FACULTY OF
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Unveiling the opaque world of OTC derivatives:

Reporting our way to enlightenment?

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ABSTRACT

In the build-up to the global financial crisis of 2007-2008, derivatives played a prominent role. When the G20 leaders convened in Pittsburgh and agreed to globally require the reporting of OTC derivatives, there was a general lack of awareness how tremendously challenging such an undertaking would be, which in turn further exacerbated the problem. This dissertation has studied a vast body of literature stemming from a variety of scientific fields The main goal was to gain a broad and interdisciplinary perspective that would unveil the opaque world of the reporting obligation of OTC derivatives. This dissertation embarks on a search to explicate how and why the reporting obligation is partially unsuccessful after so many years. This dissertation has the European Market Infrastructure Regulation as its object. However, it will adopt a global perspective which is a prerequisite in the global derivatives market.

ABSTRACT IN DUTCH

In de aanloop naar de globale financiële crisis van 2007-2008 speelden derivaten een prominente rol. Wanneer de leiders van de G20 overeenkwamen in Pittsburgh om de globale rapportage van OTC derivaten te vereisen, was er aan algemeen gebrek aan inzicht hoe ontzettend uitdagend die opdracht wel ging zijn, wat de problemen enkel verergerde. Deze masterproef bestudeert een veelheid aan bronnen vanuit een interdisciplinair perspectief met het oog op het verwerven van inzicht in de heimelijke wereld van de rapportageverplichting van derivaten. Deze masterproef onderzoekt hoe en waarom de rapportageverplichting slechts gedeeltelijk succes kent. Deze masterproef heeft de European Market Infrastructure Regulation als onderzoeksobject. Het zal niettemin een global perspectief innemen wat vereist is in de globale derivatenmarkt.

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ACRONYMS & ABBREVIATIONS USED

AIF	Alternative investment fund
AIG	American International Group Inc.
AIGFP	AIG Financial Products Corp., AIG Trading Group Inc. and their respective subsidiaries
ADTR	Australian derivatives trade repository
API	Application programming interface
ASIC	Australian Securities & Investments Commission
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BTR	Bloomberg Trade Repository Ltd.
CEA	Commodity Exchange Act
CCP	Central counterparty
CDE	Critical Data Elements
CDS	Credit default swap
CFMA	Commodity Futures Modernization Act (2000)
CFTC	Commodity Futures Trading Commission
CJEU	Court of Justice of the European Union
CPMI	Committee on Payments and Market Infrastructures (previously: CPSS)
CPSS	Committee on Payment and Settlement Systems (now: CPMI)
CSD	Central securities depository
DDRIE	DTCC Data Repository (Ireland) Plc.
DDRS	DTCC Data Repository (Singapore) Pte Ltd
DSB	Derivatives Service Bureau
DTCC	Depository Trust & Clearing Corporation
EBA	European Banking Authority
ECB	European Central Bank
EEA	European Economic Area
EFTA	European Free Trade Association
EIOPA	European Insurance and Occupational Pensions Authority
EMIR	European Market Infrastructure Regulation (648/2012)
EMIR 2.2	European Market Infrastructure Regulation 2.2 (2019/2099)
EMIR Refit	European Market Infrastructure Regulation Regulatory fitness and performance programme (2019/ 834)
ESAs	European Supervisory Authorities (EBA, EIOPA and ESMA)
ESAP	European Single Access Point
ESCB	European System of Central Banks
ESFS	European System of Financial Supervision
ESMA	European Services and Markets Authority
ESRB	European Systemic Risk Board
EU	European Union
FC	Financial counterparty
FC-	Financial counterparty not exceeding the clearing threshold
FC+	Financial counterparty exceeding the clearing threshold
FCA	Financial Conduct Authority

FMI	Financial Market Infrastructure
FSB	Financial Stability Board (previously: FSF)
FSF	Financial Stability Forum (now: FSB)
FRANDT	Fair, reasonable, non-discriminatory, and transparent
G5	Group of Five
G7	Group of Seven
G7 Finance	G7 Finance Ministers' and Central Bank Governors' forum
G8	Group of Eight
G10	Group of Ten
G20	Group of Twenty
G20 Finance	G20 Finance Ministers' and Central Bank Governors' forum
GDP	Gross domestic product
GFC	Global financial crisis (2007-2008)
GLEIF	Global Legal Entity Identifier Foundation
GLEIS	Global Legal Entity Identifier System
IMF	International Monetary Fund
IORP	Institution for occupational retirement provision
IOSCO	International Organization of Securities Commissions
ISDA	International Swaps and Derivatives Association
ISIN	International securities identification number
ITS	Implementing technical standards
KDPW	Krajowy Depozyt Papierów Wartosciowych S.A
LEI	Legal entity identifier
MiFID I	Markets in Financial Instruments Directive I (2004/39)
MiFID II	Markets in Financial Instruments Directive II
MIFIR	Markets in Financial Instruments Regulation
MMoU	Multilateral memorandum of understanding
MoU	Memorandum of understanding
MTF	Multilateral trading facility
NCA	National Competent Authority
NCB	National central bank
NFC	Non-financial counterparty
OTC	Over-the-counter
OTF	Organised trading facility
OJ	Official Journal of the European Union
Q&A	Question and answer
REGIS-TR	REGIS TR S.A.
ROC	Regulatory Oversight Committee
RTS	Regulatory technical standards
SBSDR	Security-based swap data repository
SDR	Swap data repository
SEC	Securities and Exchange Commission (US)
SFC	Securities and Futures Commission (Hong Kong)
SFTR	Securities Financing Transactions Regulation
TC-TR	Trade repository established in a third country
TR	Trade repository

UCITS	Undertaking for the collective investment in transferable securities
UK	United Kingdom of Great Britain
UnaVista	UnaVista TRADEcho B.V.
UPI	Unique product identifier
US	United States of America
USI	Unique swap identifier
UTI	Unique trade identifier

INTRODUCTION

RESEARCH PROJECT

1. Research question –

This master dissertation aims to analyse the following research question:

How may the EU legislative and regulatory framework for the reporting of derivatives be assessed in view of the goal it aims to achieve?

2. Subsidiary questions – In order to answer the central research question, the following subsidiary research questions will studied:

- What are OTC derivative contracts and which risks do they pose?
- How has the international financial architecture influenced the reporting obligation of derivatives?
- How did the EU shape the reporting obligation for derivative contracts?
- What problems have occurred in the implementation of the reporting obligation?
- How could the EU legislative and regulatory framework be enhanced in view of the goals it aims to achieve?

METHODOLOGY

3. Legal-dogmatic research – This master dissertation will mainly employ a traditional legal-dogmatic research method, whereby the aim essentially is to systematically describe and order legal concepts in order to address potential gaps or inconsistencies in present law. In this regard, legal doctrine may be defined as research that aims to give a systematic exposition of the principles, rules and concepts governing a particular legal field or institution and analyses the relationship between these principles, rules and concepts with a view to solving unclarities and gaps in the existing law.[1] Furthermore, three elements are of particular relevance when adopting the doctrinal approach: (i) doctrinalists shall place themselves within the legal system that is not only the subject of the inquiry, but also provides the normative framework for analysis (*i.e.* the internal perspective); (ii) researchers must make connections between seemingly disparate elements and integrate them into a harmonious ensemble (*i.e.* the law as a system); (iii) accommodating new evolvements such as legislative changes against the background of societal developments (*i.e.* systematising the present law).[2]

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[1] SMITS, J. M., *What is legal doctrine? On the aims and methods of legal-dogmatic research*, September 2015, available via https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2644088, 5.

[2] SMITS, J. M., *What is legal doctrine? On the aims and methods of legal-dogmatic research*, September 2015, available via https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2644088, 5-7.

4. Law and economics – A second important methodological approach ingrained in this dissertation involves the examination of the present state of the law through the lens of the underlying economic structures and phenomena that may or may not transpire in response to said legislation. A prominent concept in law and economics is efficiency, which may be understood in several ways, however, for the purpose of this dissertation, the methodological benchmark will be Kaldor-Hicks efficiency. In this respect, this dissertation will aim to deduce whether the increase in costs stemming from the enactment of the EU reporting obligation are compensated by benefits in excess of those costs.[3] To this end, Kaldor-Hicks efficiency—which aims to counteract public policy constraints *vis-à-vis* Pareto efficiency[4]—will be operationalized through logical inference, *i.e.* drawing logical implications that are premised on findings in literature.

5. Comparative law – In part, this dissertation will conduct a comparative law analysis between the EU and US legislative and regulatory framework regarding the reporting of derivatives. Comparative law may be understood as the comparison of the different legal systems of the world that entails the intellectual activity with law as its object and comparison as its process.[5] Since the interpretation of the law is premised on the interpreter's societal perceptions and preconceptions[6], the law cannot be studied without the underlying context it operates in. Hence, the law should not be viewed upon as being independent from other scientific disciplines or legal regimes,[7] and accordingly, comparative law analysis may foster additional insights with respect to the underlying results and the way in which a comparable jurisdiction has instrumentalized the relevant legal framework to attain that result. Furthermore, in conformity with the functional comparative law analysis methodology of Zweigert and Kötz, the research question should be stated without any reference to one's own legal system.[8] To this end, abstraction should be made from the context of its own legal system and corresponding overtones, which would enable the researcher to look at the underlying issues from a functional perspective, in an attempt to meet that particular legal need.[9]

6. Theories of international financial law – In the field of international financial law, legal scholarship seeks to explicate why, unlike in other areas of international cooperation, international financial law almost exclusively is grafted on transnational networks and soft law instruments.[10] To this end, rational choice theories of international financial law have gained significant traction among commentators over the years. Essentially, rational choice theory asserts that states rationally choose an approach that best balances its expected costs and benefits, through *e.g.* establishing international institutions or concluding international agreements, thereby maximising collective welfare.[11] Thus, by looking through the conceptual lens of these rational choice theories, scholars may instrumentalize the theoretical foundations of these theories in the application of a specific problem (*e.g.* cooperation or coordination problem). Nevertheless, historical path

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[3] See R. COOTER, T. ULEN, *Law and Economics, 6th edition*, Boston, Pearson Education, 2012, 42.
[4] Pareto efficiency may be interpreted as the condition where all available resources have been allocated in an optimal manner so that it must be impossible to satisfy a certain preference (criterion) without decreasing other preference(s) elsewhere. See *e.g.* R. COOTER, T. ULEN, *Law and Economics, 6th edition*, Boston, Pearson Education, 2012, 14.
[5] ZWEIGERT, K., KÖTZ, H., *Introduction to comparative law*, Clarendon press, Oxford, 1998, 1.
[6] M. ADAMS, "Structuur, praktijk en theorie van rechtsvergelijkend onderzoek", *TPR* 2018, (889) 957.
[7] M. ADAMS, "Structuur, praktijk en theorie van rechtsvergelijkend onderzoek", *TPR* 2018, (889) 957.
[8] M. ADAMS, "Structuur, praktijk en theorie van rechtsvergelijkend onderzoek", *TPR* 2018, (889) 904.
[9] M. ADAMS, "Structuur, praktijk en theorie van rechtsvergelijkend onderzoek", *TPR* 2018, (889) 904.
[10] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, (1405) 1422.
[11] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, 1422-1423.

dependency and the political economy of international financial law cast major doubts on the assertion that soft law and transnational networks maximize joint gains for states.[12]

7. Path dependency from an organizational perspective – First, historical path dependence may be defined as the process in which the prevailing structure at a given—often crucial—juncture moulds the subsequent trajectory in ways that constrains their future evolution and prevents efficient adaptation to a change in circumstances.[13] In this respect, a variety of underlying causes may be identified. First, institutions may create network externalities, enjoy increasing revenue, and may become increasingly interconnected, thereby reinforcing each other against change where so required.[14] Furthermore, whilst, on the one hand political reasons may stem from interest groups frequently receiving greater benefits from the reproduction of extant measures and/or owing their position of power to strategic positioning at the moment of creation of an institution, whereas, on the other hand, institutional opacity and complexity may dampen actors' ability to filter new information.[15] In absence of an international financial institution and domestic regulators facing significant constrains (*e.g.* restrictions of legal powers, no forum to discuss policy-matters), regulators proceeded incrementally by creating informal networks to interchange ideas, coordinate their actions and agree on non-binding standards, which was one of many critical choices that were made in the past decades and have since shaped international financial law.[16] This ultimately results in difficulties for a variety of actors (*e.g.* legislators, regulators, politicians, scholars) to initiate and subsequently achieve institutional changes in the field of international financial law. Against this backdrop, organizational history has implicitly drawn on path dependence theory to evidence how and why the context-specific interplay of isomorphic and path-dependent countries matter.[17] In this respect, the study of historical organizations may be defined as organizational research that draws extensively on historical knowledge, methods, and data, embedding organizations in their sociohistorical context to generate historically informed theoretical narratives.[18] Through comparative analysis of temporal and spatial similarities and differences, organizational history will try to explain the form and origins of significant contemporary phenomena, combining interpretive elements with analytical moves to identify how to face challenges in contemporary international financial systems.[19] Specifically, by zooming out to the decades prior to the financial crisis of 2007-2008 (GFC), this dissertation aims gain additional insights regarding coordination and cooperation in the contemporary field of international financial law.

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[12] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, (1405) 1425.
[13] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, 1425-1426.
[14] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, (1405) 1426.
[15] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, (1405) 1426.
[16] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, (1405) 1427.
[17] M. MACLEAN, C. HARVEY, S. CLEGG, "Conceptualizing Historical Organization Studies", *The Academy of Management Review* 2016, vol. 41, no. 4, 609 (615).
[18] M. MACLEAN, C. HARVEY, S. CLEGG, "Conceptualizing Historical Organization Studies", *The Academy of Management Review* 2016, vol. 41, no. 4, 609 (609).
[19] M. MACLEAN, C. HARVEY, S. CLEGG, "Conceptualizing Historical Organization Studies", *The Academy of Management Review* 2016, vol. 41, no. 4, 610, 612 and 614-615.

8. Political economy – The political economy of international financial law instrumentalizes a theoretical construct that enables scholars to explicate the moderate success of major international financial initiatives and the widespread reliance on soft law and transnational government networks, in which the role of three prominent actors, whom generally all have the ability to defeat a new standard by preventing its adoption or by defeating its effective implementation.[20] Accordingly, the following three actors may be the subject of examination: (i) "national regulators", with a view to possibly identifying principal-agent problems,—which are particularly prominent in financial law—since the rate of innovation and ever-increasing complexity of financial transactions requires the legislature to delegate extensive rule-making authority to technocratic independent agencies or central banks.[21] In turn, these administrative agencies are typically not politically accountable but instead are supervised by their principals, which tends to be challenging since measuring regulators' performance is impeded by, *inter alia*, informational asymmetry (*i.e.* expertise gap), the relative autonomy in pursuing their own interests (and resulting limited judicial review), the regulatory trade-off *vis-à-vis* contrasting interests of actors (ii) and (iii), their insulation from competitive pressures; (ii) the "financial industry", where industry collectives are becoming increasingly involved (due to the complexity) in the rule-making process with the regulators, whom may be influenced by lobbying efforts or political donations; (iii) the "great powers", where domestic authorities can determine the locus of international cooperation or intervene in the process of adopting standards, and, may be disincentivized to adopt stronger international financial standards by political, fiscal or security interests.[22]

9. Shortcomings – First and foremost, perhaps, this dissertation may have exposed itself to the risk of overambition by adopting a multi-methodological approach. Yet, I believe such approach constituted a perquisite in order to overcome pervading esoteric boundaries inherent in the interconnected and opaque derivatives market, international regime complexity, technocratic big data standards, and nascent technologies such as distributed ledger technology, which all preclude the attainment of a holistic and comprehensive overview of the object of this dissertation. Second, the legal-dogmatic approach may be severely flawed by the sheer volume and significant amount of interlinkages within EU financial legislation. For instance, the MiFID II—which is interwoven with EMIR—regime counts 1.7 million paragraphs spread across 30.000 pages, which in turn permeates into other areas of EU financial legislation ranging from *e.g.* the derivatives trading obligation, the Data Reporting Service Providers Regime, the Consolidated Tape Regime, various level 2 technical standards in addition to the tremendously challenging rate of innovation and corresponding legal interventionism.[23] Furthermore, in my experience there seems a general lack of available doctrine, which implies that this dissertation has largely provided the legal analysis on its own account. Third, the economic "branch" of this dissertation may be flawed in many regards since derivatives themselves are often touted to be so complex that—according to *inter alia* the options trader N.N. Taleb—they may even not be understood by the people who actively trade them. In abstraction from my own perceptions, economic considerations in the law-making process may be flawed as well in many ways. For

[20] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, 1436-1437.
[21] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, 1428-1429.
[22] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, 1431-1433 and 1434-1435 respectively.
[23] B. INGMAN, "What lurks behind MiFID II's opaque transparency regime?", *Journal of International Banking Law and Regulation* 2019, 208-211.

instance, the law and economics school of thought has received criticism for substituting reducing the law-making process to a quest for wealth maximization, which would harbour biased and incomplete perceptions in the maximization of an aggregate "pie" without closer looking to the quality and content of that pie.[24] Also, the overreliance on economics in financial legislation may be flawed in several respects, since repeated flaws have surfaced regarding *e.g.* mathematical modelling and free-market distortions.[25] Fourth, the issues with the reported derivative details require a certain minimal technical expertise to generally grasp the plethora of problems that may occur in globally dispersed derivatives reporting. Fifth, many aspects pertaining to the effectiveness and implementation of the derivatives reporting obligation are interwoven with the international financial architecture, comprising a vast amount of entities which necessarily have been left outside the scope of this dissertation. Sixth, technological advancements in the field of distributed ledger technology could significantly influence the future effectiveness of the reporting obligation, which should probably have been studied in closer detail. Finally, whilst the theories of international law are academic constructs that could provide additional insights, the underlying theoretical framework may be (inherently) flawed depending on the circumstances.

[24] M. MCCLUSKEY, F. PASQUALE, J. TAUB, "Law and Economics: Contemporary Approaches", *Yale Law & Policy Review* 2016, vol. 35, no. 1, 298-299.

[25] See S. L. SCHWARCZ, T. L. LEONHARDT, *Lawmaking without Law: How Overreliance on Economics Fails Financial Regulation (and What to Do About It)*, 11 March 2022 draft, available via https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3942767, 44 p.

CHAPTER 1. SWEEPING REFORMS IN (OTC) DERIVATIVES MARKETS

§ 1. WHAT ARE DERIVATIVES AND WHICH RISKS MAY THEY POSE?

A. DERIVATIVES

10. Derivatives defined? – Even though derivatives have existed for over thousands of years,[26] at present, there is still no consensus regarding the distinctive properties of derivative contracts. Traditionally, (legal) scholarship, legislators, regulators or other international organisations customarily define derivatives in words to the following effect: (i) a derivative involves two parties agreeing to a future transaction, the value of which depends on (or derives from) the values of other underlying variables;[27] (ii) derivatives are financial products whose structures and values refer to financially meaningful external items;[28] (iii) financial derivatives, in particular, are bets between parties that one will pay the other a sum determined by what happens in the future to some underlying financial phenomenon;[29] (iv) a derivative is a financial instrument that transfers risk from one party to the other, which derives its value from the price or rate of some underlying assets such as bonds, loans, equities, currencies, commodities, indices, published rates or combinations of those assets[30].[31]

11. Definitional problem – Derivatives are hard to define because, among other things, they encompass a wide variety in products and applications.[32] This ultimately results in the vast majority of legal articles characterizing derivatives by providing a concise but inadequate definition which is subsequently followed by a mere descriptive compartmentalization.[33] The "definition" of derivatives is traditionally sequenced by the description of two characteristics derivatives possess. The first distinction is based on the form or type a derivative may take, traditionally identified as one of three—though not necessarily[34]—types, *i.e.* options,

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[26] C. M. BAKER, " Regulating the Invisible: The Case of Over-the-Counter Derivatives", *Notre Dame Law Review* 2010, vol. 85, no. 4, (1287) 1296.

[27] J. C. HULL, *Options, Futures, and Other Derivatives (11th ed.)*, Harlow, Pearson Education, 2022, 23.

[28] N. M. FEDER, "Deconstructing Over-The-Counter Derivatives", *Columbia Business Law Review* 2002, vol. 2002, no. 3, (677) 681.

