) (i) ICCS is of course also applicable to acts in which an attack with WMD directed against civilians causes or at least intends to cause damage to physical integrity or health. However, in the event of an actual injury of civilians, article 8 para. 2 (b) (i) ICCS would be preempted by the more specific article 8 para. 2 (a) (iii) ICCS. In the case of a mere attempted injury of civilians, article 8 para. 2 (b) (i) ICCS would remain the relevant norm. Due to the deadly nature of WMD, however, it is hardly imaginable that a failed intent of WMD use would be deemed as having been directed only against the physical integrity and health of the victims and not against their lives. However, the applicable norm remains the same.

Finally, for article 8 para. 2 (b) (iv) var. 2 ICCS, what has been said with reference to the element of "incidental loss of life" in variant 1 also applies analogously to the element of "injury to civilians" in var. 2. Article 8 para. 2 (b) (iv) ICCS covers thus also those cases of WMD operations in which the deliberate acceptance of causing harm to physical integrity or health of civilians reaches a level that is manifestly disproportionate to the intended military benefits of the operation.[457]

For non-international armed conflicts, cases corresponding to those of article 8 para. 2 (a) (iii) ICCS are covered by the catch-all provision on "cruel treatment" in article 8 para. 2 (c) (i) ICCS.[458] The merely attempted injury of civilians is punishable, as in the context of the crimes by killing, by article 8 para. 2 (b) (i) ICCS, which is identical in wording to Article 8 para. 2 (e) (i) ICCS. A provision analogous to Article 8 para. 2 (b) (iv) var. 2 ICCS that would punish the causing of obvious disproportionate injury to civilians as collateral damage is not provided for non-international armed conflict.

[455] Article 8 para. 2 (b) (iv) ICCS: “Intentionally launching an attack in the knowledge that such attack will cause incidental […] injury to civilians[…] which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated”.
[456] See Chapter 3, 2.1., ab.
[457] For the difficult assessment of the proportionality see Chapter 3, 2.1., ac.
[458] WERLE & JESSBERGER, op. cit., p. 579, para. 1263.

Result: Causing great suffering or serious injury to civilians with any type of WMD, with the specific purpose to do so (*dolus directus* of the first degree) constitutes a criminal offence under the ICCS in both international and non-international armed conflict. The attempt is also punishable. In international conflicts, collateral damages to the health and physical integrity of civilians that are clearly disproportionate to the military necessity of the WMD deployment, also constitute a criminal offence. However, for non-international conflict, such collateral damages do not constitute an international crime under the ICCS.

c) War crimes against objects and property

Article 8 - War crimes

1. […]

2. For the purpose of this Statute, "war crimes" means:

(a) Grave breaches of the Geneva Conventions of 12 August 1949, namely, any of the following acts against persons or property protected under the provisions of the relevant Geneva Convention:

[…]

(iv) Extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly;

[…]

(b) Other serious violations of the laws and customs applicable in international armed conflict, within the established framework of international law, namely, any of the following acts:

[…]

(ii) Intentionally directing attacks against civilian objects, that is, objects which are not military objectives;

[…]

(iv) Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated;

[…]

(xiii) Destroying or seizing the enemy's property unless such destruction or seizure be imperatively demanded by the necessities of war;

[…]

War crimes against property can be found in both, section (a) of article 8 para. 2 ICCS, criminalizing grave breaches of the Geneva Conventions, and section (b), criminalizing other violations of international humanitarian law.

The war crime of extensive destruction of property as contained in article 8 para. 2 (a) (iv) ICCS is based on a prohibition under international law, deemed as "grave breach" by GC I, II and IV.[459] Suitable objects of crime are consequently only those properties protected under these conventions, i. e. medical establishments, property of aid societies, medical ships and airplanes, as well as the property of civilians under the control of a foreign power.

It seems doubtful that a lasting contamination of private property caused by radiation, chemical weapons or biological agents could be considered as "destruction", the thermo-nuclear powers of a nuclear bomb are without any doubt destructive in the traditional understanding of the term. As the mentioned specific object types protected under article 8 para. 2 (a) (iv) ICCS will be usually affected – amongst others – by a massive nuclear attack, the *actus reus* elements of article 8 para. 2 (a) (iv) ICCS will usually be fulfilled in the case of such an attack.

The more general war crimes within section (b) might correspond more to the broad and indiscriminate effects of such an incident. Especially article 8 para. 2 (b) (ii) ICCS, which penalizes intentionally directed attacks against civilian objects, appears relevant. As the article itself clarifies, "civilian objects" are those, which are not military objectives. "Military objectives" on the other hand, are defined by article 52 para. 2 AP I, which is the mother norm of article 8 para. 2 (b) (ii) ICCS, as "[…] objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling in the time, offers a definite military advantage." This characteristic "civilian" would thus apply to most objects affected by an attack with a strategic nuclear bomb. Yet, as article 8 para. 2 (b) (ii) ICCS is a mere offence by commission[460] the low requirements on the *actus reus* side are therefore compensated by the high subjective threshold on the *mens rea* side, which requires that the perpetrator must act with *dolus directus* of the first degree.[461] For an act to be punishable under article 8 para. 2 (b) (ii) ICCS it is therefore necessary that the actual aim of the perpetrator is to damage civilian objects.

[459] See article 50 GC 1, article 51 GC 2 and article 147 GC 4.
[460] DÖRMANN, *Elements of War Crimes*, op. cit., p. 148; Daniel FRANK, *The Elements of War Crimes – Article 8(2)(b)(ii)*, in Roy S. Lee (Ed.), *The International Criminal Court, Elements of Crimes and Rules of Procedure and Evidence* (pp. 143 - 144), New York, USA: Transnational Publishers, 2001, p. 144.
[461] This requirement results from the wording "intentionally directing" together with the context of article 8 para. 2 (b) (iv) ICCS.

If the primary target of the perpetrator are military objectives and civilian objects are only damaged as side effect with *dolus directus* of the second degree, the pertinent norm is article 8 para. 2 (b) (iv) var. 3 ICCS. As the wording of article 8 para. 2 (b) (iv) ICCS refers to the "damaging" of civilian objects and not like article 8 para. 2 (a) (iv) ICCS to their "destruction", attacks causing a severe contamination rather than a thermos-mechanic impact, could be considered as covered by the wording. In the case of an attack performed with biological, chemical radiological or tactical nuclear weapons, the applicability of article 8 para. 2 (b) (iv) ICCS will, however, always highly depend on the specific characteristics of the weapon used, as well as the specific circumstances of the attack.

As mentioned above regarding human collateral damage the respective damages must be excessive in relation to the military advantage obtained. This threshold of excessiveness is difficult to assess and will probably require a massive damage for being reached, as even unproportionate human collateral damages are often not considered as excessive. The use of a strategic nuclear weapon to destroy an enemy's military capacities, can nevertheless be considered to have a high probability to fulfill this requirement, as its degree of widespread destruction and damage is unmatched by other forms of military attacks.

A provision similar to the aforementioned article 8 para. 2 (a) (iv) ICCS and article 8 para. 2 (b) (iv) var. 3 ICCS is found in article 8 para. 2 (b) (xiii) ICCS. This provision, based on article 23 (g) of the Hague Regulations, prohibits the destruction of the enemy's property unless it is imperatively demanded by the necessities of war. Due to the overlapping content of the provision with the previously mentioned ones, there is uncertainty regarding its specific scope of application. The linguistic distinction between "military necessity", as used in article 8 para. 2 (a) (iv) ICCS, and "imperatively demanded by the necessities of war" from article 8 para. 2 (b) (xiii) ICCS is in any case not intended to express a difference in content. The differences in wording are merely based on stylistic peculiarities of the respective parent norms of international law, which were transferred identically into the ICCS.[462]

Some therefore demand that article 8 para. 2 (b) (xiii) ICCS should only be applied to those cases in which the destroyed object is in the power of the belligerent party to which the

[462] WERLE & JESSBERGER, op. cit., p. 622, para. 1379.

perpetrator belongs.[463] Based on this understanding, article 8 para. 2 (b) (xiii) ICCS would have little practical relevance for cases of WMD attacks. The indiscriminate mode of action of WMD opposes its use against hostile objects that are under the actual control of the attacking party as it will usually be accompanied by unreasonable risk for the attacking party's own side.

The ICC does not seem to follow such an understanding. In its Decision on the Confirmation of Charges regarding *Germain Katanga and Mathieu Ngudjolo Chui*, the pre-trial chamber rather explicitly states that for article 8 para. 2 (b) (xiii) ICCS to apply, it is not necessary that the objects have fallen into the hands of the attacking side.[464] However, since this is merely an *obiter dictum* by the court, the relationship of the provision to the other war crimes of destruction is not discussed in greater detail.

It can at least be stated that the provision can be regularly applied to attacks from a distance. Consequently, it is also of practical relevance for WMD operations that use medium-range and long-range missiles as delivery systems. The extent to which article 8 para. 2 (b) (xiii) ICCS may be superseded by more specific destruction crimes and have a catch-all function or take its place alongside them in the context of a cumulative conviction, cannot be conclusively answered according to the current state of jurisprudence and research.[465] In view of the ICCS's uniform penal range the practical relevance of this ambiguity should probably not be overestimated.[466]

For non-international armed conflict, the destruction offences are limited to article 8 para. 2 (e) (xii) ICCS, a parallel provision with the same wording as the latter article 8 para. 2 (b) (xiii) ICCS. However, there are no provisions that would correspond to the contents of article 8 para. 2 (a) (iv) ICCS, article 8 para. 2 (b) (ii) ICCS and article 8 para. 2 (b) (iv) var. 3

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[463] Andreas ZIMMERMANN & Robin von GEISS, *Art. 8*, in Otto Triffterer & Kai Ambos (Eds.), *The Rome Statute of the International Criminal Court* (3rd ed.), Munich, Germany: C. H. Beck, article 8, paras. 488 et seqq.

[464] Prosecutor v. Germain Katanga and Mathieu Ngudjolo Chui (Decision on the confirmation of charges), ICC-01/04-01/07, Pre-Trial Chamber I (September 30, 2008), para. 330: "Whereas the war crime of destruction of property under article 8(2)(b)(xiii) of the Statute can take place before the destroyed property has fallen into the hands of the party to the conflict to which the perpetrator belongs, the war crime of pillaging occurs when the enemy's property has come under the control of the perpetrator. […]"

[465] Kai AMBOS, *Treatise on International Criminal Law*, Oxford, United Kingdom: Oxford University Press, 2013, vol. II, pp. 246 et seq.: "[…] perhaps the least developed area of international criminal law [with] almost total absence of relevant provisions and under-theorized case law"; on the issue of concursus delictorum in international criminal law, see Olaoluwa OLUSANYA, *Double Jeopardy Without Parameters: Recharacterisation in International Criminal Law*, Oxford, United Kingdom: Intersentia, 2004; summarized in Carl-Friedrich STUCKENBERG, *A Cure for Concursus Delictorum in International Criminal Law?*, Crim LF 2005, vol. 16, pp. 361 – 372 (361 et seqq.).

[466] For a different view on this matter, see Cristina FERNÁNDEZ-PACHECO ESTRADA, *The International Criminal Court and the Čelebići Test: Cumulative Convictions Based on the Same Set of Facts from a Comparative Perspective*, JICJ 15 (2017), pp. 689 - 712 (696, with further references in fn. 32).

ICCS. This is particularly critical regarding excessive contamination damage, which is punishable for international conflict under article 8 para. 2 (b) (ii) ICCS and for which there is no equivalent in non-international conflict.[467] Deployments with chemical, biological and radiological weapons would not be covered, as these only contaminate building and other objects and do not physically destroy, as required by article 8 para. 2 (e) (xii) ICCS.

This means that even causing excessive bacteriological, chemical and radiological contamination damage to military and civilian objects in a civil war scenario does not constitute a crime under the ICCS. In view of the recent use of chemical weapons in the Syrian Civil War, this is a significant regulatory gap compared to the provisions applicable to international conflicts.

Result: In international conflict, both the destruction of civilian objects and the mere attempt to do so constitute a criminal offence under the ICCS when committed with *dolus directus* of the first degree. If the act was committed with *dolus directus* of the second degree, it only constitutes a criminal offence if the damage (destruction or contamination) is clearly excessive in relation to the military advantage achieved. In non-international conflict, the above only applies to the actual destruction of civilian objects. Causing pure (even massive) contamination damage through radioactive radiation, biological or chemical pollutants, on the other hand, is not punishable.

d) War crimes against the natural environment

[…]

(iv) Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated;

[…]

In addition to the variants discussed above, article 8 para. 2 (b) (iv) ICCS also contains the crime of causing widespread, long-term and severe damage to the natural environment, which is clearly disproportionate to the military advantage anticipated. This article is thus the only provision in the ICCS that contains a crime against the legally protected interest "natural environment".

[467] WERLE & JESSBERGER, op. cit., p. 640, para. 1420.

da) The necessary damage threshold

The concept of "natural environment" is understood in a broad manner and comprises both the shaped by man and non-shaped soils, waters, atmosphere, climate and biota.[468] The damage to the natural environment must reach the "damage threshold" of article 8 para. 2 (b) (iv) ICCS, which requires an in scope, duration and severity significant damage. However, it remains unclear from which radius of action, duration and degree of damage this requirement is cumulatively achieved. Especially the primary sources of interpretation, namely the Elements of Crimes and the offence's mother norms in article 35 para. 3 and article 55 para. 1 AP I, do not provide further guidance in this regard.

Orientation for an interpretation may, however, be provided by the *Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques* ("ENMOD-Convention").[469] Although this convention has no binding effect on the ICCS or on the mentioned mother norms of the AP I, its significance lies in the understanding of the international community that is reflected in it.

In a Report of the UN Conference of the Committee on Disarmament from 1976, a to the threshold requirement of article 8 para. 2 (b) (iv) ICCS similar passage of the ENMOD-Convention is further substantiated. According to it, "widespread" is understood as encompassing an area on the scale of several hundred square kilometers; "long-lasting" as lasting for a period of months, or approximately a season; and "severe" as involving serious or significant disruption or harm to human life, natural and economic resources or other assets defined.[470] As there are differences in the exact wording of the time element of the ICCS ("long-term") and the ENMOD-Convention ("long-lasting") it seems reasonable to assume that both terms indeed have different meanings. With a view to the preparatory work

[468] ILC, *Yearbook of the International Law Commission 1991: Report of the Commission to the General Assembly on the work of its forty-third session*, A/CN.4/SER.A/1991/Add.l (Part 2), New York, USA: United Nations Publication, 1994, vol. II, Part Two, p. 107, para 4; likewise: PETERSON, *Die Strafbarkeit des Einsatzes von biologischen, chemischen und nuklearen Waffen*, op. cit., p. 316; Alexandre KISS, *Les Protocoles additionnels aux Conventions de Genève de 1977 et la protection de bien de l'environnement*, in Christophe Swinarski (Ed.), *Etudes et essais sur le droit international humanitaire et sur les principes de la Croix-Rouge* (pp. 181 - 192), Geneva, Switzerland: ICRC, 1984, pp. 181 et seqq.
[469] Yoram DINSTEIN, *Protection of the Environment in International Armed Conflict*, UNYB, vol 5 (2001), pp. 523 - 549 (541 et seq.); KISS, op. cit., p. 189.
[470] United Nations, *Report of the Conference of the Committee on Disarmament, Volume I*, General Assembly Official records, 31. Session, Supplement no. 27, A/31/27, New York, 1976, pp. 91 - 92, Understandings regarding the Convention.

of AP I, the prevailing opinion considers therefore even a period of more than a decade as minimum period to fulfill the "long-term" requirement of article 8 para. 2 (b) (iv) ICCS.[471]

If these values are taken as a basis, widespread deployed chemical weapons, which result in contamination for several years could fulfill the requirements of article 8 para. 2 (b) (iv) ICCS. But also, in principle, short-acting chemicals can cause long-term damages if they destroy elementary components or actors in the ecosystem, thus burdening the ecological fabric and its interactions over decades. Equally to be taken into consideration are biological weapons with highly infectious viruses or bacteria that can reach wide contamination radii and cause considerable damage not only to humans but also to the fauna of an area, up to the extinction of entire species. Nevertheless, whether the use of such chemical and biological weapons fulfils the requirements of article 8 para. 2 (b) (iv) ICCS has in the end to be assessed on a case-by-case basis.[472]

db) A crime-specific exclusion of the court's subject-matter competence

Regarding nuclear weapons, however, there are doubts as to whether article 8 para. 2 (b) (iv) ICCS in the variant of excessive damage to the natural environment is precluded from the outset. In principle, the use of strategic nuclear weapons would regularly meet the requirements of the damage threshold of this article, i. e. range, duration and severity of the damage to the natural environment. Furthermore, it has been demonstrated that the ICCS is in principle applicable to WMD-related issues. A limitation could result from a specific non-applicability of its mother norms, article 35 para. 3 and article 55 para. 1 AP I, on nuclear weapons, which would consequently also limit the scope of application of their criminal law derivative in article 8 para. 2 (b) (iv) ICCS.

In fact, at the time of their inclusion in the AP I, article 35 para. 3 and article 55 para. 1 AP I were regarded as completely newly created international law. Therefore, in contrast to most other provisions of the AP I as well as the other variants of article 8 para. 2 (b) (iv) ICCS

[471] DINSTEIN, op. cit., p. 530; UN General Assembly/ICRC, *Report of the Secretary-General on the protection of the environment in times of armed conflict*, UN Doc. A/48/269, p. 9; KISS, op. cit., pp. 181 et seqq.; with further references PETERSON, op. cit., p. 318, fn. 1356.

[472] Additionally to the damage threshold requirement the principle of proportionality has to be fulfilled. Thus, an excessive damage to the environment does not by itself constitute a war crime. The excessive damage has rather also to be disproportionate in relation to the military advantage obtained. See, for further details, HEBEL & ROBINSON, in *The International Court: The Making of the Rome Statute*, op. cit., p. 111.

directed against life, physical integrity and property, the natural environment variant did not represent a mere reaffirmation of already existing international customary law.[473]

Custom could not create an understanding of article 35 para. 3 and article 55 para 1 AP I in the sense that nuclear weapons were covered by the prohibition. States like France, Great Britain and the USA obtained the possibility to shape the understanding themselves, through constantly opposing to the coverage of nuclear weapons since its creation in 1977.[474] Those states are thus deemed *persistent objectors*[475], wherefore a nuclear weapon usage by these states cannot result in a vulnerating of article 35 para. 3 and article 55 para. 1 AP I. Consequently, they must be likewise excluded from a nuclear bomb-related criminal liability under article 8 para. 2 (b) (iv) ICCS.

With regard to other states that are not persistent objectors, an applicability of article 35 para. 3 and article 55 para. 1 AP I on nuclear weapon uses remains nonetheless unclear. When interpreting the AP I in accordance with the textual approach of article 31 para. 1 VCLT, it must be stated that the text of the protocol refers at no point explicitly to nuclear weapons. On the contrary, most references to weapons in the text, seem to be limited explicitly to conventional weapons, i. e. light individual weapons.[476] Also article 36 AP I, which more broadly refers to "new weapons", does not include nuclear weapons, as those were already known at the time of conclusion of the AP I in 1977.

That these provisions referring explicitly to weapons exclude nuclear weapons, does not necessarily mean that the AP I in general is not meant for nuclear weapons at all or that even the Geneva Conventions shall henceforth be understood in a way that nuclear weapons are

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[473] SANDOZ, SWINARSKI, & ZIMMERMANN, *Commentary on the Additional Protocols*, op. cit., p. 398, para. 1402.

[474] France, declaration/reservation made on ratification (April 11, 2001): Cette adhésion est assortie des réserves et déclarations suivantes : […] 2. […] Le Gouvernement de la République Française *continue* de considérer que les dispositions du protocole concernent exclusivement les armes classiques, et qu'elles ne sauraient ni réglementer ni interdire le recours a l'arme nucléaire, ni porter préjudice aux autres règles du Droit International applicables a d'autres activités, nécessaires a l'exercice par la France de son droit naturel de légitime défense; United Kingdom, declaration/reservation made on ratification (July 2nd, 2002): 'Reservations: […] (a) It *continues* to be the understanding of the United Kingdom that the rules introduced by the Protocol apply exclusively to conventional weapons without prejudice to any other rules of international law applicable to other types of weapons. In particular, the rules so introduced do not have any effect on and do not regulate or prohibit the use of nuclear weapons'; United States, declaration made on signature (December 12, 1977): 'It is the understanding of the United States of America that the rules established by this protocol were not intended to have any effect on and do not regulate or prohibit the use of nuclear weapons.' The USA did not ratify the AP I by now.

[475] The persistent objector rule in international law holds that if a state persistently objects to a still emerging norm of customary international law, then this state is exempt from its application once it is established. See, James A. GREEN, *The Persistent Objector Rule in International Law*, Oxford, Great Britain: Oxford University Press, 2016, pp. 1 et seqq.

[476] See article 13 para. 2 (a) AP I: "[…] light individual weapons […]"; article 25 AP I:"[…] surface-to-air weapons […]"; article 28 para. 3 AP I: "[…] light individual weapons […]"; article 56 para. 5 AP I: "[…] weapons capable only of repelling hostile actions against the protected works or installations […]"; article 65 para. 3 AP I: "[…] light individual weapons […]"; article 67 para. 1 (d) AP I: "[…] light individual weapons […]".

excluded from their scope of application.[477] The contractual intent of the parties, as formally contained in the preamble of the protocol, makes rather clear that AP I is not intended to limit the scope of the Geneva Conventions but to "reaffirm", "develop" and "supplement" it.[478] The provisions of the AP I can thus not be interpreted in a way that would lead to a reduction of the rights and prohibitions stipulated under the Geneva Conventions.[479]

As the Geneva Conventions are principally applicable to nuclear weapons, only those provisions of the AP I, which do not merely reaffirm the content of the Geneva Conventions, could be limited to conventional weapons. Although the ICJ came to the same conclusion in its Advisory Opinion of July 8, 1996, on the legality of the threat or use of nuclear weapons, it left the question unanswered whether those remaining provisions where applicable to nuclear weapons or not.[480]

Nonetheless, it appears possible to determine the formal will of the parties by including their reservations and interpretative declarations made on signing or ratification into the assessment, in accordance with article 31 para. 2 VCLT. Out of the 35 states that have made use of the possibility to make a reservation or an interpretative declaration on signing or ratification, ten make statements about whether the supplements of AP I also refer to nuclear weapons.

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[477] Julie GAUDREAU, *The reservations to the Protocols additional to the Geneva Conventions for the protection of war victims*, International Review of the Red Cross, no. 849, March 2003, pp. 143 - 184 (p. 155);
Frits KALSHOVEN, *Arms, Armaments and International Law*, recueil des cours, The Hague Academy of International Law, vol. 191 (1985-II), pp. 183 - 341 (283).

[478] Protocol Additional to the Geneva Conventions of August 12, 1949 and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), of June 8, 1977, Preamble.

[479] Likewise ICJ, *Advisory Opinion of 8 July 1996 on the legality of the threat or use of nuclear weapons*, ICJ Reports, 1996, commentary, para. 1852: "Whatever opinion one may have on the scope of application of Protocol I, [the general rules applying to all means and methods of warfare] remain completely valid and continue to apply to nuclear weapons, as they do to all other weapons. Thus it cannot be argued that by repeating such rules the Protocol excludes nuclear weapons from its scope of application".

[480] ICJ, *Advisory Opinion of 8 July 1996 on the legality of the threat or use of nuclear weapons*, ICJ Reports, 1996, para. 84: "[…] Nor is there any need for the Court to elaborate on the question of the applicability of Additional Protocol 1 of 1977 to nuclear weapons. It need only observe that […] Additional Protocol 1 in no way replaced the general customary rules applicable to all means and methods of combat including nuclear weapons. […]".

Out of this ten, five understand that all the rules introduced by AP I apply exclusively on conventional weapons.[481] Three refer exclusively to norms relating to "the use of weapons", considering them all as being limited to conventional weapons.[482] However, as the relevant article 35 para. 3 AP I refers to "means" of warfare, it must be deemed such a provision. Finally, the remaining two seem to be critical about the treatment of nuclear weapons under the AP I, but do not provide an unambiguous positioning in favor of their coverage.[483] A declaration expressly in favor of a coverage of nuclear weapons under the AP I does thus not exist.

The interpretation of the formalized will of the contracting parties according to article 31 para. 2 VCLT seems to be – at least with a view to article 35 para. 3 AP I – unambiguous. Article 35 para. 3 AP I is not applicable on nuclear weapon uses. Consequently, the to article 35 para. 3 AP I subsidiary criminal provision of article 8 para. 2 (b) (iv) ICCS in the variant concerning the legally protected interest of the natural environment, is likewise not applicable on such cases.

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[481] Belgium, reservation/declaration made on ratification (May 10, 1986): " […] the Protocol was established to broaden the protection conferred by humanitarian law solely when conventional weapons are used in armed conflicts, […]"; Canada, reservation/declaration made on ratification (November 20, 1990): "It is the understanding of the Government of Canada that the rules introduced by Protocol I were intended to apply exclusively to conventional weapons. In particular, the rules so introduced do not have any effect on and do not regulate or prohibit the use of nuclear weapons."; France, reservation/declaration made on ratification (11.04.2001): "[…]Le Gouvernement de la République Française continue de considérer que les dispositions du protocole concernent exclusivement les armes classiques, et qu'elles ne sauraient ni réglementer ni interdire le recours a l'arme nucléaire […]" ; Spain, reservations/declarations made on ratification (April 21, 1989): "With reference to Protocol I in its entirety: It is the understanding [of the Government of Spain] that this Protocol, within its specific scope applies exclusively to conventional weapons, and without prejudice to the rules of International Law governing other types of weapons." United Kingdom, declaration/reservation made on ratification: "It continues to be the understanding of the United Kingdom that the rules introduced by the Protocol apply exclusively to conventional weapons without prejudice to any other rules of international law applicable to other types of weapons. In particular, the rules so introduced do not have any effect on and do not regulate or prohibit the use of nuclear weapons."; United States, declaration made on signature (December 12, 1977): 'It is the understanding of the United States of America that the rules established by this protocol were not intended to have any effect on and do not regulate or prohibit the use of nuclear weapons.".

[482] Germany, reservation/declaration made on ratification (February 14, 1991): "1. It is the understanding of the Federal Republic of Germany that the *rules relating to the use of weapons* introduced by Additional Protocol I were intended to apply exclusively to conventional weapons without prejudice to any other rules of international law applicable to other types of weapons."; Italy, reservation/declaration made on ratification (February 27, 1986) "It is the understanding of the Government of Italy that the rules *relating to the use of weapons* introduced by Additional Protocol I were intended to apply exclusively to conventional weapons. […]"; Netherlands, declaration made on ratification (June 20, 1987): "It is the understanding of the Government of the Kingdom of the Netherlands that the rules introduced by Protocol I *relating to the use of weapons* were intended to apply and consequently do apply solely to conventional weapons, without prejudice to any other rules of international law applicable to other types of weapons".

[483] Holy See, reservation/declaration made on ratification (November 21, 1985): "[…] One cannot help thinking that the measures embodied in the Geneva Conventions and more recently by the two Additional Protocols - measures which are already in themselves frail instruments for the protection of victims of conventional armed conflicts - would prove to be not only insufficient but totally inadequate in the face of the ruinous devastation of a nuclear war."; Ireland, reservation/declaration made on ratification (May 19, 1999): "[…] In view of the potentially destructive effect of nuclear weapons, Ireland declares that nuclear weapons, even if not directly governed by Additional Protocol I, remain subject to existing rules of international law as confirmed in 1996 by the International Court of Justice in its Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons".

With regard to other WMD, i. e. radiological, biological and chemical weapons, what has been said about nuclear weapons is applicable accordingly. Although the primary intention expressed in the interpretative notes, was presumably the non-criminalization of nuclear weapons rather than of all WMD, the clear restriction to *"conventional"* weapons cannot be interpreted differently when referring to the parties' *formalized* will.

Hence, causing massive environmental damage through the use of WMD in international conflict does not constitute a criminal offence under the ICCS. This is a mandatory consequence of the applicable rules of interpretation of the VCLT.

The same is true for non-international armed conflict, for which a norm corresponding to article 8 para. 2 (b) (iv) var. 4 ICCS is entirely lacking.[484]

Result: Causing serious environmental damage through the use of WMD, does not constitute a criminal offence in both international and non-international armed conflicts.

e) War crimes against multiple or unspecific legal interests

In addition to the offences against the legal interests of life, physical integrity, health, property and natural environment, the catalogue of article 8 ICCS also includes isolated offences which affect several legal interests simultaneously or which only indirectly aim to protect them. Of this group, article 8 para. 2 (b) (v) ICCS and article 8 para. 2 (b) (xii) ICCS are of particular interest within the context of WMD related operations.

ea) Attacking or bombarding undefended non-military objectives

> […]
>
> (v) Attacking or bombarding, by whatever means, towns, villages, dwellings or buildings which are undefended and which are not military objectives;
>
> […]

According to article 8 para. 2 (b) (v) ICCS it is considered a war crime to attack or bombard undefended towns, villages, dwellings or buildings which are not military objectives. The provision protects all legal interests that could be affected by an attack on such a location, i. e. life, physical integrity, health or property of the respective population. The determination of whether an objective is to be considered undefended is the central requirement of this

[484] WERLE & JESSBERGER, op. cit., p. 640, para. 1420.

offence. According to the Elements of Crimes, "undefended" must be equated with a situation where the targeted location is opened for unresisted occupation.[485] Neutralization or demilitarization of an objective are not requirements, but the declared reluctance to resist.[486] Such a declaration can be made unilaterally by one of the combatant parties. Thus, if an objective that fulfills the above-mentioned requirements is attacked by using WMD, the criminal offence of article 8 para. 2 (b) (v) ICCS would be fulfilled.[487]

There is no to article 8 para. 2 (b) (v) ICCS corresponding criminal norm for the non-international context. The ICC Statute thus falls short of international custom, which considers a corresponding act as a fundamental violation of international humanitarian law also in non-international conflict.[488]

Result: Whilst article 8 para. 2 (b) (v) ICCS can be fulfilled by utilizing WMD, the special elements of the provision's *actus reus*, i. e. the opening for unresisted occupation, does not deem it a norm of general interest for the concrete prevention of WMD proliferation.

eb) Denying quarter

> […]
>
> (xii) Declaring that no quarter will be given;
>
> […]

According to article 8 para. 2 (b) (xii) ICCS it constitutes a war crime to declare that no quarter will be given. Such a statement implies that there will be no survivors and therefore contradicts fundamental considerations of international humanitarian law: An opponent who has surrendered or is incapable of fighting no longer poses a threat. Further military actions

[485] Elements of Crimes, article 8 para. 2 (b) (v) War crime of attacking undefended places: "1. The perpetrator attacked one or more towns, villages, dwellings or buildings. 2. Such towns, villages, dwellings or buildings were open for unresisted occupation. 3. Such towns, villages, dwellings or buildings did not constitute military objectives. 4. The conduct took place in the context of and was associated with an international armed conflict. 5. The perpetrator was aware of factual circumstances that established the existence of an armed conflict."
[486] ARNOLD & WEHRENBERG, op. cit., p. 381.
[487] Although the wording of the norm would allow this, it is practically impossible to imagine constellations in which an objective that is open for unresisted occupation, i. e. does not offer any military resistance, can still be qualified as a military objective: DÖRMANN, *Elements of War Crimes*, op. cit., p. 177; dissenting view: ARNOLD & WEHRENBERG, op. cit., p. 382.
[488] WERLE & JESSBERGER, op. cit., p. 651, para. 1448.

against such an opponent can thus not be justified with any military necessity, as such actions would always be unproportionate in relation to the possible military advantage obtained.[489]

The Elements of Crimes explains that the term "declaring" is intended to cover more than mere formal declarations to the enemy and that also the mere order that "there shall be no survivors" is included.

For the criminal liability of the use of weapons of mass destruction, this raises the question of whether the order to use nuclear weapons or other WMD can be considered as implicit order to leave no survivors. In fact, the totality of destruction caused by such weapons are undisputable and an immanent finality of their usage: One, who orders their use, inherently orders the use of a weapon that leads to total destruction and annihilation.

However, the better arguments speak in favor of a more restrictive interpretation of article 8 para. 2 (b) (xii) ICCS, criminalizing specific methods of warfare rather than the use of specific means with generally devastating effects. In fact, the judicial practice concerning the article's mother norm, article 23 (d) Hague Land Warfare Convention is by now limited to cases referring to the merciless treatment of individuals who are no longer part of hostilities.[490] Similarly, no case is known where states would have attributed the denial of quarter to an attack with massive causalities.[491]

If article 8 para. 2 (b) (xii) ICCS were applicable on WMD deployments only due to their devastating effects, this would contradict the concept of nuclear deterrence, which comprises a general subliminal threat to use nuclear weapons and their enormous destructive force against other states. The nuclear weapon states that attended the Rome Conference would therefore not have supported the inclusion of this article into the ICCS, if such an understanding would have been a serious option.[492]

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[489] Michal COTTIER & Julia GRIGNON, *Article 8(2)(b) (xiii): Quarter*, in Otto Triffterer & Kai Ambos, *Rome Statute of the International Criminal Court– Observers' Notes, Article by Article* (2nd ed.) (pp. 391 - 394), Munich, Germany: C. H. Beck, 2008, pp. 391 et seqq.

[490] See, with further references, Jean-Marie HENCKAERTS & Louise DOSWALD-BECK, *Customary International Humanitarian Law*, Cambridge, United Kingdom: ICRC/Cambridge University Press, 2005, vol. 2, part 1, chapter 15, paras. 15 et seqq.

[491] HENCKAERTS & DOSWALD-BECK, op. cit., vol. 2, part 1, chapter 15, paras. 15 et seqq.

[492] PETERSON, op. cit., p. 327.

The declaration of using WMD cannot be considered as a form of "denying quarter" in the sense of article 8 para. 2 (b) (xvii) ICCS.[493] The norm should rather be understood in a more restrictive and traditional manner, as covering orders and declarations referring to especially merciless methods of warfare where "no prisoners" shall be made.

Same applies consequently to the provision for non-international conflict in article 8 para. 2 (b) (xii) ICCS, which is identical in text to article 8 para. 2 (e) (x) ICCS.

Result: The war crime of denying quarter has no particular relevance to WMD deployments.

2.2. Relevant crimes against humanity

Article 7 – Crimes against humanity

1. For the purpose of this Statute, "crime against humanity" means any of the following acts when committed as part of a widespread or systematic attack directed against any civilian population, with knowledge of the attack:

(a) Murder;

(b) Extermination;

[...]

[…]

Although crimes against humanity had been judged already since the birth of international criminal law in the Nuremberg Trials, article 7 ICCS represents these crimes' first comprehensive codification in international law.[494] According to article 7 ICCS, crimes against humanity require an inhumane act as listed in lit. a – k, which must occur in the context of a widespread or systematic attack directed against any civilian population. On the *mens rea* side, the clear wording of the norm shows that the perpetrator has to have knowledge of this attack. Regarding the individual inhuman acts, the general subjective requirements of article 30 ICCS are pertinent.[495]

[493] The prevailing opinion on article 8 para. 2 (b) (xii) ICCS states that the norm punishes the declaration as such and not the actual denegation of quarter, i. e. the act of killing the remaining soldiers of the hopelessly inferior side; see Knut DÖRMANN, *Elements of War Crimes*, op. cit., p. 247; Kriangsak KITTICHAISAREE, *International Criminal Law*, Oxford, United Kingdom: Oxford University Press, 2001, p. 173; PETERSON, op. cit., p. 327; WERLE & JESSBERGER, op. cit., p. 660, para. 1472.

[494] Ciara DAAMGARD, *Individual Criminal Responsibility for Core International Crimes – Selected Pertinent Issues.* Heidelberg, Germany: Springer-Verlag, 2008, p. 73; AMBOS, *Internationales Strafrecht*, op. cit., p. 263.

[495] For the question whether the general subjective requirements of article 30 ICCS have to be recurred in order to identify the knowledge element, see AMBOS, *Internationales Strafrecht*, op. cit., p. 275, para. 196.

Within the listed inhumane acts, "murder" (article 7 para. 1 (a) ICCS) and "extermination" (article 7 para. 1 (b) ICCS) appear to be particularly relevant to the context of the use of WMD. The act of murder is defined as intentional killing by one or more persons.[496] The act of extermination also contains a killing element yet is by nature directed against a group or a large number of persons.[497] In other words: Extermination differs from murder in a sense that it contains an additional "element of mass destruction" on the top of the intentional killing.[498] As *lex specialis*, extermination therefore precludes the additional application of the crime of murder.[499] Due to the mode of action of WMD within crimes against humanity, which is designed for mass destruction, extermination is likely to be the regularly relevant offence in the use of WMD against persons.

For this inhumane act to be considered a crime against humanity, it must be committed in the context of a widespread or systematic attack directed against a civilian population. In fact, it is this context requirement, which helps to distinguish an ordinary domestic crime (e. g., murder) from the international crime against humanity.[500] According to article 7 para. 2 (a) ICCS and the Elements of Crimes, an "attack directed against a civilian population" must be understood as a course of conduct involving the multiple commission of acts referred to in article 7 para. 1 ICCS against any civilian population, pursuant to or in furtherance of a state or organizational policy to commit such an attack.

The multiple commission of acts can be carried out by both, a single, as well as multiple perpetrators. They are neither limited in time nor in place but must be in an internal relationship to each other. However, when WMD, especially nuclear weapons, are used often only one weapon or bomb is detonated. Therefore, only one and not multiple conducts might

[496] Elements of Crimes, Article 7 (1) (a) Crime against humanity of murder, element no. 1: "The perpetrator killed one or more persons."
[497] Elements of Crimes, Article 7 (1) b) Crime against humanity of extermination, element no. 1: "The perpetrator killed one or more persons, including by inflicting conditions of life calculated to bring about destruction of part of a population."; see also Prosecutor v. Zdravko Tolimir (Judgement), ICTY-05-88/2-T, Trial Chamber II (December 2012), para. 724; Prosecutor v. Milan Lukić & Sredoje Lukić (Judgement), ICTY-98-32/1-T, Trial Chamber III (July 20, 2009), para. 397; Prosecutor v. Milan Lukić & Sredoje Lukić (Judgement), ICTY-98-32/1-A, Appeals Chamber (December 4, 2012), para. 536; Prosecutor v. Yussuf Munyakazi (Judgement and Sentence), ICTR-97-36A-T, Trial Chamber I (July 5, 2010), para. 506; Prosecutor v. Vincent Rutaganira (Judgement and Sentence), ICTR-95-IC-T, Trial Chamber III (March 14, 2005), para. 50; Prosecutor v. Ferdinand Nahimana et al. (Judgement and Sentence), ICTR-99-52-T, Trial Chamber I (December 3rd, 2003), para. 1061.
[498] Prosecutor v. Jean-Paul Akayesu (Judgement), ICTR-96-4-T, Trial Chamber I (September 2nd, 1998), para. 591; AMBOS, *Internationales Strafrecht*, op. cit., p. 277.
[499] Prosecutor v. Clément Kayishema and Obed Ruzindana (Judgment), ICTR-95-1-T, Trial Chamber II (May 21, 1999), paras. 647 et seqq.; Ildikó ERDEI, *Cumulative Convictions in International Law: Reconsideration of a Seemingly Settled Issue*, Suffolk Transnat'l L. Rev. 317 (2011), vol. 34, issue 2, pp. 317 – 346 (337); Iris HÜNERBEIN, *Straftatkonkurrenzen im Völkerstrafrecht: Schuldspruch und Strafe*, Berlin, Germany: Duncker & Humblot, 2004, p. 126.
[500] DAAMGARD, op. cit., pp. 79 et seq.

be necessary. The prevailing opinion in the literature and jurisprudence is that - in accordance with the telos and the genesis of the norm - the multiplicity of acts does not refer to a multiplicity of actual conducts, but rather to a mere multiplicity of victims.[501] An effect that WMD deployments are likely to have on a regular basis.

The specific requisites of the terms "widespread" and "systematic" were initially defined by the ICTR, as the ICTR-Statute was the first to explicitly mention them as elements of Crimes against Humanity.[502] The ICC adopted the correspondent understandings of the ICTR, defining them, e. g., in "*The Prosecutor v. Jean-Paul Akayesu*", as follows:

"The concept of "widespread" may be defined as massive, frequent, large-scale action, carried out collectively with considerable seriousness and directed against a multiplicity of victims. The concept of "systematic" may be defined as thoroughly organized and following a regular pattern on the basis of a common policy involving substantial public or private resources. There is no requirement that this policy must be adopted formally as the policy of a state. There must however be some kind of preconceived plan or policy."[503]

The context of a single WMD deployment, especially that of a nuclear strike, will usually lack the repetitiveness required by both elements. However, the embedding of biological and chemical weapons in a context in which a high number of serious actions against civilians are already taking place and/or where a corresponding state-driven plan exists, has a number of woeful examples in recent history. Only one needs to think of the deployment of Sarin in 2017, six years after beginning of the ongoing Syrian Civil War; or the use of Mustard Gas, Sarin and Tabun by Iraq against Iranian and Kurdish civilians during the Iran-Iraq-War of 1980 - 1988.[504]

Especially in consideration of these two examples, it is alleviating that the wording of the norm leaves no doubt that the potential victim group of a crime against humanity is "any"

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[501] Kai AMBOS & Steffen WIRTH, *The Current Law of Crimes against Humanity: An analysis of UNTAET Regulation 15/2000*, Criminal Law Forum, vol. 13, pp. 1 - 90 (17), where as an example the lone perpetrator who one-time throws a bomb into a crowd of people or poisons the drinking water of a city is mentioned (examples also to be found in AMBOS, *Internationales Strafrecht*, op. cit., p. 268); Bernd KUSCHNIK, *Der Gesamttatbestand des Verbrechens gegen die Menschlichkeit: Herleitungen, Ausprägungen, Entwicklungen*, Berlin, Germany: Duncker & Humblot, 2009, pp. 222 et. seqq.; Darryl ROBINSON, *Defining Crimes Against Humanity at the Rome Conference*, AJIL 1999, vol. 93, no. 1, pp. 43 - 57 (48); Hans VEST, *Humanitätsverbrechen – Herausforderung für das Individualstrafrecht?*, ZStW 2001, vol. 113, issue 3, pp. 457 – 498 (468); see also Preparatory Commission for the International Criminal Court, *Finalized Draft Text of the Elements of Crimes*, U.N. Doc. PCNICC/2000/INF/3/Add. 2, General introduction, para. 9: "A particular conduct may constitute one or more crimes."

[502] However, the IMT-Statute, the IMTFE-Statute, the CCL10, and the ICTY-Statute required for an act to be considered as crime against humanity that it is directed against the civilian population. A requisite that has been interpreted as qualifying the nature of the atrocities either by being directed against a large number of civilians or by being committed in a planned and systematic manner. See DAAMGARD, op. cit., pp. 79 et seq.

[503] Prosecutor v. Jean-Paul Akayesu (Judgement), ICTR-96-4-T, Trial Chamber I (September 2nd, 1998), para. 580.

[504] See Part One, Chapter 1, 3.

civilian population. Article 7 ICCS criminalizes inhuman acts against both the population of third countries as well as against the perpetrator's own people.

Result: Whenever WMD are used to commit inhuman acts as part of a widespread or systematic attack directed against any civilian population, such a behavior would constitute an international crime under article 7 ICCS.

2.3. Genocide

Article 6 - Genocide

For the purpose of this Statute, "genocide" means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such:

(a) Killing members of the group;

(b) Causing serious bodily or mental harm to members of the group;

(c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;

(d) Imposing measures intended to prevent births within the group;

(e) […]

The crime of genocide evolved after World War II as an independent offence from crimes against humanity and was treated as such at the IMT in Nuremberg. With the adoption of the UN Genocide Convention 1948[505] and its inclusion as a separate offence in the statutes of the ICTY and ICTR, the Rome Conference also followed this understanding and included genocide as an independent offence in the text of the ICCS.[506]

Article 6 ICCS defines genocide as the commission of one of the acts mentioned in letters a - e with the aim of destroying a national, ethnic, racial or religious group. In particular, the elements of killing (article 6 (a) ICCS) or causing serious harm (article 6 (b) ICCS) to members of the group could be fulfilled by using WMD as a mean.[507]

In addition, the implementation of a WMD-based genocide by inflicting on the group conditions of life calculated to bring about its physical destruction or prevent the group from having any offspring is imaginable. For example, WMD can contaminate the habitats of the

[505] UN General Assembly, Convention on the Prevention and Punishment of the Crime of Genocide, adopted December 9, 1948.
[506] Article 4 para. 2 ICTY-Statute; article 2 para. 2 ICTR-Statute; article 6 ICCS.
[507] For the *actus reus* to be fulfilled, it is sufficient if one member of the target group has already been killed or injured. This also applies in the context of national criminal responsibility for genocide; see Josep Maria TAMARIT SUMALLA, *Delitos contra la Comunidad internacional*, in Gonzales QUINTERO OLIVARES (Ed.), *Comentarios al Código Penal Español* (7th ed.), Cizur Menor, Spain: Aranzadi, 2016, p. 2017.

versed group in such a way that they are no longer habitable or usable, thereby depriving them of their basic means of livelihood.[508] Similarly, WMD with chemical substances or genetically manipulated pathogens could be used, which in the case of poisoning leads to the infertility of the affected group members. In fact, there were corresponding research efforts in the 1980s and early 1990s, when the South African Apartheid Regime, in a subdivision of its secret bio and chemical weapons program "Project Coast", also researched the possibilities of targeted infertility treatment of the black population.[509]

Decisive for the final affirmation of a genocide is ultimately the intention to destroy the targeted group in whole or in part. This element of intent distinguishes genocide from the subsidiary crime of extermination in article 7 para. 1 (b) ICCS.[510] Accordingly, the ICJ - in its Advisory Opinion on the conformity of the use of nuclear weapons with international law - stated that a nuclear weapon is objectively suitable for destroying an entire group, but that the determination of whether the recourse of the weapon did entail the necessary element of intent against a group as such is necessarily dependent on the individual case.[511] These considerations apply to all types of WMD.

Result: Whenever WMD are used to kill with the aim of destroying a national, racial or religious group, such a behavior would constitute an international crime under article 6 ICCS.

[508] See SATZGER, *Internationales und Europäisches Strafrecht*, op. cit., p. 414, who refers to the graphic concept of annihilation by "slow" death.
[509]Miles JACKSON, *A Conspiracy to Commit Genocide: Anti-Fertility Research in Apartheid's Chemical and Biological Weapons Programme*, JICJ 13 (2015), issue 5, pp. 933 – 950 (933 et seqq.); see also TRUTH AND RECONCILIATION COMMISSION OF SOUTH AFRICA, *Truth and Reconciliation Commission of South Africa Report*, vol. 2, October 29, 1998, pp. 504 – 521, available at https://www.justice.gov.za/trc/report/.
[510] For a different unconvincing view, see HÜNERBEIN, op. cit., pp. 115 et seqq.
[511] ICJ, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, p. 226; for a different view, see Christopher WEERAMANTRY, *Dissenting Opinion of Judge Weeramantry*, in ICJ, *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*, ICJ Reports 1996, p. 502.

2.4. The crime of aggression

Article 8 *bis* – Crime of aggression

1. For the purpose of this Statute, "crime of aggression" means the planning, preparation, initiation or execution, by a person in a position effectively to exercise control over or to direct the political or military action of a State, of an act of aggression which, by its character, gravity and scale, constitutes a manifest violation of the Charter of the United Nations.

2. For the purpose of paragraph 1, "act of aggression" means the use of armed force by a State against the sovereignty, territorial integrity or political independence of another State, or in any other manner inconsistent with the Charter of the United Nations. Any of the following acts, regardless of a declaration of war, shall, in accordance with United Nations General Assembly resolution 3314 (XXIX) of 14 December 1974, qualify as an act of aggression:

(a) […]

(b) Bombardment by the armed forces of a State against the territory of another State or the use of any weapons by a State against the territory of another State;

[…]

Military conflicts are no longer legitimate means of foreign policy, and the use of force is in accordance with article 2 para. 4 of the UN Charter a violation of applicable international law. This prohibition has already found its way into the ICCS as a crime under international law in 1998, by declaring the crime of aggression according to article 5 ICCS part of the jurisdiction of the ICC. The exercise of this jurisdiction, however, was subject to the introduction of a norm which also defines and formulates the crime of aggression in the style of articles 6 - 8 ICCS.[512] The Review Conference in Kampala 2010 introduced in form of the new article 8 *bis* ICCS. With resolution dated December 14th, 2017, the Assembly of the Parties decided to activate the ICCS's jurisdiction over the crime of aggression with effect from July 17, 2018.[513]

The legal definition of the crime of aggression is based on an act of aggression, which, by its character, gravity and scale, constitutes a manifest violation of the Charter of the United Nations. Article 8 *bis* ICCS lists as possible acts of aggression those that were already identified by the UN General Assembly in its Resolution 3314 (XXIX) of December 14th,

[512] See the former paragraph 2 of article 5, meanwhile deleted in accordance with RC/Res.6, annex I, of June 11, 2010: "The Court shall exercise jurisdiction over the crime of aggression once a provision is adopted in accordance with articles 121 and 123 defining the crime and setting out the conditions under which the Court shall exercise jurisdiction with respect to this crime. Such a provision shall be consistent with the relevant provisions of the Charter of the United Nations."
[513] Resolution ICC-ASP/16/Res.5: "Activation of the jurisdiction of the Court over the crime of aggression", adopted at the 13th plenary meeting, on December 14, 2017, by consensus.

1974, e. g. the invasion or bombardment of a territory.[514] With regard to the use of WMD, the variant of "bombardment by the armed forces of a State against the territories of another State or the use of any weapons by a State against the territory of another State" in article 8 *bis* para. 2 (b) ICCS appears to be particularly relevant. According to that, the initial bombardment or shelling of a foreign territory with any WMD designed as a bomb would therefore be an "act of aggression".

However, article 8 *bis* ICCS does not allow every act of aggression to suffice as such. Rather, it must meet the threshold of a *manifest* violation of the Charter of the United Nations. The manifest nature of the violation is measured by the character, gravity and scale of the attack as an objective standard of assessment.[515] The subjective viewpoint of the attacker is therefore not important.[516]

The effects of WMD use are not comparable in gravity and scale to any other type of weapon. WMD kill and damage people in large numbers, often over generations. Their indiscriminately effective mode of action and their lethal effect, which is often based on substances not visible to the naked eye, make it an objectively particularly insidious and dangerous weapon. Regarding the "character" of the attack, a particularly aggressive nature will probably have to be demanded. Wars of aggression which are controversial or forbidden under international law but e. g. serve a humanitarian intervention, might therefore not have a "character" which is a manifest violation of the Charter.[517] However, the nature of WMD leaves little imaginable scope for action in this respect, as anyone waging a war of aggression with WMD is showing the highest degree of aggression and generally intends to ruthlessly subjugate or destroy the enemy.

The special character, gravity and scale of a WMD deployment were also recognized by the UN General Assembly and aptly described in various resolutions and declarations. An

[514] UNGA, Resolution "3314 (XXIX). Definition of Aggression" of December 14, 1974: The General Assembly, […] 1. Approves the Definition of Aggression, the text of which is annexed to the present resolution; […] Annex: Definition of Aggression: Article 1: Aggression is the use of armed force by a State against the sovereignty, territorial integrity or political independence of another State, […] Article 3: Any of the following acts, regardless of a declaration of war, shall, subject to an in accordance with the provisions of article 2, qualify as an act of aggression: […] (b) Bombardment by the armed forces of a State against the territory of another State or the use of any weapons by a State against the territory of another State; […].

[515] Kai AMBOS, *The Crime of Aggression after Kampala*, GYIL, vol. 53, 2010, pp. 463 - 509 (482 et seqq.).

[516] Elements of Crime, Article 8 *bis* Crime of Aggression, Introduction, no. 3: "The term "manifest" is an objective qualification"; SATZGER, op. cit., p. 418; Kai AMBOS, *Das Verbrechen der Aggression nach Kampala*, ZIS 2010, pp. 649 – 668 (655 et seq.).

[517] AMBOS, *The Crime of Aggression after Kampala*, op. cit., pp. 482 et seq.

example of the General Assembly's objective assessment of chemical and biological weapons can be found in Resolution 2603 A (XXIV) of December 16th, 1969, i. a. stating:

"The General Assembly, considering that chemical and biological methods of warfare have always been viewed with horror and been justly condemned by the international community. Considering that these methods of warfare are inherently reprehensible because their effects are often uncontrollable and unpredictable and may be injurious without distinction to combatants and non-combatants, and because any use of such methods would entail a serious risk of escalation […]"[518]

For nuclear weapons, Resolution 1653 (XVI) of November 24, 1961, which even explicitly describes this type of weapon as a violation of the UN Charter, is particularly illustrative:

"The General Assembly […] Believing that the use of weapons of mass destruction, such as nuclear and thermo-nuclear weapons, is a direct negation of the high ideals and objectives which the United Nations has been established to achieve through the protection of succeeding generations from the scourge of war and through the preservation and promotion of their cultures, 1. Declares that: (a) The use of nuclear and thermo-nuclear weapons is contrary to the spirit, letter and aims of the United Nations and, as such, a direct violation of the Charter of the United Nations […]"[519]

An act of aggression using WMD as a weapon will therefore, as a rule, constitute a manifest violation of the Charter of the United Nations within the meaning of article 8 *bis* ICCS.[520]

Not everyone can be considered a suitable perpetrator. Article 8 *bis* ICCS is a special offence ("*Sonderdelikt*") and limits the possible circle of perpetrators to those persons who are in a position to effectively exercise control over or to direct the political or military action of a State, i. e. heads of state, senior members of government and military leaders. Since the focus is not on the formal position but on the actual influence, leaders of paramilitary groups and economic and religious leaders are also conceivable perpetrators of the crime of aggression.[521]

The implication of this group of perpetrators is conceivable in all the stages of action mentioned in article 8 *bis* ICCS - planning, preparation, initiation and execution. Only the highest leadership elites of a country will be involved in the planning and preparation of a war of aggression, as it is naturally linked to the level of strategic decision making. This

[518] General Assembly Resolution 2603 A (XXIV) of December 16, 1969.
[519] General Assembly Resolution 1653 (XVI) of November 24, 1961.
[520] It must be explicitly noted that the above-mentioned resolutions of the UNGA have no binding effect on the interpretation of the UN Charter. In particular, they do not constitute a subsequent agreement between the Parties on the interpretation of the treaty or the application of its provision within the meaning of article 31 para. 3 (a) VCLT. However, the two resolutions help to underline the general validity of the identified objective features of WMD.
[521] AMBOS, *The Crime of Aggression after Kampala*, op. cit., p. 490; SATZGER, op. cit., p. 419.

applies in particular to a war of aggression using WMD whose procurement programs are also regularly subject to the direct leadership of heads of states. Finally, the execution of the deployment requires their involvement: Whether by issuing the order to fire or by literally pressing the red button to launch a nuclear strike.

Result: Heads of state, high-ranking military officers, and *de facto* leaders who order a war of aggression by WMD, in particular a nuclear first strike that is not justified under international law, commit an international crime according to article 8 *bis* ICCS.

Chapter 4: Proliferation financing as participatory act

The collective nature is an immanent aspect of international crimes.[522] As they regularly occur at state level, they mostly require the cooperation of a large number of different actors and the coordinated interaction of their contributions in order to be realized.

The actual realization of international crimes does not only require the involvement of a leading group composed of political decision makers and military officials, e. g. those individuals ordering the deployment of WMDs in the offences described above. A further requirement is the involvement of a servile mass, i. e., radicalized party supporters, soldiers who carry out orders and civilians, ensuring the supply of necessary goods and services to the criminal apparatus, e. g. the pilot who drops the nuclear bomb, the scientist who develops the biological warfare agent or the financier who facilitates the financing and payment of the WMD components.

1. The statute's modes of participation

The differences in the possible contributions to an international crime are reflected in articles 25 para. 3 ICCS and 28 ICCS, which include the modes of participation punishable under the ICCS.

Article 25 para. 3 ICCS systematizes the various contributions to crime in a form that resembles to corresponding provisions in numerous national criminal law systems.[523] Article

[522] Gerhard WERLE, *Individual Criminal Responsibility in Art. 25*, JICJ 5 (2007), no. 4, p. 953 – 957 (953).
[523] It thus differs significantly from other earlier frameworks of international criminal law, cf. Kyung-Gyu PARK, *Rechtsnatur konkrete Voraussetzungen und Legitimität der Beteiligungsform gemäß Art. 25 Abs. 3 lit (d) IStGH-Statut*, Berlin, Germany: Duncker & Humblot, 2016, p. 19; WERLE, op. cit., pp. 954 et seqq.

25 para. 3 (a) - (d) ICCS gives the impression, at least structurally, of a hierarchy of the various modes of participation. In letters (a) – (c) the modes of participation have a clearly Romano-Germanic character and contain its classic forms: "(a) commission", "(b) instigation and ordering" and "(c) simple accessories". Article 25 para. 3 (d) ICCS, however, contains the "contribution to a group crime in any other way". A form of criminal responsibility, which is alien to Roman-Germanic criminal law and that has its roots in the Anglo-Saxon concept of "conspiracy".[524]

Article 28 ICCS adds to the mentioned types of criminal responsibility the figure of "superior responsibility", which is considered by the ICC as a subsidiary form of criminal responsibility *sui generis*.[525]

2. The statute's participatory model

The relevance of the distinction between the various modes of participation has not been conclusively clarified until today. Despite of the structure of article 25 para. 3 ICCS, which formally reminds of a hierarchical contribution structure, and the literal distinction between "committing" and "assisting" to a crime, there are doubts whether the ICCS is based on a dual perpetrator system or whether it ultimately knows only one perpetrator type, considering the listed forms of participation in article 25 para. 3 ICCS as of merely descriptive character.[526]

National criminal justice systems that only know one perpetrator type, such as the USA, Great Britain and Italy, are called "*Unitarian Systems*". They do not differentiate structurally between the nature and weight of the respective contribution to the overall crime, but rather see each causal contribution to it as an own equivalent crime, which is established separately from the responsibility of others. Accessories are on a par with the principal perpetrator of a

[524] The implications of article 25 para. 3 d) ICCS and its relation to article 25 para. 3 c) ICCS are described in detail below.
[525] Prosecutor v. Jean-Pierre Bemba Gombo (Judgement pursuant to Article 74 of the Statute), ICC-01/05-01/08, Trial Chamber III (March 21, 2016) paras. 171 et seqq. The dogmatic classification of article 28 ICCS is controversial. Some consider it not as a form of criminal responsibility but as a special form of omission liability, which requires a position as a guarantor: Henning RADTKE, *Gedanken zur Vorgesetztenverantwortlichkeit im nationalen und internationalen Strafrecht*, in Heike Jung (Ed.), *Festschrift für Egon Müller* (pp. 577 - 592), Baden-Baden, Germany: Nomos, 2008, p. 591. Others, however, see article 28 ICCS as an authentic omission offence: Kai AMBOS, Superior Responsibility, in Antonio Cassese, Paola Gaeta, & John R. W. D. Jones (Eds.), *The Rome Statute of the International Criminal Court* (pp. 823 et seqq.), Oxford, United Kingdom: Oxford University Press, 2002, p. 851; Héctor OLÁSOLO ALONSO, *The Criminal Responsibility of Senior Political and Military Leaders as Principals of International Crimes*, Oxford, United Kingdom: Hart Publishing, 2009, p. 107; Chantal MELONI, *Command Responsibility in International Criminal Law*, The Hague, Netherlands: T.M.C. Asser Press, 2010, pp. 143 et seqq.
[526] Pro dual perpetrator system: WERLE, op. cit., pp. 953 - 957. Advocating for a unitarian system: James G. STEWART, *The End of Modes of Liability for International Crimes*, LJIL 2012, vol. 25, pp. 165 – 219 (165 et seqq.).

criminal act and are considered equally authors of the crime.[527] The sentencing level for the individual parties involved will be based on the nature and weight of their contributions to the crime, but its determination is ultimately a matter for the judges to assess.[528]

Systems that distinguish between principal perpetrator and secondary participants, i. e. France, Germany, Spain, Russia and the Latin American Countries, are known as "*dual systems*" or "*differentiated systems*". These systems assume the existence of one or more authors of a crime to whose crime third parties can contribute as assistants. The actions of accomplices are therefore accessory to the actual crime of the principal perpetrators. The consequences of a classification as principal perpetrator or mere accomplices can be considerable, depending on the legal system. For instance, the national criminal law systems of Germany and Spain even require a mandatory lower punishment for the participant (German: *"Gehilfe";* Spanish: *"Cómplice simple"*) than for the principal perpetrator, regardless of the actual nature of the respective contributions in a particular case.[529]

However, the ICCS does not contain a regulation comparable to German or Spanish law that requires a lower penalty for the accessory's contribution. On the contrary, the unitary range of punishment of article 77 ICCS, which does not differentiate between modes of participation, is equally applicable to principal offenders and their assistants. Some therefore do not see in the participation forms of article 25 para. 3 ICCS a "hierarchy of seriousness"[530] necessary for the assumption of a differentiating approach and even come to the opinion that the different modes of participation are not clearly delineated concepts but rather descriptive features that can even overlap in individual cases.[531]

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[527] Hans VEST, *Problems of Participation - Unitarian, Differentiated Approach, or Something Else?*, JICJ 2014, vol. 12, no. 2, pp. 295 – 309 (306).

[528] Kai AMBOS, Ius puniendi and individual criminal responsibility in international criminal law, in Róisín Mulgrew & Denis Abels (Eds.), *Research Handbook of the International Penal System* (pp. 57 – 79), Cheltenham, United Kingdom: Edward Elgar Publishing, 2016, p. 68.

[529] See, for Germany, section 27 para. 2 German Criminal Code: "The sentence for the *Gehilfe* shall be based on the penalty for a principal. It shall be mitigated pursuant to section 49 para. 1" and section 49 para. 1 German Criminal Code: "If the law requires or allows for mitigation under this provision, the following shall apply: 1. Imprisonment of not less than three years shall be substituted for imprisonment for life. 2. In cases of imprisonment for a fixed term, no more than three quarters of the statutory maximum term may be imposed. In case of a fine the same shall apply to the maximum number of daily units. 3. Any increased minimum statutory term of imprisonment shall be reduced as follows: A minimum term of ten or five years, to two years; […]"; See, for Spain, article 29 in conjunction with article 63 Spanish Criminal Code: "*Cómplices* to a completed or attempted offence shall be sentenced to a lower degree of punishment than that established by law for the principal perpetrators of the same offence."

[530] Prosecutor v. Thomas Lubanga Dyilo (Judgment pursuant to Article 74 of the Statute), ICC-01/04-01/06, Trial Chamber I (March 14, 2012), Separate Opinion of Judge Adrian Fulford, paras. 6 et seqq.

[531] PARK, op. cit., p. 53.

This understanding is further supported by others and by the fact that the wording of articles 25 and 28 ICCS speaks only generally of the "responsibility" and "liability" of the person who fulfils one of the mentioned modes of action, and not of "modes of participation" in a strict sense. Article 25 para. 3 ICCS would simply list the cases in which someone is liable under international criminal law, without creating a system or hierarchy of participation.[532]

Although the ICCS undoubtedly lacks a norm that stipulates a mandatory differentiation in punishment between principal perpetrators and accessories, as known from the differentiating systems, the conclusion that the ICCS therefore necessarily follows the unitarian system would be too short-sighted to.

Article 25 para. 3 ICCS certainly regulates the responsibility and liability of persons under international criminal law, but it also regulates different modes of participation. In fact, regulation 52 (c) of the Regulations of the Court[533] explicitly ascribes to articles 25 and 28 ICCS the regulation of "form(s) of participation". Equally, the ICC recognized in its Lubanga decision that the concept of "commission" in article 25 para. 3 ICCS implies that the ICCS assumes that a principal responsible persons exist for whose act an accessory can provide assistance.[534]

The distinction between these different forms of participation is by no means merely descriptive. Even if not in the mandatory form of German or Spanish criminal law, it also is intended to have an influence on the determination of the applied penalty range. According to article 78 para. 1 ICCS the court shall take into account factors as the gravity of the crime and the individual circumstances of the convicted person when determining the penalty. Rule 145 para. 1 (a) of the Rules of Procedure and Evidence (RPE) [535] specifies this requirement, considering the "degree of participation" as a central factor for determining the sentence.

Additionally, regulation 52 (c) of the Regulations of the Court requires the precise mention of the mode of participation in the bill of indictment. This requirement is a strong indication

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[532] Leila N. SADAT & Jarrod M. JOLLY, *Seven Canons of ICC Treaty Interpretation: Making Sense of Article 25's Rorschach Blot*, LJIL 2014, vol. 27, pp. 755 – 788 (782); STEWART, op. cit., p. 166.

[533] ICC, Regulations of the Court, adopted by the judges of the Court on May 26, 2004, at the Fifth Plenary Session held at The Hague, May 17 – 28, 2004, Official documents of the ICC, ICC-BD/01-01-04.

[534] Prosecutor v. Thomas Lubanga Dyilo (Decision on the confirmation of charges), ICC-01/04-01/06, Pre-Trial Chamber I (January 29, 2007), para. 320.

[535] ICC, Rules of Procedure and Evidence, Official Record of the Assembly of States Parties to the Rome Statute of the International Criminal Court, First session, New York, September 3rd – 10, 2002, ICC-ASP/1/3 and Corr.1, part II.A; The RPE are an instrument for the application of the Rome Statute, considered by article 21 ICCS a law applicable together with the ICCS and the Elements of Crimes in "the first place", thus applicable even before other international treaties and principles and rules of international law.

that the ICC assigns special importance to the form of participation for the determination of the sentence, as is considers it a key information that the accused must know to adequately prepare his or her defense.

It is therefore reasonable to consider that the rules of participation of the ICCS follow neither the unitarian nor the differentiating approach. Rather, a *sui generis* participation system must be assumed that contains elements of both systems.[536] This is unproblematic, as international criminal law is not bound to national stipulations, but to the original sources of international law, which allow such unique paths.

It is a participation system that reflects the needs of modern international criminal law: Through making the differentiation between principal perpetrator and accessory a significant indicator for sentencing the process of judicial decision-making becomes more transparent. This helps to further consolidate and legitimate the role of the ICC. At the same time, the possibility of applying the same sentence range to principal perpetrators and accessories, allows the judges to react to the peculiarities of international crimes. Due to the usually macro-criminal character of international crimes, which are shaped by the importance of the role of those acting in the background, it might in some cases even be indicated to consider the level of unlawfulness of an accessory's contribution as equally or even higher than that of those actually carrying out the acts in question.[537] The participatory model of the ICC makes it possible to react adequately to these particularities.

3. The relevance of the different modes of participation for proliferation financing

The characteristics of the various modes of participation enable an assessment of these forms and whether they are unsuitable or potentially suitable for covering the act of proliferation financing.

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[536] AMBOS, *Treatise*, op. cit., vol. I, pp. 145 et seq.: "A unitarian concept of perpetration in an functional sense"; Elies VAN SLIEDREGT, *Individual Criminal Responsibility in International Law*, Oxford, United Kingdom: Oxford University Press, 2012, p. 75: "a novel and all-embracing theory of liability"; Markus D. DUBBER, *Criminalizing Complicity: A Comparative Analysis*, JICJ 5 (2007), vol. 5, issue 4, pp. 977 - 1001 (1001).

[537] Prosecutor v. Duško Tadić (Judgement), ICTY-94-1-A, Appeals Chamber (July 15, 1999), para. 191: "[…] Most of the time these crimes do not result from the criminal propensity of single individuals but constitute manifestations of collective criminality: The crimes are often carried out by groups of individuals acting in pursuance of a common criminal design. Although only some members of the group may physically perpetrate the criminal act (murder, extermination, wanton destruction of cities, towns or villages, etc.), the participation and contribution of the other members of the group is often vital in facilitating the commission of the offence in question. It follows that the moral gravity of such participation is often no less – or indeed no different – from that of those actually carrying out the acts in question."

3.1. Unsuitable modes of criminal responsibility

a) Commission

Article 25 para. 3 (a) ICCS provides for three different forms of commission, namely the commission as an individual, the joint commission with another and the commission through another person. As shown above, the scope of these forms of participation has to be definable and clearly distinguishable from one other and the subsequent modes of participation. Otherwise the sentencing could not be ground on the objective determination required by article 78 para. 1 ICCS in conjunction with rule 145 para. 1 (a) RPE and 52 (c) of the Regulations of the Court. However, the dogmatic delimitability of the different forms of commission does not entail that the macro-criminal reality of international criminal law is equally assignable to one of them. Therefore, the ICC follows the approach that when several or all variants are present, the suitable form of commission is one which best reflects the guilt of the accused.[538] Similarly, it also considers a combination of the forms of commission, i. e. in the form of the so-called "indirect co-perpetration", to be permissible in individual cases.[539]

As financiers will usually not have the necessary control over the offence (required for any form of commission), article 25 para. 3 (a) ICCS does not provide for a mode of participation, suitable for proliferation financing.[540] Especially the assumption of a joint co-commission between the financer and the actual user of the weapon, appears to be wrong:

[538] Prosecutor v. Ahmad Al Faqi Al Mahdi (Judgment and Sentence), ICC-01/12-01/15, Trial Chamber VIII (September 27, 2016), para 60.

[539] Prosecutor v. Germain Katanga and Mathieu Ngudjolo Chui (Decision on the confirmation of charges), ICC-01/04-01/07, Pre-Trial Chamber I (September 30, 2008), paras. 490 et seqq.; Prosecutor v. Dominic Ongwen (Decision on the confirmation of charges against Dominic Ongwen), ICC-02/04-01/15, Pre-Trial Chamber II (March 23, 2016), paras. 37 et seqq. For a doctrinal characterization of indirect co-perpetration, in particular for a more accurate distinction of this form of criminal responsability into the forms of "indirect co-perpetration (*strictu sensu*)" and "joint indirect perpetration", see Gerhard WERLE & Boris BURGHARD, *Die mittelbare Mittäterschaft – Fortentwicklung deutscher Strafrechtsdogmatik im Völkerstrafrecht?*, in René Bloy, Thomas Hillenkamp, Carsten Momsen, & Peter Rackow (Eds.), *Gerechte Strafe und legitimes Strafrecht: Festschrift für Manfred Maiwald zum 75. Geburtstag* (pp. 849 - 865), Berlin, Germany: Duncker & Humblot, 2010.

[540] C. f. Prosecutor v. Thomas Lubanga Dyilo (Decision on the confirmation of charges), ICC-01/04-01/06, Pre-Trial Chamber I (January 29, 2007), paras. 326 et seqq. This decision, which represents the first time that the ICC dealt with the question of the distinction between perpetration and other forms of commission, it explicitly considers the doctrine of control over the crime ("*Tatherrschaftslehre*") as established by Claus Roxin. The extensive reference to Roxin made by the Appeals Chamber seems to have put the court in a position of having to justify itself, see Prosecutor v. Thomas Lubanga Dyilo (Judgment), ICC-01/04-01/06 A 5, Appeals Chamber (December 1st, 2014), para. 470: "[…] the Appeals Chamber would like to clarify that it is not proposing to apply a particular legal doctrine or theory as a source of law. Rather, it is interpreting and applying article 25 (3) (a) of the Statute. […]"; for Roxin's control over the crime doctrine, see Claus ROXIN, *Täterschaft und Tatherrschaft* (10th ed.), Berlin, Germany: De Gruyter, 2014.

Financing is a second-line contribution that beyond greater doubt is – if at all – a potential form of assistance to a principal perpetrator's crime.

Although this might seem self-evident for national criminal law practitioners, it is not so for international criminal law. In fact, before the introduction of the participation provisions of the Rome Statute, the ICTY and ICTR still applied a doctrine known as "Joint Criminal Enterprise" (JCE), which considers any kind of contribution sufficient for establishing a joint commission, thus not limiting it on joint commission *strictu sensu*.[541] Within the context of the differentiated participatory model of the ICCS, however, the JCE-doctrine can be considered obsolete and not applicable to commission concept of article 25 ICCS. [542] Article 25 para. 3 (a) ICCS does therefore not require a closer examination within this work.

b) Instigating, ordering and superior responsibility

The following subparagraph, article 25 para. 3 (b) ICCS includes two types of participation: Ordering and instigating. Whoever orders, solicits or induces an international crime committed or attempted by a principal perpetrator is thus criminally liable under the ICCS. For WMD deployments these forms of participation are highly relevant when it comes to hold high-rank officials and *de facto* leaders accountable, who order the deployment of such weapons. They are, however, unsuitable for those individuals responsible for the accompanying financing activities.[543]

The same is true for the superior responsibility in article 28 ICCS, for whose applicability a necessary superior-subordinate relationship between financier and principal perpetrator is obviously inexistent.

3.2. Proliferation financing as assistance or other contribution

a) The assistance provision of article 25 para. 3 (c) ICCS

Article 25 para. 3 (c) establishes criminal liability for assistance to a crime. The objective elements of this article require at least an offence attempted by a principal perpetrator.

[541] Prosecutor v. Miroslav Kvočka et al. (Judgement), ICTY-98-30/1-A, Appeals Chamber (February 28, 2005), paras. 97, 104, and 187.
[542] WERLE, op. cit., pp. 958 - 961.
[543] Yet one should not ignore that the entanglements and interrelationships of economic power and politics might remain nebulous in terms of their extent and way in which they operate. Especially the influence of the arms industry on political decisions to carry out military operations will regularly be difficult to discern. For the financial sector, however, such a war-promoting role seems unrealistic, since revenues could at best be generated indirectly and the financial macro risks associated with wars are likely to outweigh the financial benefits.

Individual criminal responsibility can therefore also be established by a person assisting the commission of an at least attempted international crime.

The commission form of assisting appears in two central sub-cases: "Aiding" and "abetting". According to the text of the statute, the assistance can also occur "otherwise".

In its very instructive "*Bemba et al."* judgement, the ICC clarified that "aiding" refers to forms of practical or material assistance, whereas "abetting" refers to moral or psychological assistance.[544] These definitional clarifications are undoubtedly helpful. However, the reference in the text of the article mentioning that the assistance can also take place "otherwise" renders the objective elements of the provision shapeless, at least according to its express wording.[545] This ambiguity is reinforced by the fact that versions of article 25 para. 3 (c) ICC in other official languages of the Court appear to have a different substantive focus. For instance, the Spanish language version does not refer to "abetting" but to "cover up" *("encubrir").* Thus, a term under which moral and psychological acts of assistance, which the Court reads into the text, can hardly be subsumed.

Looking at these unclear contours and in order to delimit the article's scope of application, it is plausible that an unwritten objective requirement on the quality of the accessory's contribution could be conditional for the application of article 25 para. 3 (c) ICCS. A corresponding unwritten requirement in the form of the "substantial contribution" is known from the case law of the *ad hoc* tribunals and was also discussed and recognized as a requirement by the early ICC judicature.[546] According to this, a contribution is substantial if - without it - the principal offence would in all probability have not been committed in the same way as with it. This requirement is reminiscent of the modified *sine qua non formula* of the Germano-Roman legal system and would bring the criminal liability for aiding and abetting considerably into the realm of co-perpetration.[547]

In "*Bemba et al."*, however, the Trials Chamber in 2016 and the Appeals Chamber in 2018, have now rejected the limitation of eligible accessory contributions by a substantial

[544] Prosecutor v. Jean-Pierre Bemba Gombo et al. (Judgment pursuant to Article 74 of the Statute), ICC-01/05-01/13, Trial Chamber VII (October 19, 2016), paras. 87 et seqq.
[545] AMBOS, *Internationales Strafrecht*, op. cit., § 7 para. 43.
[546] Prosecutor v. Callixte Mbarushimana (Decision on the confirmation of charges), ICC-01/04-01/10, Pre-Trial Chamber I (December 16, 2011), para. 280; Prosecutor v. Thomas Lubanga Dyilo (Judgment pursuant to Article 74 of the Statute), ICC-01/04-01/06, Trial Chamber I (March 14, 2012), para. 997.
[547] Antje K. HEYER, *Grund und Grenze der Beihilfestrafbarkeit im Völkerstrafrecht: Zugleich ein Beitrag zur Entwicklung eines Wirtschaftsvölkerstrafrechts*, Cologne, Germany: Institute for International Peace and Security Law, 2013, p. 108.

contribution, in accordance with the text of the statute and its drafting history.[548] Consequently, it is sufficient regarding the *actus reus* if the accomplice merely facilitates or only furthers the offence.

The ICC justifies its position particularly with the fact that the subjective requirements of article 25 para. 3 (c) ICCS guarantee a sufficient limitation of criminal liability.[549] Indeed, article 25 para. 3 ICCS stipulates that the assistant must act "for the purpose of facilitating the crime". This subjective element therefore goes beyond the *mens rea* standard encapsulated in article 30 ICCS. Apart from the intention to assist, however, the normal *mens rea* requirements continue to be applicable. It is therefore enough that the assistant merely knows the essential features of the principal offence. It is also not necessary that he or she shares specific intent requirements of the principal offence, e. g., the "intent to destroy" in article 6 ICCS (genocide). Rather, it is sufficient if he or she has knowledge that the principal offender acts with such an intention.[550]

The high subjective requirements will often be an obstacle for the coverage of proliferation financing.

The financier involved will regularly have no knowledge of the act of proliferation, since this is carried out by the proliferators with utmost secrecy and under the appearance of legality.[551] Cases in which the banker merely suspects[552], an act of proliferation, but accepts the risk (i. e. out of a desire for profit), are acts with *dolus eventualis* and therefore not covered by the *mens rea* baseline of article 30 ICCS.

Same applies to those cases in which the banker involved has certain knowledge of the act of proliferation in the sense of a *dolus directus* of the second degree, the applicability of

[548] Prosecutor v. Jean-Pierre Bemba Gombo et al. (Judgment), ICC-01/05-01/13 A A2 A3 A4 A5, Appeals Chamber (March 8, 2018), paras. 18, 1326 et seq.; Prosecutor v. Jean-Pierre Bemba Gombo et al. (Judgment pursuant to Article 74 of the Statute), ICC-01/05-01/13, Trial Chamber VII (October 19, 2016), paras. 93 et seq.
[549] Prosecutor v. Jean-Pierre Bemba Gombo et al. (Judgment pursuant to Article 74 of the Statute), ICC-01/05-01/13, Trial Chamber VII (October 19, 2016), para. 95.
[550] WERLE & JESSBERGER, op. cit., p. 299.
[551] The question of the existence of knowledge arises not only at the level of proliferation financing but also at the level of the proliferation of the actual goods. See, on the related problem of determining *dolus* in the case of intermediaries and straw men, Ramon RAGUÈS I VALLES, *La responsabilidad penal del testaferro en delitos cometidos a través de sociedades mercantiles: problemas de imputación subjetiva*, in Ramon Ragues i Valles et al., *Derecho penal económico y de la empresa*, Santiago de Chile, Chile: Olejnik, 2008, pp. 432 et seqq.
[552] For example, based on the overall picture resulting from the parties involved, the transaction structure and the underlying commodity transaction. Depending on the individual circumstances, such cases can rather be assigned to the area of "deliberate ignorance"; see, on this topic, Gonzalo RODRÍGUEZ MOURULLO, *La doctrina de la ignorancia deliberada en la Jurisprudencia del Tribunal Supremo*, in Javier de Vicente Remesal et al. (Ed.), *Libro Homenaje al Profesor Diego-Manuel Luzón Peña con motivo de su 70ª aniversario*, Madrid, Spain: Reus, 2020, vol. I, 2020, pp. 997 et seqq., who rejects the usefulness of the doctrine of deliberate ignorance as being sufficiently covered by the concept of *dolus eventualis*.

article 25 para. 3 (c) ICCS seems questionable. In fact, the specific subjective threshold of para. 3 (c), that the perpetrator must act "for the purpose of facilitating the crime", is usually not met. The act of facilitation will mostly be done with the value-neutral economic purpose of obtaining the fees and profits associated with the banking service, and not in assisting the principal offender in the commission of his or her offence.[553]

In practice, therefore, only a small number of potential cases of application remain in which an application of article 25 para. 3 (c) ICC Statute to proliferation financiers would come into question. This includes the cases in which the responsible banker or the entire financial institution is somehow organizationally or structurally linked to the proliferant. This is conceivable, for example, if the bank is under the economic or political control of a rogue state or if the proliferant infiltrates bank employees, bribes them or uses blackmail to induce them to carry out the relevant financing act.

b) The other form of contribution of article 25 para. 3 (d) ICCS

Article 25 para. 3 (d) ICCS provides for criminal liability for a contribution "in any other way". The contribution must be made to the commission or attempted commission of a crime by a group of persons. The group has to act with a common purpose. Regarding the necessary *mens rea* elements, prerequisite is the intention to contribute. However, this is to be understood as a mere declaratory repetition of the general *mens rea* requirements of article 30 ICCS. At the same time, it also requires that one of the following two alternative subjective elements is present: (i) An aim of furthering the criminal activity or criminal purpose of the group with the contribution; or (ii) Knowledge of the intention of the group to commit a crime. The alternative element indeed increases the requirements for *mens rea* compared to article 30 ICCS.

In its 2014 *"Katanga"* judgement, the Trial Chamber of the ICC clarified that the contribution must be "significant".[554] The understanding of "significant" is to be clearly distinguished from the concept of "substantial" discussed above within context of aiding, abetting, and otherwise assisting. Significant is rather any act that is in some way reflected

[553] Cf. Christoph BURCHARD, *Ancillary and Neutral Business Contributions to "Corporate-Political Core Crimes"*, JICJ 8 (2010), pp. 919 - 946 (939 et seqq.).
[554] Prosecutor v. Germain Katanga (Judgment pursuant to article 74 of the Statute), ICC-01/04-01/07, Trial Chamber II (March 7, 2014), para. 1632.

in the offence, but is not contingent for its commission.[555] This does not establish an unwritten threshold for the offence of article 25 para. 3 (d) ICCS in the actual sense. Rather, it is a clarification of the fundamental requirement of a causal relationship between the accessory's act and the principal offence, which must also apply in the context of the weakest mode of participation in article 25 ICCS.

Whether article 25 para. 3 (d) ICCS has an independent scope of application in practice is doubtful and has led to considerable criticism of the provision. It seems questionable whether the provision, which is conceived as a "residual mode of liability"[556] ("in any other way contributes"), covers situations that are not already accounted for by article 25 para. 3 (c) ICCS. In any case, there is no serious doubt that article 25 para. 3 (d) ICCS does not provide for mere criminalization of ideology or mere criminalization of membership in a criminal group. Such an understanding would be incompatible with the wording of the provision, which expressly requires a contribution to a crime.

It is therefore not surprising that parts of the academic doctrine and the ICC case law wanted to construct the differences between article 25 para. 3 (c) and (d) ICCS by assuming different necessary thresholds of relevance of the contribution. Thus, a substantial contribution was required for the aiding and abetting in article 25 para. 3 (c), whereas the relevance of the contribution under article 25 para. 3 (d) did not have to reach this threshold. Accordingly, the Pre-Trial Chamber II of the ICC declared in a decision issued in 2012, that without the distinguishing criterion of substantial contribution "the hierarchal structure of the different modes of participation envisaged by article 25 para. 3 would be rendered meaningless."[557] With the clarification in "*Bemba et al."* stating that aiding, abetting and otherwise assisting under article 25 para. 3 (c) ICCS does not require a substantial contribution, this approach can now be considered obsolete, as the materiality threshold of mere significance of the contribution now applies to both forms of commission. As a result, following the argumentation of the Pre-Trial Chamber II, this would lead to the mentioned meaninglessness of the hierarchical structure.

[555] Prosecutor v. Germain Katanga (Judgment pursuant to article 74 of the Statute), ICC-01/04-01/07, Trial Chamber II (March 7, 2014), para. 1632.
[556] Prosecutor v. William Samoei Ruto (Decision on the Confirmation of Charges Pursuant to Article 61 (7) (a) and (b) of the Rome Statute), ICC-01/09-01/11, Pre-Trial Chamber II (January 23, 2012), para. 354.
[557] Prosecutor v. William Samoei Ruto (Decision on the Confirmation of Charges Pursuant to Article 61 (7) (a) and (b) of the Rome Statute), ICC-01/09-01/11, Pre-Trial Chamber II (January 23, 2012), para. 354. Please note that this statement was made in the context of a mere legal argument ("arguendo").

Although the hierarchical structure between (c) and (d) cannot be explained by the weight of the contribution, a hierarchy could, *arguendo*, be explained by the direction of the contribution. While in the case of the contribution according to article 25 (c) ICCS it is undoubtedly aimed at the direct support of the offence, in the case of article 25 (d) ICCS the support of the group seems to be at the center of the consideration. Article 25 (d) could consequently establish criminal liability for those cases in which the support of the identifiably dangerous group manifests itself in the subsequent realization of the core crime. If, still *arguendo* , this understanding is followed, bankers who recognize the involvement of a terrorist group or a state (the "group of persons acting with a common purpose") in a transaction and know - for example from the media - their WMD efforts ("in the knowledge of the intention of the group to commit the crime"[558]) could be held criminally liable.

Unfortunately, the wording of article 25 (d), which is presumably the product of legislative inaptitude, does not allow for such an understanding, as the *chapeaux* of article 25 (d) ICCS explicitly states that the contribution to the crime shall be intentional. This, however, presupposes that the perpetrator was at least aware of the essential features of the specific crime that had not yet been carried out. A banker who merely recognizes the implication of a dangerous grouping and nevertheless financially accompanies the high risk transaction out of pure profit motive or indifference, however, will precisely not know the central elements of the crime.

As a result, article 25 (d) does not provide for an own additional scope for punishing proliferation financing under international criminal law that would go beyond the one of article 25 (c). In particular, it does not cover the mere (act-independent) financing of relevant criminal groups.[559]

The modes of participation of the ICCS thus only provide a limited coverage of proliferation financing cases via article 25 (c) ICCS, i. e., such cases in which the involved financier is

[558] For the distinction between this subjective requirement and the subjective requirements of article 25 (c) ICCS, see ODRIOZOLA-GURRUTXAGA, op. cit, pp. 279 et seq.

[559] The question of the extent to which article 25 para. 3 (d) ICCS has an independent scope of application can be left open here. In Prosecutor v. Callixte Mbarushimana (Decision on the confirmation of charges), ICC-01/04-01/10, Pre-Trial Chamber I (December 16, 2011), para. 287, the Chamber found "that 25(3)(d) liability can include contributing to a crime's commission after it has occurred, so long as this contribution had been agreed upon by the relevant group acting with a common purpose and the suspect prior to the perpetration of the crime". See, on the application of article 25 para. 3 (d) ICCS to such cover-ups, Michael G. KEARNEY, *Any other contribution? Ascribing Liability for Cover-Ups of International Crimes*, Criminal Law Forum 2013, vol. 24, issue 3, pp. 331 – 370 (331 et seqq.).

aware of the planned WMD-crime and is willing to further it. Be it for the cause of the act itself or with the primary finality of making his or her own profit with it.

c) Limited circle of potential contributors to the crime of aggression

Any natural person, regardless of his or her political, military or economic profile, can potentially be liable for assisting or otherwise contributing to war crimes, genocide, and crimes against humanity. For the offence of aggression, however, criminal responsibility in the sense of article 25 ICCS is limited to those persons, who are in a position to exercise control over or to direct the political or military action of a state. This additional requirement, explicitly contained in article 25 para. 3 *bis* ICCS, is applicable to all forms of criminal responsibility, including those in article 25 para. 3 (c) and (d) ICCS.[560] Thus, the ICC does not provide for a criminal liability of the participation of the *extraneus* to the offence of aggression.

Bankers who act as proliferation financers will realistically not fulfil the requirement of being in a position to exercise control over the political or military action of a state. Accordingly, they are to be considered *extranei*. Proliferation financing acts, that were carried out as a contribution to the crime of aggression committed by heads of state or high-ranking military commanders, would therefore not be punishable as such.

4. The problem of the neutral act

It cannot be answered without further thought, however, whether the conceivable acts of proliferation financing within the framework of the legal requirements of article 25 para. 3 (c) ICCS will ultimately lead to criminal liability under this provision. Rather, it could be that the ICC Statute qualifies some contributions to a main crime as objectively unworthy of punishment and that the proliferation financing act would have to be included in this category. Consequently, proliferation financing could be considered a "neutral" act under criminal law. If this were the case, the high subjective requirements of article 25 para. 3 (c) ICCS would no longer be relevant as proliferation financing would be already on an objective level unpunishable under the ICC Statute.

[560] WERLE & JESSBERGER, op. cit., p. 721, paras. 1605 et seqq.

4.1. Problem description

Such a non-punishability under the ICC-Statute could come into question in the case of behavior that appears ordinary and socially adequate to the outside world. Especially in the context of commercial transactions, a certain value-neutrality cannot be denied to the sale of a good or the provision of a service, whenever the sale or service does not constitute a criminal relevant conduct in itself.[561] In other words: The sale of a knife by a general merchant is, from an objective point of view, the same, regardless of whether the buyer will use the knife to cut cheese from the local farmer or to cut said local farmer's throat. Therefore, the question of the criminal liability of such conduct will generally have to be determined on the subjective side, i. e. on whether and to what extent the general merchant had knowledge of the buyer's intentions and may even have wanted them himself.

The same applies to proliferation finance. As such, the proliferation financing activities, as identified in Part 1 Chapter 3 of this thesis, are merely the provision of value-neutral banking services. Both the operating of a corporate account, the execution of a wire transfer and trade finance through an L/C, are regular and necessary banking services, which as such are used millions of times by legitimate businesses for legitimate purposes.

The answer to the question of whether everyday economic acts are to be considered punishable or neutral under the ICC Statute is therefore of central importance for the assessment of a possible criminal liability for proliferation financing activities. The search for this answer, however, can only be addressed within the setting of a completely unestablished international criminal law doctrine on the question of the "neutral act".[562]

4.2. Prominent solution approaches in national legal doctrines

Due to the lack of clarity as to how the neutral act is to be evaluated in international criminal law, it is worth taking a look at how the problem is dealt with in national legal discussions. The normative question of whether and how a *per se* common business activity of an economic operator can be punished is, after all, a problem posed by the reality of daily

[561] As might be the case, for example, with paid contract killing or drug sales.
[562] WERLE & JESSBERGER, op. cit., para. 647: “So far, the important question of how so-called "neutral" acts - such as the delivery of food, chemicals and other (ordinary) consumer goods or the granting of financial loans to parties to a conflict - are to be assessed under international criminal law remains unresolved. This question is gaining importance especially in connection with the involvement of transnational corporations in the commission of serious human rights violations.“

economic life, with which national and international criminal law must deal in equal measure.

Indeed, the multitude of contributions and views on the handling of the neutral act in national legal doctrine is almost impossible to oversee. In particular, the dogmatic discussion in Germany and Spain proves to be particularly rich and diverse in this regard.[563] The most prominent views will therefore be presented in the following. It will also be shown what consequences the application of each view would have on the assessment of proliferation financing under the Rome Statute.

a) Positions denying the existence of neutral acts

First of all, it must be stated that the special treatment of some economic acts as "neutral" under criminal law is not a given. In fact, some opinions in scientific literature are opposed to a special treatment of common economic acts and demand that such acts be punishable according to the general rules on aiding and abetting.[564] Reasons given include that neutral acts as such cannot be defined clearly enough or that equal treatment of common economic acts with other contributions to a crime is appropriate in terms of criminal policy.[565]

If we were to take this view as a basis, consequently nothing would change in the *a priori* assessment of the applicability of article 25 para. 3 (c) ICCS on proliferation financing cases as made above.[566]

Nevertheless, it is also true that this view is a position held only by isolated voices in legal scholarship. In the legal discourse, more weight is given to those views that want to make the punishability of everyday economic acts dependent on the existence of certain cumulatively or alternatively present objective and subjective criteria.

[563] A comprehensive and critical analysis of the various approaches can be found in Ramón M. GARCÍA ALBERO, *Sobre los Límites de la Punibilidad en la Conducta del Partícipe: Una Reflexión sobre la Teoría de los Actos Neutrales*, Cuadernos Digitales de Formación, 36-2009, pp. 157 - 200; Peter RACKOW, *Neutrale Handlungen als Problem des Strafrechts*, Frankfurt am Main, Germany: Peter Lang, 2007, pp. 129 et seqq.
[564] Katharina BECKEMPER, *Strafbare Beihilfe durch alltägliche Geschäftsvorgänge*, Jura 2001, pp. 163 - 169 (163); Arthur HARTMANN, *Sonderregeln für die Beihilfe durch „neutrales" Verhalten*, ZStW 116 (2004), pp. 587 – 617 (599).
[565] BECKEMPER, op. cit., p. 169; HARTMANN, op. cit., p. 617.
[566] These and other approaches, which in the end would not have a modifying effect on the appraisal of proliferation financing, are not further assessed in terms of their stringency and plausibility.

b) The "substantiality of the contribution" as criterion for determining criminal relevance

In scientific discourse, special attention is paid to the "substantiality criterion" *("Wesentlichkeitskriterium")* postulated by WEIGEND. It states that only those ordinary and job-related actions should lead to the criminal liability of the accessory, which have made a substantial contribution to the offence of the principal perpetrator.

Consequently, it assumes that the causal relevance of the accessory contribution can be graded. A concept, which is diametrically opposed to the principle of equivalence *("Äquivalenzprinzip")* as it is applied, for example, in modern German criminal law.

The core thesis of the equivalence principle, that all causes are equally relevant for an outcome, is, however, a legal philosophical one and will not be discussed further here. In any case, it should be noted that some legal systems, unlike Germany, do not follow the equivalence principle, thus allowing the existence of graduated forms of aid. This applies, for example, to Spanish criminal law, which in the *Código Penal (CP)* makes an explicit distinction between necessary aiding (article 28 para. 2 CP) and simple aiding (article 29 CP), which also has a mandatory impact on the determination of the range of punishment. [567] With regard to international criminal law, a politico legal acceptance of graduated aid, and therefore of a substantiality criterion, would therefore also be imaginable.

However, the considerable criticism of the national regulatory framework of articles 28 para. 2 and 29 CP in Spanish legal doctrine also shows that the requirement of a substantiality of a contribution has legal-theoretical weaknesses, which cause considerable difficulties in the application of the law. [568] Even Weigend himself admits with regard to his substantiality criterion that an exact determination of the threshold for the relevance of the accessory's contribution is not possible.[569] However, he gives specific examples where job-related

[567] Manuel COBO DEL ROSAL & Tomás S. VIVES ANTÓN, *Derecho Penal: Parte General* (4th ed.), Valencia, Spain: Tirant lo Blanch, 1999, p. 735; Francisco MUÑOZ CONDE & Mercedes GARCÍA ARÁN, *Derecho Penal: Parte General* (10th ed.), Valencia, Spain: Tirant lo Blanch, 2019, pp. 494 et seq.

[568] José CEREZO MIR, *Problemas fundamentales del Derecho Penal*, Madrid, Spain: Tecnos, 1982, pp. 162 et seqq.; Esteban J. PÉREZ ALONSO, *La coautoría y la complicidad (necesaria) en derecho penal*, Granada, Spain: Editorial Comares, 1998, pp. 409 et seqq.; Carolina BOLEA BARDÓN, *La cooperación necesaria: Análisis dogmático y jurisprudencial*, Barcelona, Spain: Atelier Libros, 2004, pp. 119 et seq.; for an overview of the discussion in German language: Esteban J. PÉREZ ALONSO, *Täterschaft und Teilnahme im Spanischen Strafgesetzbuch von 1995 und in der neuesten Strafrechtsreform*, ZStW 117 (2005), issue 2, pp. 431 - 457 (443 et seqq.).

[569] Thomas WEIGEND, *Grenzen Strafbarer Teilnahme*, in Albin Eser, *Nishihara Haruo sensei koki shukuga shū: Festschrift für Haruo Nishihara zum 70. Geburtstag* (vol. 5, pp. 197 - 212), Baden-Baden, Germany: Nomos, 1998, p. 208: "Element with a hard core and soft edges".

contributions are to be considered unquestionably as substantial. This should be the case when the job-related contributions consisted in the procurement of non-ubiquitous objects that are difficult to obtain or were specially made or immediately necessary for the execution of the offence.[570]

How even these exemplary specifications could be transferred to proliferation financing seems highly questionable. After all, proliferation financing is not about the provision of the means of crime (the WMD), but about the provision of banking services that make the procurement of the means of crime possible in the first place. Furthermore, it also remains questionable what the determination of ubiquity should be based on, when applying it to finance services: Money itself is certainly the ubiquitous good *par excellence*, and the conduction of a wire transfer can probably also be described as ubiquitous in view of the large number of financial institutions offering this service.

The situation is different, however, when focusing on financial transactions that take place to countries sanctioned for their proliferation efforts, as most banking institutions will refrain from doing so. Making the service of such a transaction possibly "difficult to obtain".[571] Similarly, many financial institutions also offer the provision of L/Cs as a service. However, L/Cs are characterized by a large number of parameters that are individually adjusted to the business and the wishes of the bank client in each case. In terms of valuation, this at least goes in the direction of the cases of "specially made means" of crime mentioned by Weigend.

Weigend's "substantiality criterion" thus comes with two uncertainties when assessing proliferation financing: The vagueness of the substantiality threshold itself and the lack of ontological clarity as for which good or service the ubiquity must be exactly determined. This makes the substantiality criterion a rather unhelpful standard for assessing proliferation financing's potential neutrality under international criminal law.

How the ICC would respond to these two uncertainties, however, cannot be known with certainty. However, considering the historical responsibility of bankers before international criminal courts, there is at least no specific indication that the ubiquity of financial services could be seen as a serious obstacle to establishing criminal liability under international criminal law.

[570] WEIGEND, op. cit., pp. 210 et seq.
[571] On the subject of economic sanctions and embargoes, see Part Three of this thesis.

Furthermore, the recent case law of "*Bemba et al"* strongly indicates that the ICC pursues the approach that a substantial contribution is not required for any form of aiding and abetting.[572] It seems therefore highly unlikely that the ICC would make an exception to this for cases of everyday business acts, since it considers the high subjective requirements to be a sufficient barrier to delimit the circle of punishable contributions.

It can therefore be assumed that the substantiality criterion would not be applied by ICC judicature. A limitation of the punishability of proliferation financing acts based on the substantiality criterion can therefore be ruled out.

c) The "offence-related sense of the contribution" as criterion for determining criminal relevance

According to FRISCH, an act cannot be considered neutral under criminal law if it exhibits a "sense relation to the offence" *("Deliktischer Sinnbezug").*[573] Such a relation exists in any conduct that has a functional relation to the facilitation of another person's criminal behavior, which is meaningful from this point of view, and which is often exhausted in its meaning in the facilitation or enabling of other people's criminal behavior. Such a sense relation to the offence can result, for example, from a prior agreement with the offender, a specific design of the contribution with a view to the offence or the supply of instruments or information precisely according to the wishes of the principal perpetrator.[574]

As in the case of Weigend's substantiality criterion, however, it remains unclear at what point a sufficient degree of relatedness would be reached, since ultimately every contribution to the offence is related to the principal offence in some way. ROXIN therefore specifies the requirement of the sense-relation to be "exclusive". Such exclusivity exists, when from the point of view of the perpetrator, the contribution is exclusively purposeful with regard to the offence.[575]

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[572] Prosecutor v. Jean-Pierre Bemba Gombo et al. (Judgement), ICC-01/05-01/13 A A2 A3 A4 A5, Appeals Chamber (March 8, 2018), paras. 18, 1326 et seq.; Prosecutor v. Jean-Pierre Bemba Gambo et al. (Judgement pursuant to Article 74 of the Statute), ICC-01/05-01/13, Trial Chamber VII (October 19, 2016), paras 93 et seq.

[573] Wolfgang FRISCH, *Tatbestandsmäßiges Verhalten und Zurechnung des Erfolgs*, Heidelberg, Germany: C. F. Müller, 1998 (reprint 2012), p. 280: "Verhaltensweisen […], welche geradezu einen funktionalen Bezug auf die Ermöglichung oder Erleichterung fremden deliktischen Verhaltens besitzen, von hierher ihre Sinnhaftigkeit erfahren, sich ihrem Sinngehalt nach in der Erleichterung oder Ermöglichung fremden deliktischen Verhaltens vielfach überhaupt erschöpfen."

[574] Wolfgang FRISCH, *Beihilfe durch neutrale Handlungen: Bemerkungen zum Strafgrund (der Unrechtskonstitution) der Beihilfe*, in Cornelius Prittwitz et al. (Eds.), *Festschrift für Klaus Lüderssen: Zum 70. Geburtstag am 2. Mai 2002* (pp. 539 - 558), Baden-Baden, Germany: Nomos, 2002, pp. 544 et seqq.

[575] Claus ROXIN, *Was ist Beihilfe?*, in Hans-Heiner Kühne (Ed.), *Festschrift für Koichi Miyazawa: Dem Wegbereiter des japanisch-deutschen Strafrechtsdiskurses* (pp. 501 - 517), Baden-Baden, Germany: Nomos, 1995, p. 514.

When applying this approach on proliferation financing, we come to the result that it is indeed exclusively purposeful for the principal offender with regard to fulfilling the offence. A transaction for the purchase of a WMD or a WMD component has its one and only purpose in the acquisition and later use of the WMD.

This also applies if the same wire transfer or L/C is used in the purchase of multiple goods. If, in addition to the proliferation-sensitive item, non-proliferation-relevant goods are bought, this will probably be done to disguise the proliferators' actual intentions. Consequently, the purchase of these goods also serves no purpose other than to enable the act of proliferation. The overall transaction would thus continue to have an exclusive sense relation to the offence.

The case where a proliferant by chance *also* truly wants to acquire a non-proliferation related object without intention to conceal from an intermediary for WMD or a highly specialized (high-tech) company is hard to imagine. That the proliferant would furthermore by chance decides to make the payment for both goods by using the same transaction deems such a constellation a mere thought experiment with no practical relevance.

Proliferation financing thus always contains the sense-relation to the offence as required here. Since this sense-relation even fulfills Roxin's high (but sharply identifiable) threshold of exclusivity, it must necessarily also fulfill Frisch's lower (but blurred) requirements. Thus, when requiring an offence-related sense of the contribution, proliferation financing remains punishably under article 25 para. 3 (c) of the ICC Statute.[576]

d) The "prohibition of recourse" as a criterion for delimiting criminal responsibility

Other approaches seek to solve the problem of neutral acts by means of a system of mutually delimitable spheres of duty. Especially noteworthy in this regard is the doctrine of prohibition of recourse *("Regressverbot")*, as prominently advocated for by JAKOBS. In essence, it states that there is an act of assistance in the broader sense, which comprises two sub-cases: One hand the assistance with own participation in the offence and on the other hand the mere apparent assistance. Mere apparent assistance exists if the contribution as such

[576] Possible concerns about the pertinence of this approach therefore do not need to be addressed further. However, it should only be mentioned that Roxin's criterion of exclusivity, although sharply definable, leads to irresolvable discrepancies in the result. It is indeed hard to understand why a seller of a knife should go unpunished if the perpetrator wants to use the knife to kill a person and then cut up a cheese; whilst another seller would be punished as an assistant, when selling a knife to a perpetrator who exclusively wants the knife for killing somebody.

is harmless and ordinary and only takes a damaging course through the realization of the plans of other persons. These cases of apparent assistance must be considered a neutral acts under criminal law, and thus remain unpunished.