[29] L. A. STOUT, "Derivatives and the Legal Origin of the 2008 Credit Crisis", *Harvard Business Law Review* 2011, vol. 1, no. 1, (1) 6.

[30] ISDA, *Glossary*, available via https://www.isda.org/1970/01/01/glossary/#d.

[31] For other definitions which may further illustrate difficulties in defining derivatives, see S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 1235-1249.

[32] See *e.g.* A. M. GHARAGOZLOU, "Unregulable: Why Derivatives May Never Be Regulated", *Brooklyn Journal of Corporate, Financial & Commercial Law* 2010, vol. 4, no. 2, (269) 272; N. M. FEDER, "Deconstructing Over-The-Counter Derivatives", *Columbia Business Law Review* 2002, vol. 2002, no. 3, (677) 681.

[33] T. LYNCH, "Derivatives: A Twenty-First Century Understanding", *Loy.U.Chi.L.J.* 2011, vol. 43, no. 1, (1) 11.

[34] See *e.g.* M. GHARAGOZLOU, "Unregulable: Why Derivatives May Never Be Regulated", *Brooklyn Journal of Corporate, Financial & Commercial Law* 2010, vol. 4, no. 2, (269) 273.

forwards and swaps.[35] The second distinction relates to “the underlying” or variable, which is the least significant distinguishing element, because almost all financial and many commercial products or transactions share a dependence on an underlying variable.[36] Traditionally, the object of a derivative agreement may be distinguished as pertaining to one of five underlying “classes”[37], namely commodity, credit, equity, foreign exchange, and interest rate.

In recent times, the conventional contours of derivatives have been criticized by a seemingly increasing strand of legal scholarship. Without the ability to discern what derivatives may or may not entail, policymakers cannot differentiate between socially useful or socially harmful derivatives, ultimately leading to an outdated legislative and regulatory derivatives regime.[38] This may particularly be the case in the derivatives market, which has evolved from offering products towards a technology that shapes evolving global financial markets.[39] Furthermore, derivatives are often described as complex financial contracts,[40] and in turn this complexity is often attributed to be a root cause of (various examples of) significant losses incurred on derivative contracts.[41] Moreover, the above-described definition (iv) maintained by the derivatives industry leader, the International Swaps and Derivatives Association (ISDA), even implicitly alludes to such exotic complexity, reinforcing this perception among politicians, the media, policy-makers and scholars.[42] The ulterior motive may be that it allows market participants to bamboozle the authorities by referring to the esoteric nature of the derivatives market, which will often halt further scrutiny among policy-makers.[43] Consequently, policy makers and legal analysts tend to be less informed when compared to derivatives industry groups, whom have a much deeper understanding of what derivatives may entail.[44]

12. Derivatives’ building blocks – Derivative contracts[45] need not necessarily be complex, as the structural foundations that underly a derivative comprise a limited number of building blocks.[46] Irrespective of a transaction’s complexity, all derivatives can be decomposed and restructured by instrumentalizing the two underlying building blocks, *i.e.* forwards and options.[47] Whereas options are asymmetrical contracts

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[35] S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 8.
[36] S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 8.
[37] See *e.g.* art. 2(6) EMIR.
[38] T. LYNCH, “Derivatives: A Twenty-First Century Understanding”, *Loy.U.Chi.L.J.* 2011, vol. 43, no. 1, (1) 12.
[39] S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 5.
[40] C. M. BAKER, “ Regulating the Invisible: The Case of Over-the-Counter Derivatives”, *Notre Dame Law Review* 2010, vol. 85, no. 4, (1287) 1299.
[41] S. GRIMA, I. E. THALASSINOS, “The Perception on Financial Derivatives: The Underlying Problems and Doubts” in GONZI, R.D., THALASSINOS, I.E. (eds.), *Financial Derivatives: A Blessing or a Curse?*, Bingley, Emerald Publishing Limited, 2020, 9.
[42] S. L., SCHWARCZ, “Regulating Derivatives: A Fundamental Rethinking”, *Duke Law Journal* 2020, vol. 70, no. 3, 546-547.
[43] S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 6.
[44] T. LYNCH, “Derivatives: A Twenty-First Century Understanding”, *Loy.U.Chi.L.J.* 2011, vol. 43, no. 1, (1) 12.
[45] Note that a potential refinement that this dissertation nevertheless does not apply, relates to use of the phrase “agreement or contracts” as opposed to “contracts”, which would be motivated by some states’ courts not enforcing a derivative contract and consequently depriving an agreement of its qualification as a contract. See T. LYNCH, “Derivatives: A Twenty-First Century Understanding”, *Loy.U.Chi.L.J.* 2011, vol. 43, no. 1, (1) 16.
[46] N. M. FEDER, “Deconstructing Over-The-Counter Derivatives”, *Columbia Business Law Review* 2002, vol. 2002, no. 3, (677) 691.
[47] M. S. TEW, “The Dark Side of Derivatives: A Book Note on Infectious Greed: How Deceit and Risk Corrupted the Financial Markets by Frank Partnoy”, *North Carolina Banking Institute* 2004, vol. 8, (289) 291.

between two counterparties in which one of the parties (the option holder) obtains the right to purchase (call) or sell (put) an asset at a predetermined price and future date to or from the other party (option seller), forwards, on the other hand, are symmetric contracts in which two counterparties agree to respectively purchase and sell an asset at a predetermined price and future date.[48] Depending on the preferred allocation of targeted risks, financial institutions may construct a derivative contract on the basis of these building blocks to satisfy the specific needs of derivatives customers, which in turn is what may make derivatives so complex as customers' needs may take convoluted forms.[49]

13. Regulatory arbitrage – However, these reconstructive capabilities make derivative contracts particularly susceptible to regulatory arbitrage. In the context of financial markets, regulatory arbitrage refers to the action of deliberately designing a transaction in a way that enables an entity to benefit from discrepancies between regulations, be that on a national or interjurisdictional scale.[50] For instance, US counterparties who desire to sidestep mandatory clearing requirements for standardized swaps (*i.e.* clearing mandate) and potential anti-evasion provisions, may structure their (often complex) transactions to place themselves outside the scope of the clearing mandate.[51] In doing so, this could result in increased information costs to supervisory authorities and private parties, thereby increasing opacity as opposed to transparency, which consequently may exacerbate systemic risk.[52] Conversely, whereas prior to the adoption of the Dodd-Frank Act market participants usually designed their transactions to avoid futures regulation due to expected increase in costs where they not to do so, instead, after the adoption of said act, market participants had commenced to structure their swaps into futures contracts with an economically equivalent outcome, which has become known as the futurization of swaps.[53]

14. Derivatives (re)conceptualised – In an attempt to address the definitional problem, legal scholarship has increasingly attempted to demystify derivatives by, *inter alia*, seeking the distinctive properties of derivatives in the search for an adequate definition. The traditional derivative notion has received criticism for that it would be inadequate for policy-purposes because the current derivative notion is overinclusive[54] and/or underinclusive[55]. For the interested reader, I hereby provide two definitions which may address the definitional problem of derivatives: (i) derivatives are contracts between two counterparties in which the payoffs to and from each counterparty depend on the outcome of one or more extrinsic, future, uncertain

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[48] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 26-27.
[49] N. M. FEDER, "Deconstructing Over-The-Counter Derivatives", *Columbia Business Law Review* 2002, vol. 2002, no. 3, (677) 692.
[50] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 31.
[51] I. BEYLIN, "A Reassessment of the Clearing Mandate: How the Clearing Mandate Affects Swap Trading Behavior and the Consequences for Systemic Risk", *Rutgers University Law Review* 2016, vol. 68, no. 3, (1143) 1151.
[52] I. BEYLIN, "A Reassessment of the Clearing Mandate: How the Clearing Mandate Affects Swap Trading Behavior and the Consequences for Systemic Risk", *Rutgers University Law Review* 2016, vol. 68, no. 3, (1143) 1151.
[53] G. D. ROSENBERG, J. R. MASSARI, "Regulation through Substitution as Policy Tool: Swap Futurization under Dodd-Frank, *Columbia Business Law Review* 2013,vol. 2013, no. 3, (667) 693.
[54] See E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 22-23; See T. LYNCH, "Derivatives: A Twenty-First Century Understanding", *Loy.U.Chi.L.J.* 2011, vol. 43, no. 1, 28-29.
[55] See T. LYNCH, "Derivatives: A Twenty-First Century Understanding", *Loy.U.Chi.L.J.* 2011, vol. 43, no. 1, 19-28.

events or metrics;[56] (ii) a derivative is an aleatory contract in which the payoffs of the two counterparties depend on the (non-)occurrence of one or more extrinsic, uncertain event(s) and in which the parties profess to expect opposite outcomes.[57] Thus, derivatives essentially are aleatory agreements between two counterparties that constitute a zero-sum-game (from a cash flow perspective). To conclude, it must be pointed out that derivative transactions harbour a critical time dimension (as opposed to spot transactions), which may stay outstanding for several decades and consequently has important implications regarding fluctuations in the underlying, leverage, and the method of transaction settlement.[58]

15. Derivatives applications – From a functional perspectives, derivatives may be used by counterparties for two distinct applications (*i.e.* hedging or speculation), and consequently, a constellation of three scenarios is possible depending on whether the counterparties both enter into a transaction for the purpose of hedging, purpose of speculation, or one of each counterparty respectively hedging and speculating on a certain transaction. First, derivatives may be used as a risk transfer mechanism (*i.e.* hedging) that enables economic agents to isolate specific risks and transmit these risks to other market participants, which is economically beneficial.[59] Second, market participants may be tempted to enter into speculative derivatives with a view to earning potential net cash flow profits in the zero-sum game of derivatives, which may be used to leverage their standing positions by adding net risk exposure.[60] In relation to systemic risk derivatives should be bifurcated between derivatives and hedging applications.[61]

16. Derivatives market types – Financial markets parlance makes a distinction between derivatives that are initiated on an exchange and derivatives that are initiated bilaterally.[62] Derivatives can be traded on exchanges, which are markets where persons may trade a limited range of standardized contracts that have been defined by the exchange.[63] The notion exchange or trading venue may be understood as a multilateral trading system in which bids and offers of multiple market participants can anonymously initiate derivative transactions.[64]

On the other side of the spectrum, over-the-counter (OTC) derivatives refer to individually negotiated, bilateral agreements between two counterparties.[65] A significant advantage of OTC agreements relates to the contractual liberty the counterparties possess in customising the terms of a derivative contract to their specific needs, which stands in opposition to exchange-traded-derivatives as they are highly standardized due to

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[56] T. LYNCH, "Derivatives: A Twenty-First Century Understanding", *Loy.U.Chi.L.J.* 2011, vol. 43, no. 1, (1) 14.
[57] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 23.
[58] See E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 24-25.
[59] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 46.
[60] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 49.
[61] S. L. SCHWARCZ, "Systemic Risk", *Georgetown Law Journal* 2008, vol. 97, no. 1, (193) 218.
[62] J. C. HULL, *Options, Futures, and Other Derivatives (11th ed.)*, Harlow, Pearson Education, 2022, 24-26; *Cf.* S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 5-6.
[63] J. C. HULL, *Options, Futures, and Other Derivatives (11th ed.)*, Harlow, Pearson Education, 2022, 24.
[64] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 66.
[65] S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 5.

market liquidity requirements.[66] The suppliers of these OTC transactions are financial intermediaries such as commercial and investment banks, securities dealers, investment funds and insurance companies.[67] Typically, end-users will contract with derivative dealers (*i.e.* the suppliers) who will quote a price and subsequently execute the trade.[68]

17. The global derivatives market – Over the years, the derivatives market has grown into the world's biggest market, involving a wide variety of participants from across the globe ranging from international financial institutions, such as banks, hedge funds, and pension funds to numerous other (non-financial) undertakings, *e.g.* farmers or manufacturers, in addition to governments, municipalities and sovereign wealth funds.[69] In order to illustrate how large the globally interconnected derivatives market is, policy-makers and commentators often reference the notional amount as a metric to determine the magnitude of the derivatives market. However, the notional principal underlying a derivative does not measure the amount at risk on a derivative, it merely reflects the value of the underlying asset(s) as stipulated in the derivatives contract.[70] Nevertheless, notional amounts generally provide a reasonable reflection of business activity and therefore fluctuations in notional outstanding amounts may evidence potential revenue or operational issues.[71] Instead, the more pertinent measure of risk exposure is gross market value, which reflects the maximum loss that market participants would incur if all counterparties failed to meet their contractual payments and the contracts could be replaced at current market prices.[72]

Against this backdrop, at the end of December 2021, the global notional amount outstanding for OTC derivatives was approximately 598,000 billion US dollars, with a gross market value of 12,439 billion US dollars.[73] On the other hand, the global notional amount outstanding for exchange-traded derivatives "only" equated to 80,000 billion US dollars.[74] However, it must be noted that the data may be skewed in the sense that the Bank for International Settlements (BIS) relies on data that is voluntarily reported by the 70 largest derivative dealers, which presumably indicates that the data reported underestimates total notional values.[75]

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[66] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 68.

[67] D. AWREY "Complexity, Innovation, and the Regulation of Modern Financial Markets", *Harvard Business Law Review* 2012, vol. 2, no. 2, (235) 262.

[68] S. L., SCHWARCZ, *The Global Derivatives Market*, last revised 23 June 2022, available via https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4054814, 4.

[69] E. HELLEINER, S. PAGLIARI, I. SPAGNA (eds.), *Governing the World's Biggest Market: The Politics of Derivatives Regulation after the 2008 Crisis*, Oxford, Oxford University Press, 2018, 1.

[70] S. L., SCHWARCZ, *The Global Derivatives Market*, last revised 23 June 2022, available via https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4054814, 8-9.

[71] OFFICE OF THE COMPTROLLER OF THE CURRENCY, *Quarterly Report on Bank Trading and Derivatives Activities: Third Quarter 2021*, 31 December 2021, available via https://www.occ.gov/publications-and-resources/publications/quarterly-report-on-bank-trading-and-derivatives-activities/files/pub-derivatives-quarterly-qtr3-2021.pdf, 10.

[72] S. L., SCHWARCZ, *The Global Derivatives Market*, last revised 23 June 2022, available via https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4054814, 9.

[73] BIS, *Global OTC derivatives market*, Table D5.1, updated 12 May 2022, available via https://stats.bis.org/statx/srs/table/d5.1?f=pdf.

[74] BIS, *Exchange-traded futures and options, by location of exchange*, Table D1, updated 13 June 2022, available via https://stats.bis.org/statx/srs/table/d1?f=pdf.

[75] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 77.

In this respect, to a certain extent it could be interesting to compare the data reported with the data that is centrally stored in TRs, which will in any case be a difficult exercise due to the various differences in the datasets provided (*e.g.* voluntary v. obligatory reporting).[76]

B. RISKS

18. Risks in derivatives markets – Although there exists no consensus what risk precisely entails, for the purpose of this dissertation it may be interpreted in conformity with its usage in financial economics, *i.e.* the objective probability that the actual result of an event to which one is exposed may differ from the predicted average result.[77] The derivatives market is subject to various emanations of risk, such as market risk, counterparty (credit) risk, operational risk, legal risk, liquidity risk and systemic risk.[78]

19. Market risk – In the context of derivatives, market risk is the risk that parties may incur (significant) losses as a consequence of adverse price movements in the derivative's underlying, which is primarily influenced by the market risk in the underlying derivative as influenced by two determinants: (i) the price sensitivity of the instrument, *i.e.* the extent to which the value of derivative will fluctuate in response to changing market conditions (*i.e.* market risk) in the underlying derivative as affected by, *inter alia*, the terms of the contract, the maturity, the amount of leverage which is a characteristic inherent in all derivatives, since they enable market participants to gain additional exposure without having to initially put up additional capital; (ii) the liquidity of the instrument, *i.e.* the ability to buy or sell assets quickly without the relevant transaction having a significant effect on its price, which may coerce firms into selling assets at discounts in order to rid themselves of certain positions.[79] In general, market risk is not that much of particular importance to specific derivative contracts, for that firms will usually have offsetting positions which will counteract losses or gains made, in addition to the market risk posed to the economy as a whole by the derivatives market always being zero, since derivatives are zero-sum game.[80]

20. Counterparty (credit) risk – Counterparty risk may be defined as the risk that arises for parties upon the conclusion of an agreement where the performance of the obligation(s) of the underlying agreement is contingent on the future performance by a counterparty, which stands in opposition to obligations that are demandable at once (*i.e.* spot contracts).[81] The corresponding risk exposure equates to the price the non-defaulting counterparty would have to cough up in the current market to substitute the defaulted upon

[76] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 77.
[77] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 44.
[78] L., SCHWARCZ, *The Global Derivatives Market*, last revised 23 June 2022, available via https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4054814, 6-7.
[79] A. J. KRIPPEL, "Regulatory Overhaul of the OTC Derivatives Market: The Costs, Risks and Politics", *Ohio State Entrepreneurial Business Law Journal* 2011, vol. 6, no. 1, 272- 274.
[80] A. J. KRIPPEL, "Regulatory Overhaul of the OTC Derivatives Market: The Costs, Risks and Politics", *Ohio State Entrepreneurial Business Law Journal* 2011, vol. 6, no. 1, 272- 274.
[81] F. BOGAERT, *Overdracht van kredietrisico: Kredietderivaten en effectisering*, Antwerpen, Intersentia, 2013, 6.

derivative agreement with a functionally equivalent derivative from another counterparty.[82] Closely related, counterparty credit risk may be described as the counterparty risk to which the creditor of an obligation is exposed, with the object of that pecuniary obligation being the payment of a sum of money.[83] Counterparty risk comprises both current and potential credit exposures, which can be significant and should highlight the importance for firms to meticulously monitor and evaluate the creditworthiness of their counterparties which however may be mitigated by the existence of bilateral netting agreements that allow counterparties to aggregate their positions *vis-à-vis* all relevant outstanding derivative contracts.[84] Derivatives' counterparty credit risk differs from *e.g.* credit risk in loans because of the uncertainty regarding the potential credit exposure, since counterparties need to measure the exposure which is a function of variables (such as leverage, liquidity, maturity, volatility, creditworthiness) that are subject to evolving market conditions, and hence, impedes counterparties in assessing the actual exposure(s), thereby necessitating them to estimate the exposure(s).[85]

21. Systemic risk – Systemic risk may be defined as the risk that (i) an economic shock such as market or institutional failure triggers (through a panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial market-price volatility.[86] Derivatives exposures across large financial institutions often (have) exacerbate(d) systemic risk, and purportedly, even their mere existence could increase systemic risk.[87]

Over the past decades the perceptions on derivatives and their relation to systemic risk have been subject to differing and opposing views, ranging from *e.g.* the early 1990s where policy-makers became increasingly aware of derivatives' capabilities in transmitting and exacerbating systemic risk and consequently calling for the curtailment of such risk in the derivatives market, whereas, from the late 1990s up to the global financial crisis of 2007-2008 (GFC) a *laissez-faire* approach was the predominant stance on the matter as a means of stimulating financial markets and innovation.[88] In recent times, scholarship has increasingly attempted to challenge perceptions on the systematically risky nature which ought to be inherent in derivatives, since the conventional wisdom now seemingly accepts that *all* derivatives transactions being subjected to increased

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[82] ECB, *Credit default swaps and counterparty risk*, August 2009, available via https://www.ecb.europa.eu/pub/pdf/other/creditdefaultswapsandcounterpartyrisk2009en.pdf, 20.

[83] F. BOGAERT, *Overdracht van kredietrisico: Kredietderivaten en effectisering*, Antwerpen, Intersentia, 2013, 6-7; *cf.* art. 2(11) EMIR.

[84] A. J. KRIPPEL, "Regulatory Overhaul of the OTC Derivatives Market: The Costs, Risks and Politics", *Ohio State Entrepreneurial Business Law Journal* 2011, vol. 6, no. 1, 274-275.

[85] OFFICE OF THE COMPTROLLER OF THE CURRENCY, *Quarterly Report on Bank Trading and Derivatives Activities: Third Quarter 2021*, 31 December 2021, available via https://www.occ.gov/publications-and-resources/publications/quarterly-report-on-bank-trading-and-derivatives-activities/files/pub-derivatives-quarterly-qtr3-2021.pdf, 4.