From this, however, also follows the essential challenge of the theory of prohibition of recourse, namely the determination of whether the assisting party is still acting within his or her sphere of duties or is already within the sphere of duties of the principal offender. More precisely: Whether the act of the assisting party already takes a tortious direction within the sphere of duties of the contributor or, as PIÑA ROCHEFORT illustrates, is only harmfully "deviated " after entering the sphere of duties of the other party.[577] Jakobs himself wants to make this dependent on whether the behavior of the assisting party is to be qualified as part of an offence organization *("Tatorganisation")*. If this is affirmed, a harmful direction of the act was already present in the sphere of the contributor and the act could therefore not be considered neutral under criminal law.

If one looks at the above identified cases of proliferation financing that seem to be *a priori* covered by article 25 para. 3 (c) ICCS, it can be determined that the accessory is part of an offence organization in all constellations. The integration into the offence organization is based either on a high formal-organizational component or on an equally high structural component of the role of the proliferation financier.[578] For instance, specially created financial vehicles or infiltrated bankers are ultimately part of the state or organized power structure that wants to acquire the WMD. Similarly, structural factors such as *de facto* political control, the corruption of the banker or his extortion, draw the facilitator into the realm of the offence organization. Therefore, with reference to the concept of "offence organization", proliferation financing could not be regarded as a neutral act and it would remain punishable under article 25 para. 3 (c) ICCS.

Jakob's doctrine of the prohibition of recourse, however, has been widely developed further, especially with regard to the definition of the spheres of obligation and their possible infringement. FEIJÓO SÁNCHEZ, for example, follows his approach in establishing a sphere of everyday economic life that criminal law is generally not entitled to intervene in.

[577] Juan Ignacio PIÑA ROCHEFORT, *Rol social y sistema de imputación: Una aproximación sociológica a la función del derecho penal*, Barcelona, Spain: J.M. Bosch Editor, 2005, p. 383: *"Desviado por otro"*.
[578] This follows the International Commission of Jurists' understanding of "organizational composition" and "structural composition" as axes for determining the proximity between a business actors conduct and a core crime. The other axes are the "causation continuum" and the "individual motive" of the business actor. For more details, see BURCHARD, op. cit., pp. 922 et seqq.

At the same time, however, this sphere can be abandoned in a criminally relevant manner if the offence has an exclusive sense-relation analogue to the beforementioned approach of Roxin.[579]

For the delimitation of the spheres of duty, an approach enjoys great popularity that intents to determine the sphere of duty - following the principles of omission theory - through the existence of a guarantor position of the accessory. As GARCÍA ALBERO concisely summarizes, this view is based on the fundamental valuation that one should not punish someone for coincidentally knowing what this person does not have to know. Only as soon as the (professional) role provides for a "having to know" in the sense of responsibility, punishment comes into consideration.[580] This position is similar to those views that want to make the scope of duties dependent on the existence of occupation-specific norms.[581] It is true that in the end, only formal professional rules will be able to sufficiently determine the areas for which a member of a particular profession is topically responsible.

The financial industry is without doubt one of the most regulated industries of all and counts therefore for numerous such formal professional rules. Especially the area of detection of financial criminal behavior is subject to comprehensive legal requirements that are aimed precisely at the obstruction and prevention of financial crimes. As will be described in detail in Part Four of this thesis, these legal requirements are based on international standards that have been transposed into national laws and which can be said to have universal validity.[582] For example, financial institutions virtually all over the world must know the professional background of their clients, determine the beneficial ownership behind a corporate client's shareholding structure, and monitor transactions and trade finance operations for conspicuous behavior.[583] The banker in charge would therefore be entrusted by law to identify the beneficial ownership of the proliferating illegitimate state or terrorist organization behind a possible front company. He or she is also entrusted with questioning

[579] Bernardo FEIJÓO SÁNCHEZ, *Limites a la participación criminal: Existe una "prohibición de regreso" como límite general de tipo en derecho penal?*, Bogota, Colombia: Ediciones Olejnik, 2001, pp. 70 et seq.: "La conducta del participe no debe tener nunca otro sentido objetivo que cooperar con un delito, con independencia de su intención, dolo o falta de cuidado […] De esta manera, en general (sin existir motivos objetivos concretos para el partícipe), la venta, transmisión, enajenación de objetos o materiales de uso cotidiana o doméstico no es relevante para el derecho penal."

[580] Ramón M. GARCÍA ALBERO, *Sobre los Límites de la Punibilidad en la Conducta del Partícipe*, op. cit., p. 186: "No puede castigarse a alguien por saber aquello que no tiene por qué saber".

[581] See, for example, Ransiek, who seeks to make the criminal liability of the neutral act dependent on the fact that occupational norms impose certain duties on the aider and abettor. These duties must serve the purpose of making the commission of the principal offence impossible or more difficult.

[582] See Part Four, Chapter 2, of this thesis.

[583] In this respect, there is also no need to fear any additional fragmentation of international criminal law, as one will reach this conclusion regardless of the location of the bank.

the legitimacy of the purpose of the transaction carried out or the commercial transaction facilitated. Even mere "conspicuous" behavior must be reported by his bank to the competent authorities. The detection, obstruction and prevention of financial crimes is thus part of the banker's sphere of responsibility.

Consequently, when applying this approach, the proliferation financing act could – at least regarding the *actus reus* side of the offence - not be considered neutral for criminal law.

However, evaluatively speaking, the determination of a sphere of criminal responsibility via the aforementioned AFC regulations raises considerable concerns. This is because the AFC rules do not, of course, expect financial institutions to *actually* recognize the criminal implications, as this would go in many cases beyond the theoretical scope of human cognitive ability. Rather, they must carry out an assessment within the scope of their possibilities and their ability to recognize. An ability that is characterized by two limiting factors in particular: The available methods of obtaining information and the factual impracticability of comprehensive controls on every customer relationship and every transaction a bank maintains or performs.

The anti-financial crime laws address these limiting factors by requiring banks to concentrate their due diligence resources on those cases that - in the context of the specific business reality of the bank - show an increased risk of a financial crime.[584] The concentration of the due diligence measures applied thereby increases with the risk profile of the client or the specific transaction. The non-recognition of criminal acts that occur despite the careful application of the due-diligence measures corresponding to the risk classification, does not constitute a breach of duty.

On the other hand, it is also true that the due diligence obligations *as such* are existent for all clients and transactions. They only differ in the frequency and depth of the review. As profession-specific standards of anti-financial crime, they therefore concern all clients and transactions. Consequently, when applying the spheres of obligation approach discussed here, the scope of duties of bankers must be considered as covering all clients and transactions without distinction as well. More precisely: All clients and transactions regardless of their specific risk profile and regardless of whether they are recognizable as criminal or not.

[584] So-called "risk-based approach". This will be discussed in detail in Part Four, Chapter 2, of this thesis.

The potential criminal relevance of a financial transaction of any risk type is thus diametrically opposed to the valuation of the professional norm used to define the area of the contributor's responsibility. This is because the risk of non-recognition is inherent to a certain extent to this norm and is an expression of a danger accepted by society that a financial transaction could always be misused for illegitimate purposes.

To *per se* deny the neutrality of such financial actions under criminal law despite this acceptance of risk inherently casted into the law therefore seems questionable. A more promising approach could therefore be one that places exactly this risk acceptance inherent in a social or legal norm at the center of the evaluation: The doctrine of professional adequacy.

e) The "professional adequacy of the contribution" as a criterion for precluding criminal liability

With the doctrine of professional adequacy, in further development of his own doctrine of social adequacy, HASSEMER placed the social risk acceptance at the center of the evaluation. The doctrine states that legal regulations of a professional nature contain binding evaluations of risks to which the criminal judge is bound. The financial industry in particular is characterized by the fact that it is "desired and established by the state and society" and is in "constant alignment" with the state rules.[585]

However, it is problematic to determine the outer limit of the anti-financial crime rules, behind which the sphere of professional inadequacy opens. As will be described in detail in Section 4 of this thesis, these rules are not statically applicable, but determine that the bank must adopt a set of individualized professional rules that is adequate to its risk. For example, only the type of risk parameters, i. e. country risk, industrial risk and product risk, are generally binding, but not their content and weighting. On the measures side, too, there are minimum requirements that apply to every customer. How the increased due diligence measures are to look in the case of increased risk is yet largely left to the financial institutions' discretion.

[585] Winfried HASSEMER, *Professionelle Adäquanz: Bankentypisches Verhalten und Beihilfe zur Steuerhinterziehung*, wistra 1995, pp. 41 - 46 (Part 1) and pp. 81 - 87 (Part 2) (85).

The state's acceptance of these individualized professional regulations' inherent risks can be seen in the constant oversight and monitoring by the financial supervisory authority. Still, this does not make them uniform at all. Especially if, as is relevant for international criminal law, we leave the framework of national legal systems and draw a comparison between financial institutions worldwide for which different supervisory authorities are responsible. The specific rules of anti-financial crime in which every banker operates thus considerably differ from bank to bank.

Yet how can such a professionally adequate risk categorization and the resulting professionally adequate measure be determined in the first place? Since there is no general detailed standard on this, only the compliance processes and risk scores of the respective bank remain. One could tolerate this by arguing that the lack of neutrality of the act lies in the deliberate transgression of the professional rules applicable to the individual and therefore the rules on which criminal law is based do not need to be uniform. However, if one considers that this would lead to a privileged treatment under criminal law of members of banks with lax compliance requirements before those with high standards, such an approach appears unacceptable. Moreover, such an approach would lead to a logically irresolvable circular reasoning, as a compliance measure that is basically aimed at preventing violations cannot at the same time determine the contours of the criminal violation that it is supposed to prevent.

However, these problematic aspects become not acute in the context of article 25 para. 2 (c) ICCS. Since it requires *dolus directus* on the subjective side of the offence, the accessory must necessarily know that the financing act has a criminal purpose. In the case of certain knowledge, regardless of where it comes from, the banker's discretion in deciding whether to accompany the transaction is reduced to zero. This always applies, regardless of the specific compliance rules of the respective bank.

The proliferation financing acts that were *a priori* considered to be punishable under article 25 para. 2 (c) ICCS, namely those performed with certain knowledge, are thus always professionally inadequate. The contributions can thus not be considered neutral also when applying the doctrine of professional inadequacy.

The application of the doctrine of the professional adequacy thus also leads to the result that the relevant proliferation financing act cannot be considered as neutral under the ICCS.

f) The importance of subjective elements

All the previously mentioned criteria essentially refer to the objective elements of the contribution to a crime. Whether an everyday economic act can be regarded as neutral in terms of criminal law, is however made dependent by most opinions in legal science - including many of those mentioned above - on additional subjective conditions. Especially with regard to acts committed merely with *dolus eventualis*, the various views therefore differ in the result as these must either always remain unpunished or, for example according to ROXIN, whenever the accessory could rely on the legitimate use of his contribution to the offence.[586]

Despite their great relevance in national legal discourses, these views on *dolus eventualis* cases are, however, irrelevant for the assessment of the neutrality of an act in the context of the ICCS. As shown above, the provision of article 25 para. 3 (c) ICCS in conjunction with article 30 ICCS already explicitly limits a punishment of any aid or other assistance on those committed with *dolus directus* of the first or second degree.

For apparently neutral acts committed with *dolus directus* however, most scholars want to always assume a punishability, since this form of intent would unmistakably indicate the missing "everyday" character of the contribution.[587] Furthermore, many state that the solidarization of the accessory with the principal perpetrator's act, which goes hand in hand with this form of intent, does not allow the act to be considered as socially adequate.[588]

Nevertheless, just because the subjective elements ultimately have such great weight, the question of the "neutrality" of the objective side of the act, as discussed above, is not to be ignored. Criminal liability always requires both a negative quality of the objective action and a negative quality of mind.[589] This principle underlies most modern systems of criminal law. If one were to establish punishability without a negative quality of the objective action,

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[586] Claus ROXIN, *Strafrecht Allgemeiner Teil (II): Besondere Erscheinungsformen der Straftat*, Munich, Germany: Beck., 2003, vol. 2, § 26, para. 241.

[587] Hans KUDLICH, *Die Unterstützung fremder Straftaten durch berufsbedingtes Verhalten*, Berlin, Germany: Duncker & Humblot, 2004, p. 458; Harro OTTO, *„Vorgeleistete Strafvereitelung" durch berufstypische oder alltägliche Verhaltensweisen*, in Albin Eser et al., *Festschrift für Theodor Lenckner zum 70. Geburtstag* (pp. 193 - 225), Munich, Germany: Beck, 1998, pp. 213 et seqq.

[588] BGH, *Neutrale Handlungen als Beihilfe; Insolvenzvergehen*, NStZ 2000, 34, 34.

[589] The negative quality of the objective action is manifested in the endangerment or violation of a legal good. The negative quality of mind is manifested in the attitude with which the offender committed the endangerment or violation (intentionally, indifferently, in violation of due diligence, in a state of mental derangement). The German and Spanish criminal law doctrine distinguishes here even more precisely between "*Erfolgsunwert*", "*Handlungsunwert*" and "*Gesinnungsunwert*". However, the core statement remains the same.

one would ultimately punish mere mentality. On the other hand, if one were to consider punishability without requiring a negative quality of mind, one would deny the accused's subject quality and make this person a mere object of governmental action in a way that violates his or her human dignity. Both, a punishability without a negative quality of mind and a punishability without a negative quality of objective action, would therefore be incompatible with international human rights standards, which govern the ICCS as well.[590]

Against this background, those views are to be seen particularly critically which want to affirm the punishability of an everyday economic act always if the contribution has been made with *dolus directus* of the first or second degree. This approach, as adopted by German and Spanish courts, fails to take into account the fact that it allows a as such value-neutral act to be prosecuted merely on the basis of the mindset of the accused.

However, as proliferation financing in any case shows a negative quality on the objective side, since it is both professionally inadequate, part of an offence organization and has an exclusively offence-related sense, the problem of a mere criminalization of thoughts does not arise. Moreover, the high subjective requirements of the standard of article 25 para. 3 (c) ICCS already correspond to those imposed by the stricter views on the subjective element of the crime. Consequently, the application of higher subjective requirements also does not lead to a neutralization of proliferation financing under international criminal law. Thus, the relevant proliferation financing activities, as identified above, cannot be considered as neutral and remain thus punishable under article 25 para. 3 (c) ICCS.[591]

4.3. Transferability of the approaches to international criminal law

The presented approaches to the problem of neutral acts in national legal systems can in principle be transferred to the specific context of international criminal law since exchangeable economic contributions can be equally important for the commission of normal criminal as well as macro criminal offences. In the context of macro-criminal behavior, they can become even more significant, as the realization of international criminal wrongdoing is often accompanied by immense material and financial needs. Regularly, only

[590] Article 21 para. 3 ICCS: "The application and interpretation of law pursuant to this article must be consistent with internationally recognized human rights, […]".
[591] On the practical side, demanding such high subjective requirements naturally leads to considerable evidentiary difficulties in court. However, this problem is already inherent in article 25 para. 3 (c) ICCS.

well-established large companies and banks are and have been able to provide the enormous amounts of weapons, equipment and financial resources required for such crimes.

However, concerns may arise as to whether there can be such a thing as a "neutral" act in the context of state-systemic injustice that typically surrounds international crimes. This natural law question arises in particular with reference to systems of injustice such as the Nazi state, in which the perversion of the state and legal system permeated all layers of society and economic life. It appears indeed highly questionable whether there can be such a thing as a neutralizable "everydayness in injustice" or even a neutralizable "everydayness of injustice".[592]

Nevertheless, it seems equally problematic to make the standard context of state-systemic injustice the basis for a general exclusion of the figure of the neutral act from international criminal law. In cases of cross-border economic contributions that take place out of a rule-of-law context, there is in fact no recognizable reason for this. This is particularly true for cases in which a European or North American financial institution carries out trade financing for the benefit of a domestic or foreign proliferant.

Yet, in the present case, the question of the admissibility of the figure of the neutral act in international criminal law can remain open, as it has no effect on the criminal liability of proliferation financing. If one rejects the figure of the neutral act, one arrives at a criminal liability of proliferation financing within the framework of the (especially subjective) requirements of article 25 para. 3 (c) ICCS. If, on the other hand, the figure of the neutral act is admitted, those cases that would be covered by article 25 para. 3 (c) ICCS are not to be regarded as neutral anyway.[593]

[592] Kai AMBOS, *Der Allgemeine Teil des Völkerstrafrechts: Ansätze einer Dogmatisierung* (2nd ed.), Berlin, Germany: Duncker & Humblot, 2004, pp. 631 et seqq.
[593] See above.

Chapter 5: The national-legal criminalization of international crimes

The proliferation financing relevant criminal offences of the ICCS are in a way only the "bottom line" for the individual member states' criminal handling of the topic. This is due to the understanding of jurisdiction underlying the Rome Statute, which establishes a complementary jurisdiction of the ICC and national jurisdictions.

International criminal jurisdiction is not intended to replace national criminal jurisdiction, even in the case of core crimes under international law, but only to supplement it when necessary.[594] Such a necessity always exists when the respective state is unwilling or unable to carry out the investigations or prosecutions itself in an adequate form. For example, because the judiciary is corrupt, factual power relations impede an objective investigation or the state system is not sufficiently stable. However, the necessity is also given if the national jurisdiction simply lacks the subject matter jurisdiction because the respective act constitutes a criminal offence only according to the Rome Statute but not according to the criminal law of the respective country.[595]

Whether the respective state fulfils the requirements is decided exclusively by the International Criminal Court itself. Even generally stable democratic states under the rule of law, such as Germany and Spain, therefore have a great political interest in ensuring that there are no gaps in the subject-matter jurisdiction of their national courts in relation to the content of the Statute.[596] As a result of this consideration, in parallel to the signing of the Rome Statute, the German International Criminal Code *("Völkerstrafgesetzbuch" – "VStGB")* was introduced in Germany, which was intended to fully transpose the criminal elements of the Rome Statute into the national criminal law system. In Spain, the already existing offences of the CP were adapted to the requirements of the ICCS via the *Ley Orgánica 15/2003*.[597]

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[594] Cf. Héctor OLASOLO ALONSO, *¿Se debe recurrir a los mecanismos de respuesta del Derecho internacional penal para hacer frente a los delitos transnacionales?*, in Ana Isabel Pérez Cepeda (Ed.), *Política criminal ante el reto de la delincuencia transnacional*, Valencia, Spain: EUS-Tirant lo Blanch, 2016, pp. 117 et seqq.

[595] GRUPO DE ESTUDIOS DE POLÍTICA CRIMINAL, *Una propuesta de justicia penal internacional*, Valencia, Spain: Tirant lo Blanch, 2003, doc. 6, pp. 28 et seq.; Andreas ZIMMERMANN, *Bestrafung völkerrechtlicher Verbrechen durch deutsche Gerichte nach Inkrafttreten des Völkerstrafgesetzbuchs*, NJW 2002, pp. 3068 – 3070 (3068).

[596] GRUPO DE ESTUDIOS DE POLÍTICA CRIMINAL, op. cit., doc. 6, pp. 12 – 14.

[597] Ley Orgánica 15/2003, de 25 de noviembre, which amends Ley Orgánica 10/1995, de 23 de noviembre, del Código Penal; see, on the inclusion of international crimes against the international community in the general criminal code and not in the military criminal code, Diego LÓPEZ GARRIDO & Mercedes GARCÍA ARÁN, *El Código penal de 1995 y la voluntad del legislador. Comentario al texto del debate parlamentario*, Madrid, Spain: López Garrido/García Aran, 1996.

However, in very few cases will such transfers into national law be able to achieve a true identity in the legal treatment of corresponding cases by the ICC and the respective national courts. This is due to the fact that the offences of the ICCS are integrated into established national legal contexts, which can lead to shifts in the overall legal assessment. This is especially true if the national rules of the General Part continue to apply and are not replaced by a transposition of the corresponding general provisions of the ICCS, or whenever the international offence has partial elements which, according to established national jurisprudence, are usually assessed in a way that differs from the practice of the ICC.

The national law practitioner must therefore keep the possibility of such a shift of assessment in mind if he or she wants to arrive at a proper assessment of the relevance of proliferation financing under international criminal law in the relevant national context.

In the following, the three most relevant elements that can lead to such a shift in assessment in the national context are presented in an overview by using the example of Germany, namely the influence of the General Part (1), the handling of the problem of the neutral act in the case law of the respective country (2), and the relevance national provisions in the Special Part of the respective criminal code (3).

1. Extensions of criminal liability to the criminal code's "general part"

Unlike the ICC Statute, which only provides for the criminal liability of natural persons, the criminal liability of legal persons, i. e. the financial institutions themselves, could also be relevant in national transpositions of the offences. This is not an issue in Germany, as it is one of the few remaining countries in the world that only recognizes the criminal liability of natural persons. In Spain, on the other hand, legal persons can be prosecuted in addition to natural persons since December 2010.[598] However, this does not apply in general but only to those offences that expressly provide for the criminal liability of legal persons.[599] Articles

[598] Amendment implemented by LO 5/2010.

[599] Article 31 *bis* Spanish Criminal Code:
"1. In the cases specified in this Code, legal persons shall be criminally liable: (a) For offences committed in the name or on behalf of the same, and for their direct or indirect benefit, by their legal representatives or by those who, acting individually or as members of an organ of the legal person, are authorized to make decisions on behalf of the legal person or hold powers of organization and control within the same. b) Offences committed, in the exercise of corporate activities and on behalf of and for the direct or indirect benefit of the same, by those who, being subject to the authority of the natural persons mentioned in the preceding paragraph, have been able to carry out the acts because of a serious breach by the former of the duties of supervision, monitoring and control of their activity in view of the specific circumstances of the case.
2. If the offence was committed by the persons indicated in letter a) of the preceding paragraph, the legal person shall be exempt from liability if the following conditions are met: […]".

607 - 616 *bis* CP, which contain the relevant provisions of international criminal law, do not provide for the criminal liability of legal persons. Thus, there is also no divergence in Spain with regarding the eligible group of offenders.

However, this does not mean that this must also apply to other criminal law systems that accept the criminal liability of legal persons. Depending on the national context, a corresponding review of the national legal situation is therefore still strongly advisable.

Another aspect that can lead to a shift in the assessment are deviations of the national legal systems in the legal definition of criminal liability for aiding and abetting. Such deviations are particular feasible if the possibility of transferring the General Part of the Rome Statute into the national legal systems was rejected and the criminal law relevance of a contribution to a core crime is consequently to be assessed according to the national rules of perpetration and participation. Both Germany and Spain have largely refrained from transferring the norms of the General Part of the Rome Statute and have remained with their already existing general rules on participation. In Spain by making the (modifications of) the core crimes part of the Special Part of the CP, to which the General Part of the *Código Penal* applies. In Germany by an explicit reference in section 2 VStGB to the rules of general criminal law, which include the provisions on perpetration and participation of the StGB.

This leads in both legal systems to a considerable expansion of the punishability of aiding and abetting international crimes, because neither the German section 27 StGB nor the Spanish article 29 CP know an exclusion of aiding and abetting with *dolus eventualis* corresponding to article 25 para. 3 (c) in conjunction with article 30 of the ICCS.[600] However, it is precisely these cases of *dolus eventualis* that are likely to characterize the majority of the criminological reality of proliferation financing activities worthy of punishment, i. e. cases in which bankers suspect a proliferation context behind a financing transaction, but nevertheless carry it out for pure profit. The review of the way in which the criminal offences of the Rome Statute are embedded in the national criminal law systems, and in particular the handling of the rules of the general part, is thus of decisive importance for the assessment of the criminal relevance of proliferation financing acts in the respective national context.

[600] A. ZIMMERMANN, op. cit., p. 3069.

2. The neutral act in national jurisprudence

For those countries whose national criminal law systems provide for the punishability of international core crimes committed only with *dolus eventualis*, the handling of so-called neutral acts becomes particularly relevant. While typical professional acts committed with *dolus directus* of the first or second degree justify the criminal liability of the contributor according to most legal opinions, the cases in which the typical professional contributor merely accepts the criminal offence are typically less clear to assess. It is therefore not sufficient to merely conclude that criminal liability is extended to cases with *dolus eventualis*. Rather, an assessment of proliferation financing as an international offence punishable in the respective legal system also requires considering how the question of the neutral act is dealt with within the respective national legal practice.

This is not always easy. Frequently, the handling of cases of professionally typical contributions by national judicial bodies turns out to be unclear or inconsistent.

In Germany, for example, already the early jurisprudence of the Federal Court of Justice *("Bundesgerichtshof" – "BGH")* shows a rather heterogeneous picture on how to deal with the problem of neutral acts. The decisions alternated between those that required an intention to further the principal offence, which was not already fulfilled with having a certain knowledge of the principal offence, and those that considered the *dolus eventualis* of the contribution to be sufficient without addressing the question of the possible neutrality of the act at all. It is only from 1998 onwards that the BGH verbally leaves behind the criterion of the will to further the principal offence and begins to express the so-called "Principles" *("Grundsätze")* for the treatment of neutral acts. Legal principles based largely on Roxin's theories on neutral acts.

In its August 1st, 2000-decision, which has become known as the "banking decision" *("Bankenentscheidung")*[601], the BGH describes these principles in a particularly illustrative manner and expressly confirms their application to the criminal law assessment of profession-typical contributions by bank employees:

"The Federal Court of Justice has [...] established principles generally applicable to profession-typical "neutral" acts (cf. BGHR StGB section 27 para. 1 - Hilfeleisten 20): If the actions of the principal offender are aimed exclusively at committing a criminal offence, and if the person rendering assistance knows this, his contribution

[601] BGHSt 46, 107.

to the offence is to be regarded as aiding and abetting (cf. BGHR StGB section 27 para. 1 - Hilfeleisten 3, 20). In this case, his action always loses its "everyday character"; it is to be interpreted as "solidarization" with the offender (Roxin in LK 11th ed. § 27 para. 19) and is then also no longer to be regarded as socially adequate (cf. Löwe-Krahl wistra 1995, 201, 203). If, on the other hand, the person providing assistance does not know how the contribution made by him will be used by the principal offender, if he merely considers it possible that his action will be used to commit a criminal offence, then his action is as a rule not yet to be judged as a criminal act of assistance, unless the risk of criminal conduct on the part of the person assisted, as recognized by him, was so high that by his assistance he "made it his concern to promote a perpetrator who was recognizably inclined to commit an offence" (BGHR StGB section 266 para. 1 - Hilfeleisten 3; BGHR StGB section 27 para. 1 - Providing assistance 20; Roxin in LK loc. cit.) These principles are also to be applied [...] to the professional conduct of bank employees."

Subsequent decisions of the Federal Supreme Court and regional German courts have since explicitly cited the principles and applied them to a wide variety of cases. Over the years, however, the interpretation of the principles by the competent courts has led to an increasing blurring of their contours and an accompanying state of legal uncertainty. In this context, the Federal Supreme Court saw itself forced to supplement its subsequent decisions with explanations on the interpretation and application of the principles. A certain degree of uncertainty is thus always inherent in the application of the principles to proliferation financing, as well as to other areas.

Nevertheless, at least those cases in which the contributor acts with *dolus directus* seem to be undoubtedly to be assessed as criminal aiding and abetting. In this respect, there is no difference between the expected assessments by the ICC and the German jurisdiction. The above-mentioned cases of knowingly financing proliferation would thus also be punishable in Germany.

However, the principles also allow for the punishability of certain cases of contributions committed with *dolus eventualis*, provided that the recognizable risk of the offence exceeds a high threshold. The legal doctrinal question of whether the Federal Supreme Court has thus created a form of intent of its own kind - a "*dolus eventualis of the first degree"*, so to speak - will not be discussed further here. Rather, what is decisive is how this increased risk threshold would be determined and which criminological realities of proliferation financing would be covered by it.

In this respect, it must first be noted that financial institutions and their employees are familiar with the classification of customers and transactions into risk levels. Such

classifications are even the necessary starting point for deciding which of the controls and measures contained in the processes and policies are to be applied to the customer or the specific transaction. However, these risk matrices are internal bank decisions that have no general validity. A transfer of the risk classification of the respective bank as a decision-making standard for the court is also impermissible because the result would be that those banks that voluntarily impose higher standards on themselves would be punished more severely and the carelessly acting bank and its employees would in return be privileged under criminal law. As has been shown, this is an unacceptable result, both in terms of legal theory and legal policy.

However, it would also not be appropriate to exclude the existence of such risk parameters from the judicial assessment because they differ from bank to bank. Rather, they are a typical part of the reality in which the contributing bank employee operates on a daily basis and in whose framework, he carries out his risk assessment. In particular, the compliance framework specifies the due diligence measures that the bank employee has to carry out depending on the risk classification of the customer or transaction, i. e., the information and documents that he has to collect and check. It thus shapes the scope of what he or she can usually know and, consequently, the scope of the knowledge base for the risk evaluation to be carried out. They are thus facts that have a considerable impact on the unlawfulness of the individual act and that should therefore be considered by an accurate criminal law assessment.

Therefore, a balanced approach must be sought that avoids the unacceptable legal privileges mentioned above without ignoring the elementary importance of bank risk classifications for the bank employee's individual understanding of risk.

Such an approach could be that the existence of a recognizably high risk of the contributions committed with *dolus eventualis* is determined by risk parameters that are regarded as high by the entire financial sector - and not just by the specific bank. This is the case, for example, if the parties involved are domiciled in countries identified by the EU, the National Risk Assessment[602] or the German financial supervisory authority as countries with weak AFC standards. It is also the case if the relevant parties are based in countries that have been subject to trade boycotts or other economic boycotts by Germany, the EU or the UN because

[602] National risk assessments are comprehensive assessments of the ML/TF risk in a country. They serve as basis for the risk-based design of a country's AML/CFT regime, as required by FATF's recommendation 1.

of their proliferation efforts, as a common understanding of high proliferation risks can be assumed here.

The same must also apply to economically completely implausible or non-transparent trade finance transactions for dual-use goods or comparable transactions involving individuals with relevant criminal records or targeted economic sanctions, i. e. members of terrorist organizations. Such transactions can also only be qualified as high risk according to the risk parameters of any respectable financial institution.

Less clear and highly problematic in terms of legal policy is the question of how the bank employee's knowledge of existing *foreign* targeted sanctions against the parties to the transaction affects the risk rating. This is especially true if the party to the transaction has not also been sanctioned by the UN, EU or Germany. In addition to legal limitations on the observance of foreign sanctions, this raises the question of the extent to which criminologically based suspicions can be distinguished from mere economic motivations behind the sanction.[603]

Be that as it may, whether the German judiciary would judge in this sense at all, or at least address the points mentioned, cannot be answered in the end.[604] In this way, it is only clear that German jurisprudence would potentially consider more cases of proliferation financing acts as international aiding and abetting crimes than the ICC would, because it reserves the possibility of considering at least some cases of professional acts committed with *dolus eventualis* as worthy of punishment.

3. Extensions of criminal liability through the criminal code's "special part"

In addition to shifts in punishability due to differing national regulations in the area of general rules, i. e. through additional punishable forms of participation and dealing with the

[603] See Part Three, Chapter 1 and Chapter 3, 2., of this thesis.

[604] Please note that no comparative conclusions can be drawn from the case law practice on money laundering acts by bank employees. Since the corresponding acts fall under the independent offence of money laundering pursuant to section 261 StGB and for this reason alone are not treated by the courts as potentially successive participation in a principal offence. Without a classification as (successive) aiding and abetting, however, the question of a possible neutrality of the contribution under criminal law can consequently not arise. A comparison with the case law before the introduction of section 261 StGB in 1992, in which money laundering activities were in part assessed as successive aiding and abetting, is also not helpful, since at that time there were still fundamental methodological differences from today's approach to the question of the neutral act, which has been established since 1998. On the handling of money laundering acts before the introduction of section 261 StGB, see Wolfgang SPISKE, *Pecunia olet? Der neue Geldwäschetatbestand § 261 StGB im Verhältnis zu den §§ 257, 258, 259 StGB, insbesondere zur straflosen Ersatzhehlerei*, Frankfurt a.M., Germany: Peter Lang, 1998, pp. 47 et seqq.

problem of the neutral act, complementary provisions within the framework of the offences themselves (Special Part) are conceivable.

3.1. Additional international crimes

Although the criminal offences of the ICCS have regularly been transposed into national criminal law systems by the member states of the Rome Statute, this does not mean that the national provisions of international criminal law are limited to them. In particular, it is possible to imagine national penalizations of such violations of customary international law that are not adequately covered by the ICCS.

In the German International Criminal Code, such a filling of the regulatory gaps of the ICCS took place at the national level, for example with regard to war crimes in armed conflicts not of an international character. Within the ICCS, for example, both article 8 para. 2 (b) (ii) ICCS and article 8 para. 2 (b) (v) ICCS lack corresponding provisions for non-international conflict. The German International Criminal Code, though, extends their punishability in section 11 para. 1 no. 2 VStGB to the context of non-international conflict.[605] Thus, operations with chemical, biological and radiological weapons that lead to long-term and disproportionate contamination damage to objects can also constitute a criminal offence under German international criminal law. In distinction to the ICCS, acts of financing in connection with these would therefore be eligible for criminal liability as aiding and abetting.

3.2. Financing of international crimes as independent criminal offence

An expansion of criminal liability is not only possible by way of adding additional international crimes to which assistance could be provided in the form of financing acts. It is also conceivable that the financing of international crimes itself could be considered an independent criminal offence. Comparable approaches are already known: Money laundering, for example, is also an independent offence and not merely a financial service punishable as mere aiding and abetting to the predicate offence. Similarly, terrorist financing is also considered by a large number of jurisdictions to be an independent offence and not merely an act of aiding a terrorism offence.

In Germany, an autonomous criminalization of the financing of crimes under international law does exist, at least to some extent. For instance, section 89c para. 1 no. 1 StGB, which

[605] WERLE & JESSBERGER, op. cit., p. 640, para. 1420, and p. 651, para. 1447.

is dedicated to the financing of terrorism, explicitly refers to financial services in connection with genocide, crimes against humanity and war crimes.

The relevant passages of the norm read as follows:

> "Whoever collects, accepts or provides assets in the knowledge or with the intention that these are to be used by another person for the purpose of committing 1. […] genocide (section 6 of the Code of Crimes against International Law), a crime against humanity (section 7 of the Code of Crimes against International Law), a war crime (section 8, 9, 10, 11 or 12 of the Code of Crimes against International Law), […] incurs a penalty of imprisonment for a term of between six months and 10 years. Sentence 1 only applies to cases under nos. 1 to 7 if one of the offences stipulated in those provisions is intended to seriously intimidate the population, to unlawfully coerce an authority or an international organization by force or threat of force or to destroy or significantly impair the fundamental political, constitutional, economic or social structures of a state or of an international organization and which, given the nature or consequences of such offences, can seriously damage a state or an international organization."

Thus, the financing of international crimes does not necessarily constitute an independent criminal offence. Rather, the act of financing itself must be accompanied by a special terrorist purpose ("if the act described therein is intended to do so") and suitability ("may cause substantial damage to a state [...]") of the intended international offence, ultimately making the act terrorist financing.[606]

Whilst WMD, by their destructive nature, will regularly have the capacity to cause significant damage to a state, the terrorist purpose cannot always be assumed without further ado. It is true that the use of WMD, due to its fatal destructive properties, somehow goes hand in hand with a considerable psychological effect of fear and social and economic disruption. Whether this and not merely the destruction itself is the intention behind the attack, however, remains dependent on the individual case, since otherwise one would arrive at an inadmissible equation that the horrors of war always result in terrorist acts.

Thus, in the case of state WMD operations, the difficult to draw line between a mere offence under international law and an offence under international law *with a state-terrorist character* would have to have been crossed for the provision to be applicable. On the other hand, if the components of international criminal law are present, acts of financing

[606] See, for a Spanish legal perspective on the "terrorist purpose" requirement, Carmen LAMARCA PÉREZ, *Análisis jurídico-penal y propuestas político-criminales de algunos delitos transnacionales*, in Ana Isabel PÉREZ CEPEDA (Ed.), *Política criminal ante el reto de la delincuencia transnacional*, Valencia, Spain: Tirant lo Blanch, 2016, pp. 483 et seqq.

proliferation efforts of terrorist organizations, such as Al-Qaeda and the IS, should unproblematically fall under the scope of application of section 89c para. 1 no. 1 StGB.[607]

The wording of the punishable financing acts ("collect", "accept" and "provide assets") itself seems very broad at first glance. Whether the provision is applicable to everyday banking acts is nevertheless questionable.

Regarding the modality of "collecting", it is disputed whether the mere accumulation of assets is also meant or only the purposeful influencing of third parties in order to achieve the transfer of assets.[608] However, the telos and systematics of the norm speak for the requirement of a proactive influence of the perpetrator on third parties. Especially as the opposite receipt of possible funds, which takes place on the initiative of the depositor, is already covered by the alternative mode of "receiving". A "collecting" in the sense of section 89c para. 1 no. 1 var. 1 StGB can therefore possibly be assumed at most in the case of certain investment banking activities, in which the investment bank actively seeks financiers for a proliferator or a proliferation event. In practice, this is unlikely to be relevant.

Since the modality of "accepting" is also fulfilled when book money is received in a bank account, it basically fits better with the typical role of a bank, where incoming payments are usually made at the autonomous initiative of the ordering party.[609] However, since the receiving person is the individual account holder and not the bank or a bank employee, punishment of bankers as the main perpetrators is regularly out of the question.[610] The provision of the account and related banking services could, however, be regarded as punishable aiding and abetting to this “accepting” of the money. However, criminal liability would again be subject to the reservation described above that the banker's specific contribution was not to be considered a professional act neutral under criminal law (see above).

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[607] For the criminalization of acts of financing terrorist-motivated acts of proliferation, an international law context is not necessary, since section 89c para. 1 no. 5 StGB criminalizes the financing of WMD terrorism as such (see below).
[608] For further references to the different views, see Mohamad EL-GHAZI, *Strafrecht*, in Felix Herzog, *Geldwäschegesetz (GwG)* (4th ed.), Munich, Germany: C. H. Beck, 2020, § 89c StGB, paras. 20 et seq.
[609] Nikolaos GAZEAS, *§ 89c*, in Klaus Leipold, Michael Tsambikakis, & Alexander Zöller, *AnwaltKommentar StGB* (3rd ed.), Heidelberg, Germany: C. F. Müller, 2020, para. 7; Mark A. ZÖLLER, *Terrorismusstrafrecht: Ein Handbuch*, Heidelberg, Germany: C. F. Müller, 2009, p. 574.
[610] Of course, the situation would be different if the banker made his employee account available for incoming payments or operated via an internal (hidden) account of the bank.

The granting of regular loans and trade financing to WMD proliferants could, however, fulfil the modality of "providing assets". However, "providing assets" requires, already in the natural sense of the word, a transfer of assets without - or at least without adequate - consideration.[611] The telos of the norm, which is to deprive terrorist organizations of an "economic breeding ground"[612], also suggests that the offence variant can only exist if the perpetrators do not have to provide an economically appropriate consideration for receiving the assets.

It seems unlikely that the collusive interaction between proliferants and bank employees is aimed at saving loan interest or fees. On the contrary, the typical aim is to disguise the true nature of the transaction and create the impression of legitimacy. Attracting attention through possible benefits or discrepancies in the accounting, thus, contradicts the typical purposes of proliferation financing. However, the modality of "providing assets" is likely to be fulfilled if a bank employee uses his position to divert funds from elsewhere and transfer them to the account of the terrorist organization. In that case, though, the bank employee would have to have carried out the transaction with the knowledge or intention that the terrorist organization would use the money to commit an international crime.[613]

As a result, it can be stated that section 89c para. 1 no. 1 StGB only covers a few cases of proliferation financing through classical banking services and that the provision is rather directed towards the punishment of classical terror financing via donation systems. However, it also shows that the financing of international crimes can indeed constitute an autonomous offence under national criminal law.

In Spanish criminal law, while the (expansive)[614] regulation of terrorism expressly criminalizes the act of financing (article 576 CP) as an act distinct from collaboration with a terrorist group (article 577 CP) and the crime of terrorism (article 573 CP), the same does not happen with crimes against humanity or with non-terrorist arms trafficking.[615] Thus, it

[611] EL-GHAZI, op. cit., § 89c StGB, para. 26.
[612]BT-Drs. 18/4087.
[613] EL-GHAZI, op. cit., § 89c StGB, para. 34.
[614] Cf. Alicia GIL GIL, *La expansión de los delitos de terrorismo en España a través de la reinterpretación jurisprudencial del concepto organización terrorista*, Anuario de derecho penal y ciencias penales, no. 1, 2014.
[615] Moreover, article 576 CP - unlike its German equivalent - does not explicitly mention the commission of international crimes by terrorists as a possible act to be financed. In addition, article 567 para. 4 CP recognizes a recklessness commission as sufficient to establish criminal liability for terrorist financing: "El que estando específicamente sujeto por la ley a colaborar con la autoridad en la prevención de las actividades de financiación del terrorismo dé lugar, por imprudencia grave en el cumplimiento de dichas obligaciones, a que no sea detectada o impedida cualquiera de las conductas descritas en el apartado 1 […]". See, on that topic, Ramón M. GARCÍA ALBERO, *La reforma de los delitos de terrorismo (arts.*

can only be punished if it is considered an act of direct participation to the principal offence, excluding "participation to the participation" or other accessory acts.

In such a case, the prosecution of financial activity encounters another obstacle and that is that, again, unlike what happens with terrorist crimes for which criminal liability of legal persons for financing is provided (article 570 *quáter* CP) [616], the same is not true for crimes against the international community or non-terrorist arms trafficking (article 567 CP), for which only penalties for natural persons are provided for, including disqualifications for all crimes in the chapter (article 570 CP)[617], in addition to the dissolution of the association in the case of article 569 CP. It is difficult to find a sensible explanation for such a regulatory divergence, which adds to the general problem of the appropriateness of the selection of offenses that generate criminal liability of legal persons.

In the meantime, it should be noted that, frequently, the difference between the penalties of article 33 para. 7 CP and the accessory consequences of article 129 CP[618] will not be in the content of the legal reaction - which in both cases include deprivation of rights - but in the conditions of application of the same, the possibility of mitigation[619] or exemption from punishment for possession of compliance[620], or the guarantees in its imposition[621]. In any

572, 573, 574, 575, 576, 576 bis, 577, 578, 579), in Gonzalo Quintero Olivares (Ed.), *La reforma penal de 2010: análisis y comentarios*, Cizur Menor, Spain: Aranzadi, 2010, p. 375.

[616] Cf. Norberto DE LA MATA, *El cumplimiento por el legislador español del mandato de la Unión Europea de sancionar a las personas jurídicas*, in José Luis de la Cuesta Arzamendi (Ed.), *Responsabilidad penal de las personas jurídicas*, Cizur Menor, Spain: Aranzadi, 2013, pp. 212 et seq. See also, on the situation prior to the 2015 reform, Ignacio MUÑAGORRI & Izaskun ORBEGOZO, *La responsabilidad penal de las personas jurídicas en la aplicación de la normativa antiterrorista*, in José Luis de la Cuesta Arzamendi (Ed.), *Responsabilidad penal de las personas jurídicas*, Cizur Menor, Spain: Aranzadi, 2013, pp. 309 et seqq.

[617] See, on the legal consequences of classifying the penalties common to all these offenses as principal or accessory, Inma VALEIJE ÁLVAREZ, *De las penas accesorias a las penas complementarias. La descripción de un proceso legislativo inacabado*, Valencia, Spain: Tirant lo Blanch, Valencia, 2021.

[618] See, on the system of accessory consequences prior to the 2010 reform, Mercedes GARCÍA ARÁN, *Sanción de las persones jurídicas en el Código penal español y propuestas de reforma*, in José Urquizo Olaechea, Manuel A. Abanto Vásquez, & Nelson Salazar Sánchez (Eds.), *Dogmática penal de Derecho penal económico y política criminal*, Lima, Peru: USMP, 2011, pp. 125 et seqq.; Luis GRACIA MARTÍN, *Sobre la naturaleza jurídica de las llamadas consecuencias accesorias para personas jurídicas en el Código Penal español*, in José Urquizo Olaechea, Manuel A. Abanto Vásquez, & Nelson Salazar Sánchez (Eds.), *Dogmática penal de Derecho penal económico y política criminal*, Lima, Peru: USMP, 2011, pp. 159 et seqq. See, on the content of the sentencing system introduced with the 2010 reform, Joan BAUCELLS LLADÓS, *Las penas previstas para la persona jurídica en la reforma penal de 2010. Un análisis crítico*, Estudios Penales y Criminológicos, no. 33, 2013, pp. 1785 et seqq.

[619] José Luis GONZÁLEZ CUSSAC, *La eficacia atenuante de los programas de prevención de delitos*, in Javier de Vicente Remesal et al. (Eds.), *Libro Homenaje al Profesor Diego-Manuel Luzón Peña con motivo de su 70ª aniversario*, Madrid, Spain: Reus, 2020, vol. I, pp. 687 et seqq.

[620] See, for a description of the exemption regime introduced by the 2015 reform, i. a., Jacobo DOPICO GÓMEZ-ALLER, in Norberto J. de la Mata Barranco, Jacobo Dopico Gómez-Aller, Juan Antonio Lascuraín Sánchez, & Adán Nieto Martín (Eds.), *Derecho penal económico y de la empresa*, Madrid, Spain: Dykinson, 2018, pp. 145 et seqq.

[621] On the criminal procedural status of legal persons, Fermín MORALES PRATS, *Cuestiones fundamentales de la parte general del Derecho penal (III): responsabilidad penal de las persones jurídicas*, in Miriam Cugat Mauri, Joan Baucells Lladós, & Mónica Aguilar Romo (Eds.), *Manual de Litigación penal*, Valencia, Spain: Tirant lo Blanch, 2017, pp. 101 et seqq. See, regarding the protection of rights in criminal procedure, Bernardo DEL ROSAL BLASCO, *Principios constitucionales del proceso penal y persones jurídicas*, in Javier de Vicente Remesal et al. (Ed.), *Libro Homenaje al*

case, the best way to commit financial institutions to PF prevention would be to introduce a criminal liability of legal persons for these offenses, which would have a direct impact on their interest in adopting crime prevention programs. In its case, one of the problems to be solved would be to affirm the requirement of acting "for the benefit of" *("en beneficio de")* the legal person, as the financing act, in fact, is done for the benefit of a third party.[622]

3.3. Note: Proliferation financing as a domestic offence

This thesis looks at the international regulatory framework surrounding proliferation financing and does not want to focus on national criminal law systems. Nevertheless, for the sake of completeness, it should be noted that some national criminal law systems may also criminalize proliferation financing as such, without reference to an international criminal offence, or that proliferation financing may also constitute an act of aiding and abetting to other relevant national criminal offences, e. g. arms export prohibitions that are relevant under criminal law.[623]

Despite the high degree of internationalization of the anti-financial crime regulations, financial institutions must therefore always keep an eye on the national criminal law systems of those countries in which they have their registered office or are operationally active. Merely considering the implications of international criminal law is thus not sufficient for the due diligence required when creating an individually suitable CPF framework.

Profesor Diego-Manuel Luzón Peña con motivo de su 70ª aniversario, vol. I, Madrid, Spain: Reus, 2020, pp. 119 et seqq. See, on the burden of proof, José Luis GONZÁLEZ CUSSAC, *Fundamento de responsabilidad penal de las persones jurídicas y carga de la prueba de los programes de cumplimiento penal*, in Mercedes Pérez Manzano, Miguel Ángel Iglesias Río, Ana Christina Andrés Domínguez, María Martín Lorenzo, & Margarita Valle Mariscal De Gante (Eds.), *Estudios en homenaje a la profesora Susana Huerta Tocildo*, Madrid, Spain: UCM, 2020, pp. 441 et seqq.

[622] Cf. José Luis, GONZÁLEZ CUSSAC, *Responsabilidad penal de las personas jurídicas: arts. 31 bis, ter, quáter y quinquies*, in José Luis González Cussac (Ed.), *Comentarios a la Reforma del Código Penal*, Valencia, Spain: Tirant lo Blanch, 2015, p. 179: the "for the benefit of" element may also be met when it is indirect, for example, because it acts through third party intermediaries or chains of companies.

[623] Among the few countries that have made proliferation financing a separate criminal offence is the Cayman Islands: Cayman Islands' Proliferation Financing (Prohibition) Law, 2E Criminal Penalties. In Germany, section 89c para. 1 no. 5 StGB comes closest to such a provision. It criminalizes the collection, receipt or making available of assets for terrorist acts in connection with nuclear, biological and chemical weapons.

Chapter 6: General remarks and consequences for the counter-proliferation financing program

As has been shown, proliferation financing acts may constitute a criminal conduct punishable under the ICCS, for which bankers could be prosecuted before the International Criminal Court (ICC).

Several procedural, substantive, and practical factors limit the field of ultimately prosecutable proliferation financing acts. In addition, there are conceptual uncertainties that further complicate the identification of conducts considered criminally relevant.

1. Limiting factors for the criminalization of proliferation financing

Important limiting factors for the prosecution of proliferation financing activities by the ICC result from the limited local jurisdiction of the court in this matter and several substantial obstacles, which are inherent in the offences of the ICCS themselves.

1.1. Limited local jurisdiction of the International Criminal Court

Although the ICC is an "international" criminal court, its jurisdiction is usually limited to cases that have a territorial or personal nexus to states that have signed and ratified the ICC Statute (ICCS).

Yet the countries presumably regarded as the most notorious risk states from a proliferation point of view, i. e., Iran, North Korea, Syria and Pakistan, do not belong to this group. Similarly, some nuclear weapon states recognized by the NPT, i. e., China, Russia, and the United States, as well as other *de facto* nuclear powers such as Israel and India, have not ratified the ICCS.

Although proliferation and proliferation financing can occur anywhere, it is evident that a cumulation of WMD-relevant crimes is to be expected in countries that are known to pursue proliferation efforts or already have WMD capabilities. Either because they come into the focus of criminal actors as potential sources of relevant materials or because they themselves are actively involved in relevant acts.

The same also applies to states that do not necessarily have proliferation efforts themselves, but from whose territory terrorist organizations operate that actively seek WMD capacities.

An increased cumulation of potentially relevant buyer organizations on a state's territory is expectedly accompanied by an increase in the number of WMD-relevant crimes. However, the ICC's territorial jurisdiction also has significant gaps in this regard. For instance, key strongholds of the IS and Al-Qaeda, i. e., Iraq, Syria, Libya, Egypt, Yemen, Saudi Arabia, Algeria, Pakistan, the Philippines, and Somalia, have not ratified the ICCS either.[624]

However, even for states that have ratified the ICCS and to which the territorial competence of the ICC thus basically extends, restrictions on competence for specific criminal offences may exist. This is especially the case if the relevant criminal offences have been integrated into the ICCS within the framework of a later amendment and this amendment has not been ratified by the state concerned.

For the prosecution of WMD-related crimes, this crime-dependent territorial fragmentation of the ICC's jurisdiction has significant consequences:

On the one hand, because the use of chemical and other toxic weapons in civil war scenarios and other internal conflicts was included as a criminal offence in the ICCS by the Kampala Amendments of 2010. Thus, through an amendment that has not been ratified by a large number of countries of the Global South, which are likely to be more vulnerable to such crimes.

On the other hand, because the explicitly regulated *per se* punishability of the use of biological weapons pursuant to Article 8 para. 2 (b) (xxvii) and Article 8 para. 2 (e) (xvi) ICCS are the result of an amendment which has so far only been ratified by European states.

However, all these limitations on the ICC's territorial jurisdiction are of course subject to the *proviso* that the non-contracting state concerned does not exceptionally accept the ICC's jurisdiction on an *ad hoc* basis or that the UNSC has referred the situation in a third state to the ICC on the basis of Chapter VII of the UN Charter.

The relevance of the latter option, however, should not be overstated with regard to WMD-relevant crimes. In particular, the case of Syria, which was never prosecuted, shows how geopolitical interests of a single UNSC member, such as Russia, can stand in the way of the ICC's prosecution of massive WMD-based crimes.

[624] Katherine ZIMMERMANN, *Al Qaeda & ISIS 20 Years After 9/11*, Wilson Center, September 8, 2021, https://www.wilsoncenter.org/article/al-qaeda-isis-20-years-after-911; Mina AL-LAMI, *Where is the Islamic State group still active around the world?*, BBC, March 27, 2019, https://www.bbc.com/news/world-middle-east-47691006.

Thus, in the overall picture, there is a significant discrepancy between territorial jurisdiction of the ICC and the geographic risk of realization of WMD-related crimes.

This has implications not only for the prosecution of WMD deployments and other proliferation acts but also for the prosecutability of related proliferation financing acts:

First, directly, because the parallelism of the proliferation act and the proliferation financing act often goes hand in hand with matching locations of the individual acts or matching nationalities of the perpetrators, e. g., because the end users or the originator of the goods keep their corporate accounts with credit institutions located in the same country as they are.

But also indirectly, because in practice the focus of the ICC is likely to be on the prosecution of the principal perpetrators. If the case is not opened against them due to a lack of local jurisdiction, it seems likely that also no action will be taken against the proliferation financiers who are merely aiding them, regardless of their nationality and the place where the PF-crime was committed.

1.2. Substantive obstacles to the prosecution of proliferation financing cases

In addition to the significant limitations presented by the ICC's limited local jurisdiction, the design of the ICCS's substantive legal framework further limits the proliferation financing acts that can be prosecuted by the ICC.

a) Requirement of an armed conflict in respect of war crimes

As has been shown, the catalog crimes of article 8 ICCS contain several provisions that appear suitable for the prosecution of WMD-related acts. Regardless of whether the crimes involve prohibited means or prohibited methods of warfare, and regardless of whether the crimes occurred in an international or non-international context, all these provisions have the mandatory element of "armed conflict" in common.

Concerning proliferation activities controlled by states, this will regularly not be an obstacle. In this case, the WMD capacity is regularly intended for conflict scenarios that occur between state or other organized armed groups, and thus are likely to meet the requirements of the ICCS for an armed conflict.[625]

[625] Conceivable exceptions to this rule include forms of state terrorism in which WMD could be used against specific parts of the population.

If the proliferation act is controlled by a terrorist organization, the use of the WMD for a terrorist attack is likely.[626] Such attack lacks an opponent who is an organized combatant and thus lacks the character of an armed conflict required for the application of article 8 ICCS.

The various war crimes, including those involving targeted attacks against the civilian population, are therefore not applicable to such cases of proliferation. Thus, only crimes against humanity in the form of murder or extermination could be considered as a fallback solution. However, their applicability depends on the individual case and on whether the high contextual requirements of article 7 are met.

Consequently, there is reduced penal coverage of terrorist WMD operations and proliferation acts compared to state-orchestrated proliferation acts. Consequently, this regulatory gap also affects the financing activities related to these non-covered proliferation acts.

b) Shortcomings in the coverage of non-international conflicts

It is not only the question of the ultimate (intended) use of WMD for armed conflict on the one hand and terrorist acts on the other that leads to assessment discrepancies. Also, within the proliferation acts related to the armed conflict, there are deficits in the coverage of relevant crimes. These relate to whether these crimes occurred in the context of an international or non-international armed conflict.

This appears particularly relevant with respect to the act of causing disproportionate collateral damages to the civilian population, which as such is punishable under the ICCS in international but not in non-international armed conflict. A regulatory deficit that is highly concerning:

On the one hand, because of the real need for a criminal justice response to such crimes. As has been shown, the percentage of civilian casualties in military conflicts has risen steadily over the last century, leveling off at over 90 % since the 1990s.[627] A percentage that, in view of the destructive power of WMD, should regularly be reflected in equally high absolute civilian casualty figures.

[626] Terrorist organizations such as the Islamic State, which in some cases have the character of an organized militia ("terrorist militia") and participate in civil war scenarios as an independent party to the conflict, should be considered on a case-by-case basis.
[627] See Part One, Chapter 1, 3., of this thesis.

On the other hand, due to the practical manageability of such a provision, which would be easier to prove with regard to the *mens rea* of the perpetrator than it is for the elements of crime of article 8 para. 2 (c) (i) ICCS or 8 para. 2 (e) (i) ICCS, which require that the perpetrator must have acted precisely with the intent (*dolus directus* of the first degree) to kill civilians. In the case of excessive collateral damage, however, the court is given the opportunity to sufficiently prove the existence of *dolus directus* of the second degree by means of objectifiable criteria, such as the number of victims or the mode of execution of the act.

Particularly in view of the typical asymmetrical reality of modern internal conflicts, in which civilians and combatants are often difficult to distinguish visually, this is a relevant aspect for judicial practicality that is likely to have a significant negative impact on the successful conviction of the perpetrators.

c) High subjective requirements for the assistance

Only those proliferation financing acts that contribute to punishable WMD-related predicate acts can be punishable. At the same time, not every proliferation financing act that contributes to such a principal act constitutes a conduct punishable under the ICCS. Rather, what is required is that the proliferation financier meets the high subjective requirements that article 25 para. 3 (c) ICCS stipulates for a punishable assistance to a principal offence.

As shown, in the end, this is only the case with bankers who have a strong personal or structural link to the proliferant and regular involvement in the proliferant's organizational apparatus. Since this is especially conceivable in the case of state-controlled banks, the regular case of proliferation financing worthy of punishment is not covered: Proliferation financing committed with *dolus eventualis* for pure and unscrupulous pursuit of profit. From the perspective of comprehensive coverage of (punishable) acts of proliferation financing, this is thus a considerable regulatory deficit of the ICCS.

For such perpetrators, however, the applicable provisions of the national international criminal law codes, which in some cases also punish aids committed with *dolus eventualis*, can lead to a conviction. This is however always subject to the condition that the judicial practice of the respective country does not consider the act of proliferation financing to be a neutral act under criminal law.

2. Conceptual uncertainties as a legal risk for banks

The points mentioned above represent unquestionable limitations on the proliferation financing acts that can be prosecuted by the ICC. In addition to these limitations, however, there are other aspects that are far less clear to encompass in terms of their impact on criminal liability, i.e. the use of indeterminate concepts whose interpretation is politically sensitive. Often, conceptual uncertainties are also intensified by the lack of even rudimentarily established ICC case law practice on them.

2.1. The "poison" concept of the Statute

For the punishability of WMD-related conduct - and thus also for the punishability of related financing acts - the conceptual understanding of "poison" is of considerable importance.

Since "poison" or "poisoned weapons" are *per se* prohibited means of war, articles 8 para. 2 (b) (xvii) and (xviii) ICCS / 8 para. 2 (e) (xiii) and (xiv) ICCS cover basically any use of this weapon in armed conflicts. Thus, acts using those WMD types that are subsumable under the poison concept would be particularly widely covered by international criminal law.

However, this can only be assumed with sufficient certainty for chemical weapons. For biological and radiological weapons, on the other hand, the question is extremely unclear. For nuclear weapons, applicability even tends to be excluded.

Although the better material arguments speak for biological, radiological and nuclear weapons to be understood as "poison" or "poisoned weapons" in the sense of the ICCS, the following three points can be considered as the main causes of this interpretative uncertainty:

(1) <u>The legacy effects of the "Rome Compromise”</u>

The question of whether and to what extent WMD-related matters may be judged by the ICC was the subject of the so-called "Rome Compromise”. Although this compromise is not clearly outlined and formally has no impact on the interpretation of the ICCS, it shapes the political reality on which the Rome Statute is based. This political dimension should not be underestimated in the case of an international court such as the ICC, whose existence and competence largely depend on the political will of the states parties. A conservative interpretation of the concept of poison, leading only to a *per se* ban on chemical weapons,

could thus correspond to the political will of the States Parties and consequently serve the superior interest of the ICC to avoid undesired withdrawals from the Rome Statute.

(2) The introduction of a *per se* prohibition of biological weapons

The amendments to the ICCS adopted in New York in 2017 contained the insertion of the criminal provisions of article 8 para. 2 (b) (xxvii) and article 8 para. 2 (e) (xvi) ICCS. These explicitly provide for criminal liability for the use of biological weapons *per se*. However, the insertion of these provisions could be understood in the way, that they are not a *lex specialis* of the poison crimes, but rather a way to criminalize the *per se* use of biological weapons in the first place. *A contrario*, this would mean that the poison/poison weapons concept of the ICCS does not cover biological weapons and that the use of them would only constitute a criminal offence if there were a local or personal link to one of the signatory states of the New York Amendment.

(3) The creation of legal facts by the ICJ

Criminal liability under articles 8 para. 2 (b) (xvii) and (xviii) ICCS / 8 para. 2 (e) (xiii) and (xiv) ICCS requires that the relevant acts also constitute a violation of the underlying Hague Regulations or 1925 Geneva Protocol. This necessarily results from the accessoriness of the provisions of article 8 ICCS to governing international law. However, the ICJ, as the highest judicial authority on international law, has stated in its 1996 advisory opinion on the legality of nuclear weapons that the aforementioned treaties do not provide for a prohibition of the use of nuclear weapons.[628] It seems likely that the ICC will apply this understanding of the ICJ and consequently conclude that the ICCS's poison crimes do not apply to cases where nuclear weapons are used.

2.2. The proportionality of collateral damages

As mentioned above, article 8 para. 2 (b) (iv) var. 1 ICCS, which criminalizes collateral damages disproportionate to military necessity, is likely to have a considerable practical relevance in the assessment of WMD-related acts. However, the assessment of whether proportionality has been maintained is highly dependent on the individual case and does not follow any clear criteria. Furthermore, the additional requirement in article 8 para. 2 (b) (iv)

[628] ICJ, *Legality of the Threat or Use of Nuclear Weapons*, op. cit., p. 226, para. 56; see also Part Two, Chapter 3, 1.3., of this thesis.

var. 1 ICCS that the disproportionality must be "clear" does not contribute to legal certainty. Rather, it adds another threshold to the difficult assessment between the value of innocent human lives and the value of capturing a particular military objective.

Punishment under article 8 para. 2 (b) (iv) var. 1 ICCS is thus largely subject to judicial discretion and, consequently, an element of considerable legal uncertainty. Consistently, the same applies to the punishment of proliferation financing conducted in relation to such acts.

2.3. The unestablished doctrine on “neutral acts”

Finally, the detailed issue of dealing with neutral acts is probably the most relevant aspect of uncertain criminal liability for proliferation finance under the ICCS. Indeed, if the ICC were to assess proliferation finance acts in the form of remittances, lending, and trade finance services as neutral acts typical of the financial sector profession, the result would be a significant non-coverage of relevant conducts by the ICCS.

How the so-called neutral acts are to be evaluated under the ICCS - or more precisely how such acts would be evaluated by the International Criminal Court - remains a matter of speculation. This is especially true as an international criminal law doctrine on this topic is entirely unestablished.

Nevertheless, the high requirements for *mens rea* in article 25 para. 3 (c) ICCS that the act must be committed with *dolus directus*, speak against a criminal neutralization of relevant behaviors. For instance, most discussions in national legal systems revolve around how to deal with typical professional acts committed with *dolus eventualis*. Cases involving *dolus directus* of the first or second degree, on the other hand, are usually considered to be worthy of punishment. However, whether the ICC will follow this line of thought cannot be answered with certainty.

Nonetheless, the establishment of compliance measures by financial institutions cannot be made dependent on the prior clarification by the international judicature. Rather, banks must decide on how to mitigate this legal risk, which although difficult to define, is an already existing issue, for which an answer has to be provided.

3. The complexity of observing national legal systems

The conceptual ambiguities described above are even more pronounced in the case of large banks operating internationally, which are economically active in several countries and consequently must take into account several national criminal law systems at the same time.

As described, the standards of the ICCS are regularly only the bottom line of criminal liability for international crimes. National legal systems may provide for more extensive criminal liability for certain manifestations of such a crime. The determination of legal risk may therefore encounter considerable difficulties in this regard, if, for example, as in the context of the neutral acts described above, not only international criminal law practice but also the (several) relevant national judicial practices, do not provide a sufficient degree of legal clarity.

In addition to the potentiation of ambiguity, however, the complexity of the holistic consideration of national peculiarities in the criminal law assessment of crimes under international law is also a major challenge. This is particularly true when differences arise in the legal systems relevant to the financial institution regarding the suitable perpetrators (bank employees or even the bank itself), the minimum requirements for *mens rea* (negligence, *dolus eventualis*, or *dolus directus*), or the possible offences (e. g., when *per se* weapons prohibitions for non-international conflicts exist in national criminal law).

Even though international financial institutions are used for dealing with different legal systems and considering national peculiarities, both in the area of international criminal law and in the context of the CPF, an isolated tailor-made solution for the national individual case may not be feasible on a regular basis.

Firstly, because the subject matter of international criminal law overlaps considerably with fundamental ethical considerations, on which companies issue group-wide guidelines and principles designed to ensure a uniform, cross-national standard in such fundamental matters.

Secondly, because such group-wide policies also exist for AFC related issues, as they are often required by both national legislation and international business practice. National differences from the group standard must be regularly disclosed and explained to supervisors and business partners alike. For a sensitive issue such as proliferation finance, the existence

of deviations from the group standard may lead to lack of understanding and mistrust among these stakeholders.

Finally, and inseparably linked to the previous two points, national divergences in the avoidance of proliferation financing within the same group, are accompanied by significant reputational risks. If the public becomes aware of them, it might be interpreted as a deliberate exploitation of regulatory weaknesses by the bank to facilitate proliferation financing through certain country channels and to enrich itself in an unscrupulous manner. For modern financial institutions, whose reputation is often their most important asset, such a public perception could have disastrous economic consequences.

4. Design criteria and general considerations for the counter-proliferation financing program

The regulatory system of international criminal law, with its ambiguities, complexities, and interrelationships with the various national criminal law systems, therefore provides, in particular, the following design criteria and general considerations for the establishment of a bank-specific CPF program:

(1) The more international and diversified a financial institution is, the stricter both the requirements for entering a transaction and the mitigating measures applied should be whenever the transaction or customer relationship has links to countries, industries, goods or financial products that pose an increased proliferation risk. This is a consequence of the fact that the (potential) costs, i. e. fines, legal fees and reputational damage, associated with the legal risks arising from the aforementioned ambiguities and complexities of international criminal law will in many cases be disproportionate to the expected profit. For a globally active universal bank, it may therefore make sense economically to fully prohibit certain transactions by internal policy, e. g., dual-use goods trade financing with links to countries such as North Korea, Iran, Syria, and Pakistan.

Of course, the situation may be different for financial institutions operating only in individual jurisdictions or for highly specialized financial institutions, e. g. banks specializing in export finance. Either because compliance with a single legal system and its jurisdiction appears more manageable or because compliance responsibilities are concentrated anyway and more comprehensive examinations of certain critical banking services (e. g. export financing of critical goods) can therefore be ensured.

Just as it may make sense economically for international universal banks to withdraw from such operations, it may be attractive for smaller institutions to invest in adequate (highly specialized) risk mitigation and operate in a niche market with increased proliferation risks.

(2) The ICCS only knows criminal liability of natural persons; criminal liability of legal persons is not (yet) provided for. Similarly, the international criminal law provisions contained in national criminal law systems will often be limited to natural persons as suitable offenders. For financial institutions, this means that the reputational and legal risks associated with the prosecution for international crimes, e. g. civil liability and administrative fines for employee delinquency, stem from in the conduct of individual employees of the bank.

A compliance framework that focuses not only on preventing proliferation financing as such, but also on reducing the consequences associated with legal violations, should therefore increase the implementation of CPF measures that help recognizing and mitigating the risks emanating from the bank's own employees. Corresponding measures are referred to – in analogy to the more common Know-Your-Customer (KYC) principle – as *"Know-Your-Employee (KYE)"* measures.

The aim of KYE is to determine whether the employee poses a possible threat to the company. A corresponding check is carried out by means of pre-employment screening within the framework of an ongoing monitoring of current employees for suspicious activities. From a CPF perspective, this means an intensified check of the background and the police record for possible relevant criminal records related to terrorism, arms trafficking, foreign trade, money laundering and other PF related areas. In addition, an open-source search should also be conducted to determine whether there are allegations or indications of corresponding acts or of generally opaque activities.

Furthermore, the susceptibility of employees to knowingly engage in a proliferation financing act should be regularly reviewed and understood by the employing bank. Relevant aspects in this regard include personal links to proliferation risk states, evidence of religious radicalization, and a high depth burden that could make an employee more susceptible to knowingly participate in crimes out of financial need. The depth of the checks in this regard can be performed in a risk-based manner and depend on the sensitivity of the employee's

function, i. e. by performing increased checks on compliance staff, regional managers of high risk countries, and trade finance managers.

(3) Finally, the limited local jurisdiction on the ICC and the substantive obstacles to the prosecution of PF described above also provide implications for the risk model of the CPF program. For example, the monitoring of countries for which the ICC has jurisdiction to prosecute PF-related offences should be given a higher priority than those for which such jurisdiction does not exist. However, such an approach should not be absolute in nature and disregard actual criminological realities. But it can be used as a complementary element in a gradual risk assessment that takes into account both the criminological likelihood of a proliferation financing act and the legal risks of direct and indirect consequences under international criminal law.

PART THREE: INTERNATIONAL SANCTIONS AND EMBARGOES

As described in Part Two, the practical significance of international criminal law for bankers and their financial institutions is not very apparent at present. The situation is quite different with another international system: The international political sanctions and embargoes framework, which imposes restrictive economic measures on states, companies, and individuals alike.[629]

Although both systems are aimed at reacting to the commission of unwanted behavior, i. e. criminal offences, and in many respects, they may coincide, in particular with regard to disqualifications and other measures restricting the affected person's liberties and rights, they differ fundamentally with regard to the procedure and safeguards for their imposition. In fact, the adoption of political sanctions and embargoes, unlike the judgements of the ICC, are not the result of a court proceeding based on the rule of law, which makes the person concerned subject and center of the procedure. Rather, by adopting the political sanction or embargo, the affected person becomes the mere target of an executive measure without a judicial determination of its culpability, hereby exposing him or her to all the dangers related to both de-formalization and the lack of judicial guarantees.[630] Among these guarantees is, i. a., the protection from *bis in idem*[631], which applies both at the national and international

[629] On the existence of centers of power other than the ICC: Jorge CARDONA LLORÉNS, *La Corte Penal Internacional y el mantenimiento de la paz y la seguridad internacionales*, in Juan Luis Gómez Colomer, José Luis González Cussac, & Jorge Cardona Llorens (Eds.), *La Corte Penal Internacional: Un estudio interdisciplinar*, Valencia, Spain: Tirant lo Blanch, pp. 90 et seqq.

[630] Cf. Juárez TAVARES, *Globalización, Derecho penal y seguridad pública*, in Silvina Bacigalupo & Manuel Cancio Meliá, *Derecho penal y política transnacional*, Barcelona, Spain: Atelier, 2005, pp. 305 et seqq. See, on the ideological foundation of the internationalization of criminal law, Manuel CANCIO MELIÁ, *Internacionalización del Derecho penal y de la política criminal: Algunas reflexiones sobre la lucha jurídico-penal contra el terrorismo*, in José Urquizo Olaechea, Manuel A. Abanto Vásquez, & Nelson Salazar Sánchez (Eds.), *Dogmática penal de Derecho penal económico y política criminal*, Lima, Peru: USMP, 2011, p. 784; and Gonzalo QUINTERO OLIVARES, *Políticas criminales nacionales y globalización*, in José Urquizo Olaechea, Manuel A. Abanto Vásquez, & Nelson Salazar Sánchez (Eds.), *Dogmática penal de Derecho penal económico y política criminal*, Lima, Peru: USMP, 2011, p. 897. See, on the problem of the lack of guarantees of "blacklists" and other extrapenal international instruments, Nicola SELVAGGI, *Las listas negras del Banco Mundial: ¿Hacia un sistema global de sanciones?*, in Adán Nieto Martín & Manuel Maroto Calatayud (Eds.), *Prevención de la corrupción en administraciones públicas y partidos políticos*, Cuenca, Spain: UCLM, 2014.

[631] Francisco Javier DE LEÓN VILLALBA, *Acumulación de sanciones penales y administrativas*, Barcelona, Spain: Bosch, 1998. See, on the problem of *bis in idem* in economic criminal law, Adán NIETO MARTÍN, *Introducción al Derecho penal económico y de la empresa*, in Norberto J. de la Mata Barranco, Jacobo Dopico Gómez-Aller, Juan Antonio Lascuraín Sánchez, & Adán Nieto Martín, *Derecho penal económico y de la empresa*, Madrid, Spain: Dykinson, 2018, pp. 53 et seqq.

level[632], since - as it is limited to strictly punitive matters - it can hardly be invoked in cases in cases of non-punitive measures.

In any case, it is not the aim of this work to assess the legitimacy of the mentioned political sanctions and embargoes system, but of taking it into consideration from the point of view of the risks to which the non-compliant company is exposed, as well as the guidelines of conduct that it must adopt to avoid them. From this point of view, it is especially relevant that the system of political sanctions and embargoes introduces some particularities into the corporate responsibility model, as it requires banks to participate in the repression of the targeted individual.

Thus, although the financial institution might not be itself the target of the political sanction or embargo, it is obliged to abstain from economic relationships with individuals, companies or states affected by it and to freeze their assets. If it does not fulfil these obligations, it will be subject to repressive measures itself: On one side, in form of considerable administrative or criminal fines imposed at the national level for violating existing national or international embargo regulations on third parties. On the other side - which might be even worse for the financial institution - in form of a categorization of the financial institution as a politically sanctioned entity itself. Both are constellations that financial institutions have a considerable legal, economic, and reputational interest in avoiding, similar to the one of avoiding their involvement in international crimes. It must therefore be made the subject of rigorous compliance controls.

In the case of WMD proliferation financing, the general proximity between (international) criminal law on the one hand and the political sanctions and embargoes framework on the other hand becomes particularly clear. WMD proliferation financing is not only a criminal offence that can be reacted to with the means of criminal law, but it also represents a security policy risk that is countered by the foreign policy means of sanctions and embargo policies. Understanding the contribution of the embargo framework to the system of systems against

[632] Miriam CUGAT MAURI, *Responsabilidad penal de las personas jurídicas, transnacionalidad y bis in idem*, Revista General de Derecho Penal, no. 17, 2012; and, by the same author, *El "non bis in idem" en el espacio judicial europeo: Estado de la cuestión*, in Nicolás García Rivas et al., *Garantías Penales en Argentina, España y sus sistemas de inserción regional*, Buenos Aires, Argentina: Ediar, 2011; see also Mercedes PÉREZ MANZANO, *La prohibición de incurrir en bis in idem en España y en Europa. Efectos internos de una convergencia jurisprudencial inversa (dfe Luxemburgo a Estrasburgo)*, in Mercedes Pérez Manzano & Juan Antonio Lascuraín Sánchez (Eds.), *La tutela multinivel del principio de legalidad penal*, Madrid, Spain: Marcial Pons, 2016.

WMD proliferation and its financing is therefore a necessary part of a comprehensive assessment of the handling of the phenomenon by financial institutions.

However, before analyzing the significance and effectiveness of the international political sanctions and embargo system for the prevention and detection of proliferation financing acts, the general characteristics of embargoes and sanctions must be discussed (Chapter 1: Purpose and nature of embargoes and sanctions). These basics will be supplemented by explanations on the most important sanctioning authorities (Chapter 2: UN Security Council, the EU and national embargoes and sanctions) and the typical consequences of sanction violations by domestic financial institutions (Chapter 3: Consequences of sanctions violations). Based on this, the most relevant sanction and embargo types, as well as the to them similar EU Dual-Use-Regulation, will be examined in detail for their relevance to anti-proliferation financing (Chapter 4: How the different embargo types cover proliferation financing). This Part then concludes with an evaluation of the extent to which the embargo and sanctions regime is an effective means of countering WMD proliferation financing by financial institutions (Chapter 5: General remarks and consequences for the counter-proliferation financing program).

Chapter 1: Purpose and nature of embargoes and sanctions

States have numerous instruments at their disposal to assert their foreign policy interests. Where the balance of interests is at the forefront, the strategy and art of diplomatic negotiation come to the fore. In turn, when it comes to asserting fundamental unilateral interests - as *ultima ratio* - the means of pressure and violence, in particular the withdrawal of diplomats, the formation of blocs, military interventions and economic and financial sanctions, gain in importance.[633]

The implementation of economic and financial sanctions is aimed at the economic performance of the third country and its decision makers and is thus intended to hit the state structure at a sensitive point. Reduced tax revenues, increased unemployment and lower general living standards can push countries to the limits of their economic capacity to act

[633] Frank R. PFETSCH, *Einführung in die Außenpolitik der Bundesrepublik Deutschland: Eine systematisch-theoretische Grundlegung*, Opladen, Germany: Westdeutscher Verlag, 1981, p. 123.

and contribute to massive social pressure. Thus, depending on the political system, degree of globalization, and economic dependence of the sanctioned country, this can force it to adapt to the desired behavior.[634] The sometimes press-effective description of political sanctions and embargoes as "economic warfare" is thus often justified in substantive terms.

The specific economic, foreign policy or security objectives pursued by a state in imposing sanctions and embargoes against a third state or a foreign individual do not influence their classification as a sanction or embargo. Nevertheless, in an attempt to objectify the rationale for the sanctioning reaction, a significant part of literature claims that coercive measures must be a reaction to an international wrong-doing in order to qualify as sanction.[635] JEAN COMBACAU, for example, defines sanctions in this sense as "measures taken by a state acting along or jointly with others in reply of the behavior of another state, which, it maintains, is contrary to international law."[636] This and corresponding views, however, fail to recognize the empirical reality that embargoes and sanctions can - and regularly do - be adopted by individual states and international organizations that qualify a certain conduct as objectionable, even though it does not necessarily constitute a violation of international law.[637] Occasionally, it is even the case that states explicitly cite their own economic and political interests, rather than any legal violations, as a reason for implementing sanctions. Thus, it is the sanction measure itself that can constitute a violation of international law, i. e. of the principle of non-intervention.[638] Furthermore, states regularly impose sanctions and

[634] Panos KOUTRAKOS, *Trade, Foreign Policy and Defence in EU Constitutional Law: The Legal Regulation of Sanctions, Exports of Dual-use Goods and Armaments*, Oxford, United Kingdom: Bloomsbury, 2001, p. 49.
[635] Tobias STOLL, Steven BLOCKMANS, Jan HAGEMEJER, Christopher A. HARTWELL, Henner GÖTT, Kateryna KARUNSKA, & Andreas MAURER, *Study Requested by the INTEA Committee: Extraterritorial sanctions on trade and investments and European response* (EP/EXPO/INTA/FWC/2019-01/LOT5/R/06), Brussels, Belgium: European Union, 2020, chapter 1.2.1.
[636] Jean COMBACAU, *Sanctions*, in Rudolf Bernhardt (Ed.), *Encyclopedia of Public International Law – Published under the Auspices of the Max Planck Institut for Comparative Public and International Law in Heidelberg*, volumes I-IV (p. 313), Amsterdam, The Netherlands: Elsevier, 1992, p. 313*;* COOK, *Terrorist Organizations and Weapons of Mass Destruction*, op. cit., p. 313.
[637] STOLL et al., op. cit., chapter 1.2.1.
[638] As it is the case for the Countering America's Adversaries Through Sanctions Act (CAATSA), H.R. 3364, Public Law 115-44-AUG. 2, 2017, which in section 257 indicates the following political reasons its adoption: "(a) Statement of policy. It is the policy of the United States […] (7)) to help Ukraine and United States allies and partners in Europe reduce their dependence on Russian energy resources, especially natural gas, which the Government of the Russian Federation uses as a weapon to coerce, intimidate, and influence other countries; (8) to work with European Union member states and European Union institutions to promote energy security through developing diversified and liberalized energy markets that provide diversified sources, suppliers, and routes; (9) to continue to oppose the NordStream 2 pipeline given its detrimental impacts on the European Union's energy security, gas market development in Central and Eastern Europe, and energy reforms in Ukraine; and (10) that the United States Government should prioritize the export of United States energy resources in order to create American jobs, help United States allies and partners, and strengthen United States foreign policy. […]".

embargoes as a mere retaliatory measure against the sanctioning country, regardless of whether the measures taken were justified under international law.

In contrast to this heterogeneous understanding of the rationale for sanctions and embargoes, their effectiveness nevertheless depends on cooperation between different countries, and especially with the private sector. Since economic and financial sanctions are aimed at economic performance, the sanctioning states are largely dependent on cooperation through the representatives of their own economies. In addition to original state resources, such as the establishment of increased customs duties, only the private sector can facilitate the ultimate implementation of the embargoes and sanctions by restricting business activities with foreign counterparties accordingly. The financial sector must also contribute to the freezing of assets that sanctioned individuals had held in safekeeping at the respective institution, in addition to possible restrictions on banking services.

With regard to the question of proliferation financing, the observance of sanctions and embargoes is of considerable importance. Many international embargoes are linked to the political will to force a third country to abandon its WMD program. In addition, there are numerous sanctions directed against individuals or organizations because of their central function in a state WMD program or their terrorist-motivated willingness to use WMD.[639]

1. Definitional clarifications

There is no consistent and generally valid linguistic understanding of the terms "embargo" and "sanction".[640] In particular, relevant institutions and policy makers draw different distinctions between them. However, it can be stated that the term "embargo" is more commonly used for measures against entire states, which concern the field of foreign trade.[641] The term "sanction", on the other hand, might be more frequently used for measures that are directed against specific persons or organizations, or do not directly affect foreign trade, e. g. "targeted sanctions" and "financial sanctions".[642]

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[639] See below at Chapter 4, 3.2.

[640] Bärbel SACHS, *Sanktionen und Embargos der EU*, in Ernst Hocke, Bärbel Sachs, & Christian Pelz, *Heidelberger Kommentar zum Außenwirtschaftsrecht* (pp. 859 - 880), Heidelberg, Germany: C. H. Beck, 2017, IV, para. 1.

[641] The concept of „embargo" is therefore especially not to be confused with the identical Spanish term that refers to an attachment ordered by court.

[642] Klaus ALTEN, *Pflichten von Kreditinstituten bei der Einhaltung von Finanzsanktionen und Embargos*, in Bernhard Gehra, Norbert Gittfried, & Georg Lienke (Eds.), *Prävention von Geldwäsche und Terrorismusfinanzierung – Praktische Umsetzung der aufsichtsrechtlichen Anforderungen durch Banken* (pp. 297 - 400), Heidelberg, Germany: C. F. Müller, 2020, p. 299; SACHS, op. cit., IV, para. 1.

Nevertheless, in some cases even major institutions deviate from the described common uses.[643] In order to avoid misunderstandings, it has therefore become common practice in compliance circles to always refer to both terms together ("sanctions and embargoes") or to use – at least in the European area - the comprehensive term "*restrictive measure*", as it can be found in several legal texts of the EU.[644] The EU's recent sanctions imposed on Russia in the context of the ongoing war in Ukraine are also being implemented as amendments to an EU sanctions regulation that contains the term "restrictive measures" in its title.[645]

However, it is also generally accepted that the globally more common terms "sanction" and "embargo" can be used synonymously.[646] This understanding is shared by the present thesis. Therefore, hereinafter, where a distinction has to be made regarding the addressee of the measure (i. e. state, organization, or person) or the object of the measure (e. g. weapons, specific goods, or financial services), this will be made explicitly clear when either using the term "sanction" or "embargo".

2. Categorization by extent of the measure

Embargoes can be categorized as (1) total embargoes, (2) partial embargoes, (3) arms embargoes and financial sanctions.

(1) In the case of total embargoes, a state is fully sanctioned and the import and export of any goods, the provision of any financial service and the performance of any other service in relation to that country is prohibited. Based on the development of international humanitarian law, total embargoes in the strict sense are virtually non-existent today, since even with comprehensive embargo measures, deliveries and services for humanitarian purposes are usually permitted. Nevertheless, the current US sanctions against Iran[647] and

[643] In fact, even the UNSC measures against entire states are referred to as "UN sanctions" and not as "UN embargoes".
[644] E. g. "Council Regulation (EU) 2018/1542 of October 15, 2018, concerning restrictive measures against the proliferation and use of chemical weapons"; Council Regulation (EU) 2017/1509 of August 30, 2017 concerning restrictive measures against the Democratic People's Republic of Korea and repealing Regulation (EC) No 329/2007"; and article 1 Council Decision 2011/486/CFSP: "Restrictive measures […] shall be imposed with respect to individuals and entities designated prior to June 17, 2011, as the Taliban, and other individuals, groups, undertakings and entities […]".
[645] Council Regulation (EU) No 833/2014 of July 31, 2014, concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine; most recently amended through Council Regulation (EU) 2022/262 of February 23, 2022, Council Regulation (EU) 2022/328 of February 25, 2022, Council Regulation (EU) 2022/334 of February 28, 2022, Council Regulation (EU) 2022/345 of March 1st, 2022, Council Regulation (EU) 2022/350 of March 1st, 2022, Council Regulation (EU) 2022/394 of March 9, 2022, Council Regulation (EU) 2022/428 of March 15, 2022, and Council Regulation (EU) 2022/576 of April 8, 2022.
[646] See, with further references, SACHS, op. cit., IV, para. 1.
[647] See the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA), Pub L No 111-195 (2010), enacted July 1st, 2010.

North Korea[648], as well as the United Nations embargo measures against Iraq from the 1990s[649], come very close to the concept of a total embargo.

(2) Partial embargoes are directed against certain economic sectors of the sanctioned country and prohibit and restrict certain actions and legal transactions, as is the case with the sanctions imposed by the EU and the USA on the Russian arms, oil and financial industries.[650] These partial embargoes directed against certain industries are therefore often referred to as "sectoral sanctions", particularly in the US-American legal circle.

(3) Arms embargoes and financial sanctions are directed against trade in certain goods or the provision of certain financial services in connection with a sanctioned country. In the case of arms embargoes, these are arms and military equipment.[651] Financial sanctions directed against countries may include a ban on the conduct of financial transactions related to specific transactions and sectors, such as the financial facilitation of arms transactions.[652]

[648] See E.O. 13466 (June 26, 2008), E.O. 13551 (August 30, 2010), E.O. 13570 (April 18, 2011), E.O. 13687 (January 2nd, 2015), E.O. 13722 (March 15, 2016), IEEPA (50 U.S.C. §§ 1701 et seq.), NEA (50 U.S.C. §§ 1601 et seq.).

[649] UNSC Resolution 687 (S/RES/687), adopted on April 3rd, 1991. Before the implementation of the so-called "Oil for Food Program" in 1996, trade with Iraq was nearly impossible. The far-reaching embargo against Iraq was transformed into a partial embargo by UN Resolution no. 1483 (2003).

[650] Council Regulation (EU) No. 833/2014 of July 31, 2014, concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine, article 3 [Oil Industry]: "1. A prior authorisation shall be required for the sale, supply, transfer or export, directly or indirectly, of technologies as listed in Annex II, whether or not originating in the Union, to any natural or legal person, entity or body in Russia or in any other country, if such equipment or technology is for use in Russia. […] Annex II shall include certain technologies suited to the oil industry for use in deep water oil exploration and production, Arctic oil exploration and production, or shale oil projects in Russia. […] 5. The competent authorities shall not grant any authorisation for any sale, supply, transfer or export of the technologies included in Annex II, if they have reasonable grounds to determine that the sale, supply, transfer or export of the technologies is for projects pertaining to deep water oil exploration and production, Arctic oil exploration and production, or shale oil projects in Russia. The competent authorities may, however, grant an authorisation where the export concerns the execution of an obligation arising from a contract or an agreement concluded before 1 August 2014. […]; Article 5 [Financial Industry]: It shall be prohibited to directly or indirectly purchase, sell, provide brokering or assistance in the issuance of, or otherwise deal with transferable securities and money-market instruments with a maturity exceeding 90 days, issued after 1 August 2014 by: (a) a major credit institution or other major institution having an explicit mandate to promote competitiveness of the Russian economy, its diversification and encouragement of investment, established in Russia with over 50 % public ownership or control as of 1 August 2014, as listed in Annex III; […]". Please note that Council Regulation (EU) No. 833/2014 has been subject to amendments.

[651] See, for example, Council Decision 2010/231/CFSP of April 26, 2010 concerning restrictive measures against Somalia and repealing Common Position 2009/138/CFSP, article 1.1: "The direct or indirect supply, sale or transfer of arms and related material of all types, including weapons and ammunition, military vehicles and equipment, paramilitary equipment and spare parts for the aforementioned to Somalia by nationals of Member States or from the territories of Member States shall be prohibited whether originating or not in their territories."

[652] See, for example, article 1.2. of the aforementioned Council Decision: "The direct or indirect supply to Somalia of technical advice, financial and other assistance and training related to military activities, including in particular technical training and assistance related to the provision, manufacture, maintenance or use of the items mentioned in paragraph 1, by nationals of Member States or from the territories of the Member States, shall be prohibited.".

However, they may also include prohibitions on trading in certain securities and money market instruments, as well as the provision of investment and related auxiliary services.[653]

3. Categorization by subject of the measure

Embargoes can be described not only on the basis of the extent of the restrictions associated with them but also by referring to the target of the measure. Such an approach distinguishes between (1) country embargoes, (2) commodity-related embargoes and (3) personal embargoes, although the concepts might in some cases overlap.

(1) Country embargoes are those imposed on a specific country or on specific groups of persons related to a country. They serve to force the country concerned to adapt its internal[654] or external[655] policies. Foreign trade with these countries can be prohibited by means of total embargoes, partial embargoes, or arms embargoes as described above.

(2) Commodity-related embargoes are restrictions on foreign trade in certain goods, regardless of the country to or from which they are delivered. They are thus a means of exerting foreign policy pressure to limit or prevent the actions typically associated with the goods worldwide. In the European Union, these include the regulations on the trade in rough diamonds[656] and the regulation on the trade in instruments of torture[657], which are intended to restrict the global use of blood or conflict diamonds and state torture practices. Closely related to the commodity embargoes are the restrictions on foreign trade in so-called dual-use goods, i. e. goods that can have both civil and military uses, which are regulated in the EU Dual-Use Regulation.[658]

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[653] See, for example, Council Regulation (EU) No. 833/2014 of July 31, 2014, concerning restrictive measures in view of Russia's actions destabilizing the situation in Ukraine, article 5: "It shall be prohibited to directly or indirectly purchase, sell, provide brokering or assistance in the issuance of, or otherwise deal with transferable securities and money-market instruments […]".

[654] See, for example, Council Regulation (EU) No 588/2011 of June 20, 2011, amending Regulation (EC) No 765/2006 concerning restrictive measures against President Lukashenko and certain officials of Belarus, article 1a: 1. It shall be prohibited: (a) to sell, supply, transfer or export, directly or indirectly, equipment which might be used for *internal* repression as listed in Annex III […]."; Council Regulation (EU) 2016/44 of January 18, 2016 concerning restrictive measures in view of the situation in Libya and repealing Regulation (EU) No 204/201, article 2.1.; Council Regulation (EC) No 314/2004 of February 19, 2004 concerning certain restrictive measures on respect of Zimbabwe, article 3 (a). Please note that the aforementioned regulations had been subject to amendments.

[655] I. e. nuclear deterrence policies.

[656] Council Regulation (EC) No 2368/2002 of December 20, 2002, implementing the Kimberly Process certification scheme for the international trade in rough diamonds, article 3 and article 11.

[657] Regulation (EU) 2019/125 of the European Parliament and of the Council of January 16, 2019, concerning trade in certain goods which could be used for capital punishment, torture or other cruel, inhuman or degrading treatment or punishment.

[658] Regulation (EU) 2021/821 of the European Parliament and of the Council of May 20, 2021 setting up a Union regime for the control of exports, brokering, technical assistance, transit and transfer of dual-use items (recast); note that with this regulation the previous Regulation (EC) 428/2009 has been repealed.

(3) Personal embargoes are such restrictions on foreign trade and financial transactions that are directed against certain natural persons, legal entities or members of certain organizations without legal character of their own. Such personal embargoes exist in the European Union against members of the IS and Al-Qaeda[659], the Taliban[660] and other suspected terrorists[661]. They also include sanctions against certain persons, organizations and institutions involved in the development and use of chemical weapons.[662] With this form of embargoes, security considerations are certainly in the foreground. The intention is to limit the economic scope of the persons and organizations concerned in order to hinder them in the pursuit of their terrorist or major criminal activities. Nevertheless, many of these personal embargoes also have a sanctioning component in the narrower (criminal) sense, which can hardly be denied. This aspect becomes particularly clear in the context of European embargoes against certain persons suspected of involvement in the assassination of former Lebanese Prime Minister Rafik Hariri.[663] The concerns that this practice brings with it with respect to the separation of powers, state sovereignty in criminal prosecution, and the European law principle of the presumption of innocence are obvious.[664]

Increasingly, country embargoes and personal embargoes are approaching each other in their design. This is due to the fact that the focus of possible sanctions measures has shifted to the decision makers and elites of a country. In principle, these so-called "smart sanctions" are indeed a sensible alternative to the classic country embargoes, which affect all citizens and companies of a sanctioned country equally. By targeting the decision makers, their compliance can be achieved at the political level in the same way as with broader measures. At the same time, the economic consequences are reduced for the country's civilian population, which is often already the primary victim of the regime to be sanctioned and should therefore not also be the object of international coercive measures. Nevertheless, smart sanctions have the considerable operational disadvantage that they give sanctioned

[659] Council Regulation (EU) 2016/1686 of September 20, 2016, imposing additional restrictive measures directed against ISIL (Da'esh) and Al-Qaeda and natural and legal persons, entities or bodies associated with them.
[660] Council Regulation (EC) No 881/2002 of May 27, 2002 imposing certain specific restrictive measures directed against certain persons and entities associated with Usama bin Laden, the Al-Qaida network and the Taliban, and repealing Council Regulation (EC) No 467/2001 prohibiting the export of certain goods and services to Afghanistan, strengthening the flight ban and extending the freeze of funds and other financial resources in respect of the Taliban of Afghanistan.
[661] Council Regulation (EC) No 2580/2001 of December 27, 2001, on specific restrictive measures directed against certain persons and entities with a view to combating terrorism.
[662] Council Regulation (EU) 2018/1542 of October 15, 2018, concerning restrictive measures against the proliferation and use of chemical weapons.
[663] Council Regulation (EC) No 305/2006 of February 21, 2006 imposing specific restrictive measures against certain persons suspected of involvement in the assassination of former Lebanese Prime Minister Rafiq Hariri.
[664] This cannot be discussed in more detail.

persons more room to circumvent the sanctions, since they can more easily hide behind third parties and front companies. A possibility that obviously becomes much more difficult when comprehensive measures are taken against the entire country.

Chapter 2: UN Security Council, the EU, and national embargoes and sanctions

As a sovereign means of security and foreign policy, embargoes against third countries and specific individuals are in principle available to every state in its own right. Nevertheless, it is in the nature of embargoes that their effectiveness can be increased the more countries participate in them. This is especially true when the countries involved have considerable economic weight, which, in the case of economic restrictions, is reflected in corresponding losses of profits in the export balance of the sanctioned country.

Particularly effective embargoes are therefore usually initiated by international bodies and supranational alliances of states and then implemented, if necessary, at the national level by the individual countries.[665]

1. The United Nations Security Council

The United Nations Security Council (UNSC) has an especially relevant function in this sense. The UNSC has adopted a number of resolutions that led the international community to implement sanctions and embargoes against certain countries, organizations, and individuals.[666] Prominent examples are the sanctions against Iran[667], North Korea[668], and the Islamic State[669]. The UNSC derives its right to adopt such measures from Chapter VII of the UN Charter, which authorizes it to take measures to maintain or restore international peace

[665] In Spain, the mandatory application of international sanctions aimed at the prevention, suppression and disruption of the proliferation of weapons of mass destruction and their financing is provided for in article 42 Law 10/2010; infringements in articles 51 and 52 para. 1 u); and sanctions for non-compliance in article 56.
[666] Since 1966, sanction regimes for the following states and organizations were established by the UNSC (as of January 21, 2022): Southern Rhodesia; South Africa; the former Yugoslavia (twice); Haiti; Iraq (twice); Angola; Rwanda; Sierra Leone; Somalia and Eritrea; Eritrea and Ethiopia; Liberia (three times); Democratic Republic of the Congo; Côte d'Ivoire; Sudan; Lebanon, DPRK; Iran; Libya (twice); Guinea-Bissau; Central African Republic; Yemen; South Sudan; Mali; Taliban; ISIL (Da'esh) and Al-Qaeda. Cf. UNSC, *2022 Fact Sheets: Subsidiary Organs of the United Nations Security Council*, p. 5.
[667] I. e. resolutions S/RES/1737 (2006), S/RES/1747 (2007), S/RES/1929 (2010).
[668] I. e. resolutions S/RES/1695 (2006), S/RES(1718 (2006), S/RES/1874 (2009), S/RES/2094 (2013), S/RES/2270 (2016), S/RES/2397 (2017).
[669] I. e. resolution S/RES/2253 (2015).

and global security.[670] Article 41 of the UN Charter explicitly mentions the establishment of economic sanctions and embargoes as an example of non-belligerent means of coercion to which the Council may resort.[671] The resolutions adopted by the UNSC must be implemented by the member states in accordance with articles 25 and 48 of the UN Charter. In view of the fact that almost all countries of the world are member states of the United Nations, such resolutions cause massive pressure on the sanctioned state or entity.[672]

2. The European Union

In the EU[673], the UN resolutions are usually not implemented by the individual member states, but by the Council of the EU by means of regulations that are directly applicable in the EU territory. The Council bases its competence in this regard on article 215 of the Treaty of the Functioning of the European Union (TFEU), by which the member states have transferred the competence to impose sanctions to the EU.[674] Article 215 TFEU is therefore also the central provision for authorizing genuine European sanctions that are not based on a UN resolution.[675]

These genuine European sanctions and embargoes are not completely unrestricted in their design. Rather, it results from article 346 para. 1 (b) TFEU, which leaves the sovereign decision on essential security interests to the member states, that the EU cannot adopt legally binding arms embargoes. The decisions aiming at arms embargoes adopted within the framework of the Common Foreign and Security Policy (CFSP) of the EU are therefore typically implemented via individual arms embargoes of the EU member states.[676] However,

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[670] Article 39 UN-Charter: "The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security."

[671] Article 41 UN-Charter: "The Security Council may decide what measures not involving the use of armed force are to be employed to give effect to its decisions, and it may call upon the Members of the United Nations to apply such measures. These may include complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and the severance of diplomatic relations."

[672] Currently only the Vatican (represented by the Holy See) and Palestine are not member states of the UN. They are, however, allowed to participate as permanent observers of the General Assembly.

[673] See, on the criminal law framework of Europe, Josep Maria TAMARIT SUMALLA, *Sistema de sanciones y políticas criminal. Un estudio de Derecho europeo comparado*, Revista Electrónica de Ciencia Penal y Criminología, 9-6-2007.

[674] The additional national competence to adopt sanctions and embargoes remains unaffected by this, but is rarely used in the legal practice of the European member states. Practically relevant exceptions mainly concern countries and persons sanctioned by the UNSC, which, due to the sometimes time-consuming European process, are implemented (in advance) by a direct national legislative act. In Germany, this is done on the basis of section 6 Foreign Trade Act through administrative acts of the Federal Ministry of Economics and Energy.

[675] A competence that has acquired particular relevance in the context of sanctions measures against Russia, since Russia, as a permanent member of the Security Council, is able to block sanctions decisions at an UNSC level.

[676] See, on the European procedure for the adoption of sanctions and in particular the role of the CFSP, Juliane KOKOTT, *Art. 215 AEUV*, in Rudolf Streinz (Ed.), *EUV/AEUV: Vertrag über die Europäische Union, Vertrag über die Arbeitsweise der Europäischen Union, Charta der Grundrechte der Europäische Union* (3rd ed.), Munich, Germany: C. H. Beck, 2018, para. 12.

restrictions on services related to arms and military equipment, including all relevant financial services, are not covered by the limitations of article 346 para. 1 (b) TFEU and can therefore still be implemented via directly applicable EU regulations.[677]

3. Individual states: The US sanctions regime

In addition to the collective embargo measures mentioned above, there are numerous national sanctioning frameworks whose international significance depends largely on the economic power of the sanctioning countries. Due to the central role of the United States in the international trade and financial systems, the American sanctions framework therefore has considerable international significance.[678] US sanctions are usually issued by the US president through Executive Orders (E.O.), who bases his or her decisions on various laws, i. e. the International Emergency Economic Powers Act (IEEPA)[679], the National Emergencies Act (NEA)[680], and the Countering America`s Adversaries Through Sanctions Act (CAATSA)[681]. The E.O. determines the sanction measures and establishes the criteria according to which the persons to be sanctioned are to be determined. Usually the selection and listing of the persons to be sanctioned is then carried out by the Office of Foreign Asset Control (OFAC), which is the central sanctions authority in the United States.[682]

The US sanctions are particularly influential in that they are often designed to ensure compliance by foreign companies and financial institutions. For example, it is generally sufficient for a so-called "US person" to be involved in the transaction for them to be applicable on a specific trade or transaction. The concept of an involved US person is very broad and includes (European) banks with branches in the USA as well as indirect participation of American banks in an international financial transfer. Thus, *de facto* every international US-Dollar transaction between two foreign entities becomes relevant from a US-sanction perspective, since US banks regularly have to be intermediated as so-called *"USD-currency clearer"* for their execution. This aspect is of central importance for the

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[677] ALTEN, op. cit., p. 302, fn. 32.

[678] The following remarks on US sanctions law are intended to give the reader only a brief overview and can therefore hardly take into account the actual complexity of this legal field. For a more detailed description of US sanctions law and its challenges for European financial institutions, see ALTEN, op. cit., p. 339; Karin MAIR, Shahanaz MÜLLER, & Florian FREISLEBEN, *"Medio tutissimus ibis" – US-Sanktionen als herausforderndes Compliance-Thema für europäische Finanzinstitute*, JSt September 2019, issue 5, pp. 431 – 436 (431 et seqq.).

[679] 50 U.S.C. sections 1701 - 1708.

[680] 50 U.S.C. sections 1601 - 1651.

[681] Public Law 115-44, signed into law on August 2nd, 2017, by president Trump.

[682] Some E.O. contain their own corresponding lists, which do not require further specification. Besides OFAC, the State Department, the Department of Commerce and the Department of Homeland Security are important US sanction authorities.

international financial world, given that the majority of international transactions are still conducted in US-Dollars. In addition, foreign institutions can be obliged to comply with US sanctions by means of so-called "secondary sanctions"[683], whose demand for extraterritorial validity, even without the involvement of the mentioned “US persons”, must be considered as highly controversial under international law.[684]

Chapter 3: Consequences of sanctions violations

Financial institutions and other companies that violate international and national embargo measures and conduct business with sanctioned counterparties may face a variety of negative consequences. In addition to considerable risks relating to civil law, in particular claims for damages due to sanction-related non-performance or liability for the consequences of provoked sanction violations against the contractual parties,[685] the consequences of the applicable national criminal and regulatory offences law are of particular relevance.