[86] S. L. SCHWARCZ, "Systemic Risk", *Georgetown Law Journal* 2008, vol. 97, no. 1, (193) 204; alternatively, systemic risk is the risk that a default by one financial institution will create a ripple effect that leads to defaults by other institutions thereby threatening the stability of the financial system as a whole. See J. C. HULL, *Options, Futures, and Other Derivatives (11th ed.)*, Harlow, Pearson Education, 2022, 27.

[87] V. V. ACHARYA, *A Transparency Standard for Derivatives*, November 2011, available via https://www.nber.org/papers/w17558, 1.

[88] For an overview, see E. LOCKWOOD, "From Bombs to boons: changing views of risk and regulation in the pre-crisis OTC derivatives market", *Theory and Society* 2020, vol. 49, no. 2, 215-244.

requirements, as the GFC-ensuing legislative and regulatory overhaul of the derivatives market is predominantly premised on these conceptions[89]. By deconstructing derivatives to their underlying functions, *i.e.* options and guarantees, it may become possible to assess and regulate derivatives market in a more granular manner, as it has been asserted that derivatives are currently over- and underregulated.[90] In this respect, financial guarantees are guarantees of financial obligations with large and highly interconnected/systematically important financial institutions as counterparties, may pose significant dangers to financial stability which may warrant subjecting especially risky derivatives, such as (systematically important) credit default swaps (CDSs) with systematically important counterparties, to increased legislative and regulatory scrutiny.[91]

22. Credit default swaps – A CDS, which is a type of credit derivative, is a contract in which a protection buyer agrees to pay a (periodical) fee (*i.e.* the CDS spread or premium) and in turn receives compensation from a protection seller if a predefined default event relating to a reference entity or a portfolio of reference entities materializes.[92] In principle, it is possible to distinguish between derivatives (and by consequence CDSs) for hedging and trading purposes, with hedging referring to market participants transferring the credit risk of on-balance sheet assets by acquiring CDS protection on them, thereby enabling a protection buyer to insure against credit losses or gaining capital relief.[93] In the context of trading purposes, some commentators[94] view arbitrage as a third motive with the other one being speculative trading, however, since arbitrage is only the application of a trading strategy in which speculative positions in one market are simultaneously offset in another market, it seems more appropriate to make a distinction between hedging and speculating.[95]

Since CDS spreads are predominantly determined by market participants' assumptions about the probability of default of the referenced entity, CDSs (CDS spreads) have frequently been used as a leading (aggregate) indicator of credit risk during the GFC.[96] Importantly, the CDS spreads exhibit a non-linear character, which implies that, on the one hand, upon default of the protection buyer, the protection seller would maximum be at risk for the sum of the future CDS premia, whereas, if the protection seller defaults, the maximum loss of

[89] See M. GREENBERGER, "Overwhelming a Financial Regulatory Black Hole with Legislative Sunlight: Dodd-Frank's Attack on Systemic Economic Destabilization Caused by an Unregulated Multi-Trillion Dollar Derivatives Market", *Journal of Business & Technology Law* 2011, vol. 6, no. 1, 127-128.
[90] See S. L., SCHWARCZ, "Regulating Derivatives: A Fundamental Rethinking", *Duke Law Journal* 2020, vol. 70, no. 3, 545-606.
[91] S. L., SCHWARCZ, "Regulating Derivatives: A Fundamental Rethinking", *Duke Law Journal* 2020, vol. 70, no. 3, (545) 549.
[92] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 28.
[93] ECB, *Credit default swaps and counterparty risk*, August 2009, available via https://www.ecb.europa.eu/pub/pdf/other/creditdefaultswapsandcounterpartyrisk2009en.pdf, 10-11.
[94] See *e.g.* ECB, *Credit default swaps and counterparty risk*, August 2009, available via https://www.ecb.europa.eu/pub/pdf/other/creditdefaultswapsandcounterpartyrisk2009en.pdf, 11.
[95] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 44.
[96] ECB, *Credit default swaps and counterparty risk*, August 2009, available via https://www.ecb.europa.eu/pub/pdf/other/creditdefaultswapsandcounterpartyrisk2009en.pdf, 64.

the protection buyer may be as great as the entire notional outstanding amount of the CDS.[97] In consideration of the aforementioned, this seems rather straight forward since CDS are financial guarantees from a functional perspective. For instance, the default of Lehman Brothers was a textbook example of the materialisation of this so-called jump-to-default risk, as was evidenced by Lehman Brothers defaulting over a weekend and the market was unable to smoothly incorporate the increased default risk into the current CDS spreads.[98]

23. Opacity – "The over-the-counter derivatives markets are very large, very important and little understood."[99] This illustrious citation may very well epitomize the notorious opaqueness of the global and interconnected derivatives market. In the years prior to the GFC, US calls for regulating derivatives and the corresponding warnings about the complexity and opacity of the derivatives market were curbed by worries that increasing transparency would jeopardize US competitiveness, as exemplified by Carruther's citation "in the absence of global coordination among national regulators, the threat of "exit" will continue to empower key OTC market players", thereby implicitly referring to the global nature of the derivatives market and market participants' ability to easily shift their business from New York to London.[100] Accordingly, in 2000 US Congress passed the Commodity Futures Modernization Act (CFMA) with an overwhelming majority vote 377-4, which definitely exempted derivatives from being regulated and overseen by the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission (SEC) and consequently ended legal uncertainty that had existed concerning the potential legality and unenforceability of derivative agreements.[101] Thus, the enactment of the CFMA ensured that the vast derivatives market (at the time approximately 80 trillion US dollar notional amount outstanding) became exempted from many requirements, such as reporting and disclosure obligations, and capital adequacy requirements.[102] In addition, derivatives are often instrumentalized to avoid disclosure, which may in turn further enhance the prevalence of transparency issues.[103] Furthermore, without sufficient data on the exposures of OTC derivatives, market participants and policy-makers face significant difficulties in assessing counterparty credit risk, interconnections, and market risk concentrations.[104] Indeed, pervasive reliance on opaque OTC markets hampered the aggregation and distribution of market-wide price and volume information.[105]

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[97] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 29.

[98] ECB, *Credit default swaps and counterparty risk*, August 2009, available via https://www.ecb.europa.eu/pub/pdf/other/creditdefaultswapsandcounterpartyrisk2009en.pdf, 66.

[99] S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 2.

[100] E. LOCKWOOD, "From Bombs to boons: changing views of risk and regulation in the pre-crisis OTC derivatives market", *Theory and Society* 2020, vol. 49, no. 2, (215) 239.

[101] E. LOCKWOOD, "From Bombs to boons: changing views of risk and regulation in the pre-crisis OTC derivatives market", *Theory and Society* 2020, vol. 49, no. 2, (215) 239.

[102] M. GREENBERGER, "Overwhelming a Financial Regulatory Black Hole with Legislative Sunlight: Dodd-Frank's Attack on Systemic Economic Destabilization Caused by an Unregulated Multi-Trillion Dollar Derivatives Market", *Journal of Business & Technology Law* 2011, vol. 6, no. 1, (127) 142.

[103] C. M. BAKER, "Regulating the Invisible: The Case of Over-the-Counter Derivatives", *Notre Dame Law Review* 2010, vol. 85, no. 4, (1287) 1306.

[104] C. M. BAKER, "Regulating the Invisible: The Case of Over-the-Counter Derivatives", *Notre Dame Law Review* 2010, vol. 85, no. 4, (1287) 1306.

[105] R. J. GILSON, R. KRAAKMAN, "Market Efficiency after the Financial Crisis: It's Still a Matter of Information Costs", *Virginia Law Review* 2014, vol. 100, no. 2, (313) 368.

Another manifestation of opaqueness in derivatives markets pertains to the way in which OTC derivative contracts are concluded. Since OTC derivative markets are primarily dealer markets, that is to say, a dealer will usually privately negotiate the terms of the agreement by quoting a price to the end-user, whom often is less sophisticated than the dealer and incognizant of accurate current prices.[106] The price-opacity will allow the dealer banks to charge a larger bid-ask spread (*i.e.* the difference between a market maker's willingness to respectively buy and sell a derivative at a given time), which poses an increased transaction cost to the end-user and represents the profit margin of the dealer.[107] Thus, in the absence of qualitative public price information, experienced dealers enjoy an informational advantage that inflates the bid-ask spread.[108] This dealer-customer information asymmetry may be problematic in other respects, since end-users often are misinformed and/or uninformed, due to a combination of dealers omitting derivatives-related risks—often resulting in litigation—, the allure for businesses to unite risk management with the prospects of an increase in profits, and even "techno-phobic" senior and asset managers whom sometimes themselves do not understand what the sold products entail.[109] This in turn may raise some questions in the field of corporate law, since it has been pointed out that dealer-customer information asymmetry may, on the one hand, extend to the shareholders whom—theoretically—rationally base their investments on all firm-specific available information in accordance with their preferred risk appetite, and, on the other hand, this informational discrepancy may be exacerbated by significant search costs for that derivatives traditionally have not been subject to appropriate (derivatives-related) risk disclosure requirements.[110] As a final remark, opacity may also stem from other areas, for instance, in April 2009 the US relaxed accounting standards thereby obscuring fair value accounting rules which impeded rather than enhanced informational efficiency.[111]

24. Derivatives and the GFC – Since they do not require an insurable interest, CDSs were used to speculate on the (non-)occurrence of certain credit events, which primarily referenced structured mortgage products (*e.g.* mortgage backed securities) for a total estimated outstanding notional amount of 57.000 billion US dollar prior to the 2008 outburst of the GFC.[112] For instance, the largest US insurance company, American International Group Inc. (AIG), required a governmental bailout following the calamitous multi-billion dollar bets on the US housing market that brought it to the brink of bankruptcy, which was necessitated by fears that its interconnectedness would lead to the disintegration of the financial system as a whole.[113] AIG had intentionally exploited legislative and regulatory lacunae to pursue a multi-billion dollar CDS business free

[106] I. RUFFINI, R. STEIGERWALD, "OTC Derivatives—A primer on market infrastructure and regulatory policy", *Economic Perspectives Federal Reserve Bank of Chicago* 2014, no. 3Q, (80) 86.
[107] A. J. KRIPPEL, "Regulatory Overhaul of the OTC Derivatives Market: The Costs, Risks and Politics", *Ohio State Entrepreneurial Business Law Journal* 2011, vol. 6, no. 1, (269) 295.
[108] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 69.
[109] C. CUCCIA, "Informational Asymmetry and OTC Transactions: Understanding the Need to Regulate Derivatives", *Delaware Journal of Corporate Law* 1997, vol. 22, no. 1, 205-206.
[110] C. CUCCIA, "Informational Asymmetry and OTC Transactions: Understanding the Need to Regulate Derivatives", *Delaware Journal of Corporate Law* 1997, vol. 22, no. 1, 206-207.
[111] R. J. GILSON, R. KRAAKMAN, "Market Efficiency after the Financial Crisis: It's Still a Matter of Information Costs", *Virginia Law Review* 2014, vol. 100, no. 2, 363 and 368.
[112] E. CALLENS, "De handelsverplichting voor derivaten onder MiFIR" in IFR (ed.), *Financiële regulering: een dwarsdoorsnede*, Antwerp, Intersentia, 2019, (411) 413.
[113] W.K. SJOSTROM, "Afterword to the AIG Bailout", *Washington and Lee Law Review* 2015, vol. 72, no. 2, 795-796.

from government intervention, regulatory filings, and mandated capital requirements.[114] To this end, AIG conducted its CDS business through a collective of subsidiaries comprising AIG Financial Products Corp. and AIG Trading Group Inc. and their respective subsidiaries (AIGFP).[115] As the conditions in the US structured mortgages worsened, the default risk from protection sellers (such as AIG) increased since the CDSs referenced these structured mortgages, thereby initiating a chain of events that was fuelled by the uncertainty regarding the extent to which counterparties were exposed to one another, in addition to concerns pertaining to the degree of counterparties' interconnectedness with other parties, which in turn incited mutual distrust and eroded the market of liquidity. However, the principal culprit in the demise of AIG was the collateral posting obligations concerning CDSs AIGFP wrote on collateralised debt obligations with subprime mortgage exposure, which, following AIG's credit rating downgrades, set in motion a downward spiral of collateral calls as the US housing market kept deteriorating ultimately resulting in the bailout of a cash-drained AIG.[116]

25. Disclosure – In consideration of the above, increased mandatory disclosure is thought to be the easiest answer to market failure that turns on information costs.[117] That failure refers to so-called counterparty risk externality, *i.e.* the effect that the default risk on one contract will be increased if the counterparty agrees to contract with another agent which increases the probability that the counterparty will be unable to perform on the first one.[118] As a result from the above-described opacity in derivatives markets, counterparty risk externality impedes the ability of counterparties to adequately reflect counterparty risk in price and collateral arrangements.[119] Disclosure requirements may mitigate or eliminate asymmetric information among market participants, which in theory makes risks transparent to all market participants and would consequently minimise financial panics.[120] In this respect, transparency may be defined as the quantity and quality of information about trading that is available to market participants and others, which stands in opposition to opaque markets which provide little information in the way of indicated prices or quotes.[121] In the context of systemic risk, individual market participants who fully understand all priced-in risks will be incentivized to only protect themselves and not the system as a whole, therefore they would presumably not care about disclosures to the extent it helps policy-makers assess systemic risk.[122] Thus, since a firm may not fully internalize the social benefits of transparency, it is disincentivized to cooperate and contribute, which would

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[114] W.K. SJOSTROM, "Afterword to the AIG Bailout", *Washington and Lee Law Review* 2015, vol. 72, no. 2, (795) 820.

[115] W.K. SJOSTROM, "Afterword to the AIG Bailout", *Washington and Lee Law Review* 2015, vol. 72, no. 2, (795) 806.

[116] W.K. SJOSTROM, "Afterword to the AIG Bailout", *Washington and Lee Law Review* 2015, vol. 72, no. 2, (795) 807.

[117] R. J. GILSON, R. KRAAKMAN, "Market Efficiency after the Financial Crisis: It's Still a Matter of Information Costs", *Virginia Law Review* 2014, vol. 100, no. 2, (313) 351.

[118] ACHARYA, V., BISIN, A., *Counterparty risk externality: Centralized versus over-the-counter markets*, March 2013, available via https://pages.stern.nyu.edu/~sternfin/vacharya/public_html/pdfs/OTC%20theory_JET_2nd_round_revision%203.pdf, 1.

[119] V. V. ACHARYA, *A Transparency Standard for Derivatives*, November 2011, available via https://www.nber.org/papers/w17558, 3.

[120] S. L. SCHWARCZ, "Systemic Risk", *Georgetown Law Journal* 2008, vol. 97, no. 1, (193) 218.

[121] I. RUFFINI, R. STEIGERWALD, "OTC Derivatives—A primer on market infrastructure and regulatory policy", *Economic Perspectives Federal Reserve Bank of Chicago* 2014, no. 3Q, (80) 86.

[122] S. L. SCHWARCZ, "Systemic Risk", *Georgetown Law Journal* 2008, vol. 97, no. 1, (193) 218.

ultimately result in too little production of private information settings that involve counterparty risk externality.[123] Furthermore, the efficacy of disclosure is obstructed by the increasing complexity and innovation of derivative transactions, since it is difficult to assess the extent to which counterparties or using derivatives for hedging or for speculation purposes.[124] In addition, two other frictions with the effectiveness of disclosure requires may come into existence, on the one hand, market participants changing their behaviour in response to these requirements which could ultimately reduce market liquidity, and, on the other hand investors and counterparties already demand and should usually receive to help them assess the merits of their investments.[125] However, the latter argument seems to collide with the argument as set out above that pertains to the existence of shareholder information-asymmetry. To finalise, scholarship has proposed a transparency standard for derivatives that should involve, *inter alia*, the following disclosures: (i) classification of exposures into product types, currency categories, maturity of contracts, counterparty types; (ii) size of exposures, which could be reported in fair-value terms, gross and/or net exposure, uncollateralized exposure (*i.e.* to address the risk of overstating exposure were there no information available as regards posted collateral backing the contracts); (iii) concentration reports signalling an entity's larges counterparty exposures.[126]

26. Reporting of OTC derivatives – In 2003, the Depository Trust & Clearing Corporation (DTCC) created the first trade repository (TR) in response to the increasing use of OTC credit derivatives, and, because these contracts were negotiated orally between the parties, this was a source of errors and transaction confirmation could take up to a month, with a growing risk of unidentified or unreconciled trades between market participants.[127] In this respect, trade repositories may be understood as financial market infrastructures operated by legal entities tasked with recording data about financial transactions, which should enhance market transparency by collection, storage and data dissemination.[128] Confronted with concerns on the downstream processing of CDSs (*e.g.* most CDSs still required manual processing in recording and reconciling amendments to CDS), the US DTCC Trade Information Warehouse was established in 2006, which was an automated TR designated to store and process CDSs.[129] In September 2009, the leaders of the Group of Twenty (G20) convened to address several issues following the deleterious effects of the GFC, and at the so-called Pittsburgh all leaders agreed to increase transparency in derivatives markets by requiring the establishment of trade repositories.[130]

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[123] V. V. ACHARYA, *A Transparency Standard for Derivatives*, November 2011, available via https://www.nber.org/papers/w17558, 3.
[124] S. L. SCHWARCZ, "Systemic Risk", *Georgetown Law Journal* 2008, vol. 97, no. 1, (193) 219.
[125] S. L. SCHWARCZ, "Systemic Risk", *Georgetown Law Journal* 2008, vol. 97, no. 1, 218-219.
[126] V. V. ACHARYA, *A Transparency Standard for Derivatives*, November 2011, available via https://www.nber.org/papers/w17558, 4-5.
[127] BANQUE DE FRANCE, *Payments and market infrastructures in the digital era: Chapter 16 - Trade repositories*, updated on 17 December 2018, available via https://publications.banque-france.fr/sites/default/files/media/2019/06/28/819029_livre_chapitre_16_en.pdf, 271.
[128] BANQUE DE FRANCE, *Payments and market infrastructures in the digital era: Chapter 16 - Trade repositories*, updated on 17 December 2018, available via https://publications.banque-france.fr/sites/default/files/media/2019/06/28/819029_livre_chapitre_16_en.pdf, 270.
[129] BANQUE DE FRANCE, *Payments and market infrastructures in the digital era: Chapter 16 - Trade repositories*, updated on 17 December 2018, available via https://publications.banque-france.fr/sites/default/files/media/2019/06/28/819029_livre_chapitre_16_en.pdf, 271.
[130] G20, *Leaders' Statement: The Pittsburgh Summit*, 24-25 September 2009, recital 13, bullet 3, available via https://ec.europa.eu/archives/commission_2010-2014/president/pdf/statement_20090826_en_2.pdf.

With respect to the United States of America (US), reporting requirements were introduced by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act)[131]. They are believed to be of material importance since regulators and other observers should be able to assess whether derivatives pose significant threats due to the size of the exposures and their interconnectedness to (systematically important) counterparties, and indeed, lack of reporting and transparency is perceived to be the main cause of regulators' inability to anticipate the effects of undercapitalized swaps in the build-up to the GFC.[132] More recently, trade repositories are being expanded to other markets. For instance, the US Securities and Exchange Commission (SEC) has recently proposed to establish the Consolidated Audit Trail, which would become "the world's largest data repository of securities transactions" for that it would register 58 billion trade events on a daily basis.[133] In addition, in response to increasing debt levels on corporations' balance sheets,—which are often bundled into collateralized loan obligations—scholarship has suggested to require the establishment of TRs for leveraged lending since these markets harbour comparable characteristics—specifically opacity—*vis-à-vis* the derivatives market in 2005.[134]

Regarding the European Union (EU), the EU concluded that OTC derivatives markets evidently suffered from the lack of transparency of prices, transactions, and positions, which necessitated the EU to intervene by the adoption of the European Market Infrastructure Regulation (EMIR)[135].[136] To this end, TRs would play a crucial rule in the new (post-trade) market infrastructure and required the EU legislator to adopt provisions on, *inter alia*, the operation and authorisation of TRs, data access and data quality, disclosure of data.[137]

27. Derivatives data – To the extent this dissertation—Chapter 1, §1—has not yet covered this issue, I will briefly illustrate why the data stored in TRs should be important. First, a study conducted in 2009 to assess the "interconnectedness" and global nature of the derivatives market, revealed that the counterparty credit risk exposure of US derivatives dealers to foreign entities almost equated to three-fourths of US derivatives dealers' total exposure.[138] This should underscore why some scholars have advocated that the high degree of interconnectedness has rendered it unnecessary that systemic risk assessments should examine

[131] Pub. L. No. 111-203, 124 Stat. 1376 (2010).

[132] M. GREENBERGER, "Overwhelming a Financial Regulatory Black Hole with Legislative Sunlight: Dodd-Frank's Attack on Systemic Economic Destabilization Caused by an Unregulated Multi-Trillion Dollar Derivatives Market", *Journal of Business & Technology Law* 2011, vol. 6, no. 1, (127) 166.

[133] D. A. WISHNICK, "Reengineering Financial Market Infrastructure", *Minnesota Law Review* 2021, vol. 105, no. 5, (2379) 2380.

[134] D. A. WISHNICK, "Reengineering Financial Market Infrastructure", *Minnesota Law Review* 2021, vol. 105, no. 5, 2437-2438.

[135] Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (text with EEA relevance), *OJ L* 201, 27 July 2012, 1 (hereinafter: EMIR).

[136] EUROPEAN COMMISSION, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Central Bank*, 20 October 2009, COM(2009) 563 final, available via https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0563:FIN:EN:PDF, 7.

[137] EUROPEAN COMMISSION, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Central Bank*, 20 October 2009, COM(2009) 563 final, available via https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0563:FIN:EN:PDF, 7.

[138] S. DAVIES, "Cross-border derivatives exposures: how global are derivatives markets?", *Irving Fisher Committee on Central Bank Statistics IFC Bulletin* July 2009, (159) 164.

concentrations of risks in specific countries, since a systemic collapse would inevitably affect markets and institutions from other countries as well.[139] Central banks (aspire to) use this data for a variety of policy objectives,—hereinafter sorted in the degree to which central banks have indicated their interest in TR data—namely: (i) macroprudential objectives, *e.g.* for macroprudential supervision and systemic risk assessment; (ii) market transparency, *e.g.* for general market surveillance and monitoring of payment systems; (iii) microprudential objectives, *e.g.* for supervising institutions, potential restructuring by resolution authorities, and the adoption of financial legislation; (iv) monetary policy objectives, *e.g.* for intervention in foreign exchange markets and data on foreign exchange exposures.[140]

Naturally, access to data centrally stored in—a decentralized network of—TRs is of crucial importance for supervisors in order to be able to detect latent risks which may be accumulating to the extent that they might pose dangers to the interconnected financial system as a whole. Furthermore, cross-border access allows the authorities to mitigate the compliance costs imposed on market participants.[141] Finally, authorities that (partially) can depend on foreign TRs may reduce the need for TRs to connect to multiple TRs or to report an identical transaction to multiple jurisdictions.[142]

§ 2. INTERNATIONAL ARCHITECTURE DRIVING DERIVATIVE REFORMS

A. GROUP OF TWENTY

28. Chronicles of the Group of Twenty – An inquiry into the vast array of (trans)national entities constitutes a prerequisite in the acquisition of a holistic and comprehensive understanding of the EU regime for derivatives reporting, this dissertation will however necessarily restrict itself to a concise examination of a few central actors. The orchestrator that provided the initial impetus for the unprecedented legal and regulatory overhaul of the global derivatives market, which ensued from the detrimental effects of the global financial crisis of 2007-2008 (GFC), is the Group of Twenty (G20).

In 1961 the Group of Ten (G10) was created, which was the first of many "G"-forums that have come and ceased to exist in the past decades.[143] The G10 served as a forum of finance ministers and central bankers, of which the members of this "club" were Belgium, Canada, France, Germany, Italy, Japan, Sweden, The Netherlands, the UK, and the US, with Switzerland as an associate member.[144] Through the pooling of financial resources the members could provide each other with emergency liquidity and finance payment

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[139] S. L. SCHWARCZ, "Systemic Risk", *Georgetown Law Journal* 2008, vol. 97, no. 1, 243 and 249.
[140] J. GARRALDA, B. TISSOT, *Central banks and trade repositories derivatives data*, 19 October 2018, available via https://www.bis.org/ifc/publ/ifc_report_cb_trade_rep_deriv_data.pdf, 8-9.
[141] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 23.
[142] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 24.
[143] See J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 182-184; P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 11-17.
[144] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 182.

imbalances where appropriate.[145] As a consequence of the G10's inability to prevent the collapse of the Bretton Woods institutional monetary system in the early 1970s, the Nixon Administration embarked on the search for an alternative, informal venue where deliberations on international economic issues could take place with a smaller number of (European) representatives.[146] And so it came to pass that the—alternatively known as the Library Group—finance ministers of France, West Germany, and the UK convened for the first time in April 1973 at the behest of US Secretary of Treasure George Shultz, which, because of the inclusion of Japan, resulted in the creation of the Group of Five (G5) later in that year.[147] After the addition of Canada and Italy, the first Group of Seven (G7) summit was assembled in 1976, although the G7 Finance Ministers' and Central Bank Governors' forum (G7 Finance) was only established in 1986, as it was only at that time the latest members of the club received an invitation to attend the meetings which were held between the finance ministers and central bank governors (or other officials) of the members with more seniority.[148] Lastly, following the integration of the Russian Federation in 1998, the G7 expanded to the Group of Eight (G8), which has not been extended towards the establishment of a "G8 Finance".

From a functional perspective, the G7 was able to act as steering committee—allegedly "for western capitalism"—primarily on account of two reasons: first, it held considerable authority on economic and security grounds (particularly the US and especially during the Cold War), and second, the club possessed sufficient weighed votes in the Bretton Woods institutions so that they could steer their decision-making, thereby influencing various other international financial institutions as well.[149] Importantly, the rise of these newly established groups signified the decline of the US as an economic "hegemon", which in turn necessitated increased cooperation between the leading capitalist democracies in order to safeguard the stability of the international economy.[150] Indeed, it had become apparent that the G8 alone would not be able to resolve (international) economic and financial disturbances without the unwavering cooperation and participation of other systematically important economies.[151] Evidently, the underrepresentation of these economies in international financial governance did not facilitate any G7/G8 attempts to resolve international economic issues. In this respect, apart from the increased awareness of the G7/G8's significantly diminished ability to manage the world economy, various confrontations with Asian and Latin-American crises further ignited the quest for an alternative venue which did in fact possess the capacity to address these issues.[152] To this end, the G7 Finance submitted a report to the 1999 Cologne summit on strengthening the international financial architecture which recommended the establishment of the G20 Finance Ministers' and Central Bank Governors' forum (G20 Finance).[153] Whilst the driving forces behind the idea for a more permanent club of financial state officials were former Canadian Prime Minister Paul Martin and US Treasury Secretary Lawrence Summers, the G7 was the formal creator of the G20 Finance when it released a joint communiqué in September 1999 which proposed "to establish a new mechanism for informal dialogue in the framework of the Bretton Woods institutional system,…".[154]

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[145] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 184.
[146] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 182-183.
[147] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 183.
[148] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 183.
[149] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 183.
[150] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 183.
[151] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 37.
[152] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 11.
[153] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 37.
[154] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 13-14.

29. G20 (Finance) membership – Apart from the G8 members, the G20 Finance additionally includes a geographical dispersed membership comprising Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Saudi Arabia, South Africa, the Republic of Korea, Turkey, and the EU as the twentieth member.[155] The G20 members approximately account for two-thirds of the world's population, 85 percent of the global gross domestic product (GDP), and 75 percent of global trade.[156] The membership requirements for the G20 Finance were based on the ability of friendly developing states' economy to pose risks to international economic stability.[157] Moreover, auxiliary advantages such as the potential for closer scrutiny of economic performance and the opportunity to educate developing or emerging members to adopt leading "good governance" norms of developed economies factored into the decision-making process.[158]

30. G20 inception – The extension of the G20 Finance to the level of the heads of state, and thus the creation of the G20, was held off—due to insufficient backing by some members—until the rampant and destructive effects of the GFC had reached a global scale.[159] These detrimental effects prompted the French President Nicolas Sarkozy and the British Prime Minister Gordon Brown to implore the US President George W. Bush to convene the very first G20 meeting at the leaders' level, which ultimately was held in Washington on 14-15 November 2008, and hence, the G20 emerged on the international scene.[160]

The creation of the G20 was accompanied by an increased awareness that its establishment was necessary to address pivotal international economic challenges and consequently meant that the members would be equal partners in carrying out a coordinated response to the GFC, as opposed to the formation of the G20 Finance where non-G7/G8 members were invited to adopt governance norms in a student-teacher relationship.[161] In addition, whereas the G20 Finance is characterized by a technical orientation, the G20 leaders' summits serve a different purpose in their focus on a policy-driven and outcome-based approach.[162]

X. G20 conceptualisation – The G20 can be described as an informal, self-selected, plurilateral discussion forum at the highest political level that may launch and coordinate policy initiatives on a broad range of predominantly economic challenges.[163] In principle, a *formally* structured international governmental organization will be established on the basis of a founding charter or international treaty (*e.g.* the Charter of the United Nations or the Articles of Agreement of the International Monetary Fund (IMF)), whereas the G20 operates in an *informal* setting, that is to say, there is no founding charter or international treaty that formally establishes the organisation, no permanent secretariat that implements its policies and decisions, and there are no formal criteria for G20 membership.[164] However, the G20 summits are prepared

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[155] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 14.
[156] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 2.
[157] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 184.
[158] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 184. Note that since the EU is not an independent states like the other members, it partially holds a special position within the G20.
[159] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 15-16.
[160] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 16. To avoid any potential confusion, the establishment of the G20 (Finance) does not imply that the G7 has ceased to exist, alternatively phrased, the G20 and G7 coexist.
[161] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 186.
[162] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 16.
[163] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 2.
[164] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 1 and 21.

by a host country that holds the rotating presidency, which demands the temporary formation of an *ad hoc* secretariat.[165] The relative informal nature of the G20 allows the leaders to gain an understanding of each other's political and economic circumstantial sensitivities and constraints.[166] In this respect, the increasing prevalence of informal multilateral fora has sometimes reaped the benefits of greater flexibility and responsiveness to international events as opposed to formal institutions.[167]

The G20 summits produce a varying amount of documentation and can be divided into several categories comprising, *inter alia*, communiqués and declarations, action plans, reports on policy commitments of G20 members, reports of international governmental organizations, or discussion papers and other supportive documents.[168] Communiqués, declarations and action plans are all collective G20 documents that carry no legal obligations, which are only divulged by the G20 where a consensus has been reached about the contents thereof.[169] The communiqués and declarations lie at the heart of what outcome a G20 summit has produced and reflect shared policy concerns of its members, which typically covers a broad range of economic issues, *e.g.* international economic and financial (institutional) reforms, (macro)prudential banking regulations, trade and investment, but increasingly encompasses non-economic matters such as anti-corruption, digitalization, food security, women's rights, and pandemics.[170] However, action plans are of significant importance as well and could include supporting Annex documents concretising specific G20 commitments.[171]

31. G20, GFC and OTC-derivatives – As previously mentioned, the leaders of the G20 convened for the first time during the Washington summit amid the tremendously challenging circumstances brought forward by the GFC. The G20 identified inconsistent and insufficiently coordinated macroeconomic policies and increasingly complex and opaque financial products among the root causes of the GFC.[172] Recognising the necessity to augment the resilience of financial markets and its legislative and regulatory regimes, the G20 promulgated common principles for reform of financial markets. Of particular relevance to this dissertation, the G20 members *inter alia* committed to implementing policies regarding the reinforcement of sound regulation and prudential oversight, the enhancement of transparency, the strengthening of international co-operation and interjurisdictional information sharing, and instituting international financial reforms.[173] In this respect, transparency in financial markets was to be augmented through complete and accurate disclosure by firms of the financial conditions on complex financial products.[174] In addition, the reinforcement of prudential oversight required regulators and supervisors to increase efforts to mitigate systemic risk of OTC derivatives transactions and to amplify the transparency of the OTC derivatives

[165] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 1.
[166] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 3.
[167] J. LUCKHURST, *G20 Since the Global Crisis*, New York, Palgrave Macmillan, 2016, 233.
[168] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 194.
[169] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 1 and 194.
[170] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 33 and 194.
[171] P. I. HAJNAL, *The G20: Evolution, Interrelationships, Documentation*, New York, Routledge, 2019, 197-198.
[172] G20, *Declaration of the Summit on Financial Markets and the World Economy*, 15 November 2008, recitals 3-4, available via http://www.g20.utoronto.ca/2008/2008declaration1115.html.
[173] G20, *Declaration of the Summit on Financial Markets and the World Economy*, 15 November 2008, recital 9, available via http://www.g20.utoronto.ca/2008/2008declaration1115.html.
[174] G20, *Declaration of the Summit on Financial Markets and the World Economy*, 15 November 2008, recital 9, bullet 1, available via http://www.g20.utoronto.ca/2008/2008declaration1115.html.

market.[175] During the subsequent leaders' summit, which took place in London on 2 April 2009, the G20 reiterated their commitments to strengthening financial supervision and regulation by, *inter alia*, establishing a collaborative framework of internationally agreed high (transparency) standards so as to ensure greater consistency and systematic cooperation.[176]

A few months after the London summit, the G20 leaders convened in Pittsburgh to discuss the transition from the management of the detrimental effects of the GFC towards the recovery thereof.[177] The deliberations materialized in the concretisation of the aforementioned policy goals, at least with respect to the ones of particular relevance to this dissertation. Accordingly, the G20 members firmly proclaimed that "*all standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements.*"[178] Thus, this particular G20 Pittsburgh commitment constituted the genesis of an unprecedented international coordinated effort to report all OTC derivative contracts to trade repositories.

B. FINANCIAL STABILITY BOARD

32. **FSB** – In response to a series of financial crises, the G7 Finance at their gathering in February 1999 in Bonn decided that the Financial Stability Forum (FSF) would be superseded by the Financial Stability Board (FSB) in order to reinforce the stability of the international financial system.[179] The reform of the international institutional financial architecture should involve an expansion of the FSF's membership, which would provide for a better representation of emerging economies, and additionally should focus its efforts towards international cooperation in the development of international standards so that the FSB would be better equipped to respond to macro-prudential evolutions and conduct early warning exercises.[180] In 2013, the FSB became a not-for-profit association under Swiss law and now is a treaty-based intergovernmental organization.[181] Since then, the FSB has adopted twelve key standards (*i.e.* soft law) for sound financial

[175] G20*, Action plan to Implement Principles for Reform*, 15 November 2008, points 59 and 61, available via http://www.g20.utoronto.ca/analysis/commitments-08-washington.html#actions.
[176] G20, *London Summit – Leader's Statement*, 2 April 2009, recitals 13-14, available via https://www.imf.org/external/np/sec/pr/2009/pdf/g20_040209.pdf.
[177] G20, *Leaders' Statement: The Pittsburgh Summit*, 24-25 September 2009, recital 1, available via https://ec.europa.eu/archives/commission_2010-2014/president/pdf/statement_20090826_en_2.pdf.
[178] G20, *Leaders' Statement: The Pittsburgh Summit*, 24-25 September 2009, recital 13, bullet 3, available via https://ec.europa.eu/archives/commission_2010-2014/president/pdf/statement_20090826_en_2.pdf.
[179] H. THAKKAR, H., "Transformation of FSF to FSB as a Macro-Prudential Regulator in the Global Financial Regulatory System: Pre and Post Global Financial Crisis", *Journal of Law Development and Politics* 2016, vol. 6, no. 1, (109) 109.
[180] G20*, Action plan to Implement Principles for Reform*, 15 November 2008, point 87-88, available via http://www.g20.utoronto.ca/analysis/commitments-08-washington.html#actions.
[181] H. THAKKAR, H., "Transformation of FSF to FSB as a Macro-Prudential Regulator in the Global Financial Regulatory System: Pre and Post Global Financial Crisis", *Journal of Law Development and Politics* 2016, vol. 6, no. 1, (109) 120.

systems.[182] The post-crisis consensus seemed to be that financial institutions cannot only be regulated through market forces, but needed additional governmental oversight and interjurisdictional coordination.[183]

C. BANK FOR INTERNATIONAL SETTLEMENTS

33. BIS – In 1929, the Organization Committee of the BIS convened to discuss on the statutes of the BIS in order to enable the BIS to commence its activities.[184] Following these deliberations, the BIS eventually was established during the interbellum in January 1930 with a view to implementing the Young Plan, which sought to address issues arising from the Dawes Plan—*i.e.* the initial scheme concerning reparation payments—through the securitization of claims on reparations from Germany.[185] From a legal perspective, the BIS was founded upon conclusion of the Hague Convention, comprising the Convention respecting the Bank for International Settlements and the Statutes of the Bank for International Settlements.[186] The BIS' statutory object encloses promoting co-operation between central banks, providing additional facilities for international financial operation, and acting as trustee or agent in regard to international financial settlements entrusted to the BIS as the object of its operations.[187] Accordingly, the BIS' issued mission statement vows to support central banks in achieving and maintaining their endeavours towards monetary and financial stability through ameliorating international cooperation and information exchange.[188]

34. BIS as a bank – Depending on the object of the BIS' operations, a functional distinction can be made between the BIS' banking activities or the BIS serving as a venue.[189] From a banking perspective, the BIS is a for-profit joint-stock company which takes deposits and makes investments.[190] Indeed, the BIS is a company limited by shares that has three thousand million special drawing rights as authorised capital, which carry equal rights to participate in the profits of the BIS.[191] In accordance with article 46(b) Statutes of the BIS, the general meeting will annually consider the declaration and amount of dividends to its shareholders. The general meeting may be attended by (a nominee of) the central bank, or another financial institution of widely recognised standing and of the same nationality as that central bank, provided that such institution has been appointed by the BIS' board without any objections from that institution's central bank, or if the relevant country does not have a central bank and where the BIS' board deems it appropriate, the BIS' board

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[182] H. THAKKAR, H., "Transformation of FSF to FSB as a Macro-Prudential Regulator in the Global Financial Regulatory System: Pre and Post Global Financial Crisis", *Journal of Law Development and Politics* 2016, vol. 6, no. 1, (109) 121.

[183] C. S. CRESPO, "Explaining the Financial Stability Board: Path Dependency and Zealous Regulatory Apprehension", *Penn State Journal of Law and International Affairs* 2017, vol. 5, no. 2, (302) 304.

[184] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 5 and 11.

[185] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 1.

[186] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 17.

[187] Article 3 Statutes of the Bank for International Settlements (hereinafter: Statutes of the BIS), available via https://www.bis.org/about/statutes-en.pdf.

[188] BIS, *BIS mission statement*, available via https://www.bis.org/about/mission.htm.

[189] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, xix.

[190] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, xviii-xix.