1. Consequences in Germany

In Germany, violations of applicable sanctions law may constitute a criminal offence. The corresponding penal laws are designed as special secondary penal laws outside the penal code, namely in the form of sections 17 and 18 of the Foreign Trade Act *(“Außenwirtschaftsgesetz” – “AWG”).*[686] The above-mentioned differences with regard to the regulatory competence of arms embargoes on the one hand and other sanctions on the other are reflected in the duality of these two provisions. For instance, section 17 AWG[687]

[683] If a person is subject to “primary” sanctions, US persons may not transfer funds or other assets to that person. If the person is also subject to “secondary” sanctions, non-US persons can be sanctioned if they conduct business with that person.
[684] STOLL a.o., op. cit.; challenging these views: Jefrey A. MEYER, *Second Thoughts on Secondary Sanctions*, U.Pa.J.Int’l L 2008 - 2009, vol. 30, issue 3, pp. 905 - 967.
[685] See on this topic, which will not be discussed further, ALTEN, op. cit., pp. 330 et seqq.
[686] In Spanish criminal law there is no analogous offence to the German one, which is why it will not be further discussed. The recognition of the mandatory nature of sanctions and seizures is provided for in article 42 of Law 10/2010, of April 28, 2010, on the prevention of money laundering and terrorist financing, and the penalty for non-compliance in articles 51 and 52 para. 1, u). This does not preclude that, outside these cases, criminal law may enter into consideration through other ways, such as the crime of disobedience or direct participation in the crimes to which the financing contributes.
[687] Foreign Trade Act, section 17 (“Provisions on penalties”):
“(1) A prison sentence of between one and ten years shall be imposed on anyone who violates an ordinance issued pursuant to Section 4 subsection 1 [on the essential security interest of the Federal Republic of Germany] which serves to implement an economic sanction adopted
1. by the Security Council of the United Nations under Chapter VII of the Charter of the United Nations or
2. by the Council of the European Union in the field of Common Foreign and Security Policy
or an enforceable order based on such an ordinance to the extent that the ordinance refers to goods of Part I Section A of the Export List and refers to this provision for certain circumstances.

makes violations of German arms embargoes punishable, while section 18 AWG[688] criminalizes violations of any EU sanctions regulations.

1.1. Criminal liability

Since the offence in both regulations lies in the violation of separate embargo regulations, both criminal offences are designed as so-called blanket laws *("Blankettgesetz")*. Thus, they are criminal offences that do not conclusively regulate the requirements for sanctioning in the offence itself, but refer to other laws in this regard.[689] The use of blanket penal laws in the context of sanctions law takes into account the comprehensible requirements for speed and flexibility in this matter. However, it also strains the constitutional requirements which the German Constitution in article 103 para. 2 places on the design of penal provisions, i. e. the principle of clarity and definiteness *("Bestimmtheitsgrundsatz")*.[690]

For instance, section 17 AWG is based on a dynamic reference to all *national* norms that aim at restrictions of foreign trade and serve the implementation of sanction decisions of the UNSC or the European Council within the CFSP. For the average citizen it may have become difficult to identify the regulations meant herewith. Nevertheless, there is a central national provision in the form of section 80 AWV, which serves as a formal filling-in standard for section 17 AWG by referring for its part to more specific ordinance provisions of the AWV. Furthermore, the German Federal Constitutional Court does not consider an excessive weighting of the principle of clarity and definiteness to be always appropriate, especially in

(2) A prison sentence of not less than one year shall be imposed on anyone who in the cases of subsection 1
1. acts for the secret service of a foreign power or
2. acts for gain or as a member of a gang which has been formed to repeatedly commit such criminal acts.
(3) A prison sentence of not less than two years shall be imposed on anyone who in the cases of subsection 1 acts for gain as a member of a gang which has been formed to repeatedly commit such criminal acts.
(4) In less serious cases of subsection 1, the penalty shall be imprisonment from three months up to five years.
(5) If the offender acts recklessly in the cases specified in section 1, the penalty shall be imprisonment of up to three years or a fine.
(6) In the cases of subsection 1, an action without a license shall be equivalent to an action on the basis of a license obtained by threat, bribery or collusion or obtained fraudulently by means of incorrect or incomplete data.
(7) Subsections 1 to 6 shall apply, irrespective of the place of the criminal act, also to criminal acts committed abroad if the perpetrator is a German national."

[688] Foreign Trade Act, Section 18 ("Provisions on penalties"):
"(1) A prison sentence from three months up to five years shall be imposed on anyone who 1. violates a
a) prohibition on export, import, transit, transfer, sale, acquisition, delivery, provision, passing on, service or investment or
b) prohibition on the disposal of frozen money and economic assets
of a directly applicable act of the European Communities or the European Union published in the Official Journal of the European Communities or the European Union which serves to implement an economic sanction adopted by the Council of the European Union in the field of Common Foreign and Security Policy or 2. […]."

[689] Petra WITTIG, *Wirtschaftsstrafrecht* (3rd ed.), Munich, Germany: C. H. Beck, 2014, § 6 para. 14.

[690] See BVerfG, *Beschluss vom 29.04.2010 – 2 BvR 871/04, 2 BvR 414/08: Steuerhinterziehung bei Milchquote*, wistra 2010, pp. 396 - 403 (402, fn. 54).

view of the blanket provisions of the AWG.[691] It rather states that the subject matter of foreign trade justifies meeting the changing and diverse regulatory needs through factual specifications in legal ordinances. In this respect, the assessment of sufficient clarity is decisively determined by the professional competence of the addressees, who are expected to inform themselves about the relevant regulations.[692]

Section 18 AWG also uses blanket references for the criminal punishment of offences against EU sanction regulations. The constitutional concerns regarding section 17 AWG therefore apply accordingly. However, they are intensified in the context of section 18 AWG by the aspect that directly applicable EU law is made the subject of national criminal provisions, thus causing unclarities due to different official languages and the sometimes challenging determination of the currently valid version of the European legal act referred to.[693]

Despite the mentioned constitutional areas of conflict, neither section 17 nor section 18 AWG are exposed to serious public or constitutional criticism. This is remarkable against the background that, in view of the considerable penalty ranges of both criminal offences, those who apply the law would normally expect a particularly high degree of constitutionally guaranteed certainty. However, the high penalty ranges of section 18 AWG from 3 months to 5 years imprisonment, with a minimum penalty of one year imprisonment for transactions related to missiles for WMD, and section 17 AWG from one year to 10 years - or from 2 years to 15 years in the case of specific aggravating elements of crime[694], are at least taken into account by an increased subjective requirement: Both section 17 and 18 AWG require acting with *dolus directus* in order for the above-mentioned penalties to be applicable.

In addition, section 17 para. 5 AWG allows a criminal liability of the person who commits the embargo violation out of particular carelessness or particular indifference.[695] In these cases the penalty is reduced and amounts to a prison sentence of up to three years or a fine.

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[691] Olaf HOHMANN, *Gedanken zur Akzessorietät des Strafrechts*, ZIS 1/2007, pp. 38 - 48 (45).
[692] BVerfG, *24-02-1993 – 2 BvR 1959/92: Verstoß gegen Willkürverbot*, NJW 1993, p. 1909 - 1910 (1910).
[693] SATZGER, *Internationales und Europäisches Strafrecht*, op. cit., pp. 174 et seqq.
[694] The specific aggravating elements of crime in section 17 paras. 2 and 3 AWG refer to cases in which the act is committed for the intelligence service of a foreign power, on a commercial basis, or as a member of a gang.
[695] Section 17 para. 5 AWG uses the term *"leichtfertig"*, which is defined by the German Federal Court (BGH) as acting "out of particular carelessness or particular indifference", see BGH, *09.11.1984 – 2 StR 257/84: Tod durch Abgabe von Betäubungsmitteln (m. Anm. Roxin)*, NStZ 1985, 319; BGH, *7.2.2001 – 5 StR 474/00: Überlassen eines Betäubungsmittels zum freien Suizid an unheilbar Schwerstkranken*, NJW 2001, 1802 - 1804 (1804).

This does not mean, however, that a negligent violation of existing EU embargoes would not have consequences. According to section 19 para. 1 AWG, a negligent commission of the relevant acts of section 18 AWG constitutes an administrative offence which can be punished with a substantial fine of up to 500,000.- Euro according to section 19 para. 6 AWG. For violations of (national) arms embargoes out of simple negligence, i. e. not out of particular carelessness or particular indifference, corresponding fines are not foreseen.[696]

1.2. Liability of companies under administrative offences law

The aforementioned penalties and fines apply only to natural persons who are responsible for the embargo violation. This is true with regard to the penal provisions of sections 17 and 18 AWG, if only because Germany does not have any corporate criminal law. The law on administrative offences, on the other hand, is also applicable to legal entities, i. e. the company itself.[697]

Of particular relevance in this respect is section 30 para. 1 of the German Administrative Offences Act *("Ordnungswidrigkeitengesetz" – "OWiG").*

This provision allows to attribute to a company its leading employee's criminal acts and administrative offences, which relate to the operations of the company, and to impose a fine on the company on this basis. Formally, this is not an independent administrative offence but a norm of attribution in the sense of a responsibility for third-party delinquency.[698] The fine for the company is therefore imposed in addition to the possible punishment or fine against its leading employee, who has committed the actual connecting offence as per sections 17 - 19 AWG.

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[696] Christian PELZ, *§§ 17 - 22 AWG*, in Ernst Hocke, Bärbel Sachs, & Christian Pelz (Eds.), *Heidelberger Kommentar zum Außenwirtschaftsrecht* (pp. 129 - 239), Heidelberg, Germany: C. F. Müller, 2017, I § 17 AWG, para. 41.

[697] For a general overview of possible penalties for companies in Germany in Spanish language, see Ingo BOTT & Frank HABERSTROH, *La Economía en el Punto de Mira – Visión General de las Posibles Sanciones a Empresas en Alemania*, in Pedro J. Montano (Ed.), *Estudios de Derecho Penal – En Homenaje al Prof. Dr. Miguel Langon Cuñarro* (pp. 123 – 138), Montevideo, Uruguay: La Ley Uruguay, 2019.

[698] Majority opinion, see, for example, BGHSt 46, 207, 211; Joachim BOHNERT, *OWiG Ordnungswidrigkeitengesetz – Kommentar* (3rd ed.), Munich, Germany: C. H. Beck, 2010, § 30 para. 18, who speaks of a "quasi-administrative offence" (*"Quasi-OWI"*); Günter HEINE, *Die strafrechtliche Verantwortlichkeit von Unternehmen*, Baden-Baden, Germany: Nomos Verlag, 1995, pp. 220 et seqq.; Hans-Jürgen SCHROTH, *Unternehmen als Normadressaten und Sanktionssubjekte Eine Studie zum Unternehmensstrafrecht*, Gießen, Germany: Brühlscher Verlag, 1993, pp. 173 et seqq. For the minority opinion, which assumes that section 30 is based on a responsibility for own delinquency, see Gerd EIDAM, *Die Verbandsgeldbuße des § 30 Abs 4 OWiG – eine Bestandsaufnahme*, wistra 2003, pp. 447 - 456 (448 et seq.); Klaus ROGALL, *§ 30 OwiG: Geldbuße gegen juristische Personen und Personenvereinigungen*, in Wolfgang Mitsch (Ed.), *Karlsruher Kommentar zum Ordnungswidrigkeitenrecht* (5th ed.), Munich, Germany: C. H. Beck, 2017, § 30 paras. 4 and 8.

In addition to members of the Executive Board and shareholders entitled to represent the company, general representatives, authorized signatories, and authorized agents in a managerial position are also considered as leading employees within the meaning of section 30 OWiG. The responsible division head of the embargo and sanctions office, the head of compliance, or the head of a company's legal department will regularly meet these requirements and thus be suitable actors for a connecting offence within the meaning of section 30 OWiG.

This means that a fine can be imposed on the company in the event of a negligent or intentional violation of EU embargo regulations (the connecting offence here is either section 18 or 19 AWG) or in the event of particular carelessness or intentional violation of arms embargoes (the connecting offence here is section 17 AWG). This fine can in principle amount to up to ten million euros pursuant to section 30 para. 2 OWiG. However, pursuant to section 30 para. 3 in conjunction with section 17 para. 4 OWiG, it can be significantly higher than this threshold if it is insufficient to ensure that, in addition to the sanctioning element of the fine, the economic benefit of the offence or administrative offence committed is also recovered. The economic advantage from the connecting offence can be therefore considered the lower limit of the potential fine.[699]

1.3. Liability of leading employees and companies for breaches of supervisory duties

Even if the embargo violation itself was not caused by a leading employee within the meaning of section 30 OWiG, but by a regular employee of the company, the result may be as well a fine for the company pursuant to section 30 OWiG. This is effected by means of a reference to section 130 OWiG, which threatens certain violations of supervisory duties of the company owner with a fine. The provision serves to close gaps in punishability which arise because the business owner, in fulfilling his or her business obligations, regularly does not act himself or herself but instead transfers these business obligations to third parties.[700]

Only the owner of the company can commit a violation of supervisory duties according to section 130 OWiG. The provision is therefore a so-called "*Sonderdelikt*", thus an offence

[699] BGH, *19.9.1974 – KRB 2/74: Bemessung von Geldbußen im Wettbewerbsrecht*, NJW 1975, pp. 269 - 270 (270). This also explains the substantial fines imposed on companies such as MAN AG (150.6 million euro), Siemens AG (395 million euros) and Volkswagen AG (one billion euros).

[700] Klaus ROGALL, *Dogmatische und kriminalpolitische Probleme der Aufsichtspflichtverletzung in Betrieben und Unternehmen (§ 130 OWiG)*, ZStW 1998, issue 3, pp. 573 - 623 (578); WITTIG, *Wirtschaftsstrafrecht*, op. cit., § 6 para. 127.

requiring a specific personal element or position of the offender. In this case this element is his or her business ownership. However, business owners of larger companies engaged in foreign trade or banks involved in cross-border financial transactions will regularly be legal entities instead of single individuals. Nevertheless, according to section 9 OWiG, specific personal elements like the business ownership can be attributed to third parties, namely to organs, representatives and agents of the actual business owner. [701] These third parties, i. e. not the company itself, thus become the qualified perpetrators of section 130 OWiG. Consequently, if an embargo violation was committed at the initiative of a simple employee and could have been prevented by necessary supervisory measures, the supervisor responsible in the company commits an administrative offence. Since this is a company-related administrative offence, it can be attributed to the company over 30 OWiG.

The importance of the so-called "criminal compliance" in the described context of section 130 OWiG is therefore obvious. Section 130 OWiG is a genuine offence of omission, which imposes a fine on the negligent or intentional omission of those supervisory measures that are necessary and reasonable to prevent the violation of business-related obligations. If criminal compliance measures have been implemented that are directed towards the holistic prevention of embargo violations in terms of organization and process, the supervisor can claim to have carried out the necessary supervisory measures in the sense of section 130 OWiG.[702] However, if avoidable deficiencies in the compliance framework have fostered the misconduct of individual employees, the company is threatened with a fine of up to 10 million euros.[703]

1.4. Excursus: Criminal liability for violations of the EU Dual-Use Regulation

In addition to embargo violations in the actual sense, violations of the European Dual-Use Regulation can also constitute a criminal or administrative offence. According to section 18 para. 5 AWG, a criminal offence is committed by anyone who exports or brokers dual-use goods without the approval or decision of the competent authority. In this respect, the penalty is a prison sentence of up to five years or a fine. The perpetrator's respective companies are

[701] An corresponding criminal law provision to section 9 OWiG can be found in section 14 StGB.
[702] Hans KUDLICH & Petra WITTIG, *Strafrechtliche Enthaftung durch juristische Präventionsberatung? – Teil 2: Präventivberatung, Compliance und gehörige Aufsicht*, ZWH 2013, pp. 303 - 310 (306).
[703] For the person subject to supervision, section 130 OWiG provides in para. 3 for a fine of up to one million euros if the employee's breach of duty constitutes a criminal offence. This would be the case for violations in the sense of sections 17 and 18 AWG. However, pursuant to section 30 para. 2 OWiG, the range of fines specified in the connecting act is increased by a factor of ten.

– in the same way as above - also threatened with substantial fines, either directly through section 30 OWiG or indirectly through violations of supervisory duties as defined in section 130 OWiG.

2. Extraterritorial effects of US sanctions law and anti-boycott regulations

In the United States, violations of US sanctions law can be punished by OFAC with fines of up to USD 250,000.- or twice the value of the sanctioned transaction.[704] If the sanction violation was committed intentionally or if a sanction violation by a third party was caused intentionally, it can be punished with a fine of up to USD 1 million or imprisonment for up to 20 years.[705]

For companies and banks that do not have a branch in the USA, this may at first glance appear to be a negligible problem, since the enforcement of American fines and penalties will hardly be possible extraterritorially.[706] Nonetheless, the US has other extraterritorial means of enforcing the sanctions underlying the fines, which can have a direct impact on European companies and financial institutions.

If a company that is not a US person does business with a party subject to US secondary sanctions, the bank or company may be listed as Specially Designated Nationals and Blocked Persons (SDN). The company itself thus becomes a target of the US sanctions regime. Furthermore, the company may also be classified as a Foreign Sanctions Evader (FSE) and as such be excluded from the US marketplace and financial system.[707] Both can have fatal consequences, especially for financial institutions, as it prevents them from making international USD payments, i. e. transactions in the globally prevailing currency for international transactions.[708]

Despite these far-reaching consequences for them, European financial institutions cannot simply decide to submit to the foreign requirements of US sanctions law. According to article 5 para. 1 of the EU Blocking Regulation, they and other companies are expressly prohibited to

[704] Section 1705 lit. b IEEPA.
[705] Section 1705 lit. c IEEPA or section 16 lit. a TWEA.
[706] In many cases European administrative authorities and courts are even expressly prohibited by the EU Blocking Regulation from applying or enforcing US embargo regulations (see below).
[707] ALTEN, op. cit., p. 347.
[708] See Part Three, Chapter 2, 3., and Part Four, Chapter 3, 3., of this thesis.

"[…] comply, whether directly or through a subsidiary or other intermediary person, actively or by deliberate omission, with any requirement or prohibition, including requests of foreign courts, based on or resulting, directly or indirectly, from […] [several explicitly mentioned US-embargoes] […] or from actions based thereon or resulting therefrom."[709]

A regulation that, *inter alia*, is intended to prevent that after the Trump administration's unilateral withdrawal from the *Joint Comprehensive Plan of Action* (JCPOA), US sanctions against Iran are implemented by European companies.[710]

Members of the company who negligently or intentionally violate the requirements of the EU Blocking Regulation commit an administrative offence in Germany pursuant to section 82 para. 2 AWV in conjunction with section 19 para. 4 sentence 1 no. 1, which can be punished with a fine of up to EUR 500,000.- pursuant to section 19 para. 6 AWG. The company itself may be fined up to 5 million euros for this violation in accordance with section 30 OWiG in the case of a violation of supervisory duties.

In addition to European anti-boycott law, financial institutions and other companies in Germany are also subject to genuine German blocking-law, which is regularly more far-reaching in its scope than the EU regulations, as it generally prohibits compliance with all foreign embargo measures. This prohibition contained in section 7 AWV is only softened by the fact that (additional) embargo measures imposed by a third country on another third country may be followed at least if the UNSC, the European Union or the Federal Republic of Germany have also imposed (different) embargo measures on this country. The range of fines in case of a violation is also determined according to section 19 para. 6 AWG and section 30 OWiG.

Regardless which regulation ultimately prohibits compliance with foreign - especially US - embargo regulations, it is clear that it presents European financial institutions with an inherently insoluble dilemma. Either they comply with US sanctions law and are (repeatedly) fined a considerable amount of money for doing so due to applicable anti-boycott laws. Or

[709] Council Regulation (EC) No 2271/96 of November 22, 1996, protecting against the effects of the extra-territorial application of legislation adopted by a third country, and actions based thereon or resulting therefrom.

[710] The JCPOA was signed on July 14, 2015, by China, France, Germany, Russia, the UK, the USA, and Iran, and subsequently endorsed by the UNSC through Resolution 2231 (2015). The agreement provides for Iran to accept strict technical requirements and transparency measures for its nuclear program in return for the easing of sanctions imposed by the UN, EU and USA. On May 8, 2018, the USA withdrew from the JCPOA and reinstated formerly suspended US sanctions against Iran. These concern not only sanctions against Iran itself but also secondary sanctions against Iran's potential trading partners in third countries. In return, Iran has successively suspended its JCPOA commitments since July 1st, 2019, e. g. by deciding to enrich uranium to over 60 % instead of the agreed maximum of 3,67 %.

they comply with the national law applicable to them and risk being excluded from the US financial markets, potentially leading to the economic ruin of the respective bank.[711]

Chapter 4: How the different embargo types cover proliferation financing

1. Arms embargoes

In principle, arms embargoes, like all other sanction measures, can differ in their specific form. Nevertheless, model formulations and typical contents of regulations have been developed that define the typical character of an arms embargo in Europe, since the European legislator, when enacting new regulations, uses them in a modular manner.[712] On this basis, a generally applicable examination of whether and in what form the regulatory content of European arms embargoes covers the phenomenon of WMD proliferation financing is possible.

Typical contents of the regulations have been included in specific guidelines of the Council of the European Union as formulation proposals. Irrespective of the national regulatory competence for the central regulations of arms embargoes, national legislators regularly follow these guidelines. This is due in no small part to the fact that within the CFSP framework, the most uniform possible implementation of sanctions throughout the EU is likely to be in the interests of the individual member states. National arms embargoes therefore usually reflect the regulatory idea of the following standard wording for a provision imposing an arms embargo, as contained in the Guidelines of the Council of the European Union:[713]

"The sale, supply, transfer or export of arms and related materiel of all types, including weapons and ammunition, military vehicles and equipment, paramilitary equipment, and spare parts for the aforementioned, to (country) by nationals of Member States or from the territories of Member States or using their flag vessels or aircraft, shall be prohibited whether originating or not in their territories."[714]

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[711] To deal with the relevant issues requires a high degree of sensibility and skillful contractual formulations. See, in this regards, ALTEN, op. cit., pp. 368 - 381. However, this does not change the fact that the failure of international diplomacy in this matter comes at the expense of private companies.
[712] SACHS, *Sanktionen und Embargos der EU*, op. cit., p. 877.
[713] See, for Germany, section 74 para. 1 AWV.
[714] General Secretariat of the Council, *Guidelines on implementation and evaluation of restrictive measures (sanctions) in the framework of the EU Common Foreign and Security Policy*, Doc. 11205/12, para. 65.

As previously described, WMD are always weapons in the sense of a generally accepted understanding of the term.[715] As such, they are covered by the typical trade-related EU arms embargo. A look at the national implementation of the arms embargo regulations confirms this understanding: Germany, for example, does not refer to weapons and relevant accessories *per se* in its corresponding arms embargo regulation (section 74 para. 1 AWV)[716] but - by using a normative concept - to the goods listed in Part I Section A of the Export List. The list explicitly covers biological, chemical and radioactive agents and their carrier and delivery systems.[717]

Nevertheless, the implementation and facilitation of financial transactions related to the trade of WMD and other weapons are not covered by the standard wording mentioned above. It remains doubtful whether they - especially in the form of L/Cs - could be considered as aiding such trade and, depending on the legal system, be thus subject to a fine or criminal liability. However, the question will hardly have any practical relevance because the financing of arms exports and the providing of financial assistance is normally regulated as a separate sanctioned act that would be a *lex specialis* over such an act of aiding and abetting. This generally takes the form of an autonomous EU embargo on arms, since financing and financial assistance is not subject to national jurisdiction under article 346 para. 1 (b) TFEU and can therefore be implemented in the form of directly applicable EU law.

Such corresponding regulations also follow the standard wording specified by the Council of the European Union and reads as follows:

"It shall be prohibited:

(a) […]

(b) to provide financing or financial assistance related to military activities, including in particular grants, loans and export credit insurance, […]

(c) to participate, knowingly and intentionally, in activities the object or effect of which is to circumvent the prohibitions referred to at points (a) or (b)."[718]

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[715] Part One, Chapter 1, 2.3., b and c, of this thesis.
[716] Section 74 AWV lists the countries on which weapon embargoes are imposed. Currently (as of January 2022) this affects the following 16 countries: Belarus, Myanmar, Democratic Republic of the Congo, DPRK, Iraq, Iran, Lebanon, Libya, Russia, Zimbabwe, Somalia, Sudan, South Sudan, Syria, Venezuela, and Central African Republic.
[717] The list thus supplements those biological, chemical and radioactive agents on the German War Weapons List whose export is prohibited irrespective of any specific embargoes.
[718] General Secretariat of the Council, *Guidelines on implementation and evaluation of restrictive measures (sanctions) in the framework of the EU Common Foreign and Security Policy*, Doc. 11205/12, para. 67.

Those banking services typically associated with WMD proliferation, i. e., bank transfers and trade finance transactions, are "financing or financial assistance" within the meaning of the above provision.[719] Since according to the wording these must be related to military activities and not specifically to weapons or WMD, the focus shifts from the goods to the contracting parties of the underlying trade transaction. Transactions with sanctioned countries will therefore be checked by the compliance departments of the various financial institutions for their military connection, i. e. whether the parties have military relevance.

Given the typical existence of concealment transactions, which route both goods and related money flows through several countries and involve foreign front companies, such an approach is not very satisfactory from the point of view of preventing proliferation and its financing. This is even more true in light of the fact that the additional regulatory content of arms embargoes for preventing WMD proliferation is limited anyway. Since trade in them is already prohibited *per se*, only delivery systems, launchers, sensors, military IT and other elements that can be components of both conventional weapons of war and WMD will be covered by the embargo from a proliferation perspective. As it is precisely this remaining technically complex sensor technology and software that can hardly be recognized as military objects by banks and that the concealment of their trade routes can be implemented without causing a major attention, the actual relevance of arms embargoes for effectively combating the proliferation of WMD seems questionable.

However, they can be said to have the indirect effect of generally weakening the financial position of the typical end user of WMD in the event of a general ban on financing or financial assistance related to military activities. This may at least complicate parallel efforts to obtain WMD through complex and costly channels. In view of the generally considerable financial resources of states, it seems unlikely that it could prevent them from obtaining their goals in the long run. If the end user of WMD (components) is not a state but a non-state organization, i. e. a terrorist group, the arms embargo does not even have the indirect effect

[719] General Secretariat of the Council, *Guidelines on implementation and evaluation of restrictive measures (sanctions) in the framework of the EU Common Foreign and Security Policy*, Doc. 11205/12, para. 59a: “The term "financing and financial assistance" shall mean: "Any action, irrespective of the particular means chosen, whereby the person, entity or body concerned, conditionally or unconditionally, disburses or commits to disburse its own funds or economic resources, including but not limited to grants, loans, guarantees, suretyships, bonds, letters of credit, supplier credits, buyer credits, import or export advances and all types of insurance and reinsurance, including export credit insurance. Payment as well as terms and conditions of payment of the agreed price for a good or a service, made in line with normal business practice, do not constitute financing or financial assistance."

of weakening the end user financially, because it might not be considered a "military activity" or, more importantly, not be recognized as such.

2. Total and partial embargoes

With regard to the effectiveness of total and partial embargoes in combating WMD proliferation, what has been said about arms embargoes applies as a bottom line. This is particularly true because a partial embargo usually also includes a ban on arms supplies to the sanctioned country and consequently regularly goes beyond it in its scope. Compared with mere arms embargoes, total and partial embargoes have the particular advantage of making the concealment activities - which are typical of WMD proliferation - much more difficult. By preventing crucial or even a majority of economic relations, WMDs or their components cannot be proliferated under the guise of legal trade activities: Neither at the level of the underlying trade transaction nor at the level of the financial flows accompanying this transaction.

This includes dual-use goods, which are particularly relevant to WMD proliferation, and which, in contrast to a strict arms embargo, would also be covered by the trade ban and therefore could not be acquired by apparently civilian front companies or academic institutions.[720] If the embargo is carried out by means of collective action by several states, i. e., in particular at the instigation of the UNSC, the routing of goods and relevant funds via third countries is also made considerably more difficult. This is effective for combating WMD proliferation financing especially with regard to normal bank transfers, which, unlike trade finance services, cannot be cross-checked against any potentially conspicuous trade in goods and hence would be particularly difficult for banks to detect.

Nevertheless, total and partial embargoes are not a means of preventing WMD proliferation and its financing in the long term. Because of their considerable impact on the overall economy of the sanctioned country - and thus on the civilian population - they can only be applied over much more limited periods than, for example, arms embargoes, which have only a very sectoral impact and have a merely marginal effect on the welfare of the overall population. They therefore can only serve as a short-term corrective, for those cases in which a WMD proliferation risk comes to a head. They do not represent a long-term, broad-based response to the generalized threat of proliferation financing, which, like money laundering

[720] See, on the criminological reality in this regard, Part One, Chapter 2, 2.1. of this thesis.

and terrorist financing, is an inherent risk of all financial transactions, irrespective of the time of their execution.

3. Targeted financial sanctions

In addition to the prohibitions on providing financing or financial assistance related to military activities associated with arms embargoes and the restrictions on the financial sector resulting from partial or total embargoes, there are other financial sanctions that may be relevant to WMD proliferation financing. These are financial sanctions directed against designated individuals who play a special role in the proliferation chain (hereinafter "targeted financial sanctions").

3.1. The measures: Freezing and unavailability of funds

The Council of the European Union also provides a standard wording for such sanctions in its Sanctions Guidelines. Under the heading "Financial Restrictions" it states:

"1. All funds and economic resources belonging to, owned, held or controlled by [individual members of the Government of (country) and] any natural or legal person, entity or body [associated with them] as listed in Annex X shall be frozen.

2. No funds or economic resources shall be made available, directly or indirectly, to or for the benefit of natural or legal persons, entities or bodies listed in Annex X."[721]

This paragraph contains the two typical elements of a targeted financial sanction provision, namely the *freezing requirement* and the *prohibition of availability*. The practice within the EU thus corresponds to the internationally prevailing design of targeted financial sanctions.[722]

The freezing of funds is intended to prevent listed persons from accessing their funds and using them for undesirable purposes, e. g. proliferation financing.[723] It means, according to its standardized definition, the prevention of "[…] any move, transfer, alteration, use of, access to, or dealing with funds in any way that would result in any change in their volume, amount, location, ownership, possession, character, destination or other change that would

[721] General Secretariat of the Council, *Guidelines on implementation and evaluation of restrictive measures (sanctions) in the framework of the EU Common Foreign and Security Policy*, Doc. 11205/12, para. 82.
[722] Martin VOGT & Katrin AREND, *Sanktionen und Embargos der EU*, in Ernst Hocke, Bärbel Sachs, & Christian Pelz (Eds.), *Heidelberger Kommentar zum Außenwirtschaftsrecht* (pp. 864 - 970), Heidelberg, Germany: C. F. Müller, 2017, IV, paras. 80 et seqq.
[723] VOGT & AREND, op. cit., IV, para. 107.

enable the use of the funds, including portfolio management."[724] Consequently, banks and other financial institutions are the primary addressees of the relevant regulations, as they operate in the areas mentioned and have the necessary access to the funds of the persons listed.[725]

The freezing requirement is complemented by the prohibition of availability of funds. The latter aims to prevent listed persons from gaining direct or indirect power of disposal over funds that are not already blocked by the freezing requirement. Among others, this applies to the transfer of ownership of funds, the delivery of funds as well as set-offs.[726] The prohibition of availability is particularly relevant with regard to the prohibition of indirect availability, which can pose considerable challenges for financial institutions. Indirect availability occurs, for example, if a company controlled by a sanctioned person can dispose of the funds, if the funds come to a straw man acting on behalf of the sanctioned person, or if a contract between two non-sanctioned parties leads to a pecuniary advantage for the sanctioned person.[727]

3.2. The targets: Typical characteristics of sanctioned persons

The combination of frozen assets and unavailability of funds constitutes a comprehensive curtailment of the economic and financial options of the person affected by a targeted sanction, at least beyond his or her own national borders. These comprehensive measures affect several actors who, in various constellations, have assumed a fundamental role in global proliferation networks, whether as producers, suppliers or end users. The corresponding regulations can be divided into three categories, according to the group of persons sanctioned:

(1) Regulations sanctioning organizations and individuals that have a special role in proliferation programs of specific states, i. e., politicians and their parties, scientists and their research institutes, managers and their commercial enterprises, military officers and their

[724] General Secretariat of the Council, Guidelines on implementation and evaluation of restrictive measures (sanctions) in the framework of the EU Common Foreign and Security Policy, Doc. 11205/12, para. 60.
[725] The freezing requirement with regarding to "economic resources", on the other hand, can also significantly affect other industries as addressees. According to ALTEN, op. cit., p. 312, "economic resources" can also include, in particular, transfers of ownership, claims for possession, intellectual property, as well as the house and apartment ownership of the sanctioned person.
[726] ALTEN, op. cit., p. 319.
[727] Julia PFEIL & Bettina MERTGEN, *Compliance im Außenwirtschaftsrecht: Zoll, Exportkontrolle, Sanktionen*, Munich, Germany: C. H. Beck, 2016, paras. 59 et seq.

organizational military units, and bankers and their financial institutions.[728] These regulations focus on the foreign policy goal of damaging state proliferation programs in their entirety.[729]

(2) Regulations that impose sanctions on terrorist organizations known to be interested in obtaining WMD, as well as on individual actors of these organizations who have a distinct function in their proliferation process. The primary objective of these regulations is to prevent devastating effects that would result from a terrorist attack, including attacks using WMD.[730]

(3) Regulations imposing sanctions on certain persons, entities and bodies precisely because they are involved in the development and use of WMD, irrespective of their nationality or affiliation with a particular (terrorist) organization. So far, a corresponding regulation exists for the EU only with regard to the proliferation and use of chemical weapons.[731] Despite their theoretically wide-ranging personnel scope, only a few persons related to the Syrian

[728] See, for example, the following selection of listed persons plus statement of reasons under Regulation (EU) 2017/1509 (DPRK sanctions): "Ri Je-Son: Minister of Atomic Energy Industry since April 2014. Former Director of the General Bureau of Atomic Energy (GBAE), chief agency directing DPRK's nuclear programme."; "Ri Hong-sop: Former director, Yongbyon Nuclear Research Centre, oversaw three core facilities that assist in the production of weapons-grade plutonium: The Fuel Fabrication Facility, the Nuclear Reactor, and the Reprocessing Plant."; "Yun Ho-jin: Director of Namchongang Trading Corporation; oversees the import of items needed for the uranium enrichment programme."; "Kang Mun Kil: Kang Mun Kil has conducted nuclear procurement activities as a representative of Namchongang, also known as Namhung."; "Kyong-song Choe: Colonel General in the Korean People's Army. Former member of the Central Military Commission of the Workers' Party of Korea, which is a key body for national defence matters in the DPRK. As such, responsible for supporting or promoting the DPRK's nuclear-related, ballistic-missile-related or other weapons of mass destruction-related programmes."; "Kim Chol Sam: Kim Chol Sam is a Representative for Daedong Credit Bank (DCB), a designated entity, who has been involved in managing transactions on behalf of DCB Finance Limited. As an overseas-based representative of DCB, it is suspected that he has facilitated transactions worth hundreds of thousands of dollars and he is likely to have managed millions of dollars in DPRK related accounts with potential links to nuclear/missile programmes."

[729] As contained in the recitals of the respective sanction regulations. See, for example, Regulation (EU) 2017/1509 (DPRK sanctions): "Whereas […] 2) In accordance with these UNSCRs, Decision (CFSP) 2016/849 provides in particular for restrictions on the import and export of certain goods, services and technology which could contribute to the DPRK's nuclear-related, ballistic missile-related or other weapons of mass destruction-related programmes (Weapons of mass destruction (WMD) programmes), a luxury goods embargo as well as an asset freeze on persons, entities and bodies that have been linked to the WMD programmes."

[730] See above: Part One, Chapter 2, 3.2.

[731] Council Regulation (EU) 2018/1542 of October 15, 2018, concerning restrictive measures against the proliferation and use of chemical weapons; ST/11938/2018/INIT.

Chemical Weapons Development Center (SSRC)[732] and the Russian Military Intelligence Service (GRU) [733] are currently listed in the EU's chemical weapons sanctions framework.

4. Excursus: The EU Dual-Use Regulation

Similar to the commodity-related embargoes are the regulations on the export of so-called "dual-use" goods which can be used for both military and civilian purposes. Within the European Union, they are primarily regulated by the European Dual-Use Regulation[734], which applies directly in the entire territory of the Union. In particular, it lists those goods which, according to the control lists of the relevant international conventions[735], could be used in WMD. Since the EU Dual-Use Regulation does not prohibit trade in dual-use goods *per se* or with certain countries, but merely qualifies them as subject to licensing, it is not considered an embargo but a trade restriction in a broader sense.

In view of the criminological reality of WMD proliferation, listed dual-use items and their acquisition from unwitting producers are likely to account for the majority of relevant proliferation activities, while the acquisition of original WMD and their components is more likely to be the exception.[736] Accordingly, payment transactions related to dual-use transactions can be considered the more relevant proliferation financing phenomenon.

Only the parties to the actual trade transaction are responsible for determining whether the goods in question are listed dual-use goods and the application of export law requirements. For banks that accompany the transaction, e. g. by way of a letter of credit, there is no general obligation to verify whether the underlying goods transaction relates to a dual-use good. Respective legal policy considerations to establish a corresponding obligation for banks to

[732] The acronym SSRC stands for "Scientific Studies and Research Center" (SSRC). The research center is also known under its alias "Centre D'Etudes et de Recherches Scientifiques" (CERS). It is a listed entity under Regulation (EU) 2018/1542. The group of listet individuals related to the SSRC include, i. a., "Walid Zughaib [who] is the Director of Institute 2000, the division of the Scientific Studies and Research Centre (SSRC) responsible for mechanical development and production for Syria's chemical weapons programme." and "Tariq Yasmina [who] acts as the liaison officer between the Scientific Studies and Research Centre (SSRC) and the Presidential Palace, and, as such, is involved in the use and preparations for the use of chemical weapons by the Syrian regime."

[733] The Russian Military Intelligence (Glavnoye Razvedyvatelnoye Upravlenie – GRU) is suspected of arranging the attempted assassination of Sergei Skripal and his daughter Yuliya Skripal on March 4, 2018. Central figures of the attack were included in the list of sanctioned persons under Regulation (EU) 2018/1542. This concerns, i. a., GRU Officer Anatoly Chepiga (a.k.a. Ruslan Boshirov), [who] possessed, transported and then, during the weekend of March 4, 2018, in Salisbury, used a toxic nerve agent ("Novichok"). […]" and the two First Deputy Heads of the GRU, Vladimir Stepanovich Alexseyev and Igor Olegovich Kostyukov. Interestingly, neither the GRU as an organization nor its head as an individual are listed under Regulation (EU) 2018/1542. The listing of possible politically responsible persons has not occurred either.

[734] Regulation (EU) 2021/821 of the European Parliament and of the Council of May 20, 2021 setting up a Union regime for the control of exports, brokering, technical assistance, transit and transfer of dual-use items (recast); note that with this regulation the previous Regulation (EC) 428/2009 has been repealed.

[735] I. e. the AG, MTCR, NSG, WA, and CWC. See Part One, Chapter 1, 4., of this thesis.

[736] See Part One, Chapter 2, of this thesis.

check export lists are regularly rejected in view of the lack of expertise of financial institutions.[737] This is legitimate insofar as the technical prerequisites that lead to a listing are often complex and can regularly only be professionally assessed and technically determined by members of the industries concerned.[738]

Although the Dual-Use Regulation does not have to be observed directly by financial service providers, there are individual country-specific embargo regulations that refer to the goods listed within and prohibit the involvement of banks in corresponding transactions, like is the case for Iran-related trade finance activities.[739] In these cases, financial institutions are indeed obliged to verify the nature of the involved goods. The reason why the legislator considers the identification of the relevant dual-use goods feasible in these cases (but not in general) remains unanswered.

Chapter 5: General remarks and consequences for the counter-proliferation financing program

As facilitators of international payments, financiers of export transactions and account-holding entities for both domestic and foreign customers, a country's financial institutions play a significant role in foreign trade. Although the embargoes and sanctions imposed by a country against third countries, organizations, and individuals are aimed at adjusting the behavior of these sanctioned individuals and pursue overriding security policy

[737] Harald HOHMANN, *Finanzdienstleister müssen Exportrecht beachten*, ExportManager, vol. 5/2010, pp. 20 - 22 (20 et seqq.).

[738] The following two examples may serve to illustrate the required level of technical knowledge required: "2B006 Dimensional inspection or measuring systems, equipment and "electronic assemblies", as follows: a. Computer controlled or "numerically controlled" co-ordinate measuring machines (CMM), having a three dimensional (volumetric) maximum permissible error of indication (MPE_E) at any point within the operation range of the machine (i. e. within the length of axes) equal to or less (better) than (1,7 + L/1 000) µm (L is the measured length in mm), tested according to ISO 10360-2 (2001) […]"; "2B350 Chemical manufacturing facilities, equipments and components as follows Reaction vessels or reactors, with or without agitators, with total internal (geometric) volume greater than 0,1 m3 (100 litres) and less than 20 m3 (20 000 litres), where all surfaces that come in direct contact with the chemical(s) being processed or contained are made from any of the following materials: 1. Alloys with more than 25 % nickel and 20 % chromium by weight; 2. Fluoropolymers; […]."

[739] See, for example, article 5 Council Regulation (EU) No 961/2010 of October 25, 2010, on restrictive measures against Iran and repealing Regulation (EC) No 423/2007: "1. It shall be prohibited: […] (d) to provide, directly or indirectly, financing or financial assistance related to goods and technology listed in the Common Military List or in Annexes I, II and III, including in particular grants, loans and export credit insurance, for any sale, supply, transfer or export of such items, or for any provision of related technical assistance to any Iranian person, entity or body or for use in Iran; […];" Annex I, Part A – Goods and technology referred to in point […] (d) of Article 5 (1): "This Annex comprises all goods and technology listed in Annex I to Regulation (EC) No 428/2009 [the version of the EU-Dual-Use Regulation, which applied at that time], as defined therein, […]."

considerations, their implementation is practically impossible without the support of a country's financial sector. This applies all the more to sanctions and embargoes aiming to stop proliferation efforts by states and terrorist organizations, as proliferation itself regularly requires the cross-border movement of goods.

The respective commitment of the financial sector is ensured by imposing penalties, fines and considerable economic policy consequences; sometimes beyond national borders. Driven by the threat of these consequences, financial institutions around the world have set up highly specialized departments, some of which deal exclusively with monitoring the compliance of international payment transactions with embargo law, the contractual review of trade finance transactions under the provision of the embargo law, and the monitoring of their customer portfolio in the light of specific targeted sanctions lists.

These measures, which are ultimately aimed at adapting the behavior of third parties and are intended to avoid the bank's own criminal liability due to non-compliance with sanctions law, also have the inevitable side effect of preventing the bank itself from participating in these proliferation or proliferation financing activities. In other words: Those who do not carry out a transaction with a proliferator because the latter is not allowed to receive transactions, simultaneously prevent their own participation in the proliferator's possible proliferation activities.

Compliance with sanctions regulations issued for the purpose of preventing proliferation is therefore never only compliance that prevents the criminal and economic consequences of sanctions violations. It is also always - ultimately irrespective of the intention of the financial institutions in doing so - a compliance that mitigates the risk of financial institutions participating in proliferation activities. It is therefore legitimate to see compliance with the international sanction’s regime also as a component of a holistic CPF program.

The strengths and weaknesses of sanctions and embargo compliance in the context of prevention and detection of proliferation financing activities therefore need to be understood in order to complement them with the measures that are necessary from a CPF perspective to create an effective overall CPF program for banks.

1. Insufficient coverage of country-specific risks

Sanctions and embargoes directed against specific countries, groups, or individuals with known proliferation efforts have the effect that banks do not make payments from or to the respective parties. Here, the partial congruence of the effects of the sanctions framework with the objectives of a CPF program become quite clear: Since the CPF program aims at avoiding proliferation financing as such and therefore is forced to make a risk assessment from an *ex ante* perspective regarding the likelihood of a transaction having a proliferation link, it would also conclude that payments to known proliferators should not be made. Transaction parties known to actively seek the purchase of WMD for self-use or for availability for third parties, i. e., sanctioned countries such as North Korea, sanctioned groups such as Al-Qaeda, and certain commercial and financial intermediaries, display the highest risk of conducting transactions and business for this very purpose. Given that the greater the risk, the greater the scope of the risk mitigating measures, it is plausible to apply the most stringent risk mitigating measure, namely the refusal of the transaction in question, where the highest level of risk is present.

However, the above only applies in principle. While there is hardly any serious doubt that North Korea and Al-Qaeda have a WMD proliferation interest, as they have publicly announced this themselves and a correspondingly high risk can thus be objectively proven, sanctions decisions are always political and thus susceptible to biased and unrelated reasons for decision-making. The inherent multilateralism of embargo decisions by the European Union and the Security Council ensures, at least to some extent, that one-sided political intentions and ideological models are mitigated in the decision-making process. In the case of WMD proliferation the efficiency of this corrective is at least questionable when one considers that the permanent members of the UN Security Council are all also nuclear weapon states, which are likely to have a common political interest in preserving their hegemonic position. A CPF program based on objective risk parameters must therefore take this political component of the international sanctions system into account and examine whether other countries beyond the ones sanctioned pose a proliferation financing risk.

1.1. Non-coverage of objectively relevant countries

This applies in the first instance to the above-mentioned permanent members of the UNSC itself. Regardless of their adherence to international treaties such as the NPT, the BWC and

the CWC, their risk of WMD proliferation is objectively higher than for countries that either do not have or do intent to have WMD. In fact, if one looks at recent history, this risk becomes very tangible: The USA remains the only country in the world that has actively used nuclear weapons against the population of a third country. Its general preparedness to do so again became clear with the US president's public threat in 2017 to completely annihilate the North Korean people, if Kim Jong-Un would not change his equally threatening proliferation efforts. Furthermore, Soviet Russia, at this time already a member of the UN Security Council and a signatory to the BWC and CWC, operated an extensive state program for the secret production of biological weapons. This does not seem to be a closed chapter in history either, as the recent attacks by Russian intelligence using the chemical agent *"Novichok"* show that even modern Russia continues to possess at least chemical weapons and that a complete destruction of its non-nuclear WMD arsenal has consequently not taken place.

Discrepancies between countries with actual WMD relevance and those subject to embargoes do not only affect UNSC members. For instance, Pakistan, India and Israel[740] had been having nuclear weapons and proliferation programs for decades but were never subjected to embargoes by the UNSC.

The reason why these countries are not subject to UNSC sanctions, while Iran and North Korea are, cannot be answered definitively. Both formal and political-security reasons come into consideration. One formal reason could be that these countries were never signatories to the NPT and that a violation of the agreement is considered more serious than never having joined it. It could also have been a deciding factor that, as security political experience shows, totalitarian systems such as those of North Korea and Iran typically have a higher potential for aggression than democratic systems such as those of Pakistan, India, and Israel.[741] Finally, merely geopolitical interests in the context of strategic alliances and economic interdependencies between individual members of the UNSC with Pakistan, India,

[740] Although Israel neither confirmed nor denied possessing nuclear weapons, such capacity can be assumed. See Robert S. NORRIS & Hans M. KRISTENSEN, *Global nuclear weapons inventories, 1945 - 2010,* Bulleting of the Atomic Scientists (pp. 77 – 83), July/August 2010; Alan DOWTY, *Nuclear Proliferation - The Israeli Case*, International Studies Quarterly, March 1978, vol. 22, no. 1, pp. 79 – 120.

[741] Prashant HOSUR, *Politics of UNSC Sanctions: The Issue of Nuclear Weapons Development*, ICPS Research Papers, issue 25, April 2010, pp. 1 – 13 (7 et seqq.).

or Israel may have complicated possible plans to impose embargoes by the UNSC in a first place.[742]

In any case, the reasons for the greater or lesser exposure of certain countries to international sanctions is beyond the scope of this work, without prejudice to the fact that this is also a criminal risk factor that compliance should take into consideration. For the specific CPF program, it is of much higher importance to simply recognize that certain countries with an increased risk are not covered by the embargo framework and that the CPF program must therefore consequently establish independent complementary measures and processes that can reflect the inherent proliferation risk of these excluded countries.

1.2. Non-coverage of gradual post-embargo risks

Furthermore, banks must consider that even with regard to countries for which embargoes have been adopted, a long-term congruence of embargo measures and the objectives of a CPF framework is not certain. That is due to the nature of sanctions and embargoes, which are *per se* limited in time. If the sanctioned country adapts its policy to the demands linked to the embargo, or if other political factors justify lifting the sanctions, the country embargo is lifted and potentially persisting proliferation financing risks are no longer mitigated through the embargo-framework.

Although it would also be an essential criterion for a PF-risk assessment if a state officially refrains from its proliferation efforts, as this naturally reduces the probability of a proliferation act behind trade financing and transactions with that country. Nevertheless, an all-or-nothing approach that would depend on the existence or lifting of embargoes seems too radical for a CPF program that seeks to prevent the participation of financial institutions in the phenomenon as such.

This is most obvious in the case where a state continues a secret WMD program after it has pretended to agree to abandon its WMD program and for which the sanctions were lifted. By the time the intelligence services of the sanctioning countries hear of this, new weapon systems may already have been built or the aspired WMD completed. Additional time passes until political implementation and multilateral validation of the intelligence findings can take

[742] For instance, existing US national sanctions against Pakistan and India were merely targeted and were nevertheless lifted again after only three months because the US economy itself suffered too much damage. See, on that topic, Shubhangi PANDEY, *U.S. Sanctions on Pakistan and their Failure as Strategic Deterrent*, ORF Issue Brief, August 2018, issue 251, pp. 1 – 16 (1 et seqq.); HOSUR, op. cit., p. 7.

place, which can then lead to a renewed embargo measure. During this interim period, however, proliferation activities and associated payments continue. In fact, to some extent it can be assumed that they will often even increase, as the official shutdown of relevant production facilities in the country concerned is likely to lead to the increased demand for imports of WMD-usable goods for the clandestine ongoing proliferation program.

Furthermore, even for an actual termination of the WMD program after the sanctions have ended, increased control of transactions with reference to the formerly sanctioned country would be indicated from a CPF perspective. With the termination of the WMD program, a supply surplus of already acquired WMD-relevant goods and know-how can arise, which will then become available to third parties on the international proliferation black market. Be it because corrupt politicians and military officials will use their continuing authority to dispose of state production and storage facilities or because international WMD traders will now offer their goods to other international buyers. The Khan network shows that this is not just a theoretical assumption: After an initial patriotically driven phase, it quickly began to offer its proliferation services to third countries and even terrorist organizations, merely following the apolitical rationale of supply and demand.

1.3. Necessary measures for mitigating the residual country risks

For financial institutions' CPF program, all this means is that the country-related compliance measures should not be based on the existence of an embargo alone. Rather, enhanced due diligence measures should also cover non-sanctioned states that have known WMD programs, especially if they are not signatories to the NPT or other relevant international treaties. In addition, transactions and business relations with formerly sanctioned countries should continue to be subject to enhanced due diligence even after the sanctions have ended - at least for a certain period of time - and by applying a graduated risk rating.

2. Insufficient coverage of person-specific risks

Targeted sanctions against certain individuals and organizations are of central importance from the perspective of a CPF program. As already mentioned, the freezing requirement and the prohibition of availability associated with the sanctions is also a suitable and appropriate means of countering general proliferation risks from a risk perspective. Transactions with individuals and organizations that are known to be politically and professionally close to proliferation projects or that have knowingly supported such projects in the past have the

highest risk profile from a CPF-perspective. For financial institutions, it is therefore advisable, not to enter into such customer relationships and to refuse any business or transaction involving such parties. Possible profit prospects under the assumption that these might be legitimate business activities are out of proportion to the excessive risk of being involved in a proliferation act as a financier in case of doubt. Thus, at this highest level of risk, the purposes of the targeted sanctions and the requirements of a CPF program run parallel to each other, as transactions with corresponding counterparties are to be avoided, both under sanctions law and for risk prevention reasons.

2.1. Evasion of sanctions by using intermediaries

It is evident that proliferators, be they individuals or organizations, will hardly pursue their proliferation efforts in their own name. Rather, they will hide their personal involvement behind complex structures of front companies, straw men and middlemen. Similarly, they will also try to conceal possible indications of a connection to the countries or terrorist organizations for which they ultimately act. From a prevention point of view, it makes no difference whether a person pursues proliferation efforts directly or through others. Moreover, the latter may be worse, as some qualified criminal offences are reflected by the use of nominee companies. Both sanctions law, considering such actions as undesirable acts of circumvention, and a CPF program, considering them as components of a proliferation network, must therefore seek to avoid them in all circumstances.

Consequently, the standard wording of the European targeted financial sanctions covers the problem of circumvention and orders more far-reaching freezing orders and prohibitions on disposal for corresponding schemes. Assets that are controlled by sanctioned parties, i. e. indirectly held via shareholding structures, should therefore be frozen. Indirectly making assets available, i. e., also transactions to straw men under the *de facto* control of the sanctioned persons, are prohibited. In terms of regulatory intent, there is therefore also a parallelism between European sanctions law and the objectives of a CPF program for these phenomenologically relevant constellations.

2.2. The limits of what can be revealed

In practice, however, this requirement reaches the limit of what financial institutions can realistically achieve. Shareholding structures that serve precisely to conceal the actual control of an asset are often difficult to detect, even in the area of combating money

laundering and terrorist financing. Nevertheless, the possibility of detection is still considerably greater than in proliferation financing, since in ML/TF the assets at the end of the transaction chain must necessarily go to the criminal actor as the beneficial owner, who, as a rule, must simulate an apparently legally compliant acquisition of the funds. Consequently, in many cases there are formal-legal connecting factors that can facilitate the identification of individuals that are actually behind the transaction.

In proliferation financing, in contrast, the money flows in the opposite direction, i. e. not towards the criminal actor but away from them. The ultimate beneficiary of the money is here often an unwitting high-tech company in Europe or the USA, which does not simulate the legal conformity of the act but rather falsely assumes it itself. The originator of the payment flow does not have to maintain formal legal control over the payment and can therefore insert the initial payment into the transaction chain through mere forms of *de facto* control. In the case of states with proliferation efforts, this can be achieved through a position of political power towards the initiator of the transaction, for example because the latter is active in the country's intelligence service, fears state reprisals as a private actor, or places himself in the idealistic service of the patriotic cause. In the case of terrorist organizations and other non-state groups with proliferation aspirations, the degree of *de facto* control is even more significant, especially because most terrorist organizations do not know any formal, comprehensible role assignments but rely solely on the loyalty of their members.

The identification of such *de facto* control relationships is almost impossible for banks to carry out.[743] This applies all the more the further the bank is from the other end of the proliferation chain or the financing chain accompanying it. In-depth investigations that could uncover an actual relationship between a counterparty and a proliferants will usually not even be carried out in the first place due to a lack of suspicion of sanction evasion. For the few cases in which such an in-depth search would be carried out, it would also be unlikely that an act of circumvention would be detected. At the latest when the intermediaries involved are domiciled in non-European jurisdictions or when findings on the holding structure reveal dominant control by anonymous trusts (in offshore locations), an objectively provable connection to sanctioned persons cannot be determined. In cases with appropriate due diligence, no well-founded suspicions of a relationship between an invested person and

[743] To obtain corresponding information requires police or intelligence means, to which a bank does not have access. Furthermore, if such information is available from the government investigation authorities, it can be assumed that the relevant persons and organizations will be included in the explicit listing. The banks can then search for them specifically.

a sanctioned person can be found, banks - justifiably - do not have to expect any consequences due to possible sanction violations. As a result, though, this also means that the sanctions and embargo framework is not an efficient means of preventing proliferation financing through front companies and straw men.

2.3. Necessary measures for mitigating the residual person-specific risks

Since a proliferation and proliferation financing transaction will usually take place with the participation of corresponding front companies and straw men, it is therefore necessary for the CPF program to provide an answer as to how the financial institution can counter these considerable residual risks. An appropriate concept may lie in designing risk models which assess the involvement of intermediaries, holding structures with an offshore or trust connection as well as the criticality of the commodity transaction underlying the transaction as a whole and relate to the risk appetite and business model of the respective financial institution.

3. Insufficient coverage of product-related risks

Residual risks can arise not only from the limitations of international or European sanctions and embargo law with regard to the coverage of the relevant subjects, but also with regard to the relevant services and trade transactions not covered by the usual sanctions.

3.1. The limits of arms embargoes

As described above, the arms embargoes agreed between the member states are exclusively aimed at trade transactions with listed goods and the associated acts of sale, supply, transfer or export. A prohibition of financial services associated with such goods transactions is not explicitly encompassed and, on a reasonable interpretation of the wording, does not appear to be included. On the other hand, the complementary directly applicable financial sanctions of the EU focus on prohibiting financing or financial assistance related to military activities. Hence, attention is paid more to the nature of the parties to the transaction and their military field of activity than to the goods of the commodity transaction underlying the financial transaction. To what extent this really makes a difference and whether the listed weapons are not already by their nature necessarily related to military activities, is questionable.

In any case, financial institutions should generally refrain from participating in corresponding arms deals. On the one hand, this applies irrespective of whether or not the

implementation of the arms deal constitutes a violation of applicable embargo law for the parties to the underlying trade transaction. On the other hand, this also applies irrespective of whether the national arms embargoes are also accompanied by an original European financial sanction, which prohibits financing or financial assistance related to military activities. In either case, the degree of legal uncertainty as to whether such transactions would be permitted at all and the operational risks of a formal sanctions and embargoes compliant approach are too great as far as responsible sanctions and embargo compliance is concerned. From the perspective of a CPF program, too, corresponding arms transactions should regularly be refrained from if the country which is subject to an arms embargo has a proliferation interest. The risks are too great that delivery systems, sensor technology, and military IT are not used for conventional weapons but for WMD. Thus, as a result, sanctions and embargo compliance considerations regarding the financial accompaniment of arms deals run parallel to the needs of an effective CPF program.

3.2. The dual-use goods challenge

The situation is different with regard to transactions involving dual-use goods. Although there are exceptions, as described above, these are typically not subject to arms and other embargoes. A fact that is contrary to the objectives of an effective CPF. Due to the international outlawing of trade in WMD and the high degree of regulation of international trade in (conventional) weapons of war, proliferants are regularly dependent on the acquisition of alternative goods that also have a civilian *raison d'être* and therefore continue to be traded internationally. Moreover, dual-use goods also offer a welcome inherent concealment component for proliferants since legitimate civilian purposes can be more easily advanced as the reason for the transaction. They are therefore far more relevant for international proliferation than readymade weapons systems or components that are only suitable for use in legitimate or illegitimate weapons of war.

3.3. Necessary measures for mitigating the residual product-specific risks

Since the critical nature of dual-use goods ultimately lies in the specific form in which they may be used, a CPF program must be able to assess the likelihood of illegitimate use and thus enable the financial institution to make an informed decision as to whether or not a transaction should be accompanied.

Among the highest probability for a military purpose are transactions in which government security bodies appear as purchasers of dual-use goods. The above-mentioned European financial sanctions, which do not focus on the goods but on the broader military context and prohibit such transactions in principle, therefore serve the objectives of a CPF at least in this respect. For the remaining, less obvious cases, a CPF must have its own risk matrix that considers the independent risk-increasing nature of dual-use goods as such. In conjunction with any increased risks of the respective counterpart, e. g. if it is a research institution in a country with proliferation efforts or an intermediary with an opaque ownership structure, risk classifications can be produced in this way, on which banks can react with proportionate levels of due diligence and risk mitigating measures.

Corresponding risk models can also be designed in such a way that the above-mentioned problem that banks sometimes lack the broad expertise to qualify a product as a dual-use good is addressed. In this respect, models are conceivable that, in the case of cumulative links to certain industries, nationalities, and trade finance products, trigger an obligation to obtain government or expert documents that enable the bank to qualify the product as a dual-use good. The requirements leading to the procedural need for such an additional examination can be adapted to the business model and the business volume of the respective bank and would thus also be realizable in a practical and cost-efficient manner. If doubts about the legitimacy of the transaction remain after the evaluation or if the risk classification are simply too high, the CPF program should reject such transactions by means of an internal bank policy or at least require additional documents that can provide the bank with a higher level of certainty.

PART FOUR: INTERNATIONAL ANTI-FINANCIAL CRIME STANDARDS

Alongside international criminal law and the international embargo and sanctions framework, the international AFC standards are the third constituent of the international response to the threats of proliferation financing. They consist of internationally applicable recommendations on the design of a compliance framework for banks. Their purpose is, on the one hand, to prevent the involvement of legal entities in financial crimes.[744] On the other hand, they also serve to improve the detection of such crimes, thereby contributing to the increased likelihood of criminal consequences for the respective perpetrators.[745]

Although the AFC standards are, unlike the others, not genuine (international) laws in the formal sense, they are in no way inferior to such rules in terms of their effectiveness and validity. Rather, their implementation comes with considerable political and economic pressure, and non-compliance may not only lead to the exclusion of individual banks, but also to the cut-off of entire economies from the global financial and trade markets. The power of these standard-setting organizations can therefore hardly be overestimated and explains why national legislators around the world meticulously follow the corresponding guidelines in their national AML/CFT-legislation and that seemingly non-binding best practices are implemented down to the smallest detail by financial institutions.

It is therefore appropriate to examine the relevant provisions of anti-financial-crime compliance for their relevance to preventing the financing of weapons of mass destruction. It is obvious that these considerations must be made separately from those of international criminal law described in Part Two of this thesis, as the two systems show considerable differences: On the one hand, AFC standards are only *de facto* international laws, which

[744] For some crimes committed with *dolus*, the possibility of prevention may be significantly reduced; see Miriam CUGAT MAURI, *Elementos subjetivos del delito y límites de las compliance penales: a propósito de la difícil delimitación entre gastos de representación y pagos de facilitación*, Estudios Penales y criminológicos, no. 38, 2018.

[745] Abel GONZÁLEZ GARCÍA, *Situación actual, prevención e intervención criminológica en el delincuente de cuello blanco*, in Daniel Fernández Bermejo & Covadonga Mallada Fernández, *Delincuencia económica*, Pamplona, Spain: Aranzadi, 2018. See, on the involvement of the private sector in crime prevention efforts, Ulrich SIEBER, *Programas de "compliance" en el Derecho penal de la empresa. Una nueva concepción para controlar la criminalidad económica*, in José Urquizo Olaechea, Manuel A. Abanto Vásquez, & Nelson Salazar Sánchez (Eds.), *Dogmática penal de Derecho penal económico y política criminal*, Lima, Peru: USMP, 2011, pp. 205 et seqq., who considers the new forms of self-regulation and coregulation to be essential to prevent corporate crime.

only have global validity due to the nearly identical transpositions into the different national legal systems and are consequently not genuine international law like the Rome Statute. On the other hand, they are aimed at the prevention and detection of relevant crimes and not at the punishment of corresponding behavior, as it is the case in international criminal law.

Similarly, a separate consideration from the requirements of embargo and sanctions law, as described in Part Three of this thesis, is also appropriate. Although both systems implement legal frameworks through political-economic pressure, are aimed at preventing certain types of behavior and require financial institutions to enforce them under the threat of criminal penalties, they have significant individual characteristics that justify a likewise individual analysis:

Firstly, the implementation of embargo regulations by banks targets the behavior of third parties. The fact that this also prevents the banks from participating in these third parties' actions is merely a positive side effect, which is not intended by the provisions (see above). In the context of AFC, on the other hand, in addition to preventing criminal acts by third parties, the aim is also to prevent the intentional, negligent or completely unknowing participation of financial institutions in criminal acts, i. e. in particular money laundering and terrorist financing.

Secondly, sanctions and embargoes to combat proliferation are attached to the subject of the possible act, i. e. to a specific person, a specific organization or a specific country that could engage in proliferation activities. This goes hand in hand with a time limit on sanctions, especially with regard to countries, as the sanctions are lifted when the unwanted behavior shown is adjusted. AFC regulations, on the other hand, are aimed at preventing financial crimes as such, regardless of specific perpetrators. They are thus, by their nature, also not limited in time since the offence as such could in principle be carried out by anyone at any time.

Thirdly, a separate consideration also corresponds to the common organizational model in financial institutions worldwide. The sanctions and embargo offices are regularly structured as a separate unit, which, in addition to the AML/CFT area, the anti-fraud unit and other compliance functions for more capital market law-related issues, forms part of the "compliance" macro area. Specialization in particular areas, however, always carries the risk of losing sight of the big picture. Especially in the area of proliferation financing, which is

both an embargo issue and an AFC issue, the separate organization can therefore result in gaps when dealing with the overall problem of proliferation financing. Therefore, only when the CPF-efficiency of the two areas is analyzed separately, as it corresponds to their practical application, the results can be mapped against the necessities of an overall CPF program. Only this way can remaining gaps in the prevention of WMD proliferation financing be identified and addressed.

Chapter 1: Purpose and nature of anti-financial crime standards

The need to establish internationally applicable standards is a consequence of the internationalization of the financial industry, whose cross-border interconnectedness and economic activity requires a uniform regulatory framework. This is particularly true for standards targeting the prevention of financial crimes such as money laundering or terrorist financing since the actors behind the corresponding acts are also regularly part of international networks to which there cannot be a merely individual state response.[746] In the absence of a formal international legislator, this regulatory necessity can therefore only be met through the creation of non-binding regulations, so-called "soft laws"[747].

Despite their in principle non-binding nature, there are various reasons why financial institutions observe and implement such standards. In fact, these various factors can be used as a classification criterion for these international AFC standards allowing the identification of four different types of standards:

(1) Standards that become effective by the fact that they are adopted by national or regional legislators and codified in legally binding hard law. This is the case with the recommendations of the Financial Action Task Force (FATF), which have found their way into national or regional AML regulations worldwide, e. g. the AML directives of the European Union.

[746] The structures of these international networks and their sources of funding may be subject to change; see, with respect to terrorist financing, Gema SÁNCHEZ MEDERO, *Las fuentes de financiación legales e ilegales de los grupos terroristas*, Revista Política y Estrategia, no. 112, 2008, pp. 50 – 74 (51 et seq., 55 et seqq., 59 et seqq.).
[747] "Soft law": Instrument that has no strict legal value but constitutes an important statement or guideline in the sense of a non-legal norm system. Conventional (binding) legal acts are accordingly referred to as "hard law". See KNAUFF, *Der Regelungsverbund*, op. cit., pp. 1 et seqq.

(2) Standards that have quasi-legal validity because they are generally used by supervisory authorities or private auditors to substantiate legal requirements. This variant is particularly relevant, when the legal requirements are based on formally difficult to grasp criteria, such as the appropriateness or risk-based nature of the measures to be taken. Here the industry standards serve as an objectifiable points of reference or base lines for the assessments. The probably most relevant example of such standards are the recommendations of the Basel Committee on Banking Supervision (BCBS).

(3) Standards that are observed by financial institutions because their implementation is demanded by global (system-relevant) banks on which they depend in order to carry out their economic activities. Such standards may therefore be imposed in particular by major banks or associations of major banks that serve as foreign currency clearing houses or central hubs in international payment transactions for a large number of other financial institutions. One such standard is the Wolfsberg Group's KYC questionnaire, which is used by the vast majority of financial institutions worldwide.

(4) Standards and best practices that are neither a legal obligation nor an imposed economic obligation to follow, but which are nevertheless observed by individual financial institutions. In these cases, a corresponding motivation can result from either the fact that the respective financial institution wants to react to increased risks of its specific business model or that reputational considerations or ethical convictions suggest a corresponding procedure.[748]

From a CPF perspective, potentially relevant regulations can originate from all four types. However, due to their central importance to the compliance practice, the regulations of the aforementioned FATF, BCBS and Wolfsberg Group will be examined in more detail subsequently.

[748] See, on the economic benefits of business ethics, José Miguel ZUGALDÍA ESPINAR, *Ética empresarial, responsabilidad social corporativa y compliance*, in Mercedes Pérez Manzano, Miguel Ángel Iglesias Río, Ana Christina Andrés Domínguez, María Martín Lorenzo, & Margarita Valle Mariscal De Gante (Eds.), *Estudios en homenaje a la profesora Susana Huerta Tocildo*, Madrid, Spain: UCM, 2020, pp. 343 et seqq.; see also, on the social demand for corporate ethics, John Gerard RUGGIE, *¿Solamente negocio?: multinacionales y derechos humanos*, Barcelona, Spain: Icaria, 2014.

Chapter 2: Relevant organizations and their standards

1. The Financial Action Task Force (FATF)

1.1. Development and general importance

The Financial Action Task Force (FATF) was established in 1989 by the G7 and is currently composed of 37 states, the EU Commission and the Gulf Cooperation Council.[749] It is indisputably the most important international standard setter for questions of anti-money laundering and counter-terrorism financing and the international supervisory body for assessing the implementation of corresponding standards by its member countries and other countries of the world.

After its foundation, it adopted a White Paper with recommendations on effective measures to combat money laundering as early as 1990, which are generally known as the "40 Recommendations" due to their number. Although the 40 Recommendations primarily focus on the implementation of measures by states, the main regulatory content is characterized by principles that the financial sector and other vulnerable industries should adhere to. Governments are encouraged to legally require their financial sector to comply with the relevant requirements and to ensure their implementation through efficient supervision.

The 40 Recommendations are subject to regular revisions, which should keep current developments and newer findings in mind. For example, following the terrorist attacks in New York on September 11, 2001 - and a corresponding extension of the FATF's mandate - the 40 Recommendations were supplemented by 9 additional recommendations aimed at standards for combating the financing of terrorism. However, the term "40+9 Recommendations", which was in common use at the time, has now become obsolete, as the text of the nine additional recommendations has been integrated into the 40 Recommendations in a fundamental revision in 2012. Since then, the "FATF

[749] As per May 2022; http://www.fatf-gafi.org/about/membersandobservers/.

Recommendations 2012" have been the currently valid version, which has been the subject of several minor adjustments and additions despite the static year number in its title.[750]

Although the 40 Recommendations are not formally binding norms under international law, but rather international "soft law", all countries of the world, with the exception of North Korea and Iran, have now declared their contents to be binding provisions.[751] This great de facto importance is certainly due to the fact that the FATF operates a regular evaluation procedure that checks the progress made by the respective state for each of the 40 Recommendations. For those states that show considerable deficits, the FATF calls for international transactions to be carried out under enhanced due diligence. States that fail to make progress despite repeated findings will be internationally ostracized and access to the international financial system will be considerably impeded. In a globalized economy an unbearable situation that in the end forces a country to submit to the FATF standards.

1.2. The 40 Recommendations

The 40 Recommendations are spread over seven sections: “A – AML/CFT Policies and Coordination“, “B – Money Laundering and Confiscation“, “C – Terrorist Financing and Financing of Proliferation”, “D – Preventive Measures”, “E – Transparency and Beneficial Ownership of Legal Persons and Arrangements”, “F – Powers and Responsibilities of Competent Authorities and Other Institutional Measures”, and “G – International Cooperation”.

a) The risk-based approach

The first section emphasizes the very foundation of the current anti-money laundering and combating the financing of terrorism framework: The application of the *risk-based approach*. The risk-based approach stipulates that states and financial institutions alike have to recognize and assess the specific money laundering and terrorist financing risks that apply for their specific situation and operations, and subsequently design risk mitigating measures

[750] Amendments of the *FATF Recommendations* (2012), op. cit.: February 2013: Alignment of the standards between R.37 and R.40; October 2015: Revision of the interpretive note to R.5 to address the foreign terrorist fighters threat; June 2016: Revision of R.8 and the interpretive Note to R.8; October 2016: Revision of the interpretive note to R. 5 and the glossary definition of “funds or other assets”; June 2017: Revision of the interpretive note to R.7 and the glossary definitions of “designated person or entity”, “designation” and “without delay”; November 2017: Revision of the interpretive note to recommendations 18; November 2017: Revision of recommendation 21; February 2018: Revision of recommendation 2; October 2018: Revision of recommendation 15 and addition of two new definitions in the glossary; June 2019: Addition of interpretative note to recommendation 15; October 2020: Revision of recommendation 1 and interpretive note to recommendation 1; October 2020: Revision of recommendation 2 and a new interpretive note to recommendation 2.
[751] As of May 2022.

that meet the respective risk levels identified.[752] Where there are higher risks, financial institutions are required to take enhanced mitigating measures, Where the risks are lower, simplified measures and less detailed checks can be applied.[753] The assessment of risk is at the discretion of the respective financial institution and is carried out in the light of the specific business model and general customer profile.[754]

The margin of discretion on how to weight the risks and how to mitigate them, must not be mistaken with a freedom of choosing the relevant risk categories that have to be assessed. The EU legal provisions explicitly require that at least three major aspects have to be taken into account when evaluating the specific ML/TF risks for a bank. These risk factors are the *country risk* factors, the *industry risk* factors and the *product or service risk* factors inherent to a business activity.[755] Typically, and in accordance with the guidelines of the FATF, those risks are classified as "low", "medium" and "high", partly complemented by the intermediate stages "low-medium" and "medium-high".[756] The result of these classification are extensive lists of different types of natural persons, legal entities, products, services and countries with their respective risk ratings. Based on these lists the bank employees can measure the money laundering risk associated with a certain client or investment, the compliance departments can establish due diligence processes applying from specific risk-scoring thresholds, and transaction monitoring algorithms can be programmed to be more sensitive to the transaction behavior of certain groups of clients. The principle shall thereby apply that higher risk scorings lead to higher acceptance barriers, deeper analysis and to the involvement of more senior or specialized positions within the financial institution, responsible for the respective evaluation. Those businesses or counterparts ranked as "high risk" are therefore subject to the most stringent and extensive measures.

The risk-based approach followed its counter model, the so-called *prescriptive model* or *rule-based approach*, in 2003 as part of a profound review of the 40 Recommendations. The

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[752] FATF, *Guidance on the Risk Based Approach to combating money laundering and terrorist financing*, June 2007, para. 1.8.
[753] FATF, *The FATF Recommendations*, op. cit., interpretative note to recommendation 1, para. 2.
[754] See, on the risk-based approach as a criterion adopted by the Spanish legislator, Gustavo FERNÁNDEZ TERUELO, *Parámetros interpretativos del modelo español de responsabilidad penal de las personas jurídicas y su prevención a través de un modelo de organización o gestión (compliance)*, Cizur Menor, Spain: Aranzadi, 2020.
[755] Cf. article 8.1 Directive (EU) 2015/849 of the European Parliament and of the Council of May 20, 2015: "Member States shall ensure that obliged entities take appropriate steps to identify and assess the risks of money laundering and terrorist financing, taking into account risk factors including those relating to their customers, countries or geographic areas, products, services, transactions or delivery channels. Those steps shall be proportionate to the nature and size of the obliged entities."
[756] FATF, *Guidance for a Risk-Based Approach: The Banking Sector*, Paris, France: FATF/OECD, 2014, para. 22.

rule-based approach defines usually by law a definitive catalogue of measures that have to be implemented equally by all financial institutions, whether or not their businesses show specific characteristics which reduce or raise the actually existing money laundering or terrorist financing risks. Although the rule-based approach is no longer founding the evaluation of potential money laundering and terrorist financing cases, it partially remained in the current 40 Recommendations with respect to potential proliferation financing cases, as will be discussed later on.

Nevertheless, the FATF's fundamental decision in favor of the risk-based approach makes it clear that it prefers a more efficient use of state and corporate resources in the fight against money laundering and terrorist financing to a more diversified but less intensive approach.[757]

b) Customer due diligence

The selection and treatment of the issues and persons on which the resources should be focused, are discussed in detail in the fourth section "D – Preventive Measures", being the subject of 15 recommendations.

The application of the risk-based approach is required there as early as for the client acceptance process. While customer due diligence measures are to be performed for all clients, and include verification of client identity, recording of ownership structures and knowledge of the purpose and intended nature of the relationship, these measures are to be implemented to varying degrees depending on the respective risk levels, e. g. by requiring on-site visits to high risk corporate client's facilities. The same applies to performing ongoing due diligence on existing client relationships, where the up-to-datedness of the client's data should be ensured and the frequency of the review should be adapted to the risk profile (e. g. every 10 years for low risk clients, every 5 years for medium risk clients, and annually for high risk clients).

[757] FATF, *The FATF Recommendations*, op. cit., interpretative note to recommendation 1 : "1. […] 2. […] The general principle of a RBA is that, where there are higher risks, countries should require financial institutions and DNFBPs to take enhanced measures to manage and mitigate those risks; and that, correspondingly, where the risks are lower, simplified measures may be permitted. […]".

For certain customer groups that are particularly critical from a money laundering perspective, i. e. for PEPs and correspondent banks, the FATF's 40 Recommendations explicitly request the application of an enhanced due diligence (EDD).[758]

c) Ultimate beneficial ownership

Inextricably linked to the task of knowing one's own client is the identification of the beneficial owner behind corporate customers, as reflected in recommendations 10, 24 and 25 of the FATF Recommendations. Understanding the ownership structure of a company is, as already described, essential to address the risks of concealment caused by criminal actors hiding behind legal persons.[759] Due to the additional complexity and more difficult traceability, especially multi-level shareholding-structures are used by criminal actors to conceal their involvement in unlawful business activities.[760] In order to make it clear that it is therefore often not the immediate owner that is of relevance, i. e. the parent company, the term "*ultimate* beneficial owner" (UBO) is normally used.[761]

"Ultimate" also indicates, however, that the FATF's concept of ownership is not congruent with the legal concept of ownership. Thus, legal persons may qualify as legal owners of a company, but not as ultimate owners in the sense of an *actual* (economic) ownership position, which can only be exercised by natural persons. Similarly, an UBO is also a person who exercises effective control over a customer, regardless of whether he or she also holds a formal and legally recognized position in the company.[762]

While *de facto* control may be difficult to identify on a regular basis, the elements of an UBO position based on ownership can be formally verified, in particular by inspecting extracts from the commercial register and articles of association. Although the 40 Recommendations themselves do not specify the percentage threshold above which beneficial ownership is considered to be given, the Interpretative Note to recommendation 24 refers to the exemplary threshold of 25 % share of ownership.[763] A value that has become accepted globally as the standard for establishing direct ownership and is also expressly

[758] FATF, *The FATF Recommendations*, op. cit., recommendations 12 and 13; on the money laundering criticality of PEPs, see Part One, Chapter 3, 1.1. of the present thesis; on the money laundering criticality of correspondent banking relationships, see Part One, Chapter 3, 1.2.
[759] See Part One, Chapter 3, 1.1., of this thesis.
[760] FATF, *FATF Guidance: Transparency and Beneficial Ownership*, Paris, France: FATF/OECD, 2014, paras. 9 et seqq.
[761] In Spain, beneficial ownership is defined in article 4 of Law 10/2010, of April 28, 2010, on the prevention of money laundering and terrorist financing.
[762] FATF, *FATF Guidance: Transparency and Beneficial Ownership*, op. cit., para. 15.
[763] FATF, *The FATF Recommendations*, op. cit., interpretative note to recommendation 24, para. 1, fn. 46.

recognized in the European AML-legislation as an indicator for direct ownership.[764] In the case of multi-level shareholding structures, the UBO is deemed to be whoever controls through one or several intermediary parent companies the legal entity that holds more than 25 % of the shares in the client.[765]

1.3. Influence on the EU anti-money laundering directives

The development of the 40 Recommendations was paralleled by the development of the European AML law, which implemented its content in the AML directives of the EU.[766] Accordingly, it was already stated in the recitals of the First Money Laundering Directive of 1991 that the most recent recommendations of the FATF were to be given special consideration.[767] The recitals to the Second EU Money Laundering Directive continued this approach and explained that the exclusive focus on the proceeds of drug trafficking in the first directive no longer corresponded to the current AML understanding as manifested in the 1996 revision of the FATF standards.[768] Thus, the central innovation of the second directive, namely the extension of the relevant predicate offences of drug trafficking to all forms of serious crime, was also a consequence of the previously adapted FATF standards.

With the comprehensive revision of the 40 Recommendations in 2003 and the associated changeover to the risk-based approach, the EU had to react again. The change requirements associated with the paradigm shift to a risk-based approach were so comprehensive that the Third Directive could not be designed as a mere amendment of the previous one, but rather had to completely replace it. With a doubling of the text's volume, in addition to the

[764] Article 3 para. 6 (a) (i) Directive (EU) 2015/849.
[765] Article 3 para. 6 (a) (i) Directive (EU) 2015/849.
[766] See, on the common criminal policy in Europe, Luigi FOFFANI, Valsamis MITSILEGAS, & Pedro CAEIRO, *Strengthening the fight against economic and financial crime within the EU*, Eucrim the European Criminal Law Associations' forum, no. 3, 2020; Luigi FOFFANI, *Evolución histórica y perspectivas futuras del Derecho penal económico europeo*, in Jesús María Silva Sánchez (Ed.), *Estudios de derecho penal homenaje al profesor Santiago Mir Puig*, Montevideo, Uruguay: B de F, 2017.
[767] Council Directive of June 10, 1991, on prevention of the use of the financial system for the purpose of money laundering (91/308/EEC): "The Council of the European Communities, […] Whereas any measures adopted by the Community in this field should be consistent with other action undertaken in other international fora ; whereas in this respect any Community action should take particular account of the recommendations adopted by the financial action task force on money laundering, set up in July 1989 by the Paris summit of the seven most developed countries; […]"
[768] Directive 2001/97/EC of the European Parliament and of the Council of December 4, 2001, amending Council Directive 91/308/EEC on prevention of the use of the financial system for the purpose of money laundering: "The European Parliament and the Council of the European Union, […] Whereas: […] (7) The Directive obliges Member States only to combat the laundering of the proceeds of drugs offences. There has been a trend in recent years towards a much wider definition of money laundering based on a broader range of predicate or underlying offences, as reflected for example in the 1996 revision of the 40 Recommendations of the Financial Action Task Force (FATF), the leading international body devoted to the fight against money laundering. (8) A wider range of predicate offences facilitates suspicious transaction reporting and international cooperation in this area. Therefore, the Directive should be brought up to date in this respect. […]"

implementation of the risk-based approach, a new focus was placed on combating terrorism and further relevant predicate offences to money laundering were included. More detailed process descriptions, particularly related to the now required classification of business activities according to risk levels, were also introduced. All of these are aspects that were almost identically taken over from the previously adapted FATF standards whose *de facto* template function was meanwhile treated in the recitals like an undisputable reality.[769]

The volume of the previous directive's text was doubled again in 2015 with the introduction of the fourth EU Money Laundering Directive, which now also included tax offences in the catalogue of predicate offences for money laundering. A measure that seems to have been aimed not only at preventing money laundering but also at improving the enforcement of the states' tax claims.[770] In addition, detailed regulations on the identification of the beneficial owner of a legal entity, the obligation for financial institutions to conduct an institution-specific risk analysis, as well as a further expansion of the risk-based approach within the framework of the due diligence to be applied by banks were included. Here, too, the adjustments were made explicitly for the purpose of aligning the EU's AML laws with the corresponding previously made adjustments of the 40 Recommendations.[771]

The last EU Money Laundering Directive for the time being was adopted in 2018 as an amendment to the Fourth Money Laundering Directive and introduced regulations that were intended, among other things, to increase the transparency of financial transactions and

[769] Directive 2005/60/EC of the European Parliament and of the Council of October 26, 2005, on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing, recital 5: "[…] Since the FATF Recommendations were substantially revised and expanded in 2003, this Directive should be in line with that new international standard."

[770] See Wolfgang VAHLDIEK, *Die bisher erfolgte Richtlinien- und Gesetzgebung*, in Bernhard Gehra, Norbert Gittfried, & Georg Lienke, *Prävention von Geldwäsche und Terrorismusfinanzierung*: *Praktische Umsetzung der aufsichtsrechtlichen Anforderungen durch Banken* (2nd ed.), Heidelberg, Germany: C. F. Müller, 2020, p. 9, who refers to the EU Commission's press release of June 26, 2017, which indeed has a revealing headline: "New EU rules to strengthen the fight against money laundering, tax avoidance and terrorism financing enter into force".

[771] Directive (EU) 2015/849 of the European Parliament and of the Council of May 20, 2015, recital 4: "[…] With a view to reinforcing the efficacy of the fight against money laundering and terrorist financing, the relevant Union legal acts should, where appropriate, be aligned with the International Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation adopted by the FATF in February 2012 (the 'revised FATF Recommendations')."; recital 11: "It is important expressly to highlight that 'tax crimes' relating to direct and indirect taxes are included in the broad definition of 'criminal activity' in this Directive, in line with the revised FATF Recommendations. Given that different tax offences may be designated in each Member State as constituting 'criminal activity' punishable by means of the sanctions as referred to in point (4)(f) of Article 3 of this Directive, national law definitions of tax crimes may diverge. While no harmonization of the definitions of tax crimes in Member States' national law is sought, Member States should allow, to the greatest extent possible under their national law, the exchange of information or the provision of assistance between EU Financial Intelligence Units (FIUs)."; recital 43: "It is essential that the alignment of this Directive with the revised FATF Recommendations is carried out in full compliance with Union law […]".

companies with an offshore connection.[772] The corresponding requirements were implemented by the European member states by January 2020, so that the national legal systems reflect the latest status of the European requirements. Nevertheless, further adjustments to the European and thus individual state AML laws are foreseeable in the near future.[773] This is due to the ongoing adaptations of the 40 Recommendations, which, following the previous procedure, are likely to lead to further EU money laundering directives in the next few years. With a delay of several years due to the implementation deadlines, the adapted 40 Recommendations will thus continue to determine the reality of national European money laundering laws.

1.4. Other FATF guidelines and best practice papers

In addition to its 40 Recommendations, the FATF regularly publishes a large number of guidelines, best practice papers and studies on numerous topics in the area of money laundering, terrorist financing, proliferation financing and other forms of financial crime. A special position is also occupied by the numerous country reports that are compiled following on-site visits to the respective country and that analyze the level of compliance with the FATF 40 Recommendations and the level of effectiveness of the respective countries AML/CFT. In the area of counter-proliferation financing, specific best practice papers[774], a typology paper describing criminological patterns of proliferation financing[775] and several FATF guidance papers on Counter Proliferation Financing[776] are relevant.[777]

2. Basel Committee on Banking Supervision

The Basel Committee on Banking Supervision (BCBS) was founded by the central banks and banking supervision authorities of the G10 countries. Since its founding in 1974,

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[772] Directive (EU) 2018/843 of the European Parliament and of the Council of May 30, 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purpose of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU ("AMLD 5").

[773] The European Commission has already presented a package of four AML-related legislative proposals on July 20, 2021, which provides for the creation of a separate EU AML authority, the first creation of a (directly applicable) AML regulation, a AMLD 6 and a revision of the Funds Transfer Regulation. The proposals do reflect the FATF amendments from October 2020. The said amendment to the FATF Recommendations are of special relevance for counter-proliferation financing are discussed below in Chapter 4, 5.

[774] E. g. FATF, *Best Practice Paper: Sharing Among Domestic Authorities Information Related to the Financing of Proliferation*, February 2012, Paris, France: FATF/OECD.

[775] FATF, *Proliferation Financing Report*, 2008, Paris, France: FATF/OECD.

[776] I. e. FATF, *FATF Guidance on Counter Proliferation Financing: The Implementation of Financial Provisions of United Nations Security Council Resolutions to Counter the Proliferation of Weapons of Mass Destruction*, Paris, France: FATF/OECD, February 2018; FATF, *Guidance on Proliferation Financing Risk Assessment and Mitigation*, Paris, France: FATF/OECD, July 20, 2021.

[777] These will be discussed below in Chapter 4.

however, the circle of members has been expanded to include government institutions from a further 18 countries. The thematic focus of the committee is on the formulation of high-level standards for bank capital liquidity and risk management, which have generally become known as Basel I - IV. Although there is no obligation under international law for the members to implement the guidelines, these requirements are usually transposed into national law. In Europe, this is done through both, directly and indirectly applicable European law.[778]

In the area of AFC, the BCBS has made its appearance through its guideline on the "Sound management of risks to money laundering and financing of terrorism"[779], which has merged and replaced earlier guidelines on more specific topics of the AFC, in particular those on customer due diligence for banks, in a single document.[780] It provides banks with guidance on design of their customer acceptance policy; the conduct of customer and beneficial owner identification, verification and risk profiling; and group-wide customer risk management, amongst others.

However, the "Sound management of risks to money laundering and financing of terrorism" does not contain any recommendations for measures or processes specifically aimed at proliferation financing.

3. The Wolfsberg Group

The Wolfsberg Group is an association of 13 global banks, namely Banco Santander, Bank of America, Barclays, Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, J.P. Morgan Chase, MUFG Bank, Société Générale, Standard Chartered Bank and UBS. The group established itself in 2000 in *Château Wolfsberg*, Switzerland, to develop general AML standards for private banking.[781] Since the publication of the first AML Guidelines on Private Banking in October 2000[782], the Group has broadened its scope and published a

[778] For example, Basel III was implemented by way of the Capital Requirements Regulation (EU Regulation 575/2013) and the Capital Requirements Directive (EU Directive 2013/36/EU).
[779] BCBS, *Guidelines: Sound management of risks related to money laundering and financing of terrorism*, Basel, Switzerland: Bank for International Settlements, January 2014 (revised July 2020).
[780] Such superseded documents are, for example, BCBS, *Consolidated KYC Risk Management*, Basel, Switzerland: Bank for International Settlements, October 2004; and BCBS, *General Guide to Account Opening and Customer Identification*, Basel, Switzerland: Bank for International Settlements, February 12, 2003.
[781] See Mark PIETH & Gemma AIOLFI, *The Private Sector becomes active: The Wolfsberg Process*, J Financ Crime 2003, vol. 10, issue 4, pp. 359 - 365 (359 et seqq.).
[782] WOLFSBERG GROUP, *Wolfsberg Anti-Money Laundering Principles for Private Banking*, 2012, available under https://www.wolfsberg-principles.com/sites/default/files/wb/pdfs/wolfsberg-standards/10.%20Wolfsberg-Private-Banking-Prinicples-May-2012.pdf; these principles were initially formulated in 2000 and revised in 2002 and 2012.

number of other documents, such as the Statement on the Financing of Terrorism[783], the Anti-Money Laundering Principles for Correspondent Banking[784], the Guidance on Politically Exposed Persons[785] and the Trade Finance Principles[786].

For the compliance practice, the Correspondent Banking Due Diligence Questionnaire (CBDDQ) of the Wolfsberg Group is of particular relevance. This is a standardized questionnaire that financial institutions can use as part of their due diligence for correspondent banking relationships. The aim of the questionnaire is to provide institutions with an increased level of risk understanding with regard to their cross-border correspondent banking relationships. Thus, in addition to the main topic of AML/CFT, the questionnaire also covers the areas of corruption prevention and sanctions exposure.[787] The uniformity achieved through the global use of the CBDDQ enables financial institutions to systematically detect risks and deviations from their own risk appetite for a large number of correspondent banking relationships, to ask more specific questions and to take specific risk mitigating measures.

The more than 100 questions of the questionnaire deal specifically with the structure of the partner bank and its ownership, the products and services offered, its AML, CFT, Anti-Bribery & Sanctions Program, policies and procedures, risk assessments, KYC & CDD as well as monitoring and reporting processes. In particular, questions about the existence of EDD measures with regard to certain categories of customers enable the requesting bank to

[783] WOLFSBERG GROUP, *Wolfsberg Statement on the Suppression of the Financing of Terrorism*, 2002, available under https://www.wolfsberg-principles.com/sites/default/files/wb/pdfs/wolfsberg-standards/16.%20Wolfsberg_Statement_on_the_Suppression_of_the_Financing_of_Terrorism_%282002%29.pdf.

[784] WOLFSBERG GROUP, *Wolfsberg Anti-Money Laundering Principles for Correspondent Banking*, 2014, available under https://www.wolfsberg-principles.com/sites/default/files/wb/Wolfsberg-Correspondent-Banking-Principles2014.pdf.

[785] WOLFSBERG GROUP, *Wolfsberg Guidance on Politically Exposed Persons (PEPs)*, 2017 amendment, available under https://www.wolfsberg-principles.com/sites/default/files/wb/pdfs/wolfsberg-standards/4.%20Wolfsberg-Guidance-on-PEPs-May-2017.pdf.

[786] WOLFSBERG GROUP, INTERNATIONAL CHAMBER OF COMMERCE, & BAFT, *The Wolfsberg Group, ICC and BAFT Trade Finance Principles*, 2019 amendment, available under https://www.wolfsberg-principles.com/sites/default/files/wb/Trade%20Finance%20Principles%202019.pdf.

[787] WOLFSBERG GROUP, *Wolfsberg Frequently Asked Questions ("FAQs") on the Correspondent Banking Due Diligence and Financial Crime Compliance Questionnaire v2.0*, April 2020, available under https://www.wolfsberg-principles.com/sites/default/files/wb/Wolfsberg%20CBDDQ%20FCCQ%20FAQ%20v2%20Final%20160420_0.pdf. The FAQs are also available in Spanish: WOLFSBERG GROUP, *Preguntas Frecuentes ("FAQs) de Wolfsberg: Sobre los Cuestionarios de Diligencia Debida y Cumplimiento de Crimen Financiero de Banca de Corresponsales v2.0*, October 2020, available under https://www.wolfsberg-principles.com/sites/default/files/wb/Wolfsberg_CBDDQ_FAQs_Spanish%20%28final%29.pdf.

better assess the risks of transactions routed through its house.[788] If the partner bank, for example, maintains customer relationships with customer groups that are rejected *per se* by the requesting bank, the corresponding bank may be requested not to route corresponding transactions through the requesting bank. Similarly, other relevant divergences between the risk understandings and AFC standards of two banking houses may also lead to the requesting bank applying increased control measures to corresponding transactions or deciding to discontinue the existing correspondent banking relationship entirely.

The Wolfsberg questionnaire does not contain any questions specifically directed at measures against proliferation financing. Nevertheless, some of the questions contained in the questionnaire may be highly relevant for assessing the proliferation risk posed by correspondent banking relationships. For example, the scope of due diligence measures is assessed for certain customer relationships that also have an increased relevance for proliferation financing, i. e. PEPs; PEP close associates, correspondent banks; arms, defense, military; nuclear energy; and embassies and consulates.[789]

Furthermore, the existence of processes and procedures for the compliance with existence sanctions and embargoes is assessed. This also includes the question on the monitoring of specific sanctions lists such as the Consolidated United Nations Security Council Sanctions List, which also targets individuals because of the proliferation risks they pose.[790]

4. How the standards of these organizations impact the regulatory landscape

The mentioned AFC standards can impact the overall regulatory landscape very differently. Their direct or indirect infringement can likewise have different consequences, including criminal penalties, administrative fines, findings by internal and external auditors, significant operational constraints, and reputational damage.

The consequences and enforcement mechanisms of the FATF's 40 Recommendations are particularly multi-faceted, as its requirements are directed at both states and banks.

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[788] The *CBDDQ* (version 1.3.) asks in questions 70 - 70v which of the following categories of customers or industries are subject to EDD: "Non-account customers", "Non-resident customers", "Shell banks", "MVTS/MSB customers", "PEPs", "PEP Related", "PEP Close Associate", "Correspondent Banks", "Arms, defense, military", "Atomic power", "Extractive industries", "Precious metals and stones", "Unregulated charities", "Regulated charities", "Red light business / Adult entertainment", "Non-Government Organisations", "Virtual currencies", "Marijuana", "Embassies/Consulates", "Gambling", "Payment Service Provider". The asked bank can choose between the following possible answers: "EDD on a risk based approach", "EDD & restricted on a risk based approach", "prohibited", "not EDD, not restricted or not prohibited on a risk based approach", "Do not have this category of customer or industry".

[789] See previous footnote.

[790] *CBDDQ* (version 1.3.), question 93a.

On the one hand, they are of relevance to financial institutions because individual states or the EU cast these recommendations in binding law. On the other hand, they are also relevant because banks enforce them directly among themselves by way of mutual compliance assessments. This is particularly the case for combating money laundering and terrorist financing, as will be shown subsequently.

4.1. Administrative and criminal penalties

The consequences for infringements of standards that are transposed into formal law by national or regional legislators primarily consist in the criminal and administrative implications provided for in the respective national laws. In this respect, the European legislation requires, rather generically, that the Member States must provide that the competent authorities are enabled to carry out effective supervision and to take the necessary measures to ensure compliance with the money laundering directives.[791] Given the high degree of congruence between European money laundering law and the 40 Recommendations of the FATF, this means that the national authorities in the EU are required to ensure compliance with this standard by sovereign means.

a) Administrative offences under the Money Laundering Act

In Germany, for example, this requirement is reflected in section 51 of the Money Laundering Act *(Geldwäschegesetz - GwG)*, which grants the competent supervisory authorities the general authority to adopt those measures against financial institutions that are appropriate and necessary to ensure compliance with the requirements set out in the Money Laundering Act.[792] In addition to a general authorization to carry out ad hoc audits of AFC processes, this competence includes, in particular, the provisional prohibition of business activities and the revocation of licenses if the financial institution concerned fails to introduce sustainable improvements in response to orders and warnings issued by the supervisory authority. Where the supervisory requests are the result of a negligent or intentional violation by an employee of the financial institution, the supervisory authority may impose a temporary suspension from holding a management position on that employee.

[791] Article 44 Directive (EU) 2015/849 (AMLD 4).
[792] See, for a Spanish legal perspective of what is to be understood as appropriate compliance, Miriam CUGAT MAURI, *La reforma de la responsabilidad penal de las personas jurídicas: el papel del juez ante el peligro de hipertrofia de las compliance*, Estudios Penales y criminológicos, no. 35, 2015.

In addition, infringements of orders and warnings - even in the case of only gross negligent *("leichtfertige")* acts - are subject to substantial fines under section 56 GwG, which can reach up to EUR 150,000.- in the case of intentional commission and up to EUR 100,000.- in other cases. However, if the violation is not an isolated case but rather an expression of a particularly serious, repeated or systemic violation, a fine of EUR 5 million or 10 % of the total turnover achieved in the financial year (i. e. not merely of the final profit) may be imposed additionally.

A large number of wrongdoings that may have given rise to the order to adjust processes issued by the supervisory authority can also be punished with fines as autonomous administrative offences in the same way as described above. In this regard, section 56 GwG sets out a comprehensive catalog of relevant administrative offences, which lists 74 administrative offences in its first paragraph alone. For example, it is considered an administrative offence to "fail to identify or assess risks" (section 56 para. 1 no. 1 GwG), to "fail to establish uniform group-wide precautions, procedures and measures" (section 56 para. 1 no. 8 GwG), to "fail to identify the beneficial owner" (section 56 para. 1 no. 17 GwG), to "fail to determine, or fail to determine correctly, whether the contracting party or the beneficial owner is a politically exposed person, a family member or a person known to be closely associated" (section 56 para. 1 no. 19 GwG), or to "fail to continuously monitor, or to monitor correctly, the business relationship, including the transactions carried out in the course thereof" (section 56 para. 1 no. 20 GwG). All of these requirements have their basis in the 40 Recommendations of the FATF and have found their way into German money laundering law and special administrative offences law via the European Money Laundering Directives.[793]

b) Criminal liability for money laundering

In addition to an administrative offence, violations of the obligations under the GwG may also give rise to criminal liability, whether for intentional or gross negligent money laundering under section 261 StGB (by omission), aiding and abetting money laundering under section 261 StGB in conjunction with section 27 StGB, or obstruction of justice under section 258 StGB. In Germany, this criminal liability is limited to natural persons, as German criminal law does not provide for corporate criminal liability. The perpetrators of these

[793] Steffen BARETTO DA ROSA, *Bußgeldvorschriften*, in Felix Herzog, *Geldwäschegesetz (GwG)* (4th ed.), Munich, Germany: C. H. Beck, 2020, § 56, para. 1.

crimes are therefore, in particular, the anti-money laundering officer who violates his or her guarantor responsibility *("Garantenpflicht")*,[794] as well as bank employees who are directly involved in money laundering activities.

The 40 Recommendations of the FATF thus also have an indirect influence on the criminal liability of individuals: With regard to the act of negligence, because it is the substance of the GwG, which in turn is the relevant provision for the determination of the objective duty of care *("Sorgfaltspflicht")*, the violation of which is a constitutive element of any act of negligence. With regard to an act of commission by omission, because it decisively shapes the content of the catalog of duties of the German Money Laundering Act, for compliance with which the anti-money laundering officer acts as guarantor.

c) Criminal liability for terrorist financing

In addition to the extensive influence on the Money Laundering Act and criminal liability under section 261 StGB, the requirements of the FATF also had an impact on the drafting of section 89c StGB[795], which criminalizes the financing of terrorism under German criminal law.

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[794] See Stephan NEUHEUSER's comments on the guarantor responsibility of the anti-money laundering officer, in Wolfgang Joecks et al., *Münchner Kommentar zum StGB* (2nd ed.), Munich, Germany: C. H. Beck, 2012, § 261, para. 103: "The state is dependent on him for the protection of the legal good "criminal justice system" in the area of finance, it is possible for him to provide protection and, due to his legally established position and function, he controls the events that push towards the violation of the mentioned legal good."; see also, with further references to the various views in academic discourse regarding employees' guarantor obligations under the Money Laundering Act, EL-GHAZI, in *Geldwäschegesetz*, op. cit., § 261 StGB, para. 17.

[795] Section 89c StGB - Financing of terrorism:
(1) Whoever collects, accepts or provides assets in the knowledge or with the intention that these are to be used by another person for the purpose of committing
1. murder under specific aggravating circumstances (section 211), murder (section 212), genocide (section 6 of the Code of Crimes against International Law), a crime against humanity (section 7 of the Code of Crimes against International Law), a war crime (section 8, 9, 10, 11 or 12 of the Code of Crimes against International Law), bodily harm under section 224 or bodily harm which causes severe physical or emotional trauma to another person, in particular of the type referred to in section 226,
2. abduction for the purpose of extortion (section 239a) or hostage-taking (section 239b),
3. offences under sections 303b, 305 and 305a or serious criminal offences constituting a public danger under sections 306 to 306c or section 307 (1) to (3), section 308 (1) to (4), section 309 (1) to (5), section 313, 314 or section 315 (1), (3) or (4), section 316b (1) or (3) or section 316c (1) to (3) or section 317 (1),
4. offences against the environment under section 330a (1) to (3),
5. offences under section 19 (1) to (3), section 20 (1) or (2), section 20a (1) to (3), section 19 (2) no. 2 or (3) no. 2, section 20 (1) or (2) or section 20a (1) to (3), in each case also in conjunction with section 21, or under section 22a (1) to (3) of the War Weapons Control Act,
6. offences under section 51 (1) to (3) of the Weapons Act,
7. an offence under section 328 (1) or (2) or section 310 (1) or (2),
8. an offence under section 89a (2a)
incurs a penalty of imprisonment for a term of between six months and 10 years. Sentence 1 only applies to cases under nos. 1 to 7 if one of the offences stipulated in those provisions is intended to seriously intimidate the population, to unlawfully coerce an authority or an international organization by force or threat of force or to destroy or significantly impair the fundamental political, constitutional, economic or social structures of a state or of an international organization and which, given the nature or consequences of such offences, can seriously damage a state or an international organization.
(2) […]

Terrorist financing within the meaning of this provision consists of collecting, accepting or making available assets with the knowledge or intention that they are to be used by another person to commit one of the crimes listed in section 89c para. 1 no. 1 - 8 StGB (e. g. murder, dangerous assault, or hostage-taking). The listed criminal act must serve a terrorist goal, which means that it does not in itself stand for terrorism.