[191] Arts. 1, 4(1), and 13 Statutes of the BIS.

may appoint a financial institution of the country in question.[192] In this respect, since the statutes of the Japanese and American central banks prohibited subscription to the BIS' nominal capital, a group of private banks was asked to subscribe to those shares, which, to my understanding, explains why the relevant article was drafted in this specific way.[193]

In principle, the shares of the BIS are transferable, but only on the condition that the transaction has been approved by the BIS and the central bank, or the institution acting in lieu of a central bank, by or through whom the shares in question were issued.[194] The ownership of shares of the BIS carries no right of voting or representation at the BIS' general meeting, instead, the right of representation and voting may only be exercised by (the nominee of) the central bank of that country in proportion to the number of shares subscribed in each country.[195] In my view, this provision seems to require interpreting the authentic or previous versions of the Statutes of the BIS. At the time, any subscribing institution or banking group could issue to the public the shares for which it had subscribed.[196] Hence, the construction of the manner in which voting rights may be exerted at the general meeting counteracted the possibility that private actors would be able to exert voting powers in the general meeting of the BIS. However, following a decision of the board of directors of the BIS on 10 September 2000, the BIS mandatorily repurchased all shares held by private shareholders, and accordingly the Statutes of the BIS were amended to restrict the right to hold shares in the BIS exclusively to central banks.[197] At present, the BIS' capital is held by 63 central banks, including all G20 members.[198]

The BIS is, *inter alia*, authorized to: (i) buy and sell gold for the account of the central banks or itself, (ii) hold gold for its own account under earmark in central banks, (iii) accept the custody of gold for the account of central banks, (iv) make advances to or borrow from central banks against gold or other short-term obligations of prime liquidity, (v) open and maintain current or deposit accounts with central banks, (vi) accept deposits from central banks or deposit account.[199] When international (financial) markets are in turmoil, the central banks will withdraw their deposits and subsequently will convert them into gold and (re)deposit it as earmarks in trustworthy institutions such as the BIS.[200] Because these earmarked deposits

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[192] Art. 14 in conjunction with art. 44 Statutes of the BIS.
[193] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 18.
[194] Art. 12 Statutes of the BIS.
[195] Art. 14 Statutes of the BIS.
[196] Art. 15 Old Statutes of the BIS. See BIS, *Annex to Note to private shareholders: Amendments of the Bank's Statutes adopted by the Extraordinary General Meeting held on 8 January 2001*, 10 January 2001, available via https://www.bis.org/about/lettersholde.pdf.
[197] BIS, *Note to private shareholders: Withdrawal of all shares of the Bank for International Settlements held by its private shareholders*, 10 January 2001, available via https://www.bis.org/about/lettersholde.pdf.
[198] BIS, *BIS member central banks*, available via https://www.bis.org/about/member_cb.htm?m=2601. Please note that the Central Bank of the Russian Federation is still mentioned as having rights of voting and representation at the BIS general meeting. However, following the 2022 invasion of Ukraine, the Central Bank of the Russian Federation's voting rights have been suspended. See CENTRAL BANKING, *IMF approves $1.4 billion Ukraine aid and BIS suspends Russia*, 10 March 2022, available via https://www.centralbanking.com/central-banks/financial-stability/7938076/imf-approves-14-billion-ukraine-aid-and-bis-suspends-russia.
[199] Art. 21, points (a) to (d), (i) and (j) Statutes of the BIS.
[200] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, xix.

don't show up in the BIS' financial statements, the BIS' deposits and earmarks have transformed into an "accumulation point for safe-haven currency" in the event of an international financial crisis.[201]

35. BIS as a venue – The second rationale for the BIS' establishment was the idea that it could serve as a forum for central bankers whom could engage in talks with one another during their monthly meetings.[202] At present, the BIS still functions as a venue for central bank cooperation where significant progress is being made on the area of international banking supervision.[203] As the principal forum for world central banks, an alternative portrayal of the BIS' significance may be found in its description as "the closest thing to a global regulator".[204] The work that is being undertaken at the BIS' headquarters in Basel *vis-à-vis* the standardization of disclosure requirements, is of instrumental importance for the harmonization in international financial services.[205] Whilst the meetings of central-bank governors occasionally facilitated interjurisdictional relations, from time to time the backstage of the BIS' quarters also served as a battleground for political bickering.[206] Because the BIS also serves as a venue for cooperation between central banks, it needs to contribute to the stability of the international currency system, which in turn may give rise to conflicting motives that are difficult to align with its profit-oriented activities.[207]

36. Historical discord – For instance, at the end of the 1940s the BIS started to engage in swap agreements with the Banque de France and in the 1950s the BIS mainly was concluding currency swap agreements with the Bank of England.[208] From the perspective of the BIS, there were two (potentially concurring) objectives it aimed to achieve through the conclusion of swap agreements with (member) central banks. On the one hand, it would enable BIS member states to regulate and adjust markets with a view to preventing currency crises as a means of emergency aid, whilst simultaneously increasing BIS revenue on the other hand.[209] During the 1960s, concluding foreign-exchange swap agreements had even become the primary BIS activity as its assets had increased more than twice as fast as before, and in addition, swaps were opaquely conducted off-balance sheet and accordingly did not require any authorisation of the BIS' shareholders.[210] In 1963, a dispute arose between several actors within the BIS regarding whether Eurocurrency markets should be subjected to increased regulatory scrutiny or, in the spirit of *laissez-faire*,

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[201] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, xix.
[202] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 193.
[203] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 194.
[204] G. UGEUX, *International Finance Regulation: The Quest for Financial Stability*, Hoboken, John Wiley & Sons, 2014, 42.
[205] P. DELIMATSIS, "Transparent Financial Innovation in a Post-Crisis Environment", *Journal of International Economic Law* 2013, vol. 16, no. 1, (159) 175.
[206] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 193-194.
[207] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, xix. In addition, see art. 19, first subparagraph Statutes of the BIS which requires the BIS' operation to be in conformity with the monetary policy of the BIS' central bank members.
[208] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 160; Note that there seems to be no consensus in academic scholarship concerning the date of creation of swap agreements, for instance it may be the mid-1970s or 1981, *Cf.* S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 3; J. C. HULL, *Options, Futures, and Other Derivatives (11th ed.)*, Harlow, Pearson Education, 2022, 172.
[209] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 160-161.
[210] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 160.

whether they should be preserved unaffected.[211] Following the exchange of correspondence hence and forth, in 1964, the BIS convened a meeting on the topic where the representatives of the central banks of the UK, US, and West Germany were of the opinion that the Eurocurrency markets brought "greater efficiency in channeling of short-term capital" and "facilitated a leveling of interest rates".[212] By contrast, Banque de France governor Jacques Brunet warned that "one must not underestimate the risk of using short-term deposits for longer lending" and stated that "the central banks were justified in regarding it with a certain amount of suspicion".[213] The specific issue was that the Eurocurrency funds, which fell outside the scope of the regulations of the authorities, extended loans under untransparent conditions (*e.g.* a German credit association was extending Euro-dollars long-term mortgages via short-terms borrowed funds), thereby constituting a threat to credit in the market as a whole.[214] Against this background, one might conclude that the BIS itself is no stranger to the opacity and longstanding controversial uses of derivatives. Nevertheless, the BIS is the principal venue where the most important work is being undertaken in the field of international financial law.

D. INTERNATIONAL STANDARD SETTING BODIES

37. IOSCO – The International Organization of Securities Commissions (IOSCO) is the global standard-setting body for securities regulation and comprises more than 200 members of whom 125 are regulators which effectively regulate over 95 per cent of global capital markets.[215] The IOSCO has published its most prominent document denominated Principles for Financial Market Infrastructures (PFMI), which comprises 24 leading principles.[216] The IOSCO Principles are recognized by the G20, FSB, IMF as one of the 12 crucial standards for sound financial systems, the importance of which has increased significantly since the GFC, especially with regard to derivatives as it has been specifically requested by the FSB to aid with the development of standards.[217]

38. BCBS composition and charter– At present, the Basel Committee on Banking Supervision (BCBS) envelops 45 members from 28 jurisdictions, including all G20 members, whom are represented by central bankers and banking supervisors.[218] The BCBS Charter corroborates that the BCBS' purpose indeed is to enhance financial stability by adopting non-binding prudential banking standards, which it aims to achieve through, *inter alia*, the following activities: (i) identification of current and emerging risks for the global

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[211] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 161.
[212] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 162.
[213] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 163.
[214] Y. KAZUHIKO, *The Financial History of the Bank for International Settlements*, New York, Routledge, 2013, 163.
[215] J. P. SERVAIS, "The International Organization of Securities Commissions (IOSCO) and the New International Financial Architecture: What Role for IOSCO in the Development and Implementation of Cross-Border Regulation and Equivalence?", *European Company and Financial Law Review*, vol. 17, no. 1, (3) 3.
[216] See CPSS-IOSCO, *Principles for financial market infrastructures*, April 2012, available via https://www.bis.org/cpmi/publ/d101a.pdf, 182 p.
[217] J. P. SERVAIS, "The International Organization of Securities Commissions (IOSCO) and the New International Financial Architecture: What Role for IOSCO in the Development and Implementation of Cross-Border Regulation and Equivalence?", *European Company and Financial Law Review*, vol. 17, no. 1, (3) 4.
[218] BIS, *Basel Committee membership*, last updated 21 July 2022, available via https://www.bis.org/bcbs/membership.htm?m=3071.

financial system; (ii) promoting the adoption regulatory and supervisory practices; (iii) monitoring the implementation of BCBS standards in member jurisdictions with a view to converging towards a global level playing field among internationally active banks; (iv) coordination and cooperation with other financial standards setters, particularly those with a mandate to strengthen financial stability.[219]

39. BCBS: a history – The BCBS operates under the auspices of the BIS in Basel, where the central bank governors convene to deliberate on monetary and fiscal policies.[220] The BCBS is a Standing Committee set up by the central bank governors of the G10 in December 1974, which has probably become the best known-member of the collection of BIS groups and institutions.[221] The BCBS is primarily known for the promulgation of three series of banking regulatory principles.[222] When the Basel Capital Requirements were introduced in 1988 it signified a first step towards a global regulation because national regulators had accepted a set of international minimum standards for bank supervision.[223] These standards were not backed by a treaty or other legally binding requirements, regulatory and supervisory authorities merely agreed, in a non-binding way (*i.e.* soft law), to implement a minimum set of norms.[224] This informal cooperation mechanism was a way for banking regulators to successfully maintain effective regulatory control without compromising national responsibilities.[225] However, because national legislatures are unlikely to surrender their sovereign rule-making responsibilities, and changing the division of powers the would be excessively difficult and rigid (*e.g.* the US), therefore the creation of a global "super-regulator" remains unlikely in the future.[226]

As a consequence of a report on recent developments in banking supervision in 1984, the BCBS turned its focus to the increasingly creative practices of banks, whom had been shifting their activities towards off-balance sheet operations.[227] A few years later, another major issue emerged to the forefront when the "Report of the Committee on interbank netting schemes" (also known as the 1989 Lamfalussy Report) was publicized.[228] By November 1994, the BCBS issued a Report on Prudential Supervision of Banks' Derivative Activities, in which the BCBS stated that although nearly all the Committee's publications of the past decade had discussed banks' derivatives activities, it partly had never separately dealt on these affairs because it was

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[219] BIS, Basel Committee Charter, last updated 5 June 2018, points 1-2, available via https://www.bis.org/bcbs/charter.htm?m=3070.

[220] G. UGEUX, *International Finance Regulation: The Quest for Financial Stability*, Hoboken, John Wiley & Sons, 2014, 43.

[221] C. GOODHART, *The Basel Committee on Banking Supervision: a history of the early years, 1974-1997*, Cambridge, Cambridge University Press, 2011, 1 and 23.

[222] G. UGEUX, *International Finance Regulation: The Quest for Financial Stability*, Hoboken, John Wiley & Sons, 2014, 43.

[223] A. CROCKETT, "The Basel Capital Requirements: a First Step Towards Global Regulation" in MIKDASHI, Z. (ed.), *Financial Intermediation in the 21st Century*, London, Palgrave Macmillan, 2001, 123.

[224] A. CROCKETT, "The Basel Capital Requirements: a First Step Towards Global Regulation" in MIKDASHI, Z. (ed.), *Financial Intermediation in the 21st Century*, London, Palgrave Macmillan, 2001, 123.

[225] P.H. VERDIER, "The Political Economy of International Financial Regulation", *Indiana Law Journal* 2013, vol. 88, no. 4, (1405) 1423.

[226] A. CROCKETT, "The Basel Capital Requirements: a First Step Towards Global Regulation" in MIKDASHI, Z. (ed.), *Financial Intermediation in the 21st Century*, London, Palgrave Macmillan, 2001, 125.

[227] C. GOODHART, *The Basel Committee on Banking Supervision: a history of the early years, 1974-1997*, Cambridge, Cambridge University Press, 2011, 351.

[228] C. GOODHART, *The Basel Committee on Banking Supervision: a history of the early years, 1974-1997*, Cambridge, Cambridge University Press, 2011, 358.

of the view that derivatives themselves incur no risks to which banks are not already exposed, and yet the BCBS had a change of heart when the G10 central bank governors were convinced that such a report would be useful to publish for other supervisors.[229] Two specific concerns were: (i) the inability of the BCBS and other regulators or supervisors to keep up with the rate of innovation in the derivatives market; (ii) Because of the interaction and competition between banks and investment houses, and given the hybrid supervision scheme of the derivatives market between the BCBS and the International Organisation of Securities Commissions (IOSCO), any independent draft of supervisory standards would be illogical and constitute needlessly wasted effort.[230]

Whilst the Basel I requirements' significance stemmed from states' willingness to reach a consensus on international minimum standards, from a substantial perspective, however, the standards were overly simplistic.[231] On the contrary, the Basel II standards were overly complex and too reliant on external credit ratings and internal quantitative models, which made them susceptible to being evaded by market participants through ingenious constructions, whilst the US and UK were overly lenient regarding these practices.[232] For instance, the omission of off-balance sheet exposures into the risk assessment of banks created vulnerabilities *vis-à-vis* regulatory arbitrage opportunities and incentivized the expansion of shadow banking activities.[233]

40. BCBS and G20 – Excessive leverage, in addition to flawed capital and liquidity requirements, were material contributing factors to the causes underlying the GFC.[234] This had prompted the G20 to demand international standard setters to set out strengthened capital requirements by 31 March 2009, and a few days later at the London Summit, the G20 called for action towards qualitatively and quantitatively enhanced international consistency of capital in the banking system, which should prevent future excessive leveraging and should have installed increased capital buffers.[235] However, dissimilar economic circumstances produced conflicting interests among the G20 members, that is to say, because capital requirements restrict lending as well as the corresponding ability of the financial sector to underpin growth amid economic frailness, and accordingly, where western economies (*e.g.* the US, UK, EU) faced staggering growth, emerging markets (especially Asian countries) experienced the risk of overheating the markets and asset price inflation.[236] Following the G10's request for enhanced standards, the BCBS agreed to the adopt the Basel III framework

[229] C. GOODHART, *The Basel Committee on Banking Supervision: a history of the early years, 1974-1997*, Cambridge, Cambridge University Press, 2011, 361.
[230] C. GOODHART, *The Basel Committee on Banking Supervision: a history of the early years, 1974-1997*, Cambridge, Cambridge University Press, 2011, 361-362.
[231] D. W. ARNER, "Adaption and Resilience in Global Financial Regulation", *North Carolina Law Review* 2011, vol. 89, no. 5, 1600.
[232] D. W. ARNER, "Adaption and Resilience in Global Financial Regulation", *North Carolina Law Review* 2011, vol. 89, no. 5, (1579) 1600.
[233] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 122.
[234] D. W. ARNER, "Adaption and Resilience in Global Financial Regulation", *North Carolina Law Review* 2011, vol. 89, no. 5, (1579) 1598.
[235] G20*, Action plan to Implement Principles for Reform*, 15 November 2008, points 58, available via http://www.g20.utoronto.ca/analysis/commitments-08-washington.html#actions.; G20, *London Summit – Leader's Statement*, 2 April 2009, recital 15, bullet 6, available via https://www.imf.org/external/np/sec/pr/2009/pdf/g20_040209.pdf.
[236] D. W. ARNER, "Adaption and Resilience in Global Financial Regulation", *North Carolina Law Review* 2011, vol. 89, no. 5, (1579) 1597.

nearly two years later, in September 2010, which was subsequently endorsed by the G10 at the Seoul summit (in November 2010).[237] The Basel III standards represent the group's most important accomplishment of the 2010s and should have been implemented by 2019.[238]

41. The Basel III framework – Conceptually, Basel III does not depart from the structural underpinnings of its predecessor , that is to say, Basel III reaffirms its conviction in the appropriateness of the methodological foundations for risk modelling and risk analysis, whereas, the methodological application thereof was flawed through the underlying statistical risk modelling and data therein.[239] Following the above-described request of the G20 leaders, Basel III encompasses three reinforced pillars for capital requirements, namely: (i) Pillar 1 aims to enhance capital ratios, leverage and risk coverage; (ii) Pillar 2 revolves around upgraded risk management and supervision; (iii) Pillar 3 deals with market discipline and disclosure.[240]

42. Pillar 1 – A key difference between Basel II and III pertains to the vastly increased emphasis on equity capital, which is evidenced by, *inter alia*, the phased-in amplification in banks' mandatory common equity capital ratio (as a percentage of risk-weighted assets) from 2% to 4.5% by 2015,[241] which should have been at 6% by 2019.[242] Moreover, a newly established capital conservation buffer, which demands banks to accumulate this buffer under favourable market conditions and may in turn be loosened up in stressful times, impedes banks' discretion in declaring dividends or bonuses if the buffer range is triggered.[243] On the other hand, the counter-cyclical buffer directly aims to soothe and counteract pro-cyclical effects of excessive credit growth, which is often connected to destabilizing issues emanating from the occurrence of disturbances in the leverage cycle, thereby attempting to mitigate systemic risk within the financial system.[244] However, the latter buffer may be triggered at the discretion of national supervisors where the supervisors' observances deem so appropriate based on the growth in the credit market.[245]

Second, Basel III foresees an internationally harmonized leverage ratio with a view to diminishing excessive risk-taking practices and also serving as a backstop to the capital conservation and counter-cyclical buffers,

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[237] D. W. ARNER, "Adaption and Resilience in Global Financial Regulation", *North Carolina Law Review* 2011, vol. 89, no. 5, (1579) 1599.
[238] B. ZIEMBLICKI, "The World after the Financial Crisis – Who Should Be Responsible for International Financial Supervision", *Polish Review of International and European Law* 2013, vol. 2, no. 4, 9-47.
[239] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 118.
[240] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 118.
[241] E. F. GREENE, J. L. BOEHM, "The Limits of Name-and-Shame in international Financial Regulation", *Cornell Law Review* 2012, vol. 97, no. 5, (1083) 1111.
[242] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 119.
[243] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 119.
[244] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, 119-120.
[245] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 120.

thereby anticipating periods of excessive credit growth and any potential ensuing systemic risks.[246] The leverage ratio is a non-risk based capital measure that may restrict regulatory arbitrage, however, deficiencies in the measurements of risk-weighted assets substantially dampen the potential of the backstop function and aspirations concerning arbitrage opportunities as well, apart from the otherwise potential unintended side-effect which may be that it incentivizes banks with low risk-weighted assets to increase their leverage.[247]

Third, Basel III attempts to cover risks through the steering of counterparties towards CCPs as a zero risk-weight as opposed to OTC derivatives, and asset value correlation will raise risk weights for exposures to financial institutions that have at least $25 billion assets.[248] Importantly, banks must incorporate capital charges that are associated with the decline of counterparties' creditworthiness, in addition to the inclusion of wrong-way risks.[249] Where counterparty credit risk positively correlates with the underlying exposure of that transaction (*e.g.* deteriorating creditworthiness of the reference-entity in a credit default swap (CDS)), the counterparty to that counterparty is exposed to so-called wrong-way risk.[250] In the same vein, large and illiquid derivative exposure to counterparties oblige banks to apply longer margining periods in the computation of their capital requirements, which should alleviate the aforementioned concerns on off-balance sheet exposure and shadow banking, in combination with the other prescriptions set out in this paragraph.[251]

Basel III aims to significantly enhance the transparency regime across BIS jurisdictions via disclosure requirements *vis-à-vis* all capital requirements, which should enable all relevant stakeholders to assess the adequacy of the banking capital requirements of these jurisdictions and will be published in accordance with a template for the transitional period in order to avoid gaps until full implementation of the rules.[252]

In addition, remuneration policies must be divulged so as to inform investors and (hopefully) increase market discipline.[253]

Market discipline is a doctrine which suggests that subjecting the market to legislative and regulatory restrictions will not improve overall economic welfare, save for the occurrence of market failures, which

[246] P. DELIMATSIS, "Transparent Financial Innovation in a Post-Crisis Environment", *Journal of International Economic Law* 2013, vol. 16, no. 1, (159) 175.
[247] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 128.
[248] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 123.
[249] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 123.
[250] W. DU, S. GADGIL, M. B. GORDY, C. VEGA, *Counterparty Risk and Counterparty Choice in the Credit Default Swap Market*, 28 January 2019, available via https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2845567, 2.
[251] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, 122-123.
[252] P. DELIMATSIS, "Transparent Financial Innovation in a Post-Crisis Environment", *Journal of International Economic Law* 2013, vol. 16, no. 1, (159) 176.
[253] P. DELIMATSIS, "Transparent Financial Innovation in a Post-Crisis Environment", *Journal of International Economic Law* 2013, vol. 16, no. 1, (159) 176.

implies that the total cost of legal interventionism would be lower than the welfare costs that would be produced by a *laissez-faire* approach.[254]

43. Liquidity ratios – To this end, Basel III introduced minimum global liquidity standards, proposed disclosure obligations for *e.g.* off-balance sheet exposures and corporate governance arrangements, and adopted good practices for effective cooperation for supervisory colleges, which refers to the need for coherent cross-border supervisory activities with timely information sharing so as to strengthen prudential financial stability.[255]

Whereas the progress that has been made regarding liquidity standards is significant in itself, advancements must also be made by complementing work in other areas, particularly in the legislative and regulatory framework for OTC-derivatives.[256] Moreover, the Achilles heel of these standards is that they leave room for (subjective) interpretation, which consequently might result in very different implementation across jurisdictions.[257]

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[254] V. BAVOSO, "Basel III and the Regulation of Market-Based Finance: The Tentative Reform", *New York University Journal of Law and Business* 2021, vol. 18, no. 1, (73) 96.
[255] P. DELIMATSIS, "Transparent Financial Innovation in a Post-Crisis Environment", *Journal of International Economic Law* 2013, vol. 16, no. 1, 175-176.
[256] D. W. ARNER, "Adaption and Resilience in Global Financial Regulation", *North Carolina Law Review* 2011, vol. 89, no. 5, (1579) 1601.
[257] D. W. ARNER, "Adaption and Resilience in Global Financial Regulation", *North Carolina Law Review* 2011, vol. 89, no. 5, (1579) 1601.

CHAPTER 2. EMIR'S REPORTING OBLIGATION

§ 1. RUDIMENTARY BREAKDOWN OF EU (FINANCIAL) LAW

44. EU law – The legal *acquis* of the European Union (EU) consists of EU primary law, EU secondary law, case-law of the Court of Justice of the European Union (CJEU) and several international agreements concluded by the EU (or its derivative/preceding entities).[258] Primary law comprises several (fundamental) EU treaties concluded between the EU member states, of which the most important ones are the Treaty on European Union[259] (TEU) and the Treaty on the functioning of the European Union[260] (TFEU). On the other hand, secondary EU law then refers to the ever-growing body of (non-)binding EU law, emanating from the EU institutions[261] themselves. In this regard, the TFEU makes a distinction between legislative and non-legislative acts,[262] depending on whether or not these acts originate from formal legislative procedures, be that according to the ordinary or special (legislative) procedure, respectively laid out in arts. 294 and 289(2) TFEU. The legislative acts that the EU institutions have at their disposal are called regulations, directives and decisions.[263] Whereas the TFEU equally provides a legal basis for the most important—at the very least with respect to this dissertation—non-legislative acts (*i.e.* delegated and implementing acts), it (necessarily) can only do so in a general way. Accordingly, the secondary legislative acts themselves will have to empower the European Commission[264] in accordance with the conditions laid out in arts. 290 and 291 TFEU respectively. Delegated acts may supplement or amend certain non-essential elements of legislative acts, whilst implementing acts shall be adopted where uniform conditions for implementing legally binding acts are required.[265] Upon enactment of the corresponding technical standards, dependent on their qualification as either resulting from the (adoption of) delegated or implementing acts, they are referred to as regulatory technical standards (RTS) or implementing technical standards (ITS). In abstraction from EU law, legislation thus refers to all normative acts that have been adopted in accordance with formal legislative procedures, whilst regulation entails the applicable body of normative acts that have been adopted by administrative

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[258] See EUROPEAN UNIVERSITY INSTITUTE, *EU Legislation*, last updated 15 April 2021, available via https://www.eui.eu/Research/Library/ResearchGuides/EuropeanInformation/EU-Legislation#InternationalAgreements.

[259] Consolidated Version of the Treaty on European Union, *OJ C* 202, 7 June 2016, 13 (hereinafter: TEU).

[260] Consolidated Version of the Treaty on the Functioning of the European Union, *OJ C* 202, 7 June 2016, 47 (hereinafter: TFEU).

[261] The primary EU treaty-based actors of relevance to this dissertation are: the European Parliament, the Council, the European Commission, the European Central Bank (ECB) and the CJEU. See art. 13 TEU.

[262] Art. 289(3) TFEU.

[263] Art. 288(2) to 288(4) TFEU in conjunction with Art. 289(3) TFEU. Pursuant to arts. 288(2) and 288(3) TFEU, respectively, regulations are binding in their entirety and directly applicable in all member states, whilst directives require transposition into national law. Additionally, art. 288(4) TFEU states that decisions are binding in their entirety, and if the decision addresses specific entities it shall only apply to the addressees.

[264] Exceptionally, implementing acts may be adopted by the Council. See art. 291(3) TFEU in conjunction with arts. 24 and 26 TFEU.

[265] Arts. 290(1), first subparagraph and 291(2) TFEU respectively.

bodies on the basis of legislation, with a view to the supplementation or implementation of said legislation.[266] Apparently, the latter's derived notion "regulator" is often used interchangeably—particularly in the United States of America (US)— with the concept "supervisor", which differs from supervisory activities, as they are exercised by technocratic bodies through the individual application of normative acts, possibly resulting in a number of repressive actions (*e.g.* sanctions or investigations).[267]

45. The Lamfalussy construct – In 1999, the European Commission published the Financial Services Action Plan.[268] This communication singled out several priorities in order to attain a deepened integration for a single financial market, among which, *e.g.* common rules for integrated securities and derivatives markets, comparable financial reporting, enhanced information and transparency in retail markets, and sound supervisory structures.[269] The Financial Services Action Plan may be viewed as the causal antecedent of the infamous 2001 Lamfalussy Report[270],[271] which identified multiple issues in the area of EU financial legislation, such as *e.g.* the need for convergence of regulatory and supervisory structures, the accelerating pace of the financial market, the lack of a common European framework, inconsistent implementation of EU rules, fragmented liquidity as a result of numerous (cross-border) clearing and settlement systems, and the prospect of economic benefits of an integrated financial market.[272] However, the most problematic issue pertained to the cumbersome legislative framework itself, which was deemed excessively slow, rigid and ambiguous as it suffered from the threat of blockages and subsidiarity pressure[273] from the member states.[274] The adoption of the Lamfalussy Report instituted a refined and more pragmatic approach within the EU financial architecture. The so-called Committee of Wise Men envisioned a four level institutional approach within the EU financial edifice. Level one legislation sets out the key framework principles comprising all essential elements pertaining thereto, thereby reflecting the vital political choices taken by the European Parliament and the Council on the basis of an initial proposal as articulated by the European Commission.[275] Additionally, level two comprises a collaborative network between the European Commission and the relevant national competent authorities (NCAs).[276] Acting within the boundaries of the mandate provided by

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[266] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 5.
[267] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 5-6; *Cf.* DE LAROSIÈRE GROUP, *Report from the High-level Group on Financial Supervision in the EU*, 25 February 2009, Brussels, available via https://ec.europa.eu/economy_finance/publications/pages/publication14527_en.pdf, 13.
[268] EUROPEAN COMMISSION, *Communication from the Commission: Implementing the Framework for Financial Markets: Action plan*, 11 May 1999, COM(1999) 232 final, available via https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:51999DC0232&from=EN, 27 p (hereinafter: Financial Services Action Plan).
[269] Financial Services Action Plan, 3.
[270] COMMITTEE OF WISE MEN, *Final Report of the Committee of Wise Men on the Regulation of European Securities Markets*, 15 February 2001, Brussels, available via https://www.esma.europa.eu/sites/default/files/library/2015/11/lamfalussy_report.pdf, 115 p (hereinafter: Lamfalussy Report).
[271] See Lamfalussy Report, 8.
[272] See Lamfalussy Report, 9-16.
[273] Subsidiarity pressure refers to a practice of the EU member states to steer the European Commission towards the adoption of directives instead of regulations.
[274] Lamfalussy Report, 13-14.
[275] Lamfalussy Report, 22-23.
[276] Lamfalussy Report, 28.

the basic level one act, The European Commission will formally adopt or amend the required (detailed) implementing measures. At level three, the fundamental purpose is to establish a common and uniform transposition, implementation and interpretation of level one and level two EU acts. Level three acts include, *inter alia*, the issuance of authoritative—yet non-binding—guidelines which recommend common standards, conducting comparative exercises and (peer-)reviews of regulatory practices, and interpretative recommendations regarding level one and level two acts.[277] Regarding level three acts, the NCAs are central actors as they are heavily involved in the advisory process (via committees) and in ensuring effective enforcement. The fourth level conceived a greatly strengthened enforcement of the EU legal order, the responsibility of which mainly falls on the European Commission.[278] However, the Lamfalussy Report emphasizes that the collective responsibility for enhanced EU law compliance should be borne by all relevant actors, *i.e.* the member states, several (supra)national regulatory bodies and the private sector.

46. de Larosière – In October 2008, the President of the European Commission, José Manuel Barroso, requested Jacques de Larosière to chair a High-Level Group which was mandated to contribute recommendations on the future of European financial regulation and supervision.[279] The De Larosière Report[280] yielded, *inter alia*, an analysis of the complex and leading causes of the GFC and outlined a framework towards a new regulatory agenda, stronger coordinated supervision, and effective crisis management procedures.[281]

Whilst supervision of the financial sector had not been a primary cause behind the GFC, several supervisory failures had surfaced in consequence of the GFC, from both a macro- and micro-prudential perspective.[282] For instance, national supervisors had failed to adequately oversee particular institutions, neglected to share information with one another, thereby eroding mutual confidence among supervisors, and had been granted supervisory powers in varying degrees among the member states of the EU.[283] Moreover, the level three committees were unable to carry out their crisis prevention function as they lacked sufficient resources and the corresponding reaction speed to keep up with the extensive workload.[284] In addition, the level three committees were unable to take urgent decisions because they did not possess the legal powers to take decisions, and therefore could not challenge decisions from national supervisors which nevertheless implicated the dispersion of significant risks to other EU member states where a risk-bearing undertaking (*e.g.* Icelandic banks) decided to branch out from its home country towards other EU member states.[285]

The De Larosière Report envisioned to legally transform the level 3 committees into three authorities, whom would be granted new powers in full conformity with the principle of subsidiarity as embedded within art.

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[277] Lamfalussy Report, 37-38.
[278] Lamfalussy Report, 40.
[279] DE LAROSIÈRE GROUP, *Report from the High-level Group on Financial Supervision in the EU*, 25 February 2009, Brussels, available via https://ec.europa.eu/economy_finance/publications/pages/publication14527_en.pdf, 3.
[280] DE LAROSIÈRE GROUP, *Report from the High-level Group on Financial Supervision in the EU*, 25 February 2009, Brussels, available via https://ec.europa.eu/economy_finance/publications/pages/publication14527_en.pdf, 85 p (hereinafter: De Larosière Report).
[281] De Larosière Report, 3-6.
[282] De Larosière Report, 39.
[283] De Larosière Report, 40-41.
[284] De Larosière Report, 41-42.
[285] De Larosière Report, 40-41.

5(3) TEU, such as, a legally binding mediation rule to solve disputes between national supervisors, the possibility to aggregate all relevant information originating from national supervisors, carrying out on-site inspections, and the responsibility for defining common supervisory practices and facilitating cooperation and exchange of information between competent authorities.[286] Furthermore, these authorities should enjoy key competences in licensing and supervising post-trading infrastructures, and would prepare or adopt equivalence decisions relating to the supervisory regimes of third countries.[287] In the area of regulation, the future authorities would play a crucial role in the technical level 3 interpretation of level 1 and level 2 measures and in the development of level 3 technical standards.[288]

47. European system of financial supervision – The Communication on Driving European Recovery from the European Commission declared that the European Commission shared the analysis of the De Larosière Report, and would initiate a proposal on the basis of the report's 31 recommendations so as to erect a new European System of Financial Supervision (ESFS).[289] In addition, the communication also mentioned that on the basis of a report on derivatives, appropriate proposals to increase transparency and financial stability would be formulated in order to eliminate any lacunae within the European or national legal framework.[290]

On 27 May 2009, the European Commission published the Communication on European Financial Supervision[291] which represented a key milestone as it set out the basic architecture for a new European financial supervisory framework.[292] The enhanced ESFS would be composed of two new pillars: (i) a European Systemic Risk Council which would monitor and assess potential threats to the financial system as a whole, thereby aiming to address the issue of, and function as an early warning system; (ii) the second pillar entails the formation of a robust network of national financial supervisors in tandem with the (at the time) soon to be established European Supervisory Authorities (ESAs), whom would enjoy significantly enhanced powers in view of the aforementioned lacunae identified by the De Larosière Report.[293] The three existing Committees of Supervisors would be superseded by the three new ESAs, *i.e.* the European Securities and Markets Authority (ESMA), the European Insurance and Occupational Pensions Authority (EIOPA), and the European Banking Authority (EBA).[294] On 23 September 2009, the European Commission adopted proposals for three regulations establishing the ESFS comprising the ESAs (and later the European Systemic Risk

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[286] De Larosière Report, 49 and 52-54.
[287] De Larosière Report, 54 and 56.
[288] De Larosière Report, 53.
[289] EUROPEAN COMMISSION, *Communication for the Spring European Council: Driving European Recovery*, *Volume 1*, 4 March 2009, COM(2009) 114 final, available via https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009DC0114&from=EN, 5-6 (hereinafter: Communication on Driving European Recovery).
[290] Communication on Driving European Recovery, 7.
[291] EUROPEAN COMMISSION, *Communication from the Commission: European financial supervision*, 27 May 2009, COM(2009) 252 final, available via https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009DC0252&from=EN, 17 p (hereinafter: Communication on European Financial Supervision.
[292] Communication on European Financial Supervision, 3.
[293] Communication on European Financial Supervision, 9-12.
[294] Communication on European Financial Supervision, 8.

Board (ESRB)), whom are of crucial importance to contribute to the consistent application of EU legislation and to the establishment qualitative legal and supervisory standards.[295]

The ESAs are responsible for micro-prudential supervision, the main objective thereof is to supervise and mitigate the distress of individual financial institutions.[296] On the other hand, the ESRB was assigned a mandate with regard to macro-prudential supervision, which aims to limit the distress of the financial system as a whole in order to safeguard the overall economy from material losses in real output.[297] However, macro-prudential and micro-prudential supervision are severely intertwined with one another, because macro-prudential supervision cannot be meaningful unless it impacts micro-prudential supervision, and conversely, micro-prudential supervision cannot adequately protect financial stability without taking into account the overall state of the financial markets.[298]

In the latest ESAs review, the European Commission concludes that the recent challenges caused by the COVID-19 pandemic and the corresponding coordinated actions undertaken by the ESAs, demonstrated that the overall architecture of the ESFS is largely adequate.[299] To conclude, the adoption of the ESMA Regulation[300], as amended by Regulation 2019/2175[301], was of material importance in order to enable ESMA to adequately fulfil the significant responsibilities it was assigned under EMIR.[302]

§ 2. EMIR TRADE REPORTING

A. EMIR INTRODUCTORY NOTE

48. EMIR general scope of application – From a thematical standpoint, EMIR lays down clearing and bilateral risk-management techniques for over-the-counter (OTC) derivative contracts, reporting

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[295] Recital 3 EMIR.
[296] De Larosière Report, 38.
[297] De Larosière Report, 38.
[298] De Larosière Report, 38.
[299] EUROPEAN COMMISSION, *Report from the Commission to the European Parliament and the Council: On the operation of the European Supervisory Authorities (ESAs)*, 23 May 2022, COM(2022) 228 final, available via https://ec.europa.eu/info/sites/default/files/business_economy_euro/accounting_and_taxes/documents/220523-esas-operations-report_en.pdf, 18.
[300] Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC, *OJ L* 331, 15 December 2010, 84 (hereinafter: ESMA Regulation).
[301] Regulation (EU) 2019/2175 of the European Parliament and of the Council of 18 December 2019 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority), Regulation (EU) No 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Regulation (EU) No 600/2014 on markets in financial instruments, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and Regulation (EU) 2015/847 on information accompanying transfers of funds (text with EEA relevance), *OJ L* 334, 27 December 2019, 1 (hereinafter: Regulation 2019/2175).
[302] See *e.g.*, recitals 6 and 10 EMIR.

requirements for derivative contracts and lastly, uniform requirements relating to the activities that central counterparties (CCPs) and trade repositories (TRs) (aspire to) engage in.[303] Specifically, EMIR has introduced five new sets of rules,[304] this dissertation will however not deal with all these rules and aims to restrict itself to the EMIR reporting obligation. The first article embedded within EMIR broadly determines the subject matter and corresponding scope of application, as often is the case for (European) legislative acts. EMIR particularly mentions its application to CCPs and their clearing members[305], to financial counterparties and to TRs, and a conditional application to non-financial counterparties and trading venues.[306] Originally, EMIR exempted only the members of the European System of Central Banks (ESCB)—*i.e.* the European Central Bank (ECB) and the national central banks (NCBs) of EU member states—, the EU's or EU member states' public bodies charged with or intervening in the management of public debt, and the Bank for International Settlements (BIS) from its scope of application.[307] Later amendments provided for additional exemptions to the central banks and public bodies charged with management or intervention of (management of) public debt to several (G20) countries, namely Japan, the United States of America (US), Australia, Canada, Hong Kong, Mexico, Singapore, Switzerland, the United Kingdom of Great Britain (UK) and Northern Ireland.[308]

49. EMIR's reporting obligation – EMIR obliges counterparties and CCPs to ensure that the details of derivative contracts that have been concluded, terminated or modified in any manner, are reported to a registered or recognised TR.[309] In order to grasp the magnitude of the reporting obligation, it is necessary to ascertain the meaning behind all the various building blocks that enclose the reporting obligation. With regard to the reporting obligation that is embedded within art. 9 EMIR, Title I (subject matter, scope and definitions), Title II (clearing, reporting and risk mitigation of OTC derivatives), Title VI (registration and supervision of TRs), Title VII (requirements for TRs) are of most prominent relevance.

50. Affiliated EU legislation – On several occasions, this dissertation will reference certain provisions which are entrenched within the first Market in Financial Instruments Directive (MiFID I),[310] as repealed by the superseding second Market in Financial Instruments Directive (MiFID II)[311].[312] Whilst EMIR still references certain provisions of MiFID I, at present they should be interpreted in view of the currently applicable provisions of MiFID II.

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[303] Art. 1(1) EMIR.
[304] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 205.
[305] Pursuant to art. 2(14) EMIR, clearing members must be understood as undertakings which participate in CCPs and bear the responsibility for discharging the financial obligations arising thereof.
[306] Art. 1(2) EMIR.
[307] Arts. 2(4)(a) and 2(4)(b) EMIR.
[308] Art. 2(4)(c) EMIR.
[309] Art. 9(1), first subparagraph EMIR.
[310] Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC, *OJ L* 145, 30 April 2004, 1. (hereinafter: MiFID I).
[311] Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (text with EEA relevance), *OJ L* 173, 12 June 2014, 349 (hereinafter: MiFID II).
[312] Art. 94 MiFID II.

B. THE REPORTING OBLIGATION UNDER EMIR

1. MATERIAL SCOPE OF APPLICATION

51. EMIR derivative contracts – As previously noted, counterparties and CCPs must report the details of the conclusion, modification or termination of any derivative contract to registered or recognised TRs.[313] Derivative contracts in the sense of EMIR encompass the financial instruments[314] set out in points (4) to (10) of Section C of Annex I to MiFID II.[315] Accordingly, EMIR excludes transferable securities (C1), money-market instruments (C2), units in collective investment undertakings (C3), and emission allowances consisting of any units recognised for compliance with the Emissions Trading Scheme (C11). Derivatives markets jargon will generally refer to different classes (or groups, types,..) of derivatives, depending on what the object of a specific derivative contract is. Generally speaking, there are five (underlying) classes which may be covered by a derivative contract. These classes typically relate to foreign exchange, credit, commodity, interest rates, and equity. Against this background, a class of derivatives should be interpreted as a subset of derivatives sharing common and essential characteristics including at least the relationship with the underlying asset, the type of the underlying asset, and currency of notional amount, notwithstanding the fact that derivatives belonging to the same class may have different maturities.[316]

52. Derivatives referencing events – The financial instruments that qualify as derivatives in the sense of MiFID II may be disentangled as referencing one of three types of events: (i) derivatives referencing financial events; (ii) derivatives referencing commodities, which should be understood as fungible goods that can be delivered; (iii) miscellaneous derivatives referencing non-financial events.[317] First, the financial derivatives cover derivative instruments for the transfer of credit risk (C8), financial contracts for differences (C9), and options, futures, swaps, forward rate agreements and any other derivative contracts relating to securities, currencies, interest rates or yields, emission allowances or other derivatives instruments, financial indices or financial measures which may be settled physically or in cash (C4).