Although the provision, or more precisely its predecessor in the old version of section 89a para. 2 no. 4 StGB, was adopted in implementation of the "International Convention for the Suppression of the Financing of Terrorism"[796], which Germany ratified, it was subsequently adapted to the requirements of the FATF, which, in the course of a mutual evaluation, certified that Germany was only in partial compliance with the FATF Recommendations on terrorist financing. In particular, the monetary thresholds referring to "not merely insubstantial assets", which were still contained in the provision at the time, were considered by the FATF auditors to be not fully in line with the requirements of the 40.[797]

In addition, the FATF criticized the fact that perpetrators did not have to fear sufficiently effective, proportionate and dissuasive administrative or criminal sanctions, i. e. the possible range of punishment for terrorist financing was too small.[798]

By removing the financing provisions from section 89a para. 2 no. 4 and transferring them to the now independent section 89c StGB, the German legislator complied with these FATF requirements, deleted the threshold requirement and increased the range of punishment. The demands of the 40 Recommendations with regard to the scope of the offence and the range of punishment for terrorist financing were thus incorporated into German law and consequently also enforced through national criminal law.

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(3) Subsections (1) and (2) also apply if the offence is committed abroad. If the offence is committed outside the Member States of the European Union, this only applies if the offender is a German national or a foreign national whose livelihood is based in Germany, or the financed offence is to be committed in Germany or against a German national.
[…].

[796] International Convention for the Suppression of the Financing of Terrorism, A/RES/54/109, of February 25, 2000.

[797] FATF, *Mutual Evaluation of Germany: 3rd Follow-Up Report*, Paris, France: FATF/OECD, 2014, p. 14: "This article is supposed to cover financing of an individual terrorist as well as of a terrorist act in general. Careful analysis of this article, however, leads to the conclusion that its provisions have a number of deficiencies with regard to the requirements of the FATF standards. […] It should also be noted that the article [prior version of section 89a para. 2 no. 4 StGB] introduces a potential monetary threshold by referring to "not merely insubstantial assets", which again is not fully in line with the FATF standards (Deficiency 3). The effect of this "threshold" might not be that important, as argued by Germany, however this element adds to the overall picture concerning this article. Finally, it should be pointed out that since its introduction in 2009 article 89a has never been used in practice which makes it difficult to judge its effectiveness and might potentially serve as a negative indicator of its relevance."

[798] FATF, *Mutual Evaluation of Germany: 3rd Follow-Up Report*, op. cit., p. 15.

4.2. Audits as detection mechanism and triggers for penalties and supervisory measures

The violation of AFC standards can also have an impact on the evaluation standards used by external and internal auditors in their audits. They thus have an impact on the preparation and evaluation of findings and their consequences.

In this respect, the audit of banking supervisory requirements does not have to be the result of a voluntary mandate of the auditors by the institution concerned. Rather, as in Germany, it may also be required by law as a mandatory part of the regular year-end audit. The auditors, as the extended arm of the German financial supervisory authority *("Bundesanstalt für Finanzdienstleistungsaufsicht" – "BaFin")*, thus audit not only the bank's financial reporting but also the measures taken by the bank to prevent money laundering, terrorist financing and other criminal acts.[799]

The criteria for the audit are the appropriateness and effectiveness of the measures taken.[800] Although it is difficult to clearly define the content of the appropriateness evaluation, it can be viewed as an interplay of the following three assessment criteria: The implementation of regulatory minimum requirements, the necessity in light of the institution-specific risk situation, and a peer group benchmarking.[801] AFC standards have an indirect influence on the minimum regulatory requirements, whenever they are a standard cast in law, as explained above. However, they also shape, in particular, what can be considered as the financial industry's benchmark, i. e., a bank-typical compliance level. What is considered an appropriate AFC measure is thus significantly influenced by the specifications of international AFC standards.

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[799] Section 29 para. 2 German Banking Act ("*Kreditwesengesetz*" – "*KWG*"): „The auditor shall also examine whether the institution has fulfilled its obligations pursuant to sections 24c and 25g paras. 1 and 2, paras. 25h to 25m and the Money Laundering Act; […]."; see, for example, section 25h para. 2 KWG: "Credit institutions shall [...] operate and update data processing systems by means of which they are able to identify business relationships and individual transactions in the payment system which, on the basis of empirical knowledge of the methods of money laundering, terrorist financing and other criminal acts […] available to the public and in the credit institution, are particularly complex or large in relation to comparable cases, proceed in an unusual manner or take place without an obvious economic or lawful purpose. [...]"

[800] Section 27 German Audit Report Ordinance ("*Prüfungsberichtsverordnung*" – "*PrüfbV*"): "(1) The auditor shall present in the audit report the precautions taken by the obligated institution during the reporting period to prevent money laundering and terrorist financing as well as other criminal acts. […] (2) With regard to the precautions taken, the auditor shall assess in the audit report: a) their adequacy; and b) their effectiveness […]"

[801] Stephan A. VITZTHUM, *Jahresabschlussprüfung*, in Bernhard Gehra, Norbert Gittfried, & Georg Lienke, *Prävention von Geldwäsche und Terrorismusfinanzierung: Praktische Umsetzung der aufsichtsrechtlichen Anforderungen durch Banken* (2nd ed.), Heidelberg, Germany: C. F. Müller, 2020, pp. 535 et seqq., paras. 122 et seqq.

Depending on the significance of the findings[802], the supervisory authority will react with varying degrees of intensification of its supervisory measures, the specific form of which is at its discretion. Especially in the case of substantial findings, however, the ordering of additional special audits, with a particular focus on specific aspects of AFC compliance, is conceivable.[803] Although BaFin has the right to order such special audits even without requiring the existence of specific reasons, practice shows that prior findings are a typical trigger. For financial institutions, such special audits are associated with significant additional costs, personnel efforts and the risk of the detection of further shortcomings.

Furthermore, BaFin also has the option of appointing a special representative for the financial institution who monitors the implementation of corresponding measures and continuously reports to the financial supervisory authority.[804] The implementation of such a measure can not only have an impact on the free design of a compliance framework in a financial institution but can also have an extremely negative effect on the reputation of the bank concerned. This is particularly true if, as in the member states of the European Union, the measures taken by the supervisory authority are not the subject of a confidential procedure but are made public by the authority in a generally accessible online register.[805]

Finally, the findings can also draw the attention of the authorities to wrongdoings, which could constitute administrative offences or criminal acts. They are thus also potential triggers for administrative fine proceedings and criminal investigations against the bank and its employees.

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[802] In Germany, findings are divided into 5 levels of significance: F0 (no deficiencies), F1 (minor deficiencies), F2 (moderate deficiencies), F3 (major deficiencies), F4 (severe deficiencies). The additional classification "F5" means that the audit area is not applicable in the specific institute.

[803] Section 44 para. 1 KWG: "[…] The supervisory authority may, even without special cause, carry out audits at the institutions, […]"

[804] Section 45c KWG: "(1) The supervisory authority may appoint a special representative, entrust him with the performance of tasks at an institution and delegate to him the powers required for this purpose. [...] Within the scope of his duties, he shall be entitled to demand information and the provision of documents from the members of the governing bodies and employees of the institute, to attend all meetings and assemblies of the governing bodies and other bodies of the institute in an advisory capacity, to enter the business premises of the institute, to inspect its business papers and books and to make investigations. [...] He shall be obliged to provide the supervisory authority with information on all findings within the scope of his activities.
(2) The supervisory authority may assign to the special representative in particular: 1. To perform the duties and exercise the powers of one or more managers, [...] 5.To take appropriate measures to establish and ensure proper business organization, including appropriate risk management, if the institution has persistently violated provisions of this Act [...] the Money Laundering Act [...] or orders of the supervisory authority; […]"

[805] Article 60 Directive (EU) 2015/849 (4AMLD). In Germany also known as "BaFin Pillory" *("BaFin-Pranger")*: https://www.bafin.de/DE/Aufsicht/Boersen Maerkte/Massnahmen/massnahmen_sanktionen_node.html.

4.3. Impact of standard violations on correspondent banking relationships

In addition to the (indirect) sovereign enforcement of the contents of international standards via penalties, fines and specific measures by the financial supervisory authorities, the standards are also enforced by means of mutual control within the financial industry.

This is particularly the case in the context of correspondent banking, as weaknesses in the correspondent banking relationship's CDD or AFC monitoring have a direct impact on the bank's own risk exposure.[806] Banks that tend to be subject to stricter regulatory controls compared with their global counterparts will therefore periodically check and demand compliance with international standards from their foreign correspondent banks. This is practice is also reflected the Wolfsberg CBDDQ described above, in which the requirements of international standard setters are not only reflected in the content but are in some cases also asked for explicitly.[807]

If compliance checks reveal that the correspondent banking partner do not comply with relevant international standards, measures such as the prohibition of certain transactions or the termination of the entire correspondent banking relationship may be the result. Such a decision could come with considerable operational risks for some financial institutions, especially if they are smaller banks with a limited correspondent banking network.

However, if the affected bank is located outside the EU or the USA and the bank terminating the business relationship was the only correspondent banking relationship in one of the respective areas, the consequence of the termination can become severe.

On the one hand, because direct transactions and trade finance activities in a relevant economic area would no longer be possible. Corporate clients of the affected bank would therefore face significant challenges to conduct transactions with their business partners in the EU or the USA respectively. For the bank, the foreseeable consequence of this is a loss of numerous business client relationships, who will seek the respective services at other financial institutions.

[806] See Part One, Chapter 3, 1.2., of this thesis.
[807] E. g. within the scope of question 80 ("Does the Entity adhere to the Wolfsberg Group Payment Transparency Standards?"), question 81a ("Does the Entity have policies, procedures and processes to [reasonably] comply with and have controls in place to ensure compliance with FATF recommendation 16?"), and question 42 ("Are the Entity's policies and procedures gapped against/compared to US Standards/EU Standards?").

On the other hand, because also the participation in international financial transactions outside the EU or the USA would be significantly impeded as the bank would not be able to offer its clients the execution of Euro or US dollar payments as well. This is a consequence of the fact that foreign currency transactions always require the participation of a correspondent bank from the respective currency area, the so-called "*currency clearer*". As more than three quarters of global transactions are performed by using either the Euro or the USD as currency, also banks situated in states with a weak AML-framework will therefore hardly have any other realistic option than to comply to the more demanding international standards, as required by their correspondent banking partners.[808]

Chapter 4: The Financial Action Task Force's approach to proliferation financing

The topic of proliferation financing has increasingly come to the attention of international standard setters. This is particularly evident in the FATF's 40 Recommendations: While one searches in vain for references to terms such as "proliferation" and "WMD" in the versions before the complete revision in 2012, the current version of the 40 Recommendations, including its Interpretative Notes and Annexes, already contains the term "proliferation" more than 40 times. This development even concerns the official title of the FATF Recommendations, which was renamed into "International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation: The FATF Recommendations", thus at least symbolically raising the importance of the CPF to the same level as the more established AML/CFT objectives of the FATF.

1. The beginnings: A mere issue of sanctions and embargo compliance

Despite the fact that the topic was not mentioned in the 40 Recommendations at the time, the FATF's involvement with proliferation financing issues can be dated to several years before 2012. For instance, as early as 2007, the FATF published two Guidance papers on the implementation of the financial measures provided for in various proliferation-related UNSC

[808] According to SWIFT, *Worldwide Currency Usage and Trends*: *Information paper prepared by SWIFT in collaboration with City of London and Paris EUROPLACE*, La Hupe, Belgium: SWIFT, 2015, in 2014 the US dollar had a share of 51,9 % of the value of international currency usage and the Euro of 30.5 %.

sanctions.[809] These papers were primarily intended to provide guidance to member states and, according to an explicit positioning of the FATF, were not directly related to the 40 Recommendations.[810] However, the guidance also revealed the intention to establish a framework for further study of broad-based measures to combat WMD proliferation financing under UNSCR 1540 (2004). During the same period, the FATF declared its continuing willingness to draft guidance papers on the implementation of proliferation related UNSC resolutions, which received the *de facto* blessing of the Security Council through the explicit endorsement of this approach in the pre-ambulatory clauses of a subsequent UNSC resolution.[811]

The strict limitation to the sanctions perspective that accompanied the guidance papers was abandoned to some extent with the publication of the announced study on UNSCR 1540 in 2008 and expanded to include a consideration of proliferation financing as an abstract phenomenon of financial crime. The responsible working group of the FATF seems to have thereby purposefully stretched the thematic limits of its mandate, which was limited to the implementation of the provisions of UNSCR 1540 and other UNSCRs.[812]

2. The attempt to implement an expanded and crime-centered understanding

With the explicit expansion of the FATF mandate to include proliferation financing and other emerging threats, which also took place in 2008, the organization's already existing involvement with the topic was then formalized.[813] In this context, a project team on

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[809] FATF, *FATF Guidance: The Implementation of Financial Provisions of UNSCRs to Counter the Proliferation of WMD*, June 2007, which relates to the implementation of UNSCRs 1540, 1673, 1695, 1718, 1737, and 1747; FATF, *FATF Guidance: The Implementation of Activity-Based Financial Prohibitions of UNSCR 1737*, October 2007; in October 2008, the two guidances were supplemented by a further one: FATF, *FATF Guidance: The Implementation of Financial Provisions of UNSCR 1803*. In June 2013, the three guidances were consolidated and updated by *"FATF Guidance: The Implementation of Financial Provisions of United Nations Security Council Resolutions to Counter the Proliferation of Weapons of Mass Destruction"*. This version was again updated in February 2018.

[810] FATF, *2008 - 2009 Financial Action Task Force Annual Report*, Paris, France: FATF/OECD, 2009, p. 11.

[811] S/RES/1803 (2008): "The Security Council […] Welcoming the guidance issued by the Financial Actions Task Force (FATF) to assist States in implementing their financial obligations under resolution 1737 (2006), […]"

[812] FATF, *FATF Annual Report 2007 - 2008*, Paris, France: FATF/OECD, 2008, pp. 5 et seq., para. 21; FATF, *Proliferation Financing Report*, op. cit., p.1: "Introduction: […] Pursuant to the FATF's Guidance of June 29, 2007, "Further study of broad-based measures to combat WMD proliferation finance under United Nations Security Council Resolution 1540 (2004) "S/RES/1540 (2004)", the project identifies and analyses the existing threat of proliferation financing; examines existing measures used to counter this threat; and outlines a series of options that could be considered by the FATF to counter proliferation financing, within the framework of existing S/RES/1540 (2004) and S/RES/1673 (2006). […] The FATF, while taking into consideration the work of the United Nations 1540 Committee, will conduct further study to: (a) identify the threat of the financing of WMD proliferation; (b) analyze the effectiveness of existing measures to counter the threat of the financing of WMD proliferation, and (c) identify measures (e. g. criminalization measures, broader sanctions, activity-based financial prohibitions or controls or examining the use of financial intelligence) that could be considered in combating WMD proliferation finance within the framework of existing UNSCRs, such as S/RES/1540 (2004)."

[813] FATF, *FATF Annual Report 2007 - 2008*, op. cit., Annex 1: "FATF Revised Mandate 2008-2012: I.2. […] Going forward, the FATF will […] respond to new and emerging threats, such as proliferation financing […]."

proliferation financing was formed as part of the FATF Working Group on Terrorist Financing and Money Laundering in order to create policy options for dealing with proliferation financing.

The work of the project team resulted in a report in February 2010, which submitted 23 cumulative or alternative options to the Working Group for its consideration.[814] The scope provided by the project mandate seems to have been perceived as too narrow here as well, which is why options beyond the strict sanctions perspective were included. This is evident already from Option 1, which recommends implementing a working definition that defines proliferation financing without reference to any sanctions regimes and rather takes into account in general the normative aspect of the permissibility of the underlying commodity transactions in national and international settings.[815]

The character of proliferation financing, as an independent criminal phenomenon *per se*, which does not necessarily require the involvement of sanctioned subjects or countries for its existence, is then emphasized even more clearly through option 2.[816] It advises that the FATF, through its 40 Recommendations, should encourage jurisdictions to treat proliferation financing as an independent serious offence in their criminal legal systems. The paper further addresses that for financial institutions, the application of the risk-based approach to possible proliferation financing should be considered.[817]

Since the risk-based approach, with its gradually increasing due diligence and risk mitigating measures, contrasts with the rule-based character of sanctions and embargo law, which only recognizes absolute reactions to certain individuals and organizations, the project group's proposals clearly exceed the original scope of the project. This is true even though the group

[814] FATF, *Combating Proliferation Financing: A Status Report on Policy Development and Consultation*, Paris, France: FATF/OECD, February 2010.
[815] FATF, *Combating Proliferation Financing: A Status Report on Policy Development and Consultation*, op. cit., p. 29, para. 106: "Option 1: The FATF should consider this provisional definition as a basis for further work on proliferation financing: Proliferation financing refers to: The act of providing funds or financial services which are used, in whole or in part, for the manufacture, acquisition, possession, development, export, trans-shipment, brokering, transport, transfer, stockpiling or use of nuclear, chemical or biological weapons and their means of delivery and related materials (including both technologies and dual-use goods used for nonlegitimate purposes), in contravention of national laws or, where applicable, international obligations."
[816] FATF, *Combating Proliferation Financing: A Status Report on Policy Development and Consultation*, op. cit., p. 29, para. 106: "Option 2: Jurisdictions should ensure proliferation financing is treated as a serious offence, and should have an adequate criminal basis within their legal systems to investigate and prosecute the conduct of proliferation finance."
[817] FATF, *Combating Proliferation Financing: A Status Report on Policy Development and Consultation*, op. cit., p. 30, para. 106: "Option 11: Jurisdictions should encourage FIs to incorporate the risk of proliferation financing as part of their established preventive measures and internal controls; with respect to clear and consistent criteria, where appropriate, and in accordance with implementation, to the extent possible, of a risk-based approach. This assessment should be integrated with current CDD and risk analysis frameworks. […] The WGTM should undertake to further analyze the risk-based approach to proliferation financing, in collaboration with the private sector."

did not intend to exchange the two systems, but rather to supplement the rule-based requirements of sanctions and embargo law with an additional risk-based view of conduct proliferation financing.[818]

3. The attempt fails: The revised 40 Recommendations of 2012

After additional consultations by the Working Group on the possible design of future recommendations and guidance[819], the topic of proliferation financing was finally included in the central canon of the 40 Recommendations in 2012, as mentioned above. However, during these consultations, the 23 options presented by the FATF Project Team on Proliferation Financing seem to have found little support.

Rather, the PF-related adjustments were limited to the creation of a single new recommendation 7, which remains part of FATF's current 40 Recommendations and reads as follows:

> **Recommendation 7 - Targeted financial sanctions related to proliferation :**
>
> Countries should implement targeted financial sanctions to comply with United Nations Security Council resolutions relating to the prevention, suppression and disruption of proliferation of weapons of mass destruction and its financing. These resolutions require countries to freeze without delay the funds or other assets of, and to ensure that no funds and other assets are made available, directly or indirectly, to or for the benefit of, any person or entity designated by, or under the authority of, the United Nations Security Council under Chapter VII of the Charter of the United Nations.

Especially noteworthy about recommendation 7 is that the strict requirements it places on natural and legal persons are not risk-based.[820] *Whenever* a natural or legal person is designated by the UNSC, its assets should *always* be frozen. Financial resources shall also *always* not be provided. Hence, there is no necessity for a risk assessment.

The FATF thus transposes the logic of sanctions and embargoes in the form of a rule-based recommendation into the global AFC regime. Recommendation 7 thus represents a

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[818] FATF, *Combating Proliferation Financing: A Status Report on Policy Development and Consultation*, op. cit., p. 31, para. 106: "Option 21: Jurisdictions should consider making available lists of entities of proliferation concern, as a basis for screening by FIs, in the context of a risk-based approach and with respect to their legal framework. Jurisdictions which issue such lists should accompany them with clear guidance on their status and the basis on which entities are included, to ensure FIs do not use them in the same manner as sanctions lists."

[819] UNSC 1540 Committee, *Information Note* (on FATF Plenary and Working Groups Meetings held February 18 – 22, 2013 in Paris), p. 2, available under: https://www.un.org/en/sc/1540/documents/Information%20Note%20Paris%20FATF%20Meeting%20Feb%202013-8.pdf.

[820] FATF, *The FATF Recommendations*, op. cit., interpretative note to recommendation 1, para. 3.

regulatory alien element in the 40 Recommendations, which are otherwise entirely governed by the risk-based approach.

It is also noteworthy that the implementation of the UNSC requirements in the FATF canon only includes their targeted financial sanctions related to PF. Other UNSC resolutions that address measures against proliferation financing are explicitly not meant.[821] Recommendation 7 thus currently only refers to proliferation financing activities involving persons designated under the UNSC resolutions against Iran and North Korea.

Notably, UNSC Resolution 1540, which requires states to prevent the proliferation of WMD and their financing by non-state groups and individuals, has thus not been incorporated into the 40 Recommendations. This is surprising in that this non-targeted facet of combating proliferation financing could fit within the logic of the FATF's AFC framework:

First, because these non-state organizations are likely to mostly be terrorist organizations, so that synergies with the already existing CTF measures of the FATF Recommendations could arise. Second, because risk-based monitoring, as applied in the fight against money laundering and terrorist financing, effectively pursues such a general non-targeted approach and not least can help to identify and bring to the attention of investigative authorities previously unknown non-state groups with proliferation ambitions.

However, despite these obvious aspects and despite the explicit proposal of FATF's PF Working Group to establish an understanding of CPF that goes beyond the targeted sanctions system of the UNSC, no such adjustment has been made.

In the absence of accessible records or explanations, it can only be conjectured why this is the case. Since the FATF itself suggests in several places that a risk-based approach to combating proliferation financing makes sense, it is reasonable to assume that political pressure must have been exerted by a third party.

In particular, the UNSC comes into question here, for which a comprehensive risk-based approach to combating proliferation financing could pose a threat to its geopolitical decision-making sovereignty. CPF compliance and monitoring, which is not limited to certain designated persons but is based on general risk criteria such as transaction behavior, country risk, and industry risk, could indeed also identify proliferation constellations that do not

[821] FATF, *The FATF Recommendations*, op. cit., interpretative note to recommendation 7, para. 1, fn. 17.

involve UNSC-sanctioned countries and persons or terrorist organizations, but concern allied countries of individual UNSC members. Indeed, the expected reaction of the financial industry to such PF hits, i. e. reporting the facts and not executing the relevant transactions, would be comparable to the effect of an embargo, without needing its establishment by the UNSC.

While there is no concrete evidence of such UNSC influence on the FATF, the context described above and the simple lack of other sufficiently powerful third-party organizations clearly point in this direction. The general disposition of the UNSC to allow and protect some states with proliferation efforts out of economic or geopolitical considerations is in any case evident in the contexts of international criminal law and the embargo system described above, i. e. by way of not sanctioning countries such as Israel and Pakistan or by way of blocking the opening of investigations by the ICC into WMD operations in the Syrian Civil War.

4. The "sanctions evader" as a door opener to the risk-based approach

The character of this apparent need to avoid the application of an extended (risk-based) approach to CPF by financial institutions can also be seen in the text of the "FATF Guidance on Counter Proliferation Financing" published in 2019. There it is explicitly stated that the global approach under UNSCR 1540 (2004) does not form part of FATF recommendation 7 but plays a role in the context of recommendation 2. Recommendation 2, however, deals with cooperation and coordination between government authorities and does not concern financial institutions.[822]

However, the Guidance also correctly points out that the implementation of UN targeted financial sanctions does not only include the taking of actions against the explicitly named persons and organizations. Rather, the restrictive measures must also be directed against the following legal or natural persons:

[822] Fernando BORREDÁ JUSTE, *El Plan Nacional 1540: La aproximación whole of the goverment y sus consecuencias a nivel nacional e internacional*, in Instituto Español de Estudios Estratégicos, *Actores no estatales y proliferación de Armas de Destrucción Masiva La Resolución 1540: una aportación española*, Madrid, Spain: Ministerio de Defensa, 2016, p. 26, who stresses the importance of preventive measures, under the umbrella of UNSC Resolution 1540 (2004).
Raquel CABEZA PÉREZ, *El reforzamiento de las exigencias de prevención y control de la financiación de la proliferación de armas de destrucción masiva*, in Instituto Español de Estudios Estratégicos, *Actores no estatales y proliferación de Armas de Destrucción Masiva La Resolución 1540: una aportación española*, Madrid, Spain: Ministerio de Defensa, 2016, pp. 156 and pp. 161 et seqq, who underlines the importance of measures of a financial nature as a mechanism to restore peace and security, and as a complement to other sanctions, while underlining the need for private sector involvement in the prevention of PF.

(1) Persons acting on direct or indirect behalf of designated persons;

(2) Legal persons owned or controlled by designates persons; and

(3) Persons assisting designated persons in evading sanctions or otherwise violating resolution provisions.[823]

For financial institutions, however, this means that merely screening listed names cannot therefore suffice to meet the requirements of the UN sanctions regime. Rather, complementary measures are required.

While the first two groups of persons can theoretically be identified by means of existing KYC processes, i. e. processes for identifying the UBO, this will not regularly be possible for the third group of persons. Rather, the assistance for sanction evasion will regularly be based on factual loyalty and power structures that cannot be detected by means of a classical KYC check of commercial register excerpts and similar documents.

In principle, however, anyone can be considered a potential assistant on the basis of a purely factual relationship. However, as a comprehensive screening of everyone is not practically feasible, the application of a risk-based approach would be the most promising approach to identify such persons, i. e. by means of an enhanced screening of persons and transactions that show special transaction patterns or references to critical countries or industries.

This is also recognized by the FATF, which by the following statement cautiously points in this direction without formally questioning its continued adherence to the rule-based approach:

"[The] FATF Standards do not require the application of the risk-based approach in the context of counter proliferation financing. Nevertheless, awareness of context can support more effective implementation of sanctions by both public and private sector stakeholders. […]".[824]

5. The 2020 revisions: A modified rule-based approach

It is not until the G20 finance ministers and central bank governors called in 2019 for the FATF to strengthen the global regime against proliferation financing that there should be an

[823] FATF, *FATF Guidance on Counter Proliferation Financing*, para. 27.
[824] FATF, *FATF Guidance on Counter Proliferation Financing*, para. 31.

actual aim to pursuit the risk-based approach for countering proliferation financing within the 40 Recommendations.[825]

Following a draft proposal for appropriate amendments to them, which was the subject of a public consultation, the FATF decided in October 2020, to amend recommendation 1 and 2, as well as their respective interpretative notes.

Recommendation 1, which addresses the risk assessment and the application of the risk-based approach, was amended to include a second paragraph that explicitly requires countries to apply the risk-based approach to proliferation financing risks.

At the same time, however, this new paragraph explicitly states that "[...] proliferation financing risk refers strictly and only to the potential breach, non-implementation or evasion of the targeted financial sanctions obligations referred to in recommendation 7". Accordingly, proliferation risks to be considered are only those emanating from persons designated by the UN Security Council. This means, at the current state of affairs, a restriction to some of the proliferation risks posed by Iran and North Korea. Proliferation risks emanating from other countries or persons are therefore not covered. Principally, even proliferation risks emanating from persons who serve Iranian or North Korean proliferation efforts but are neither targeted persons nor associated with them would not be covered as well.

Thus, despite the claimed adoption of the risk-based approach, the focus of the recommendation is that of a *repressive* sanction's logic, directed against *specific persons* who have been identified in advance. It is thus in central aspects contrary to the logic behind the actual risk-based approach, which is more focused on the *prevention* of crime, by providing for an efficient *broad-range* screening of potentially criminal behavior.

The cause for this can be found in the historically grown understanding that CPF is essentially a matter of sanctions and embargoes, and not of AFC-compliance. A fact that also affects the application of the supposedly applied risk-based approach. Thus, although higher and lower proliferation risks are to be responded to with adequate and proportionate

[825] Cf. FATF, *Public Statement on Counter Proliferation Financing*, Paris, October 23, 2020, available under https://www.fatf-gafi.org/publications/financingofproliferation/documents/statement-proliferation-financing-2020.html.

measures, the FATF standards do not exempt States from "[...] still ensuring full implementation of the targeted financial sanctions as required in recommendation 7."[826]

Obviously, this FATF requirement of ensuring full implementation has the potential to cause significant conceptual tensions. In fact, it is precisely the accepted weakness of the risk-based approach that criminal activities are overlooked that do not meet the defined risk parameters, i. e., that have been classified as low risk cases. Indeed, reduced due diligence is applied to these cases in order to be able to focus existing compliance resources on other cases, which have a higher probability to be related to WMD proliferation.

The rule-based approach, as applied in the context of recommendation 7, would dedicate proportionally more attention (i. e., more resources) to these low risk cases and would consequently have higher chances of detecting proliferation-relevant behavior behind this category. However, the rule-based approach pays the price that less resources would have to be spent on high risk customers and that these measures might not be sufficient to detect criminal behavior of the members this risk category.

The new requirement to apply the risk-based approach while fully implementing targeted sanctions must therefore be understood as an attempt to compensate for the weaknesses of the risk-based approach. However, since compliance with targeted sanctions already includes the obligatory and unconditional obligation to detect sanction evasion, e. g., through the use of third parties, resource concentration in the sense of the risk-based approach cannot be implemented, without jeopardizing the remaining requirement for full implementation of the targeted financial sanctions. Furthermore, it leads the risk-based approach *ad absurdum*, since whoever prioritizes everything, prioritizes nothing in the result and consequently applies the rule-based approach.

In result, the approach of the FATF, declared as risk-based approach, is in reality a rule-based approach with additional risk-based elements that are difficult to identify. In the following, we will refer to this approach as the "hybrid approach".

[826] FATF, *The FATF Recommendations*, op. cit., recommendation 1, para. 2.

6. A glimpse into the future: The 2021 FATF Guidance and the 6th AMLD

It is now up to the member states to implement the FATF's new requirements for CPF in line with the new hybrid approach. In the European Union, this will happen, as usual, in the form of a European legislative act.

In fact, on July 20, 2021, the European Commission submitted a proposal for a new European Money Laundering Directive ("pAMLD 6"), which already takes into account the amendments to the FATF's 40 Recommendations made in October 2020.[827] According to the recitals of the proposal for this new Anti-Money Laundering Directive, the central change resulting from the new FATF CPF-recommendations is the newly introduced requirement "[...] to identify, understand, manage and mitigate risks of potential non-implementation or evasion of proliferation financing-related targeted financial sanctions at Union level and at Member State level."[828]

However, the passages regarding this new requirement are very generic and essentially duplicate the FATF's requirements without providing additional regulatory guidance. They are almost exclusively limited to supplementing existing state AML and CTF measures with the addition that they apply "[...] as well [for the] risk of non-application and evasion of targeted financial sanctions".[829] For member states, this specifically means that they must supplement their national risk assessments with an assessment of proliferation financing risk (article 8 para. 1, para. 4 (d) and (f) pAMLD 6) entrust their supervisory authorities with monitoring the implementation of CPF requirements in financial institutions (article 29 para.

[827] European Commission, *Proposal for a Directive of the European Parliament and of the Council on the mechanisms to be put in place by the Member States for the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and repealing Directive (EU) 2015/849*, COM(2021) 423 final, 2021/0205 (COD), Brussels, July 20, 2021: "Explanatory Memorandum: […]This proposal also integrates the changes brought about by the recent revisions of the FATF Recommendations in relation to assessment and mitigation of risks of evasion of targeted financial sanctions."

[828] Recital 17 pAMLD 6.

[829] E. g. recital 11 pAMLD 6: "[…] can assist competent authorities and obliged entities in the identification, understanding, management and mitigation of the risk of money laundering and terrorist financing, as well as of risks of non-application and evasion of targeted financial sanctions. […]"; recital 12 pAMLD 6: […] Therefore, each Member State should take the appropriate steps in an effort to properly identity, assess and understand its money laundering and terrorist financing risks, as well as risks of non-implementation and evasion of targeted financial sanctions […]"; article 8 para. 4 pAMLD 6: "Each Member State shall use the national risk assessment to: […] (d) decide on the allocation and prioritisation of resources to combat money laundering and terrorist financing as well as non-implementation and evasion of proliferation financing-related targeted financial sanctions; […] (f) make appropriate information available promptly to competent authorities and to obliged entities to facilitate the carrying out of their own money laundering and terrorist financing risk assessments as well as the assessment of risks of evasion of proliferation financing-related targeted financial sanctions; article 45 para. 1: "[…] concerning the development and implementation of policies and activities to combat money laundering and terrorist financing and to prevent the non-implementation and evasion of proliferation financing-related targeted financial sanctions […]".

1, para. 4 (e) and (f) pAMLD 6) and strengthen cooperation between authorities in the area of CPF (article 45 para. 1 pAMLD 6).

That the amendments also establish by requirements for financial institutions is not immediately apparent. But it can be concluded from the fact that the supervisory authorities' competence to monitor CPF measures only makes sense if the supervised financial institutions also have to implement them. Furthermore, article 30 para. 3 pAMLD 6 contains a clear requirement that supervisors make information on persons or entities designated in relation to targeted financial sanctions available to the financial institutions immediately. This requirement also only seems reasonable if one assumes that the financial institutions have the appropriate compliance processes in place to derive equally immediate measures from the information obtained.

Therefore, it remains to be seen for financial institutions how the implementation of the hybrid approach and the thematic limitation to cases related to targeted sanctions of the UNSC will be transposed into legal texts and executive orders of the competent authorities.

However, a first impression of what could be expected from financial institutions might be provided by the non-binding "Guideline on Proliferation Financing Risk Assessments and Mitigation" published by the FATF in June 2021. Its claim is to describe the impact of the amendments on compliance frameworks and to identify options for implementing the new requirements.[830]

The explanations relevant to financial institutions are based on a two-part process, which provides for an assessment of proliferation financing risks in a first step and then, in a second step, for the application of adequate measures to mitigate them.

In accordance with the restricted proliferation financing risk concept of the 40 Recommendations, the risk assessment focuses on persons targeted by UN sanctions and individuals and companies related to them. The perception of the threat thus centers on individuals and not on proliferation financing as a phenomenon.[831] The Guideline emphasizes this in an especially clear manner when it states at one point that:

[830] FATF, *Guidance on Proliferation Financing Risk Assessment and Mitigation*, op. cit., para. 3.
[831] FATF, *Guidance on Proliferation Financing Risk Assessment and Mitigation*, op. cit., para. 22, a.

"[…] the FATF Standards do not require a risk assessment of broader PF risks. […] The broader PF risks, which are not covered in the updated Recommendation 1, refer to the risk of WMD proliferation and the risk of financing of proliferation."[832]

Financial institutions are then to determine their "vulnerability", which results from the sum of matters that can be exploited by these threats.[833] In this respect, correspondent banking services and trade finance activities are identified as particularly vulnerable banking services.[834] This assessment is generally in line with the findings of Part One of this thesis on the criminological reality of proliferation finance. The guideline also provides indicators that if present should lead to a more closely check for possible targeted sanction implications, i. e. for their evasion. These indicators relate to customer profile, account and transaction activities, specific indicators for the maritime sector and trade finance activities.[835]

However, the guideline is insubstantial when it comes to the measures that financial institutions can apply to mitigate these risks. As possible measures, improved onboarding processes, enhanced customer due diligence procedures and regular controls to ensure effective sanction screening are generically mentioned.[836] All of these are standard processes that are an outcome of the risk-based approach or already correspond to normal testing processes of embargo monitoring systems.

As seemingly more concrete measures, the utilization of additional information from UNSC expert panels, supplementary training of employees, additional CDD measures on correspondent banking relationships with low AFC standards and a specific awareness regarding shell and front companies are mentioned. In particular, the last two do not differ from what is already a reality under the risk-based AML/CTF framework, as correspondent banking and the use of front companies are also key concerns when it comes to prevent and detect money laundering and terrorist financing activities.[837]

For practitioners, it is therefore difficult to see at this stage which specific adjustments or additions to their compliance framework will ultimately be required in terms of risk mitigation measures. This is also likely to be a challenge for national legislators and their

[832] FATF, *Guidance on Proliferation Financing Risk Assessment and Mitigation*, op. cit., para. 18, and fn. 7.
[833] FATF, *Guidance on Proliferation Financing Risk Assessment and Mitigation*, op. cit., para. 22, b.
[834] FATF, *Guidance on Proliferation Financing Risk Assessment and Mitigation*, op. cit., p. 27.
[835] FATF, *Guidance on Proliferation Financing Risk Assessment and Mitigation*, op. cit., pp. 18 et seqq.
[836] FATF, *Guidance on Proliferation Financing Risk Assessment and Mitigation*, op. cit., para. 65.
[837] See the comments made in Part One, Chapter 3, 1.2. and 3., of this thesis.

competent authorities, which will have to transpose the 40 Recommendations – respectively the 6th European AMLD - into specific requirements for their financial sectors.

The economic and political pressure to react to do so is undiminished in view of the considerable economic reprisals that could otherwise result. The FATF, for its part, has already announced that it will begin assessing jurisdictions regarding the implementation of the new CPF requirements as part of its fifth round of mutual evaluations.[838]

Chapter 5: General remarks and consequences for the counter-proliferation financing program

As has been shown, the issue of proliferation finance as a financial crime that can be addressed through the means of AFC compliance has long received little attention. Instead, it was considered a given that this phenomenon could only be combated through sanctions and embargo law. An opinion that since recently seems to be slowly changing.

1. The 2020 revisions as a step in the right direction

In terms of the effectiveness for the global fight against proliferation financing, especially the amendments of the 40 Recommendations adopted in October 2020 represent a step in the right direction. In particular, those responsible have succeeded in breaking down the understanding of proliferation finance as a purely sanctions and embargo policy issue and broadening its approach.

With the introduction of recommendation 7 in 2012, such a step had not even been indicated. Instead, it seems legitimate to view the introduction of recommendation 7 at that time as a statement in favor of this distribution of competences, which, from a regulatory point of view was limited to the rather declaratory regulation that the UNSC targeted sanctions were to be implemented.

Although the consequences of the 2020 amendments are still unclear in many respects and important aspects of proliferation financing are explicitly excluded from consideration, it

[838] FATF, *Public Statement on Counter Proliferation Financing*, Paris, October 23, 2020, available under https://www.fatf-gafi.org/publications/financingofproliferation/documents/statement-proliferation-financing-2020.html.

must be noted that they will come with an increase in the global level of protection against the crime of proliferation financing. This is a mandatory consequence of the explicit wording of the new recommendation 1, which wants to introduce the "risk-based" measures while at the same time fully *maintain* the already existing requirements of recommendation 7. In terms of CPF issues, we are therefore not faced with a change from rule-based preventive measures to risk-based preventive measures, as the FATF did in 2003 for the area of AML, but rather with an *addition* of supplementary risk-based elements to the persisting rule-based framework.

Regional and national legislators such as the EU and its member states will have to concretize this increase in measures and integrate it into their respective AFC legislation. For the European member states, this will be a considerable challenge at the latest with the adoption of the 6th AMLD, since - should the directive follow the already existing draft directive - they will find the unclear requirements of the FATF requirements cast in mandatory applicable European law.

2. The FATF's sanction-centered concept of proliferation financing risk and its limitations

The exact nature of these new requirements raises questions that are largely based on the historically grown role of the FATF in CPF issues, which was always closely tied to the implementation of UNSC sanctions. The high diplomatic sensitivity of the topic described above is evident in the 40 Recommendations as well as in the FATF's statements in many parts of its guidelines. This is made particularly clear by the aspect, explicitly emphasized several times, that proliferation financing risks in the sense of the 40 Recommendations "strictly and only" concern the risk of breach, non-implementation or evasion of sanctions in the sense of recommendation 7. Unlike the recommendations issued by the FATF with regard to AML and CTF, the aim is therefore not to prevent and detect financial criminal behavior, but to implement UNSC targeted sanctions more efficiently. An understanding of WMD proliferation financing risk that would refer to the risk of the financial crime as such, is named "broader PF risks" by the FATF. These "broader PF risks" are explicitly declared to be "not covered" and "not required" by the 40 Recommendations.

The vehemence is surprising with which a broader CPF approach is supposedly not implied, as a prioritization of cases related to targeted sanctions and a broader risk-based approach

focusing on the financial crime of proliferation financing itself could be combined without contradiction. For even if one follows an exclusive anti-financial crime logic, it stands to reason that persons sanctioned for proliferation activities should be viewed as having a (very) high risk of committing proliferation financing, and not merely on committing sanction breaches. Focusing compliance resources on identifying these individuals and associated third parties who also exhibit a very high proliferation financing risk would thus be congruent with the logic of a broader PF-based risk compliance framework.

The monitoring of possible proliferation financing as such can also help to uncover actors that are not identifiably related to the targeted persons but may be serving the same proliferation efforts, i. e., shell companies in offshore locations that act as one of several intermediaries of traded dual-use goods. The broader CPF approach would thus serve the ultimate goal of targeted sanctions to counter the proliferation efforts of specific countries such as North Korea and Iran. For the UNSC, this could provide an important source of intelligence that it could use to impose targeted sanctions on newly identified individuals and entities.

Above all, however, the sanctions-centric CPF approach chosen by the FATF means that the view on other possible proliferation financing activities is closed. From the perspective of a security policy, this represents a missed opportunity to establish an early warning system for emerging proliferation efforts by states that may have been unknown to the international community until that point. The same applies to proliferation efforts by organized groups, which would also be more likely detected if a broader approach were adopted and would thus have the chance of being stopped at an early stage.

From a criminological perspective, on the other hand, an understanding of proliferation financing activities worth pursuing is established that is shaped not only by criminological factual criteria but also by factually extraneous - purely geopolitical - interests.

3. Other conceptual and practical constraints of the new requirements

How banks will have to integrate the new requirements into their compliance frameworks will depend primarily on what the national legislators and the respective competent authorities put into specific terms. However, at least it is already clear that the measures must be aimed at reducing the risk of targeted sanctions being circumvented and not that of proliferation financing in a broader sense. Inextricably linked to this is the requirement for a

risk analysis specifically tailored to this particular risk, which must be used as the basis for the measures to be derived.

When a bank analyzes its risk situation, however, it is hardly possible to distinguish between a risk profile for proliferation relevant sanctions evasions and one for proliferation financing activities in general, as sanctioned and non-sanctioned persons alike will use concealment measures to hide their involvement in transactions. The former to circumvent existing sanctions, the latter to evade prosecution. The methods that these persons may use are the same for both purposes, e. g. the use of intermediaries, the use of offshore accounts and the use of financial products that guarantee special anonymity. Thus, the general risk profile of a financial institution, which *inter alia* is shaped by the number of intermediaries in the customer base, the percentage of offshore-related transactions, and the transaction volumes involving PF-sensitive financial products, does not allow for a distinction between the narrow (sanctions-centric) and broad (crime-centric) PF risk profiles.

Even with regard to possible country links, a distinction between the two risk categories is hardly possible. The internationalization of financial centers and global proliferation networks can be used equally by targeted sanctioned individuals as well as other proliferation financiers. Also, typical source countries of relevant technologies, such as countries with proliferation efforts or existing WMD stockpiles, are equally relevant to sanctioned and non-sanctioned criminal actors. One could only argue that banks with exposure to countries such as North Korea and Iran probably have a higher risk of being abused for sanctions evasion by sanctioned persons of these countries than those doing business with other states that are also proliferation-relevant but against which no sanctions have been imposed.

However, even if one were to see it this way, a particular consideration of North Korea and Iran, even from the perspective of the narrow PF risk concept, has not to mean a disregard of other proliferation-relevant states, since, as said, these also unfold a particular relevance for sanctioned persons as sources of WMD and their parts, and thus also increase the PF risk in the narrow (sanctions-evasion centered) sense.

National regulators and banks alike are thus confronted with the problem that, despite the factual identity of narrow and broad PF risk profiles, they have to conduct a risk assessment that does not focus on PF risk in the broader sense, but only on the risks of sanction evasion by targeted sanctioned individuals.

The resulting follow-up questions and foreseeable problems are considerable and arise both on the government side and on the side of the financial institutions. On the government side, the question will foreseeably arise as to how to deal with suspicious activity reports that concern proliferation financing but are not related to sanctions. How will the different national FIUs deal with such situations if they do not actually have any competence in this area?

The question for banks is to what extent they have to implement measures to meet the minimum regulatory requirements and at what point they already take measures that go beyond this. This question is elementary for determining the *necessary* budget and for deciding to what extent additional, voluntary measures can be taken.

4. Proposals for an effective CPF program

As has been shown, the current international counter proliferation financing framework has undesirable weaknesses in terms of criminal policy. Banks that are aware of their social responsibility and do not want to suffer the considerable reputational damage associated with an involvement in proliferation financing activities should therefore try to compensate for this weakness through additional compliance processes, which are not based on regulatory requirements but on a far-sighted and responsible business policy.

At the same time, however, a counter-proliferation financing program must not lose sight of the fulfillment of its central tasks: The implementation and realization of the measures required by regulators and the avoidance of impending penalties through fines for the financial institution and its employees.

In the following, it will be shown what a CPF program could look like that does justice to all these aspects. The cornerstones of the holistic approach outlined here always have the highest possible efficiency in mind and seek to leverage synergies where existing AFC and embargo compliance processes can be adapted to the specific requirements of counter-proliferation financing.

The concept thus follows the pragmatic approach that the reduction in additional effort, i. e. the implementation costs incurred, associated with an efficient design is also likely to increase the willingness of financial institutions to commit themselves to comprehensively address proliferation financing.

4.1. The need for a crime-centered risk-based approach

Banks should adopt the risk-based approach when implementing the CPF program. On the one hand, because this is in line with recent developments in dealing with proliferation financing and a corresponding approach will therefore foreseeably be demanded by national legislators, supervisory authorities and correspondent banks.

On the other hand, because also in the light of an efficient prevention and detection of proliferation financing acts the approach is superior to the rule-based approach.

Indeed, there are no discernible reasons why the fact that the rule-based approach has proven to be the superior approach in the area of AML and CTF should not also apply with regard to possible proliferation risks.

Moreover, the nature of proliferation financing makes this form of crime even more suitable for the application of the risk-based approach than is the case for money laundering or terrorist financing. Since a financial transaction is much more probable to be an act of money laundering and terrorist financing than an act of proliferation financing, the possible negative effects of a ML/TF related transaction are much smaller than those of a proliferation financing transaction, which could ultimately lead to the construction of a weapon of mass destruction, capable of causing unimaginable suffering and destruction. The risk-based approach meets this reality, by centering the financial institution’s attention and resources on a limited number of especially vulnerable transactions and businesses, instead of searching less intensely but more broadly across the total amount of transactions. For the purposes or a CPF program, the risk-based approach is undoubtedly the superior concept compared to the rule based approach.

The risk-based approach must focus on proliferation financing as a financial criminal act that, like money laundering and terrorist financing, can in principle be committed by anyone. The FATF's limited understanding of proliferation financing risk as the risk of non-implementation of proliferation-related targeted sanctions, on the other hand, does not go far enough.

First, because it ultimately focuses on individuals and their circles who are already known - because they have already been sanctioned - and thus limits the possibility that actors not

yet known to the authorities can be brought to their attention and that emerging proliferation efforts can thus also be identified and prevented at an early stage.

Second, because the establishment of sanctions and embargoes is not only based on criminal policy considerations, but also includes geopolitical and economic policy criteria. The latter represent extraneous criteria and limitations for a CPF program aimed at preventing criminal behavior and could therefore lead to a distortion of the criteria required to adequately identify the actual PF-risks.

However, the above does not mean that existing embargoes and sanctions should not have an influence on the identification of broader PF risks. On the contrary, whenever states, alliances of states or supranational organizations impose relevant embargoes against certain countries, there is a strong indicator that proliferation efforts by these countries actually exist. Similarly, the existence of targeted sanctions against certain individuals - despite the existing presumption of innocence - is a strong indicator of a very high risk that these individuals are involved in proliferation activities. Existing sanctions and embargoes should therefore always be reflected in a high risk rating of the concerned parties and trigger the implementation of EDD measures.

The fundamental difference between the approach proposed here and the hybrid approach of the FATF is thus that the (high risk) classification is not limited to customer groups and transactions linked to sanctions. Rather, it should also be possible to consider customers and transactions not related to sanctions as high risk from a proliferation financing perspective or to classify them with other risk levels and treat them accordingly.

4.2. Proposed risk parameters

The classification of a customer or a specific business into a certain risk category (i. e. "high risk") must reflect the overall proliferation financing risk of this customer or business. The classification is of central importance for the application of risk-based compliance and can consequently be reflected in a wide variety of operational consequences, e. g., the frequency and depth of KYC checks, the scope of permitted transactions, and the likelihood that specific transactions will be checked for their legitimacy.

The overall proliferation finance risk of the customer or transaction should reflect at least the following risk parameters, discussed in detail below: The customer's criminal history,

country risk, industry risk, the individual's potential PEP status, and so-called product or service risk.[839]

The weighting of the individual factors for the overall assessment cannot be answered in a general way but is also the result of the risk analysis of the respective financial institution. For example, it may make sense for a regionally active bank to give greater weighting to high risk country references because foreign references are only present to a reduced extent anyway. In contrast, for a bank that specializes in providing trade finance to unstable countries, the high risk country criterion tends to be less decisive from the perspective of the risk-based approach.

Similarly, "overall risk" does not necessarily mean that all factors must be taken into account to the same extent. In addition to the generally applicable weighting of the individual factors, it is therefore possible, to specify that the overall risk should always be "high" for certain industries or countries regardless of the evaluation of the other elements, i. e., if the weapons industry is concerned or countries such as North Korea and Iran are involved. The use of such absolute criteria may also be particularly useful if, for example, one wishes to always rate embargo-relevant matters as high risk, or if the national risk analysis identifies specific matters as high risk and the bank-specific CPF program is to reflect this evaluation.

a) Criminal history of the customer

A particularly significant parameter for determining proliferation risk is the criminal history of the customer or parties to a transaction. Whenever criminal records exist that relate to criminal activity with a substantive proximity to proliferation financing, the customer or transaction should be classified with a high proliferation risk.

Such substantive proximity can be assumed, in particular, in the case of the following offences:

(1) Proliferation or proliferation financing activities that have been conducted in the past.

(2) International crimes, particularly those identified as WMD-relevant.[840]

[839] These are all risk parameters that are also used to determine the overall ML/TF risk.
[840] See Part Two, Chapter 3, of this thesis.

(3) Terrorism and acts endangering the state, including in particular terrorist financing, since, as has been shown, terrorist organizations also seek WMD capabilities.[841]

(4) Money laundering, especially if the money laundering was offered as a service to third parties, as proliferation financiers could also use such service providers for their layering activities.[842]

(5) Espionage, due to the key role of intelligence operatives at various positions in the proliferation chain.[843]

(6) Offences focusing on the prohibited handling of agents suitable for WMD, i. e., the handling of radioactive materials.[844]

(7) Offences against export regulations, in particular violations of arms embargoes and dual-use regulations.[845]

Banks may also decide to include such persons in internal "blacklists" and, for risk reasons, prohibit any business with them by internal policy.

Such lists should also include those individuals whom the FIUs notify to financial institutions as proliferation relevant.[846] Similarly, financial institutions should also include in their blacklists those business relationships that they themselves have reported to the authorities because of a *specific suspicion* of proliferation financing

Persons and business projects for which no confirmed criminal acts are known, but against which relevant allegations can be found in the press or open-source research, should be assessed as high risk. Similarly, a bank should also treat as high risk those business relationships which it has itself already reported to the authorities in the past as a possible PF case, but for which only the threshold for *mere conspicuousness*, but not that for *specific suspicion*, was reached.