Second, (C5) commodity derivatives encompass options, futures, swaps, forwards and any other derivative contracts relating to commodities that must be settled in cash or may be at the option of one of the parties other than by reason of default or another termination event. In addition, (C6) commodity derivatives include derivative contracts relating to commodities that can be physically settled provided that they are traded on a trading venue, except for wholesale energy products traded on an organised trading facility (OTF) that must be physically settled.[318] Finally, (C7) commodity derivatives also contain derivative contracts relating to commodities, that can be physically settled not otherwise mentioned in (C6) and not being for commercial purposes, which have the characteristics of other derivative financial instruments.

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[313] Art. 9(1), first subparagraph EMIR.
[314] Pursuant to art. 4(15) MiFID II, financial instruments are those instruments specified in Section C of Annex I.
[315] Art. 2(5) EMIR.
[316] Art. 2(6) EMIR.
[317] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 34.
[318] Apparently a derivative may only qualify as such under (C6) i fit cannot be included under the (C5) derivative notion. See E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 35.

Third, miscellaneous derivatives (C10) comprise options, futures, swaps, forward rate agreements and any other derivative contracts relating to climatic variables, freight rates, or inflation rates or other official economic statistics that must be settled in cash or may be settled in cash at the option of one of the parties other than by default or other termination event. In addition, other derivative contracts relating to assets, rights, obligations, indices and measures not otherwise mentioned, which have the characteristics of other derivative financial instruments having regard to whether or not they are traded on a trading venue.

53. OTC derivative contracts – OTC derivative contracts in the sense of EMIR are delineated as derivative contracts the execution of which does not take place on a regulated market or on a third-country market considered to be equivalent to a regulated market.[319] At present, the European Commission has adopted five implementing acts respectively determining that the relevant markets of Australia, Canada, Japan, Singapore and the US comply with legally binding requirements which are equivalent to the ones in the EU.[320] On the other hand, whilst MiFID II references the concept of OTC contracts and trades on multiple occasions,[321] it does not clarify what the notion actually entails. In this respect, ESMA wields an interpretation *vis-à-vis* the MiFID II OTC notion which deviates considerably from the OTC concept in the sense of EMIR. For the purposes of the question and answer (Q&A) that covers MiFID II, ESMA considers financial instruments OTC when they are not admitted to trading or not traded on a trading venue.[322]

54. Trading venue – As previously mentioned, in order to decipher the span of this OTC derivative notion, several intertwined MiFID II provisions must be scrutinized. In furtherance of attaining a clear overview, it may prove insightful to examine the EMIR and MIFID II concepts of trading venue. Trading venues in the sense of EMIR are operated by investment firms[323] or market operators[324] other than systematic internalisers[325] and connect buying or selling interests in financial instruments in a way that results in a contract.[326] Whereas, a trading venue in the sense of MiFID II is described as the common denominator which encapsulates the following MiFID II-defined terms: regulated markets, multilateral trading facilities (MTFs)

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[319] Art. 2(7) EMIR.

[320] Art. 2a EMIR in conjunction with EUROPEAN COMMISSION, *Equivalence Decisions taken by the European Commission as of 10/02/2021*, 10 February 2021, available via https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/overview-table-equivalence-decisions_en.pdf.

[321] See *e.g.* arts. 4(1)(20); 57(1); 58(2); 95(1)(b) MiFID II.

[322] ESMA, *Questions and Answers: On MiFID II and MiFIR investor protection and intermediaries topics*, ESMA70-1861941480-52, Best execution Answer 2 (footnote 10), question last updated 10 October 2016, available via https://www.esma.europa.eu/sites/default/files/library/esma35-43-349_mifid_ii_qas_on_investor_protection_topics.pdf, 20.

[323] Art. 4(1)(1) MiFID II states that an investment firm is any legal person whose regular occupation or business is the provision of one or more investment services to third parties and/or the performance of one or more investment activities on a professional basis.

[324] In accordance with art. 4(1)(18) MiFID II, market operators are entities who manage the business of a regulated market.

[325] Art. 4(1)(20) MiFID II defines systematic internalisers as investment firms which, on an organized, frequent, systematic and substantial basis, deal on own account when executing client orders outside a regulated market, an MTF, or an OTF without operating a multilateral system.

[326] Art. 2(4) EMIR.

and OTFs.[327] To this end, a regulated market in the sense of MiFID II is construed as a multilateral system[328] operated and/or managed by a market operator, which unites and/or facilitates uniting multiple third-party buying and selling interests in financial instruments within the multilateral system in accordance with its non-discretionary rules, resulting in the formation of a contract.[329] In addition, MTFs are multilateral systems, operated by investment firms or market operators, which bring together multiple third-party buying and selling interests in financial instruments—in the system in a non-discretionary manner—, resulting in the formation of a contract.[330] Finally, an OTF is (partially) negatively described as a multilateral system which is not a regulated market or an MTF, in which multiple third-party buying and selling interests in bonds, structured finance products, emission allowances are able to interact in the system in a way that results in a contract.[331] To conclude, in common financial markets parlance, OTC derivative contracts are to be understood as bilaterally negotiated agreements.[332] Thus, the EMIR demarcation of the notion OTC derivative contracts contrasts with the way they are generally understood by extending the scope of application to some trade venues, *i.e.* MTFs and OTFS, which are multilateral systems that bring together or facilitate buying and selling interests in financial instruments.

55. Technical standards under EMIR – As a basic level one act, EMIR (purposely) lacks the specifications that are required to execute the obligations originating from it. Consequently, EMIR bestows upon the European Commission the requisite power to complement the regulation by virtue of the adoption of RTS and ITS,[333] in accordance with arts. 10 to 14 and 15 ESMA Regulation respectively. The European Commission has the statutory power to endorse or amend these technical standards,[334] whereas ESMA holds the responsibility to draft and submit the relevant technical standards to the European Commission.[335] Regardless, the EU legislator does set out a minimal amount of details to be reported, *i.e.* the parties and beneficiaries of the rights and obligations to the contract as well as the main characteristics, which contain the type, underlying maturity, notional value, price and settlement date.[336] Also, EMIR currently requires that the reportable data standards as specified within the relevant ITS, as a bare minimum, must include a legal entity identifier (LEI), an international securities identification number (ISIN), and a unique trade identifier (UTI).[337] The amendment of old article 9(6) EMIR by EMIR Refit should be viewed in light of the increasing advancements made within the field of global data standards.[338]

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[327] Art. 4(1)(24) MiFID II.
[328] Pursuant to art. 4(1)(19) MiFID II, a multilateral system means any system or facility in which multiple third-party buying and selling trading interests in financial instruments are able to interact in the system.
[329] Art. 4(1)(21) MiFID II
[330] Art. 4(1)(22) MiFID II.
[331] Art. 4(1)(23) MiFID II.
[332] See *e.g.* Z. DAVISON, "Minding the Gap: A Call for Standardizing Pre-Dispute Arbitration Clauses in OTC Derivative Transactions", *New York Law School Law Review* 2014, vol. 59, no. 4, (707) 711; S. K. HENDERSON, *Henderson on Derivatives,* London, LexisNexis, 2010, 5.
[333] Arts. 9(5), fourth subparagraph and 9(6), fourth subparagraph EMIR respectively.
[334] Arts. 10(1), first subparagraph and 15(1), third subparagraph ESMA Regulation with respect to RTS and ITS.
[335] Arts. 9(5), first subparagraph and 9(6), first subparagraph EMIR. With respect to the ITS, the latter article stipulates that ESMA must draft them in close cooperation with the ESCB.
[336] Art. 9(5), second subparagraph EMIR.
[337] Art. 9(6), first subparagraph, point (a) EMIR.
[338] *Cf.* Art. 9(6), second subparagraph EMIR.

56. Waves of technical standards – The first wave of technical standards was adopted on 18 December 2012, which set in motion a gradual phasing in process *vis-à-vis* the reporting obligation of derivative contracts in the sense of EMIR. Accordingly, the European Commission passed the EMIR RTS 148/2013 on data to be reported to trade repositories,[339] along with EMIR ITS 1247/2014 on the format and frequency of trade reports to trade repositories.[340] The second wave promulgated EMIR RTS 2017/104 on minimum details of the data to be reported to trade repositories,[341] coupled with EMIR ITS 2017/105 on the format and frequency of trade reports to trade repositories.[342] Lastly, EMIR ITS 2019/364 on the use of reporting codes in the reporting of derivative contracts provided two specific amendments to the details to be reported under EMIR.[343]

2. PERSONAL SCOPE OF APPLICATION

57. Counterparties and CCPs – As regards the market participants whom are required to report the details of their derivative contracts (*ratione personae*), EMIR states that this obligation falls to the respective counterparties and CCPs. First, EMIR defines central counterparties (CCPs) as legal persons who interpose[344] themselves between the counterparties to the contracts traded on financial markets, *i.e.* becoming the buyer to every seller and the seller to every buyer.[345] Second, EMIR makes a distinction between both financial

[339] Commission Delegated Regulation (EU) No 148/2013 of 19 December 2012 supplementing Regulation (EU) No 648 2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories with regard to regulatory technical standards on the minimum details of the data to be reported to trade repositories (text with EEA relevance), *OJ L* 52, 23 February 2013, 1 (hereinafter: EMIR RTS 148/2013 on data to be reported to trade repositories).

[340] Commission Implementing Regulation (EU) No 1247/2014 of 19 December 2012 laying down implementing technical standards with regard to the format and frequency of trade reports to trade repositories according to Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories (text with EEA relevance), *OJ L* 352, 21 December 2012, 20 (hereinafter: EMIR ITS 1247/2014 on the format and frequency of trade reports to trade repositories).

[341] Commission Delegated Regulation (EU) 2017/104 of 19 October 2016 amending Delegated Regulation (EU) No 148/2013 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories with regard to regulatory technical standards on the minimum details of data to be reported to trade repositories (text with EEA relevance), *OJ L* 17, 21 January 2017, 1 (hereinafter: EMIR RTS 2017/104 on minimum details of the data to be reported to trade repositories).

[342] Commission Implementing Regulation (EU) 2017/105 of 19 October 2016 amending Implementing Regulation (EU) No 1247/2012 laying down implementing technical standards with regard to the format and frequency of trade reports to trade repositories according to Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories (text with EEA relevance), *OJ L* 17, 21 January 2017, 17 (hereinafter: EMIR ITS 2017/105 on the format and frequency of trade reports to trade repositories).

[343] Commission Implementing Regulation (EU) 2019/363 of 13 December 2018 laying down implementing technical standards with regard to the format and frequency of reports on the details of securities financing transactions (SFTs) to trade repositories in accordance with Regulation (EU 2015/2365 of the European Parliament and of the Council and amending Commission Implementing Regulation (EU) No 1247/2012 with regard to the use of reporting codes in the reporting of derivative contracts (text with EEA relevance), *OJ L* 81, 22 March 2019, 85 (hereinafter: EMIR ITS 2019/364 on the use of reporting codes in the reporting of derivative contracts).

[344] For further elaboration on the legal mechanisms for CCP interposition, see E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 91-93.

[345] Art. 2(1) EMIR.

counterparties (FCs) and non-financial counterparties (NFCs). FCs are positively enumerated as the following entities: investment firms, credit institutions, (re)insurance undertakings, undertakings for the collective investment in transferable securities (UCITSs), institutions for occupational retirement provision (IORPs), alternative investment funds (AIFs) and central securities depositories (CSDs).[346] On the other hand, non-financial counterparties (NFCs) are defined as undertakings that are established in the EU whom do not qualify as CCPs or financial counterparties (FCs), and hence *de facto* constitute a residuary category, at least to the extent these NFCs qualify as undertakings and are established in the EU.[347]

As regards the conditions under which an entity could qualify as an undertaking in the sense of EMIR, a Q&A from the European Commission provides some interpretative guidance which states that the notion should be viewed in light of the interpretation that the CJEU has upheld since the adjudication of its landmark (competition law) judgment Höfner and Elser[348].[349] Accordingly, the notion undertaking encompasses the vast array of entities whom engage in economic activities, regardless of the legal status of the entity and the way in which it is financed.[350]

Further case-law of the CJEU specified that in order to ascertain whether or not purchasing goods on a given market may qualify as an economic activity, the nature of that activity must be determined according the subsequent use of those goods.[351] Thus, there can be no dissociation between the activity of buying goods and the manner in which those goods are employed. In addition, where an entity's activities are connected with the exercise of powers which are typically those of a public authority, such activities cannot be those of an undertaking as they are not of an economic nature (justifying the application of EU competition law).[352]

Since the CJEU makes abstraction of the nature (*i.e.* the legal status) of the entities concerned, non-profit entities may very well qualify as undertakings where they offer goods or services on a given market, which implies that they (theoretically) could become subject to the reporting obligations of NFCs. With respect to the second component that EMIR's NFC notion comprises, the requirement of EU establishment should be viewed in light of the CJEU's case-law, which refers to the pursuit of an economic activity through a fixed establishment in an EU member state for an indefinite period.[353]

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[346] Art. 2(8) EMIR.
[347] Art. 2(9) EMIR.
[348] Case C-41-90, *Klaus Höfner and Fritz Elser v. Macrotron GmbH*, EU:C:1991:161 (hereinafter: Höfner and Elser).
[349] ESMA, *Questions and Answers: Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR)*, ESMA70-1861941480-52, General Question 1: Funds, counterparties, question last updated 15 July 2019, available via https://www.esma.europa.eu/sites/default/files/library/esma70-1861941480-52_qa_on_emir_implementation.pdf in conjunction with EUROPEAN COMMISSION, *EMIR: Frequently Asked Questions*, updated 10 July 2014, II.14, available via https://ec.europa.eu/info/sites/default/files/emir-faqs-10072014_en.pdf.
[350] Höfner and Elser, paragraph 21.
[351] Case C-205/03 P, *Federación Española de Empresas de Tecnología Sanitaria (FENIN) v Commission of the European Communities*, EU:C:2006:453, paragraph 26.
[352] Case C-364/92, *SAT Fluggesellschaft mbH v European Organization for the Safety of Air Navigation (Eurocontrol)*, EU:C:1994:7, parapgraph 30.

[353] Case C-221/89, *The Queen v. The Secretary of State for Transport, ex parte Factortame Limited and Others*, EU:C:1991:320, paragraph 20 in conjunction with EUROPEAN COMMISSION, *EMIR: Frequently Asked Questions*, updated 10 July 2014, II.14, available via https://ec.europa.eu/info/sites/default/files/emir-faqs-10072014_en.pdf.

58. Intragroup transactions – In order to alleviate the significant costs and burdens that NFCs may incur under the reporting obligation,[354] EMIR Refit entrenched a contingent reporting exemption for intragroup[355] derivative transactions within the legislative framework where at least one of the counterparties is an NFC or would qualify as such if it were established in the EU.[356]

However, the exemption only applies on the threefold condition that both counterparties are subject to appropriate risk-management procedures, in addition to their inclusion in the same consolidation on a full basis, and the requirement that the parent undertaking[357] does not qualify as an FC. Counterparties need to notify the relevant national competent authorities (NCAs) of their intention to apply the intragroup exemption, which shall be valid unless the notified NCA does not agree upon fulfilment of the above-described conditions within three months of the date of notification.[358]

Such validity will only take effect upon expiry of the three-month non-objection period or from the date when the NCA(s) confirm(s) to the counterparty(ies) that the requirements to invoke the intragroup exemption are fulfilled.[359] The three-month non-objection period will commence on the calendar day following receipt of the notification by the relevant NCA(s),[360] which *ipso facto* implies the incessant applicability of the reporting obligations until then/(after) that time.[361] To conclude, the validity of the intragroup exemption is contingent on the continuous adherence to the aforementioned three conditions.[362]

59. Clearing – The EU legislator has defined clearing as the process of establishing positions, including the calculation of net obligations, and ensuring that financial instruments, cash, or both, are available to secure the exposures arising from those positions.[363] From a functional point of view, it may broadly be defined as the risk management process that occurs in between the execution and settlement of a contract.[364]

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[354] Recital 16 EMIR.
[355] See art. 2(16) EMIR.
[356] Art. 9(1), third subparagraph EMIR.
[357] See art. 2(21) EMIR.
[358] Art. 9(1) *in fine* EMIR.
[359] ESMA, *Questions and Answers: Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR)*, ESMA70-1861941480-52, TR Answer 51(c), question last updated 31 March 2021, available via https://www.esma.europa.eu/sites/default/files/library/esma70-1861941480-52_qa_on_emir_implementation.pdf.
[360] ESMA, *Questions and Answers: Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR)*, ESMA70-1861941480-52, TR Answer 51(b), question last updated 31 March 2021, available via https://www.esma.europa.eu/sites/default/files/library/esma70-1861941480-52_qa_on_emir_implementation.pdf.
[361] *Cf.* ESMA, *Questions and Answers: Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR)*, ESMA70-1861941480-52, TR Answer 51(d), question last updated 31 March 2021, available via https://www.esma.europa.eu/sites/default/files/library/esma70-1861941480-52_qa_on_emir_implementation.pdf.
[362] ESMA, *Questions and Answers: Implementation of the Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR)*, ESMA70-1861941480-52, TR Answer 51(c), question last updated 31 March 2021, available via https://www.esma.europa.eu/sites/default/files/library/esma70-1861941480-52_qa_on_emir_implementation.pdf
[363] Art. 2(3) EMIR.
[364] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 70.