[841] See Part One, Chapter 2, 2.3., of this thesis.
[842] See Part One, Chapter 3, 3., of this thesis.
[843] See Part One, Chapter 2, 2.1., of this thesis.
[844] See, exemplarily for German criminal law, section 89a para. 2 StGB (Preparation of serious violent offence endangering state): "[…] instruction in the production or the use of […] nuclear fission material or other radioactive substances, substances which contain or can produce poison, […]"; and section 309 StGB (Misuse of ionizing radiation). See, exemplarily for Spanish criminal law, articles 341 CP et seqq. (Offences relating to nuclear energy and ionizing radiation).
[845] See Part Three, Chapter 3, of this thesis.
[846] That such designations shall be made by the FIU follows from article 30 para. 3 pAMLD 6; see Part Four, Chapter 4, 6., of this thesis.

Finally, persons against whom sanctions have been imposed in the bank's country of domicile should always be assessed as high risk. The additional inclusion in a "blacklist" is already a consequence of the existing requirements of sanctions and embargo law. However, the bank may decide to continue to blacklist such persons for reasons of crime prevention even after the sanctions have been lifted.

Similarly, sanctions imposed by third countries can be taken as an opportunity to review the proliferation relevance of individuals and, in the case of purely criminologically based and justifiable risks, to conclude on a high risk classification for these individuals.[847]

b) Country risk

Key parameter of any customer or business assessment with regard to proliferation financing risk should be the PF-specific country risk. As is already common practice for AML/CTF, lists should be compiled for this purpose in which each country in the world is classified into risk levels from a proliferation financing perspective.

The granularity of the classification is at the discretion of the individual financial institutions and depends in particular on their institutional complexity, business structure and the transaction monitoring system used.

Conceivable and in principle equally legitimate could therefore be simple subdivisions into "low risk", "medium risk" and "high risk"; finer subdivisions of risk into, for example, "very high", "high", "medium-high", "medium-low" and "low"; as well as particularly precise scoring systems, e. g., a risk scale of 0 - 100 points.

A classification of countries into certain PF risk levels must thereby take various factors into account:

(1) The likelihood that a country is the destination or origin of WMD and their components;

(2) The likelihood that the country will be part of the trade chain in the transportation of the relevant goods;

(3) The likelihood that a country's financial center will be exploited for proliferation finance due to its AFC standards; and

[847] Banks to which blocking laws apply must ensure that such an approach cannot be misinterpreted as compliance with foreign sanctions law. See, Part Three, Chapter 3, 1.5.

(4) The likelihood and severity of potential criminal, administrative, or economic consequences to a financial institution if it becomes part of a proliferation finance operation involving the relevant country.

The following exemplary concept for a country risk rating list provides an orientation on how the interplay of these factors might be reflected in a rating:

Very-high risk countries

- Countries against which relevant embargoes have been imposed due to their proliferation efforts.[848]

High risk countries

- Countries with known proliferation efforts but against which no embargoes have been imposed.[849]
- Nuclear-weapon states that are not part of the NPT.[850]
- Countries identified by the OPCW or other international organizations as having utilized WMD.[851]
- Countries in which terrorist organizations with known proliferation efforts have strongholds.[852]
- Other countries classified as high proliferation risk countries by the applicable national risk analysis or authorities relevant to the financial institution.[853]

Medium-high risk countries

- Countries that until recently were under embargo for proliferation efforts.[854]
- Countries subject to other arms embargoes not related to proliferation efforts.
- States recognized as nuclear weapon states by the NPT, i. e. the permanent members of the United Nations Security Council.[855]
- Offshore locations and countries with low AFC standards.[856]

[848] See Part Three, Chapter 1, 3., of this thesis.
[849] See Part Two, Chapter 6, 1.1., and Part Three, Chapter 5, 1.1., of this thesis.
[850] See Part Three, Chapter 5, 1.1., and Part Four, Chapter 4, 3., of this thesis.
[851] See Part Two, Chapter 6, 1.1., and Part Four, Chapter 4, 3., of this thesis.
[852] See Part Two, Chapter 6, 1.1., of this thesis.
[853] That such information will foreseeably be available results from article 8 para. 1, para 4 (d) and (f) pAMLD 6; see Part Four, Chapter 4, 6., of this thesis.
[854] See Part Three, Chapter 5, 1.2., of this thesis.
[855] See Part Three, Chapter 5, 1.1., of this thesis.
[856] See Part One, Chapter 3 and Chapter 4, 3.3., of this thesis.

- Countries bordering very high and high risk countries, with weak border and export controls.

Medium-low risk countries

- Other countries with low export controls or significant free trade zones.
- Other states for which the ICC has local jurisdiction over proliferation-related international crimes.[857]

Low risk countries

- All other countries that cannot be assigned to any of the above categories.

c) Industry risk

It is evident that the general economic field of activity of a customer has an influence on the assessment of its financial crime risks. Analogous to the country lists discussed above, financial institutions therefore maintain lists of different industry types to which a specific ML/TF risk is assigned.

As part of the customer acceptance process or as part of the review of a specific individual transaction, the industry of the customer or the parties involved is determined and mapped to one of these industry types. The determination of the industries and, in particular, the degree of their differentiation is the responsibility of the respective financial institution. However, banks will regularly use comparable classifications, such as those made by government agencies for statistical purposes.[858]

The degree of differentiation of the industries must take into account two conflicting aspects: On the one hand, the requirements of the risk-based approach, for which the most precise differentiation possible means an increase in effectiveness. On the other hand, the day-to-day manageability of these lists, which could fall victim to excessive complexity.

In the area of AML and CTF, however, the aspect of adequate specification of industry types can regularly be well balanced with both requirements. For example, it would be reasonable to rate the industry type "trade in precious metals and stones" as generally high risk, even

[857] See Part Two, Chapter 6, 1.1., of this thesis.
[858] E. g. the North American Industry Classification System (NAICS) used by US statistical agencies; see https://www.census.gov/naics/.

though it is the gold and diamond trade in particular that are especially critical. The reason is that silver trading, for example, although much less attractive, could *in principle* also be used

In the context of the CPF, this is also true for those industries and professions that are *generally suitable for concealing* transportation routes, money flows, and participants, e. g.,

- trade agencies and brokering firms,
- logistic companies and distributors,
- embassies and other diplomatic missions, and
- legal and accounting professionals.

For industry risks that arise due to the *proliferation-relevant goods or services offered* by the relevant parties, on the other hand, a general high risk classification of the entire industry sector is unsuitable. This is because within an industry, only a few (highly specialized) companies can be considered as potential sources of WMD components and relevant dual-use goods.[859] Banks must therefore ensure that in the coverage of relevant industries, such as "Machinery Manufacturing", procedural follow-up steps are provided that guarantee, for example, a high risk rating for gas centrifuge manufacturers, but at the same time give irrelevant machinery manufacturers from a proliferation perspective, like manufacturers of textile, agricultural, and paper manufacturing machinery, a low PF-specific industry risk rating.

Industries to which PF-relevant customers may belong, but which should not be treated as high risk in their entirety, include the energy, pharmaceutical, medical, scientific, metal processing, dye, and pesticide industries. Further, some clients in public administration and higher education may also pose high "industry" risk if they have, for example, ties to space research, nuclear physics, or national security issues.

Typically, banks are likely to have only a few corporate customers that offer such proliferation-sensitive goods or services. If these can be correctly identified during the KYC

[859] See, on the limited number of relevant companies, Part One, Chapter 2, 1.1., of this thesis.

process, the available compliance resources can be concentrated on them and thus used particularly efficiently. Consequently, a differentiated industrial risk classification holds great potential for a successful CPF strategy.

d) Politically exposed persons

As shown above, the FATF categorizes Politically Exposed Persons (PEPs) as high risk clients because their function increases their vulnerability for corruption and money laundering. The categorization of a person as a PEP thus directly results in the rating of this person or the rating of the companies controlled by this person as a "high risk client".

An increased risk assessment of PEPs is also indicated for the CPF area, since proliferation efforts are often carried out at the instigation of states and their highest-ranking political and military representatives. The involvement of such individuals in a transaction or other deal thus increases the risk of their being associated with proliferation activities.[860]

However, the assumption of an always present high risk, which applies from a money laundering perspective, cannot be assumed equally sweepingly in the case of proliferation financing. Indeed, unlike the universal risk of corruption, the increased PF risk of the function is inextricably linked to specific national proliferation efforts. In other words: While PEPs from Andorra, North Korea and all other countries of the world exhibit a high ML risk , the same is not true with respect to PF risk, as Andorra lacks the technical capacity and realistic political will to acquire its own WMD capabilities.

From a purely risk-based perspective, the PEP characteristic should therefore be considered as an additional and not solely determinant risk factor of the overall PF risk. From a technical-process perspective, however, banks are free to still classify PEPs as high risk if the nature of the customer base and the functioning of the systems and processes used make the implementation of differentiating risk calculations appear unreasonable from a cost perspective.

[860] However, this high risk assessment should not obscure the fact that banks must be aware that the decision makers mentioned are unlikely to become involved themselves in the majority of cases and, in the case of state-controlled companies, cannot be identified as their beneficial owners. The control exercised by these persons will rather be indirect via command structures and political power relations, which are likely to regularly elude the KYC processes focused on ownership positions. Whenever the determining influence of a PEP on a legal entity is not recognized, the PEP property cannot, of course, trigger an increased risk classification. This demonstrates the particular importance of identifying public entities as high risk industries in their own right (see above), as this parameter serves to compensate, as it were, for all those cases in which government involvement but no specific high-level decision maker can be identified.

e) Product or service risk

From AML and CTF, it is recognized that certain products or services may pose increased money laundering and terrorist financing risks compared to other products or services. However, in this context, "product" does not refer to the goods underlying a transaction, but to *financial products* in the broader sense. The point of reference is therefore the services offered by the bank itself and its vulnerability to being exploited for financial crimes.

As shown in Part One, Chapter 3, of this thesis, also within proliferation finance there are banking services that are being used more frequently by criminal actors than others, i. e., correspondent banking transactions and trade finance services, i. e. the letter of credit. Because of their vulnerability to proliferation finance, these banking services should therefore be classified as high risk by a CPF program.

Such a classification can have several implications for the bank's compliance processes and the risk mitigating measures taken therein, i. e., increased scrutiny of trade transactions to determine whether the underlying commodity transactions could have potential WMD relevance and a limitation on offering the mentioned services to customers posing a high PF risk.

f) Summary

A far-sighted and responsible counter-proliferation financing program should consider proliferation financing risks through a risk-based approach. In this context, proliferation financing risks must refer to proliferation financing as a criminal act. A criminal act that can in principle be carried out by anyone, since anyone can act on behalf of a state or terrorist organization with proliferation ambition for financial, political, or ideological reasons. A limitation on proliferation risks related to sanctioned persons must be rejected. The existence of sanctions should rather be considered a criterion of an overall PF risk assessment, which also considers criteria as the criminal history, country risk, industry risk, and PEP status of the involved parties.

These risk parameters are also applied as part of the compliance measures in the context of anti-money laundering and counter-terrorism financing. However, the assessment of what constitutes relevant PEP positions and prior criminal acts, and which countries and industries present an increased risk, is fundamentally different in the context of counter-proliferation

finance. With respect to industry risk in particular, the criminological realities of proliferation finance permit a focus on a few highly specialized industry types. This level of detail has no equivalent in the context of AML/CFT industry risk assessments.

Finally, the overall proliferation finance risk is also shaped by the banking services offered, which have varying degrees of vulnerability in terms of their exploitation for proliferation finance acts. Banking services that exhibit heightened risks should therefore be subject to increased scrutiny and the possibility of their use by high risk PF customers should be restricted.

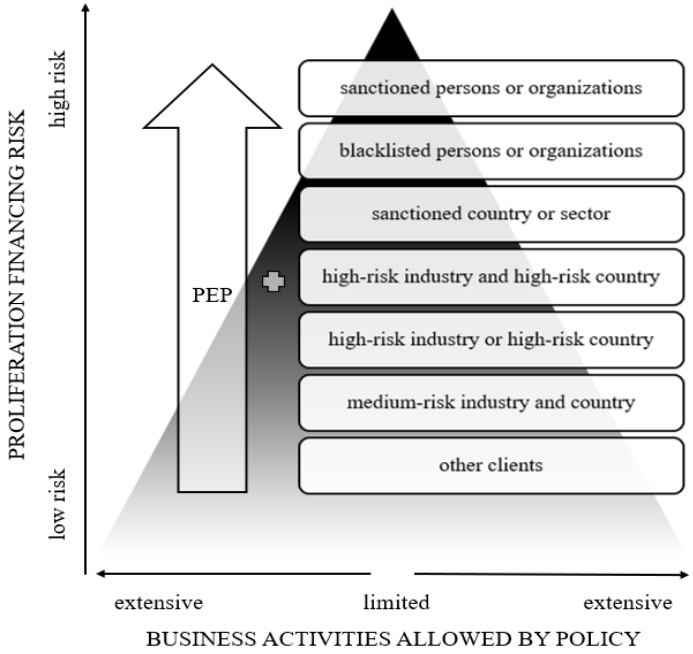

Image 4: Risk matrix

4.3. Integration of specific measures into the existing compliance processes of banks

The classification of customers and transactions into risk categories is used to adjust the scope and depth of the risk mitigating measures and controls that are implemented as part of a counter-proliferation financing program. In the following, it will be shown in an overview how these processes and measures could look like and how the risk-based approach could be practically applied through them.

a) Financial institute-specific risk analysis

The basis of every AML/CTF compliance framework is the bank's internal risk analysis, which must be carried out periodically. It serves to describe, weight and evaluate the specific risk situation of the respective banking institution. Its adequate execution is of central importance for the implementation of an effective compliance framework, since only if the general risk situation of the bank has first been accurately assessed an appropriate set of measures to mitigate these risks can be implemented. In addition to the specifics of the bank, the risk analysis also takes into account the assessments and findings of the latest National Risk Analysis, which is an official assessment of the AML/CTF risk situation of the bank's country of domicile. In particular, the industry, country and product risks identified in this analysis are a key benchmark for the evaluation and weighting of the analyses performed in the bank-specific risk analysis. As part of the implementation of the CPF program, the risk analysis should be supplemented by a proliferation financing part, in which the bank identifies its general PF-specific risk exposure.

Regarding proliferation finance, the general risk situation of a bank will regularly be well determinable, as the risk parameters described above can also be applied to a holistic view of the customer portfolio and the business activities of the respective bank. For example, a financial institution that offers trade finance, correspondent banking or private banking services certainly has a higher abstract PF risk profile than a bank that is exclusively active in retail banking or housing finance. At the same time, an internationally oriented bank that pursues business activities abroad or even maintains physical representations in PF high risk countries has a higher abstract PF financing risk than banks that focus on serving a regional customer base in countries without increased proliferation relevance.

In this context, the requirements for risk mitigation measures identified in the risk analysis are inextricably linked to the bank's business model, risk appetite, and benefit-cost considerations. For instance, instead of costly and burdensome controls on correspondent banking and trade finance transactions with isolated high risk PF countries or industries that account for only a marginal share of the bank's total revenues, it may be reasonable for a diversified universal bank to prohibit by policy any such transactions (so-called "de-

risking"[861]). On the other hand, for a bank that specializes, for example, in accompanying trade-finance transactions in unstable regions, the implementation of comprehensive control processes - and systems to reduce PF risks - can constitute the very core of the service offered as a reliable specialist for critical transactions in this niche market.

b) Know your customer: Client acceptance and onboarding

Before opening an account with their future house bank, new customers go through an acceptance process. This applies equally to private individuals and to commercial customers or other banks that wish to enter into a correspondent banking relationship with the account-holding bank and thus also become its customers. A central component of this acceptance process is the performance of the so-called know your customer (KYC) check, as a means of preventing money laundering, terrorist financing and fraud. Essentially, this involves checking who the customer is, what purpose the account will serve, and where the relevant funds come from.

The existence of KYC checks is global standard and practically no bank is likely not to have such a process in place. This is the case because either the respective national legislators already require such processes or other international banks make such processes a sine qua non for indispensable cooperation with other banks. In the European Union, the KYC check is stipulated in article 8 of the 3rd EU Anti-Money Laundering Directive and made mandatory for banks and insurance companies through the corresponding national implementation laws. The checks specified in article 8 of the 3rd EU Anti-Money Laundering Directive can therefore be regarded as the minimum program for a KYC assessment in the European area.

Accordingly, in the customer acceptance process, the identity of the customer is recorded and verified on the basis of documents, data or information obtained from a credible and independent source, and information on the purpose and intended business activity is gathered.

The CPF program must ensure that, as part of this customer onboarding process, key parameters for determining the PF risk category are recorded. This can be implemented without difficulty, since the necessary information, i. e., country of domicile or nationality;

[861] "De-risking" is understood as a bank's decision to generally limit or completely reject business transactions with entire customer groups involving certain industries, countries, or other special characteristics, instead of responding to the corresponding risks by increasing control measures. Although such a decision may be reasonable for the protection of the specific bank, it has a negative impact on the functioning of the global AML/CFT system, as the individuals and companies concerned are forced to resort to alternative less regulated or unregulated financial channels.

industry or occupation; PEP status and control structures; and criminal history, must be obtained anyway as part of the AFC/CTF-directed customer onboarding requirements.

Distinctions arise only with respect to the underlying risk classifications, e. g., if a country is considered high risk. They, of course, differ under the CPF from those applied to AFC/CTF risk assessments. However, in view of the fact that these evaluations are usually performed automatically in the background, this fact does not imply any additional work for the relationship manager who creates the customer file for the first time.

The overall PF risk calculated on this basis must then have an impact on the formal customer acceptance requirements, which must increase proportionally to the risk.

This applies first of all with regard to the competence to decide on customer acceptance. For example, it can be determined that, in the case of a low PF risk, the relationship manager himself can decide whether to enter into the customer relationship, whereas in the case of a medium risk, his supervisor must give approval, and in the case of a high risk, additional approval must be obtained from Compliance or a special high-level committee.

However, compliance may already be involved as part of the PF risk determination process. Thus, it is also conceivable that the risk parameters do not immediately trigger a high risk, but instead trigger a process for manual checking by Compliance as to whether the specific activity of the customer within its industry actually develops proliferation relevance. The argument in favor of this approach is that the generic industry types would, if necessary, provide a large number of irrelevant customers with a high PF risk, which would ultimately not be in the spirit of the risk-based approach (see above). The one-time additional effort for customer acceptance could therefore be justified by the fact that it would avoid the implementation of future compliance measures that are useless from a risk-based perspective, i. e., the increased monitoring of the transaction behavior of customer relationships that are not problematic from a PF perspective and belong to the same industry group as a few PF-relevant specialist companies. As with the other process designs, whether such a path is chosen ultimately depends on the customer structure and the technical and procedural capabilities of the bank in question.

However, the risk-based approach makes it imperative that the overall PF risk identified must also have an impact on the scope and depth of the KYC measures implemented. If the assessment upon customer acceptance identifies an increased proliferation risk of the

customer relationship, the bank's internal policies for such customers should impose increased KYC requirements and - in addition to the generally required documentation - require, for example, the submission of audit reports, special government approvals, or an insight into the annual reports of the previous years. At the same time, they should provide that the customer's business model must be understood in a particular in-depth way by the relationship manager, i. e. in particular the typical profile of the customer's business relationships and their countries of domicile. Where ambiguities exist, the customer acceptance policy must provide for timely involvement and review by Compliance, which must be entitled to demand further evidence or reject the customer relationship as possible risk mitigating measures.

b) Identifying beneficial ownership and *de facto* control

If the potential customer is a company, one of the key elements of KYC measures is to determine its ultimate beneficial owner. It is obvious that financial crime risks can often only be determined by assessing the individuals behind the company and not the company itself. Particularly front company from offshore locations that act as intermediaries, may be controlled by an individual from a completely different location with increased WMD proliferation risks. If such involvement is identified, an upgrade of the corporate customer assessment to the risk profile of the controlling individual behind the company must be performed and the customer relationship subjected to EDD.

Unlike money laundering, which generally requires economic control of companies, additional forms of *de facto* control, which are ultimately based on political or military authority, also have a central role in the context of proliferation finance. The examination of "ownership" must therefore also take into account this form of control, which is formally more difficult to grasp as economic control via shares in a company. In this respect, regulations in the company's articles of association can provide indications, for example, when the legal owners are excluded from actual control of the company as this could be an indication of the protection of *de facto* third-party control. Furthermore, indications of political control (without economic objectives) also exist, when a company is held by an intransparent trust company, to which, however, no profit distributions appear to be made.

c) Ongoing customer due diligence

However, the requirements for the KYC do not end with the initial gathering and evaluation of the risk parameters and verification documents upon the establishment of the customer relationship. Rather, it is also important to ensure that the information and documents reflect the customer's current circumstances and are updated regularly. In this context, the risk-based approach should also have an impact on the frequency of the review: The higher the PF risk of the customer relationship, the more frequently the documents, including those indicating ownership and control structure, need to be reviewed to ensure they are up to date. The latter in particular can change for companies and thus entirely alter the original PF risk profile of the customer if, for example, a formerly privately controlled intermediary company or bank now becomes the property of a high risk country’s government.

Such risk-based KYC review processes are a standard procedure with regard to the ML/TF risks of a customer relationship and can therefore be implemented accordingly for the treatment of PF risk without any major effort. Nevertheless, the CPF requirements give rise to some aspects that must be given special consideration in the context of this KYC review:

For example, with regard to the business area of correspondent banking, which is particularly vulnerable to proliferation financing, a comparison of the customer types specified in the current Wolfsberg questionnaire with those of the previous version is of importance. If it is determined that the correspondent bank has started to deal with additional customer types that could be relevant from a proliferation financing perspective, i. e. "arms, defense, military", "atomic power", or "embassies/consulates", the new PF risk should be assessed. In addition to inquiries about the exact nature of the new customer relationships and the motivation of the correspondent bank to engage in these types of customers, specific risk mitigating measures can be taken, such as contractually excluding the execution of transactions of this customer type under the existing correspondent banking relationship.

Moreover, special attention should be paid to changes in the ownership structure and the composition of the board of directors, which could indicate the infiltration of previously legitimately operating companies by criminal actors. In addition to possible PF-relevant bad news about the persons named, the accumulation of citizenships from PF high risk countries or other conspicuous parallels in the biographies of the new decision makers could provide useful indications.

d) Know your employee and employee training

For banks, the risks of becoming involved in proliferation financing activities arise not only from the customer relationships they maintain with natural persons, companies, and correspondent banks. The bank's own employees may also pose heightened PF risks.

First, factually, as they are the executing agents of the bank's services, play a central role in the proliferation finance operation, and may cooperate with the proliferation network for ideological or monetary reasons. Second, legally and reputationally, as relevant criminal and fine proceedings usually require a natural person as acting perpetrator, as is the case in particular in the context of international criminal law. Analogous to the KYC process, banks should therefore conduct a know your employee (KYE) process to determine whether the employee poses a possible threat to the company.

Similar to the KYC process, the risk determinants are the employee's criminal history, country risk based on nationality or place of birth, and a variant of the industry risk based on the employee's prior activities. Just as the risk-based approach includes enhanced screening of sensitive transactions, it also seems appropriate to screen employees depending on the potential relevance of their activities to a successful proliferation finance operation. Particularly extensive background checks should therefore be conducted, for example, on compliance staff, regional managers of high risk countries, and employees of the trade finance department.

The reviews conducted should include not only criminal records, but also open-source information and solvency checks, as they could contain indications of personal links to proliferation risk states, political or religious radicalization, and an increased susceptibility to criminal offers due to financial hardship.

However, all of these reviews under the KYE will primarily mitigate the risk of banks being misused for proliferation finance schemes through intentional employee participation. As has been shown, though, there is likely to be a preponderance of cases in which employees become unwitting participants in such proliferation financing activities and fail to recognize the PF relevance at all. Thus, a central aspect of the CPF program must also be the training and sensitization of employees to the issue of proliferation finance. In this respect, an approach based on working through case studies, which reflect the working reality of the employees to be trained and thus are likely to have an increased learning effect, appears

particularly promising. The two case studies discussed in Part One, Chapter 4, may thus also serve as examples of how such training cases could be designed.

e) Transaction monitoring and trade finance reviews

The assessment of customer risks described above serves two purposes.

On the one hand, it avoids entering into PF-relevant transactions or customer relationships in a preventive manner by rejecting corresponding counterparties or limiting the type and scope of transactions facilitated to non-critical ones.

On the other hand, on the threshold between prevention and detection of criminal behavior, it also serves to increase the probability for the bank to detect proliferation financing activities. This follows from the fact that - as it is also the case in the context of AML/CTF - with increasing risk classifications, the control intensity of transactions and other dealings of relevant customers must also be increased.

Generally speaking, such controls can be carried out at two points in time: *Ex ante*, i. e. prior to the execution of a transaction or a deal when it is brought to the attention of the financial institution, or *ex post*, when a transaction that has already been carried out is subsequently checked for conspicuous features.

ea) *Ex-ante* transaction monitoring

In general, transaction-related checks that take place before a transaction is executed are the exception. The reason for this is obvious: The mere number of transactions initiated by a bank's customers or their correspondent banking relationships cannot all be reviewed and approved manually. This would not only be economically unfeasible for the financial institutions but would also represent an intolerable impediment to domestic and international trade. Particularly in the case of international wire transfers, which are processed automatically via a chain of several correspondent banks, a manual check of the transaction order by each intermediary financial institution would cause the collapse of international payment traffic.[862]

[862] See Part One, Chapter 3, 1.1., of this thesis.

Nevertheless, there are certain constellations in which both transactions of own customers and transaction orders of correspondent bank relationships require compliance checks and approval before execution.

For instance, the prohibition of availability under sanctions and embargo law dictates that financial institutions may not transfer assets to sanctioned persons.[863] Banks must therefore ensure that they do not make transfers to such parties, irrespective of whether the payment order was initiated by one of their own customers or, by way of correspondent banking, by the customer of a correspondent bank. This obligation is fulfilled by automated screening of transaction data (i. e. the SWIFT message) against lists of sanctioned persons and references to countries under embargo. If there is a possibility of a match, the transaction is separated from the automated routing process and submitted to trained compliance staff for manual approval. The respective Compliance employee must then check whether the transaction involves the sanctioned person or the embargoed country, or whether there is only an identity of name or term, e. g., because the system hits a customer address in Isfahan-Allee in Freiburg (Germany), which is merely named after the searched Iranian city.

If the system hit is verified as a genuine hit, the second step is to check whether the specific transaction violates an existing sanction or embargo, i. e. whether, for example, an arms embargo is pertinent or a permitted kind of transaction is concerned.[864]

For the purposes of the CPF, the existence of this real-time monitoring is of utmost importance. On the one hand, because of the parallelism between sanctions law and the purposes of anti-financial crime, very high risk parties can be identified and proliferation activities prevented from the outset.[865] On the other hand, because the existing systems will also hit transactions that have no direct sanctions relevance but may nevertheless pose an increased risk for proliferation financing, for example because an irrelevant hit from an embargo perspective related to a PF high risk country was generated. For a comprehensive CPF program, it therefore makes sense to train the staff of the sanctions and embargo team in substantive proliferation finance issues and thus increase their awareness so that potentially relevant transactions can be submitted to their colleagues in the AFC department for assessment.

[863] See Part Three, Chapter 4, 3.1., of this thesis.
[864] See Part Three, Chapter 3 and Chapter 4, of this thesis.
[865] See Part Four, Chapter 5, 2. and 4.2., b, of this thesis.

Technically, the embargo monitoring systems also offer the possibility of supplementing sanctions and embargo lists with a bank's own internal blacklists, in which third-party bank customers who have already been reported for PF activities can be monitored and their subsequent transactions can be prevented and reported to the authorities before being executed.

The compilation of own blacklists does not have to be limited to persons and company names, but can also include other terms. A CPF program should take advantage of this and screen SWIFT messages for the mention of WMD-relevant goods and dual-use items and thus place such transactions subject to manual clearance.[866]

Finally, it also makes sense to keep countries which were formerly embargoed due to proliferation efforts in real-time monitoring for a certain period of time even after the proliferation program has been abandoned and the embargoes lifted. Banks can thereby mitigate the increased PF risks posed by such countries as a possible new source of goods for the international proliferation black market.[867]

eb) *Ex-ante* review of trade finance activities

Unlike regular transaction monitoring, *ex ante* checks are the rule when dealing with trade finance transactions. Since L/Cs and other trade finance transactions are individualized contracts, relevant criteria such as trading parties, transaction volumes, trade routes and underlying commodities must of course be brought to the attention of the banks involved before the contract is concluded and the transaction executed.[868]

The responsible employees must therefore also be enabled through training to recognize potentially relevant behavior and critical goods as such. If proliferation-relevant suspicions exist, the relevant policies should provide for a supplementary check or a requirement for approval by Compliance.

In this respect, training courses and work instructions should address specific circumstances that are indicative of proliferation activities and require at least intensified due diligence. The following conspicuous features are particularly relevant in this context:

[866] Relevant goods can be found in several of the international treaties described in Part One, Chapter 1, 4., of this thesis, and the EU Dual-Use Regulation, described in Part Three, Chapter 4, 4.
[867] See Part Three, Chapter 5, 1.2., of this thesis.
[868] See Part One, Chapter 3, 2.1., a and b, of this thesis.

- The importer of dual-use goods is located close to the border of a very high risk country (embargo country).

- Ports of transshipment or unloading are located in geographical proximity to very high risk countries (embargoed countries).

- The indicated shipping routes and transshipment ports represent a detour for which there is no plausible explanation.

- The documents submitted, in particular export licenses for weapons and dual-use goods, show indications of forgery.

- Use of transferable letters of credit in trade transactions involving WMD-related goods, especially if the intermediary is located in an offshore location or has been recently established.[869]

- The transport vessel is operating under the flag of a high risk country or has until recently operated under the flag of an embargoed country.

ec) *Ex-post* transaction monitoring

In the context of anti-money laundering and counter-terrorist financing, the substantial part of transaction monitoring takes place after the relevant transactions have been executed. The identification of potentially criminal behavior thus primarily serves to enable repressive measures by law enforcement authorities. However, despite its *ex-post* nature, this form of transaction monitoring also has a preventive effect because the relevant cases regularly result in increased monitoring of the party concerned, thereby potentially preventing future criminal activity.

The transaction monitoring systems scan incoming and outgoing transactions (or the SWIFT messages accompanying them) and the transaction behavior of customers for a variety of characteristics ("red flags") that have been defined as relevant by the financial institution, e. g., high round amounts, specific cash payments thresholds, or a certain percentage increase

[869] See Part One, Chapter 3, 2.1., c, of this thesis.

in account activity. Each red flag is assigned a certain score value, which add up with those of other red flags, and, if they exceed a point threshold that has also been defined, lead to the review of the customer relationship and its transactional behavior.

Customer relationships that are classified as high risk also receive points, which results in an increased bottom-line of these customer relationships and thus in turn - in line with the risk-based approach - in an increased probability that their transaction behavior will lead to the points threshold being exceeded.

Central to a CPF program must be the complementing of these AML/CFT-monitoring systems with proliferation finance-specific red flags. The design of the indicators must thereby take into account that proliferation finance can occur both as trade-linked transactions and as layering of funds.

The following in particular can be considered as red flags for proliferation financing:

- High risk customer receives transaction(s) from a country with increased proliferation risk (the higher the country risk, the higher the score).

- Sudden significant account activity on the dormant account of a high risk customer (especially intermediaries).

- Conspicuous avoidance of EUR and/or USD payments in international payments (could be aimed at avoiding transaction screening by EU/US banks and consequently an indication of embargo circumvention).[870]

- Correspondent banking transactions where the originator and the beneficiary have addresses in countries with increased proliferation risks (the higher the respective country risks, the higher the score).

- Naming of relevant goods in the remittance information of a SWIFT-message.

- Significant percentage increase in account activity (number of transactions and total volume) of high risk customers in relation to their typical transaction behavior.

[870] See Part Three, Chapter 3, 2., and Part Four, Chapter 2, 4.3., of this thesis.

- Incoming or outgoing payments to the account of a high risk customer always have the same counterparty.

- Specific money laundering red flags related to PF high risk customers or PF high risk countries (indication of proliferation financing through layering).[871]

- Specific terrorist financing red flags related to high risk customers or high risk country (indication of WMD terrorism).[872]

ed) *Ex-post* review of trade finance activities

Although the assessable points of a trade-finance transaction are mostly known prior to the execution of the relevant transactions and can therefore already be assessed for their proliferation relevance at that time, a responsible CPF program should also monitor approved high risk constellations after the conclusion of the contract. Reasonable measures include an ongoing negative news screening of the involved parties as well as a life tracking of the involved merchant vessels in order to verify whether the route actually taken corresponds to the route data communicated at the time of the conclusion of the contract.

If indications suggesting a proliferation act emerge at this stage, a timely report to the authorities can still lead to national or foreign police and security forces being able to intercept the goods on their way to their recipient. If this is no longer possible, the finding will at least serves to make the parties involved criminally prosecutable and to prevent future proliferation financing acts by them.

4.4. An efficient way to the desired goal: Synergies and process integration

The proposed comprehensive CPF program, including risk assessment, KYC audits, KYE audits, training, trade finance audits and transaction monitoring, should enable banks to leverage their specific capabilities and unique sources of insight to prevent and detect proliferation financing.

While the proposed measures go further than the (foreseeable) regulatory requirements, financial institutions should nevertheless strongly consider their implementation in light of the need to conduct business responsibly and the immense reputational risk when involved

[871] See Part One, Chapter 3, 3., of this thesis.
[872] See Part One, Chapter 2, 3.2., of this thesis.

in proliferation finance activities. This is especially true because many of the proposed measures would require little additional implementation effort and could therefore be realized at a manageable cost and personnel expense.

As indicated, the reduced effort results from the fact that already existing AFC processes and measures aimed in particular at combating money laundering and terrorist financing can be adapted to the requirements of an effective CPF.

Synergies that can be leveraged exist in particular with regard to the following aspects:

(1) The collection and updating of that customer information required to determine PF risk parameters, i. e., country risk, industry risk, criminal history, and PEP status, is already comprehensively performed as part of the mandatory KYC measures under money laundering law.[873]

(2) Identification of ultimate beneficial ownership is also part of the regular KYC process.[874] An adaptation to the requirements of the CPF is only necessary with regard to an increase in awareness regarding elements of factual control and can be implemented via employee training and work instructions.

(3) Automated calculations of risk levels in the context of customer onboarding and related workflows are already part of the common banking systems to ensure the risk-based approach in the fight against money laundering and terrorist financing. The technical configurations can also be used for the purposes of the CPF, for which only PF-specific country and industry ratings would need to be applied.

(4) Reporting channels for communicating with authorities and work instructions for the preparation of Suspicious Activity Reports are already part of the existing AFC framework.[875] Work instructions would only need to be expanded to include the possibility of - to ML/TF alternative or supplementary - reporting of proliferation financing suspicions.

(5) Individuals and organizations showing very high PF risks are already monitored in real time as part of embargo compliance. Existing blacklists can be supplemented with the bank's

[873] See Part One, Chapter 3, 1.1., and Part Four, Chapter 2, of this thesis.
[874] See Part Four, Chapter 2, 1.2., c, of this thesis.
[875] See Part One, Chapter 4, 4.3., of this thesis.

own lists of persons and the monitoring of embargoed countries can be continued unproblematically beyond the duration of relevant embargoes.

(6) The screening of employees in the sense of KYE is already carried out for reasons of anti-fraud management and would only have to be supplemented by PF-relevant considerations. Regular AML training of employees is also a mandatory requirement of current AML standards. Training cases can be structured in such a way that indicators are present that may point to both money laundering and proliferation financing.[876]

(7) The most critical banking services from a proliferation finance perspective, correspondent banking and the conduct of trade finance transactions, are already subject to extensive controls. For example, payment transactions are controlled as part of transaction monitoring, and trade finance transactions are controlled to ensure embargo compliance and to prevent trade-based money laundering. The latter also includes the use of systems to verify shipping routes and data, which is particularly relevant for CPF checks on trade finance transactions.

(8) The existing indicators for monitoring money laundering and terrorist financing are, to a large extent, also relevant for monitoring proliferation financing. The former because the layering activities in the context of proliferation finance show little phenomenological difference from those of money laundering, and the latter because they can help identify WMD terrorism.[877] In this respect, the implementation of the CPF program only requires that the said indicators be linked to additional PF criteria, such as the involvement of high risk PF clients and references to high risk PF countries.

For financial institutions, all these measures can be implemented with little effort into a CPF program, which takes into account the specifics of proliferation financing, being a crime to be distinguished from money laundering and terrorist financing.

The importance of such a proliferation financing specific compliance program cannot be overstated:

[876] See, for example, the two case studies discussed in Part One, Chapter 4, of this thesis.
[877] See Part One, Chapter 3, 3., of this thesis.

Not only can it protect financial institutions from involvement in criminal activities and significant reputational damage. It can also - and above all - help prevent the use of the deadliest and most destructive weapons of our time and the human calamities they cause.

PART FIVE: CONCLUSIONS

General conclusions

I.) The analysis of the characteristics of WMD proliferation financing and its comparison with the current crime prevention models adopted by financial institutions in light of the applicable international standards and regulations, confirms the initial thesis: The current international framework consisting of international criminal law, the international sanctions and embargo regime, and the globally applicable AFC compliance standards need to be adjusted in order to provide a sufficient response to addressing the criminological reality of this phenomenon.

Numerous changes to the regulatory landscape since the beginning of my doctoral research in 2017 show that the global community has also recognized the need to address this previously disregarded issue, both, from a sanctioning and preventive point of view.

The former, is shown in the introduction of a new offence concerning the use of biological weapons in the Rome Statute of the International Criminal Court in 2017/2018, aiming at broadening the range of WMD to which the jurisdiction of the ICC extends. It is, however, also reflected in the expansion of non-criminal sanctioning mechanisms such as the creation of a specific EU sanctions regulation to target natural and legal persons responsible for the development and use of chemical weapons in 2018.

The latter, becomes apparent in the provision of regulatory compliance guidelines specifically designed for WMD proliferation financing that are different from those applied for the prevention of money laundering or terrorist financing. An ongoing development that has so far reached its climax in the inclusion of the risk-based approach to combating proliferation financing in the FATF's 40 Recommendations in 2020 and thus also in forthcoming anti-money laundering directives of the EU.

II.) Despite the above-mentioned advances, the current legislation and guidelines still present many limitations for the effective prevention of this phenomenon, leaving the comprehensive control to the voluntary action of financial institutions and the market in

general, with all the insecurities and weaknesses that this entails. In this uncertain situation, banks can contribute to the prevention of this phenomenon and considerably reduce their risk of incurring a violation of the law through the implementation of a holistic counter-proliferation financing program: A responsible corporate policy with proliferation financing-specific risk assessments, risk parameters, know your customer processes, monitoring operations, and other risk-mitigating measures.

One of the objectives of this thesis was to provide criteria to help facilitate the adoption of such necessary controls for crime prevention in a practice-oriented manner. It could be demonstrated that designing such compliance measures specifically aimed at combating the proliferation of weapons of mass destruction is not only technically possible, but also economically feasible. It is often sufficient to add specific controls to those already in place for the prevention of money laundering and terrorist financing. For banks, this means that they can significantly reduce the considerable legal and reputational risks associated with being involved in a proliferation financing act with relatively little effort in terms of time and costs.

III.) Although progress has been made towards preventing and sanctioning the financing of the proliferation of weapons of mass destruction, this progress is hampered by the importance of international polítics in the entire international anti-proliferation financing framework. Hereby, international politics' influence extends from the definition of the conduct punishable under international or national criminal law to the actual application of the measures provided for by international criminal law, the sancions and embargo regime, as well as international compliance standards.

Unlike in the case of money laundering or terrorist financing, states themselves are involved in determining the applicable offences and (criminal and extra-criminal) sanctions. The influence that individual states can have in this regard is shown, for example, by the fact that, due to Russia's position, the use of chemical weapons in the Syrian Civil War neither led to a prosecution by the International Criminal Court nor to the implementation of relvant UN Security Council resolutions. Furthermore, this influence is also reflected in the effectiveness of internationally or nationaly established embargoes and sancions, which highly depends on the economic and political power of the involved countries. A fact that is already evident from the general perception of a single state, the USA, as one of the central

sources of the international sanctions framework, together with international and regional sanctioning bodies as the UNSC and the EU.

IV.) The aforementioned utmost politicization of the conditions for prosecuting and sanctioning WMD proliferation has a direct impact on the very content of the regulatory compliance programs of financial institutions that may serve as a conscious or unconscious vehicle for its financing. This is evidenced by the fact that the FATF has established the obligation to adhere to international sancions as the only preventive measure against proliferation financing. Thus to highly political instruments, which do not provide for the formal principles and guarantees national and international criminal law systems offer.

Specific conclusions

The stated general conclusions can be derived from the specific conclusions on each of the aspects discussed below.

1.) <u>On the concept of WMD</u>

The normative-evaluative concept of a weapon of mass destruction (WMD) is vague, which may contrast the levity with which historic examples of their use come to anyone's mind.

Problems arise in an attempt to define a weapon, in particular whether parts of the natural environment, such as radiating substances, viruses, and bacteria, can be regarded as such. These definitional difficulties are compounded by the problem of determining at what point such a weapon can cause sufficient damage to be considered one of mass destruction and how appropriate thresholds can be established and determined.

This is the reason why, on an international level, conclusive lists are the prevailing approach. Yet examples can be found on a national level, where lists supplemented with closing clauses by analogy are used, as it is the case of article 574 CP.

Both definitional approaches, however, do not meet the requirements of far-sighted international policy, national legislation, and internal corporate regulations. The former is insufficient because an exhaustive list neither covers future technical developments nor addresses the question of the minimum level of severity required for the weapons included

in it. The latter is deficient, because significant harm as a criterion for the reference by analogy is either too vague or involves rationally unjustifiable thresholds.

Despite these difficulties, it is still necessary to count on a sound definition of weapons of mass destruction, in order to guide criminal policy and, based on material criteria, to help states adapt their lists to the technological changes of the future. To this end this thesis proposes a new definition of the concept based on an analysis of exclusive characteristics common to all weapons generally considered to be weapons of mass destruction.

According to it, weapons of mass destruction are biological, chemical, radioactive, nuclear and other weapons capable of causing human death and whose indiscriminate harmful effects are perpetuated in time and space in an autonomous manner after their deployment.

2.) On WMD proliferation as a criminological reality

Proliferation activities exhibit some phenomenological peculiarities that have an impact on the design of a counter-proliferation financing program.

On the one hand, this concerns the high degree of specialization of those companies that can serve as witting or unwitting sources for WMD-relevant components, i. e., scientific laboratories and manufacturers of dual-use goods, which results in a small number of potentially relevant parties to a proliferation act. For banks it is sensible to monitor the transaction behavior of relevant bank customers more closely and to verify the legitimacy of the counterparties to their trades and accompanying financial transactions.

On the other hand, it concerns the role of states as typical final purchasers of the corresponding goods. This central role of states presents opportunities for preventing proliferation financing as it enables banks to monitor the corresponding country references on a risk-based criterion. This represents a possibility that is, i. e., less pronounced in the fight against terrorist financing, due to the character of the criminal actors as organized groups without necessary country links. The nature of the involvement of states as the ones behind comprehensive WMD procurement systems, however, also poses challenges. For instance, states can exercise control over intermediary front companies by means of *de facto* control that do not make it possible for financial institutions to identify those involved in the background via an analysis of the ownership structures of the relevant corporate clients. This is a peculiarity of proliferation activities that is, for instance, less problematic in the context

of anti-money laundering, where a paper trail of holding structures (while difficult to determine) usually exists.

3.) On WMD proliferation financing as a criminological reality

Proliferation financing acts can be divided into two groups: Trade-linked proliferation financing acts and acts that serve for the layering of relevant funds.

Since proliferants regularly rely on interaction with unwitting and legitimate manufacturers and intermediaries, the payment of goods and services must be made through legitimate channels in order to not raise suspicion among counterparts. These trade-linked proliferation financing acts therefore use regular banking services, such as cross-border money transfers and trade finance services. In this context, the use of letters of credit is of particular importance, since unwitting manufacturers regularly expect them as a typical banking service to guarantee the payment of their cross-border traded goods. Although the use of letters of credit in proliferation financing is primarily aimed at avoiding suspicion, there are variants of these trade finance transactions that also have a concealing effect and are therefore of particular interest to proliferation financiers, i. e., the so-called "transferable letters of credit". These and other banking services vulnerable to proliferation finance should therefore be a focus of a bank's counter-proliferation financing program.

On the other hand, there are the transactions in the context of the layering of funds. They serve to conceal the origin and destination of the funds that are transferred between criminal actors in order to fund the proliferation activities or to pay criminal service providers. The methods used for this are the same as those used to conceal the parties in money laundering and terrorist financing activities, e. g., transfers involving shell companies, fictitious invoicing, and splitting and remerging money amounts through several bank transfers. For banks, this creates synergies, as numerous already established AML/CFT measures, i. e., the monitoring of certain transaction patterns, can also be used to detect proliferation financing activities.

4.) On international criminal law as a means of combating proliferation financing

Criminal liability for proliferation financing acts under the Rome Statute of the International Criminal Court can be conceived in particular for banking services in the context of the following international crimes:

- Employing poison or poisonous weapons in international (article 8 para. 2 (b) (xvii) ICCS) and non-international (article 8 para. 2 (e) (xiii) ICCS) armed conflicts.
- Employing asphyxiating, poisonous or other gases, and all analogous liquids, material or devices in international (article 8 para. 2 (b) (xviii) ICCS) and non-international (article 8 para. 2 (e) (xiv) ICCS) armed conflicts;
- Employing microbial or other biological agents, or toxins, whatever their origin or method of production in international (article 8 para. 2 (b) (xxvii) ICCS) and non-international armed conflicts (article 8 para. 2 (e) (xvi) ICCS);
- (Using WMD) to kill civilians with *dolus directus* of the first degree in international (article 8 para. 2 (a) (i) ICCS) and non-international (article 8 para. 2 (c) (i) ICCS) armed conflicts;
- Intentionally launching an attack (with WMD) in an international armed conflict in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated (article 8 para. 2 (b) (iv) ICCS);
- Several crimes related to the destruction of civilian objects (i. e., article 8 para. 2 (a) (iv) ICCS; article 8 para. 2 (b) (ii) ICCS; and article 8 para. 2 (e) (xii) ICCS);
- Crimes against humanity (if committed using WMD), i. e., murder (article 7 para. 1 (a) ICCS) and extermination (article 7 para. 1 (b) ICCS); and
- Genocide (article 6 ICCS).

Given the large number of codified crimes, it might seem that the Rome Statute provides a broad criminal policy response to possible WMD related acts and thus to proliferation financing as an accessory thereto. In reality, however, the aforementioned norms are subject to significant limitations when it comes to their application.

The main reason for these limitations is the highly fragmented local jurisdiction of the International Criminal Court. There is no local jurisdiction for states that have not signed and ratified the Rome Statute. These include the most notorious risk states from a proliferation point of view, i. e., Iran, North Korea, Syria and Pakistan, some nuclear weapon states recognized by the NPT, i. e., China, Russia, and the United States, as well as other *de facto* nuclear powers such as Israel and India. There is also no territorial jurisdiction over a large number of countries that are strongholds of international terrorism and therefore also

have an increased likelihood of the occurrence of crimes in the context of WMD proliferation and their financing, i. e., Iraq, Libya, Egypt, Yemen, Saudi Arabia, Algeria, the Philippines, and Somalia.

Local jurisdiction may also be lacking with respect to specific offences. This is always the case when the corresponding amendments to the Rome Statute have not been ratified by the states concerned. One such offence is employing microbial or other biological agents, which has been adopted almost exclusively by EU member states and therefore has little practical relevance. Most international crimes in the context of non-international armed conflicts are also the result of amendments. Here too, mainly these countries have ratified the relevant amendments with inherent low probabilities that biological and chemical weapons will be used in civil war scenarios.

In addition to these limitations, there are several conceptual constraints that further reduce the relevance of the Rome Statute in combating proliferation financing, i.e., the exclusion of nuclear weapons (and, arguably, biological and radiological weapons) from the poison weapons concept of article 8 para. 2 (b) (xvii) ICC; the high threshold for affirming disproportionate collateral damage in article 8 para. 2 (b) (iv) ICCS; and the required existence of an armed conflict for most of the offences identified. Most importantly, though, it will usually be the high *mens rea* requirements of the Rome Statute that – especially in the case of neutral acts committed with *dolus eventualis* – preclude a conviction of bank employees by the International Criminal Court.

5.) <u>On the global sanctions and embargoes framework</u>

The means of criminal law fail to provide an adequate response to transnational proliferation financing. One reason for this is that states, as typical actors behind a proliferation system, are not suitable subjects for criminal proceedings. Furthermore, the criminal liability of legal entities, which may be involved in proliferation financing as front companies, intermediaries, manufacturers, or financial institutions, is not always given. The international criminal law of the Rome Statute, for example, only recognizes the criminal liability of natural persons. The same applies to Germany's national criminal law. Even countries that generally recognize the criminal liability of legal persons refrain from doing so in areas that are relevant from for proliferation financing. In Spain, for example, criminal liability for relevant international crimes is limited to natural persons and criminal liability

of some enterprises of the public sector - as typical actors in proliferation activities – might be excluded according to article 31 *quinquies* CP. This situation is accompanied by practical problems of judicial access and enforcement of judicial decisions against natural persons who regularly reside in uncooperative jurisdictions and will be under the protection of governments operating the proliferation network.

The international sanctions and embargo systems can partially compensate for these shortcomings. Embargoes against states have a quasi-sanctioning effect and can lead to the abandonment of proliferation efforts by these countries. Financial sanctions that can be equally directed against individuals, companies, and (terrorist) organizations, have a cross-border effect, and do not rely on judicial cooperation with uncooperative third countries.

As an alternative to criminal law in terms of criminal policy, however, the application of these restrictive measures is questionable because of several aspects related to the prioritization of effectiveness over criminal guarantees: First, because of the position of the sanctioned persons, who find themselves in a situation of lack of judicial controls, legal guarantees, and proportionality considerations that criminal proceedings would offer. Second, because, as political decisions, they always include geopolitical considerations that, from a criminal policy perspective, represent an extraneous element that would not be included in an impartial judicial decision and that leads to unequal treatment of equally criminal actors. And third, because their scope is inherently temporary, and requires references to specific persons or countries, thereby not providing a stable response to proliferation financing, which, like any financial crime, can in principle be carried out by anyone and at any time.

6.) <u>On the international compliance standards</u>

International organizations such as the Financial Action Task Force (FATF) issue guidelines that are of outstanding importance for the design of compliance measures in the area of anti-money laundering and terrorist financing. This applies in particular to the guidelines known as the “40 Recommendations” of the FATF, which have been incorporated into European and national laws, but whose observance is also demanded directly by banks among themselves and enforced by means of economic pressure.

Although the official title of the 40 Recommendations identifies counter-proliferation financing, along with anti-money laundering and counter-terrorist financing, as the subject

matter and objective of the document, the proposed counter-proliferation financing measures are not comparable to those for the other phenomena. In particular, it is not the prevention and detection of proliferation financing as such that is the subject of the proposed measures, but the prevention of circumvention of proliferation-related sanctions measures by the UN Security Council.

The above-mentioned limitations of the embargo and sanctions regime are thus transferred to the system of anti-financial crime compliance, which otherwise could have offered an opportunity for comprehensive crime-related prevention. Even the introduction of a risk-based approach to countering proliferation financing in the 2020 revisions of the 40 Recommendations have not changed this regulatory shortcoming. For financial institutions, this limited approach of the FATF will soon become a mandatory regulatory reality through national or European legislative acts, as, i. e. the legislative proposal for the sixth European Money Laundering Directive shows.

Banks that nevertheless want to address proliferation financing holistically will be faced with a considerable challenge: They will have to implement a compliance program that meets the factual requirements for a holistic prevention of proliferation financing risks without disregarding the more restrictive – and methodologically conflicting - requirements of international standard setters and legislators.

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