The execution of a trade implies that the parties thereto entered into certain legal obligations, whereas the settlement of a trade indicates that those obligations have been satisfied.[365]

60. Clearing obligation – Under certain conditions, market participants will be obliged to clear all their derivatives contracts pertaining to a class of OTC derivatives that has been declared subject to the so-called clearing obligation.[366] In order to determine if a counterparty could become subject to the clearing obligation, it is necessary to assess whether or not that counterparty holds positions in OTC derivative contracts that exceed a certain predefined limit, *i.e.* the clearing threshold.[367] In financial markets jargon, where an FC or NFC exceeds the clearing threshold, they are respectively referred to as FC+ or NFC+, conversely, where they do not exceed the clearing threshold they are commonly known as FC- or NFC-. The counterparties to a contract will only be seized by the clearing obligation where both counterparties are, or one of those counterparties would be subject to the clearing obligation were it established in the EU.[368] If both counterparties are established in one or more third countries, and they would be subject to the clearing obligation were they established in the EU, and that OTC derivative contract has a direct, substantial and foreseeable effect within the EU or where such un obligation is necessary or appropriate to prevent the evasion of any provisions under EMIR.[369] In this respect, an OTC derivative contract may be deemed to have a direct, substantial and foreseeable effect within the EU in two particular situations: (i) at least one of the third country entities enjoys a guarantee, which exceeds a specific quantitative amount, that is provided by an EU FC that relates to the liabilities under the relevant OTC derivative; (ii) two third country entities conclude a OTC derivative contract through their EU branches and would qualify as FCs if they were established in the EU.[370]

61. Clearing threshold – Contingent on a counterparty's qualification as either an FC or NFC, the calculation for the clearing threshold is based on two separate methods. First, on a yearly basis, FCs possess the opportunity to calculate their aggregate month-end average OTC derivative position for the previous twelve months.[371] In case the FC disregards this possibility, and therefore does not (wish to) calculate its positions, the FC will become subject to the clearing obligation.[372] If the FC elects to calculate its positions, it must include all OTC derivatives entered into by that FC or by any *other entities* within the group to which that FC belongs.[373] In the event that the calculation of the FC's position results in exceedance of the clearing threshold, the counterparty becomes subject to the clearing obligation.[374] Following the exceedance of the clearing threshold, an FC+ is required to notify ESMA and the relevant NCA.[375] Additionally, within four months after the notification, the FC+ should have put in place appropriate clearing arrangements in

[365] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 70.
[366] Art. 4(1) EMIR.
[367] See arts. 4a and 10 EMIR.
[368] Art. 4(1), point (a), (i) to (iv) EMIR.
[369] Art. 4(1), point (a), (v) EMIR.
[370] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 231.
[371] Art. 4a(1), first subparagraph EMIR.
[372] Art. 4a(1), second subparagraph EMIR.
[373] Art. 4a(3), first subparagraph EMIR.
[374] Art. 4a(1), second subparagraph EMIR.
[375] Art. 4a(1), second subparagraph, point (a) EMIR.

anticipation of the obligations resulting from the clearing obligation.[376] The FC+'s clearing obligation encompasses *all OTC derivative contracts*, pertaining to *any class of OTC derivatives which is subject to the clearing obligation*, entered into or novated more than four months after the above-mentioned notification.[377]

On the other hand, the obligations which arise for NFCs-, on the occurrence of becoming subjected to the clearing obligation, whilst predominantly similar to the current situation for FC's, nevertheless differ in a few regards. An NFC that opts for the possibility of computation of its aggregate month-end average position in OTC derivative contracts,[378] must take into account all the OTC derivative contracts entered into by the NFC or by *other non-financial entities* within the group to which the NFC belongs.[379] Furthermore, the specific EMIR provision concerned contains an additional layer which—depending on the circumstances—may or may not, significantly influence the outcome of that calculation, *i.e.* if the exclusion of those transactions place the NFC under the clearing threshold where it would have been above the clearing threshold if the computation had included those transactions. Namely, the OTC derivative contracts, which are *not objectively measurable as reducing risks directly relating to the commercial activity or treasury financing activity* (in other words, hedging activities) of the NFC or of that group.[380] Additionally, the NFC's clearing obligation encapsulates *the OTC derivative contracts*, entered into or novated more than four months following the notification of exceedance of the clearing threshold,[381] that pertain to *those asset classes in respect of which the result of the calculation exceeds the clearing thresholds*.[382] Where the NFC decides to not calculate its positions, it will become subject to the clearing obligation for *any* class of OTC derivatives which is subject to the clearing obligation.[383]

62. Threshold values – According to the EU legislator, the values of the clearing thresholds are determined on the basis of the systemic relevance of the sum of net positions and exposures per counterparty and per class of OTC derivatives.[384] In accordance with the relevant RTS, the clearing threshold values for the purpose of the clearing obligation are the following: (a) EUR 1 billion in gross notional value for OTC credit derivative contracts; (b) EUR 1 billion in gross national value for equity derivative contracts; (c) EUR 3 billion in gross notional value for OTC interest rate derivative contracts; (d) EUR 3 billion in gross notional value for OTC foreign exchange derivative contracts; (e) EUR 3 billion in gross notional value for OTC commodity derivative contracts not provided for under points (a) to (d).[385] In this respect, ESMA has recently proposed to (temporarily) increase the commodity derivative clearing threshold value to EUR 4 billion in

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[376] Art. 4a(1), second subparagraph, point (b) EMIR.
[377] Art. 4a(1), second subparagraph, point (c) EMIR.
[378] See art. 10(1), first subparagraph EMIR.
[379] Art. 10(3) EMIR.
[380] Art. 10(3) EMIR.
[381] See art. 10(1), second subparagraph, point (a) EMIR.
[382] Art. 10(1), second subparagraph, point (c) EMIR.
[383] *Cf.* E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 229.
[384] Art. 10(4), point (b) EMIR.
[385] Art. 11 Commission Delegated Regulation (EU) No 149/2013 of 19 December 2012 supplementing Regulation EU No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on indirect clearing arrangements, the clearing obligation, the public register, access to a trading venue, non-financial counterparties, and risk mitigation techniques for OTC derivatives contracts not cleared by a CCP (text with EEA relevance), *OJ L* 52, 23 February 2013, 11.

gross notional value.[386] As a final remark, legal scholarship has pointed out that a risk-based clearing threshold value would presumably be more appropriate than a fixed threshold which must be measured against the gross notional value of the derivative contract, as a fixed amount simply does not take into account specific circumstances to a transaction in addition to a notional amount's inability to constitute a proper benchmark which reflects systemic risk.[387]

63. NFC- reporting obligation – Another significant alteration introduced by EMIR Refit pertains to the shift of responsibility and corresponding (legal) liability from the reporting obligations for NFCs- towards FCs+ with regard to the OTC derivative contracts entered into by those counterparties. Accordingly, art. (9)(1a), first subparagraph EMIR stipulates that FCs shall be solely responsible and legally liable for reporting on behalf of both counterparties, as well as for ensuring the correctness of the details reported, with respect to the details of *OTC* derivative contracts concluded with an NFC-. This regime only partially shifts NFCs-'s reporting obligation towards FCs+, because all derivative contracts concluded by an NFC-must nevertheless be reported, therefore all the derivative contracts which cannot be qualified as an OTC derivative contract will need to be reported by that NFC-.

Thus, for the purpose of determining on which counterparty the responsibility for the reporting obligation—and its accurateness—falls, an accurate and intelligible depiction of the previously outlined concepts OTC derivative contract, regulated market, class of derivatives, clearing, clearing obligation and clearing threshold constituted a prerequisite to enable the relevant parties to determine on whom the obligation to report the details of their OTC derivative contracts.

64. Emir entry into force – On the fourth of July 2012, EMIR was adopted by the European Parliament and the Council of the EU. Following EMIR's (official) publication in the Official Journal of the European Union (OJ) on 27 July 2012, the regulation entered into force—twenty days later—on 16 August 2012.[388] Therefore, the obligations under EMIR, theoretically in its entirety, took effect on this date. Nonetheless, many EMIR provisions require(d) further specification via ITS/RTS. Thus, several obligations under EMIR *de facto* entered into force on a wide variety of different dates, resulting in a gradual and protracted applicability of EMIR's provisions.[389]

65. Emir Refit entry into force – Emir Refit, which was adopted on 20 may 2019, primarily entered into force on 17 June 2019 save for three separate categories, to which each category corresponds with distinct dates regarding the applicability of those specific provisions.[390] In this respect, the EU legislator mentions that the deferral of these provisions is made with a view to establish all indispensable implementing measures and to allow market participants to make the necessary arrangements for compliance purposes.[391]

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[386] ESMA, *Final Report: EMIR RTS on the commodity derivative clearing threshold*, 3 June 2022, ESMA70-451-114, available via https://www.esma.europa.eu/sites/default/files/library/esma70-451-114_final_report_review_of_the_commodity_derivative_clearing_threshold_under_emir.pdf, 26.

[387] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 228.

[388] Art. 91 EMIR.

[389] See eg.

[390] Art. 2 EMIR Refit.

[391] Recital 38 EMIR Refit.

66. Geographical scope reporting obligation – Regulations adopted by the EU are binding in its entirety and directly applicable in all member states. However, the geographical span of EMIR's reporting obligation does not coincide with the jurisdictional boundaries of the 27 EU member states. First, due consideration of the European Economic Area (EEA) Agreement[392] is required, which was concluded in accordance with art. 217 TFEU between the EU and three of the four member states of the European Free Trade Association (EFTA), namely Iceland, Liechtenstein and Norway. The European Free Trade Association (EFTA) is an intergovernmental organisation currently comprising four member states, of which the final member is Switzerland.[393] The EEA Agreement extends the rights and obligations of the EU internal market, that is to say, the free movement of goods, persons, services and capital, to all thirty contracting states.[394] For the purpose of completeness, additional systems and ("flanking") policies (with respect to the internal market), relating to *inter alia* competition, research and development, education, have been embedded within the EEA Agreement.[395] Second, EMIR contains some specific provisions with extraterritorial application.

§3. EMIR TRADE REPOSITORIES

A. EU MARKET ACCESS REGIME

67. Overview – Whenever an undertaking seeks to enter the field of repository services in the EU, it must do so in accordance with the rules entrenched within Title VI EMIR, which pertains to the registration and supervision of TRs. The market access regime is bifurcated dependent on whether the legal person[396] is established within the EU or within a given jurisdiction of a third country.[397] Respectively, either the registration or recognition of a TR is required in accordance with their corresponding chapters under EMIR. Thus, adherence to these respective provisions constitutes a *conditio sine qua non* for aspirant TR market entrants whom aspire to obtain market access to the EEA.

68. Application for registration – A (prospective) TR that wants to register with ESMA, must formally submit an application for (extension of) registration,[398] of which the assessment by ESMA will be contingent on the TR's compliance with the requirements for trade repositories under Title VII EMIR.[399] An extension of application is possible when/if that TR has already obtained prior registration with ESMA in accordance with the conditions set out under(/(with)in) Chapter III of the Securities Financing Transaction Regulation (SFTR)[400].

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[392] Agreement on the European Economic Area, *OJ L* 1, 3 January 1994, 3 (hereinafter: EEA Agreement).
[393] See for more information, https://www.efta.int/about-efta/european-free-trade-association.
[394] Art. 1(2), points (a) to (d) in conjunction with art. 2, points (a) to (c) EEA Agreement.
[395] See art. 1(2), points (e) and (f) EEA Agreement.
[396] As a consequence of the way in which EMIR defines TRs, natural persons are excluded from the opportunity to register or acquire recognition with ESMA for the purposes of art. 9 EMIR. *Cf.* arts. 55(2) and 77(1) EMIR.
[397] See arts. 55(2) and 77(1) EMIR.
[398] Art. 56(1) EMIR.
[399] Art. 55(2) EMIR.
[400] Regulation (EU) 2015/2365 of the European Parliament and of the Council of 25 November 2015 on transparency of securities financing transactions and of reuse and amending Regulation (EU) No 648/2012 (text with EEA relevance), *OJ L* 337, 23 December 2015, 1 (hereinafter: SFTR).

69. General requirements – EMIR imposes upon TRs the compliance with all EMIR provisions,[401] which include, *inter alia*, any of the following arrangements: instituting robust governance arrangements,[402] *i.e. e.g.* the identification of potential conflicts of interests and how to manage them,[403] the instalment of a board[404] and senior management[405] with sufficient standing and experience,[406] the establishment of fair, reasonable, non-discriminatory, and transparent (FRANDT) requirements for undertakings subject to the reporting obligation,[407] whom upon request should be able to access their information maintained by the TR[408]. Moreover, in the event a TR elects to offer ancillary services[409], such as *e.g.* trade confirmation, trade matching, credit event servicing, portfolio reconciliation or portfolio compression services, the TR must mandatorily maintain an operational division between the aforementioned services and the TR's primary activity (for recollection's sake, *i.e.* centrally collecting and storing trade records of derivative contracts).[410] In the absence of an available TR to report to, counterparties and CCPs must report the details of their derivative contracts to ESMA.[411]

In response to the observation that the data reported suffered from inadequate data quality, and insufficient data transparency as a result, prompted the EU legislator to establish additional requirements for TRs with a view to addressing those issues.[412] Accordingly, TRs must now devise procedures for the effective reconciliation of data between TRs, for the verification of the completeness and correctness of the data reported, and policies for the orderly transfer of data between TRs where requested.[413] Additionally, EMIR Refit bestows upon ESMA and the European Commission the power to respectively draft and adopt RTS with a view to consistent harmonisation and application of the foregoing requirements (*i.e.* at least with respect to the reconciliation and verification of completeness and correctness of data reported).[414]

70. Operational trustworthiness – EMIR specifically demands TRs to maintain and operate an organisational structure which secures the orderly functioning and continuity of the TR in the performance

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401 Art. 78(3) EMIR.
402 Art. 78(1) EMIR.
403 Art. 78(2) EMIR.
404 Art. 2(27) EMIR declares that, in accordance with the relevant national company law, the board consists of the administrative or supervisory board, or both.
405 Art. 2(29) EMIR states that senior management comprises the people who effectively direct the business of the TR (or CCP) and the executive board member(s).
406 Art. 78(6) EMIR.
407 Art. 78(7) EMIR. *Cf.* art 78(8) EMIR which requires TRs to publicly disclose the prices and fees associated with the services they provide under EMIR.
408 Art. 78(7) EMIR. Additionally, TRs must extend access to (data) service providers upon their request if the service providers acquired prior consent by the relevant counterparties.
409 In accordance with art. 2(19) EMIR, an ancillary services undertaking's principal activities consists in owning or managing property, managing data-processing services, or providing a similar activity which is ancillary to the principal activity of one or more *credit institution(s)*. See art. 2(8), point (b) EMIR on the meaning of credit institution.
410 Art. 78(5) EMIR.
411 Art. 9(3), first subparagraph EMIR.
412 Recital 28 EMIR Refit. The EU legislator notes that the unsatisfactory data quality *dampens* the usability of the TR datasets to monitor derivatives markets and *prevents* regulators and supervisors—which have been granted access to those datasets—to identify financial stability risks in due time.
413 Art. 78(9) EMIR.
414 Art. 78(10) EMIR in conjunction with recital 35 EMIR Refit.

of its activities.[415] Accordingly, operational reliability requires maximal mitigation of all prior identified sources of operational risk.[416] In order to attain this objective, the TR must establish a business continuity policy, a disaster recovery plan (aimed at ensuring maintenance of its functions), which at least implicates the establishment of backup facilities.[417]

71. Data administration principles – After the details of the derivative contracts have been submitted by the affected market participants (or their delegates), TRs must subsequently store and preserve the integrity and confidentiality of the information they have received, which may only be employed for commercial purposes after obtaining consent by the relevant parties.[418] Additionally, TRs are obliged to keep a record for ten years following the termination of the relevant contracts.[419] Unsurprisingly, TRs must allow the counterparties access to the relevant contract(s) and where necessary, to correct the information thereof, as they may be held liable for the contents of their reports.[420] For the purpose of accurateness, EMIR refit—in response to previously mentioned amendments—has introduced a possibility for NFCs- and entities that have delegated their reporting obligation, to access the details of their derivative contracts upon request to the relevant TR.

72. Data disclosure – Notwithstanding the importance of all the other obligations that stem from reporting obligation, it is of crucial importance that the data which is centrally collected and stored by the TRs is utilised for its intended purposes. Indeed, one could plausibly posit that if the data at hand is not harnessed by the authorities in an appropriate manner, it would obviate the need to burden the seized market participants with cumbersome reporting requirements. With regard to OTC-derivatives, the EU legislator stated that these contracts lack transparency as they are bilaterally negotiated, which consequently creates a complex labyrinth of interdependencies and in times of market stress *ipso facto* results in a thorny disentanglement exercise for market participants to measure the existence and extent to which they are exposed to various risks.[421] Nevertheless, it was deemed wise and prudent to require the relevant market participants to report all details regarding (*all*) derivative contracts they have entered into to TRs.[422] The central storage and coveted smooth accessibility of the derivatives datasets by the relevant authorities should allow for a comprehensive overview and for assessing systemic risk.[423] Against this backdrop, TRs are obliged to make the necessary arrangements in order to grant direct and immediate access to, *inter alia*, members of the ESFS, ESCB, and—if they meet certain conditions—third country authorities.[424] Moreover, TRs must utilise the derivative details which they have received by submitting entities through calculation

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[415] Art. 78(4) EMIR.
[416] Art. 79(1) EMIR.
[417] Art. 79(2) EMIR.
[418] Arts. 80(1) and (2) EMIR.
[419] Art. 80(3) EMIR. *Cf.* art. 9(2) EMIR, which requires FCs and NFCs (that fall under the reporting obligation of art. 9 EMIR) to keep a record of the details of their derivative contracts for *five* years. However, CCPs must maintain a record for ten years, see art. 29(2) EMIR.
[420] Art. 80(4) EMIR.
[421] Recital 4 EMIR. *Cf.* recital 1 EMIR Refit, which iterates that EMIR's reporting and TR requirements contribute to reducing systemic risk by increasing the transparency of the OTC derivatives market and reducing the counterparty credit risk and the operational risk associated with OTC derivatives.
[422] Recital 41 EMIR.
[423] See recitals 41, 43, and 74 EMIR.
[424] Art. 81(2) and 81(3) EMIR.

of the respective positions by class of derivatives and by reporting entity.[425] After the computation of the respective positions by class of derivatives, a TR must publish those positions on an aggregate basis.[426] Posterior to consultation with the members of the ESCB, ESMA may develop RTS specifying the information to be published or made accessible, the frequency of publication, the requisite operational standards to enable comparability of aggregate data, and the terms and conditions under which TRs must grant access to the entities who are eligible to access the derivatives datasets.[427] In sum, the reporting obligation is effectively calibrated towards disclosure on the risks inherent in derivatives markets *vis-à*-vis the relevant regulatory and supervisory bodies and the market as a whole.

B. EQUIVALENCE AND DATA ACCESS

73. Avoidance mechanism – The European Commission is empowered to adopt implementing acts declaring the legal, supervisory and enforcement regime of a third country equivalent to the clearing obligation, reporting obligation, rules concerning (the calculation of the clearing thresholds for) NFCs, and risk-mitigation techniques for OTC derivative contracts not cleared by a CCP.[428] However, that equivalence decision may only be adopted where the European Commission additionally finds that the relevant legal framework ensures protection of professional secrecy in an equivalent manner to EMIR and where that regime is being effectively applied and enforced in an equitable and non-distortive manner so as to ensure effective supervision and enforcement in that third country.[429] This mechanism aims to ensure consistency between EMIR and the legal requirements of the EU's international partners and thus avoid imposing duplicative or conflicting obligations on market participants.[430] However, currently there are no equivalence decisions adopted with regard to the reporting obligation, and only two equivalence decisions have been adopted, which are also limited in scope, with respect to the other obligations under EMIR.[431]

74. Branches & establishment – If such an implementing act is adopted, counterparties entering into a transaction that is subject to the reporting obligation shall be deemed to have fulfilled that obligation, provided that at least one of the counterparties is *established* in that third country.[432] To avoid any confusion, this deference mechanism does not imply that equivalent foreign reporting requirements in accordance with art. 13(3) EMIR can be satisfied by reporting to foreign TRs instead of domestic TRs.[433] To that end, a foreign TR would also have to acquire recognition by ESMA.[434]

[425] Art. 80(4) EMIR.
[426] Art. 81(1) EMIR.
[427] Art. 81(5) EMIR.
[428] Art. 13(2), point (a) EMIR.
[429] Art. 13(2), points (b) and (c) EMIR.
[430] Recital 6 EMIR.
[431] For an overview, see EUROPEAN COMMISSION, *Equivalence Decisions taken by the European Commission as of 10/02/2021*, 10 February 2021, available via https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/overview-table-equivalence-decisions_en.pdf.
[432] Art. 13(3) EMIR.
[433] *Cf.* EUROPEAN COMMISSION, *Addressing Legal Bariers to Reporting of, and Access to, OTC Derivatives Transaction Data*, 16 June 2016, available via https://www.fsb.org/wp-content/uploads/EC.pdf, 2.
[434] See art. 77 EMIR.

75. TR equivalence – The European Commission may adopt an implementing act finding that the legislative and supervisory arrangements of a third country comply with the following three requirements: First, trade repositories established in a third country (TC-TRs) must have been duly authorised by their relevant NCA(s) and continuously adhere to the legally binding requirements of their respective jurisdictions, which *are* equivalent to those set out in EMIR.[435] Second, the legal framework to which the TC-TRs are subject continuously supervises and enforces conformity with their legal requirements in an effective manner.[436] Third, those legally binding requirements contain guarantees of professional secrecy, which include the protection of business secrets shared with third parties by the authorities, and which *are at least* equivalent to the obligations laid down in EMIR.[437]

Where the European Commission decides to adopt such an equivalence decision, the European Commission will submit written recommendations to the Council in furtherance of the negotiation of an international agreement regarding mutual and immediate access to, and exchange of information on derivative contracts held in TC-TRs in a continuous manner.[438] Posterior to the conclusion of that agreement, ESMA will establish the necessary cooperation arrangements with the relevant NCA(s), which should at least include a mechanism determining supervisory coordination procedures and specifically the exchange of information between the relevant supervisors.[439] In addition, jurisdictions who lack their own TC-TRs may contact ESMA with a view to making cooperation arrangements so as to allow them access to EU (TR) derivatives datasets, provided that guarantees of professional secrecy exist, including the protection of business secrets shared by the authorities to third parties.[440] Thus, the key difference here is that the latter scenario does not require the European Commission to adopt an implementing act—and the prerequisite equivalence assessment of the corresponding legal framework—, and neither does it oblige the European Commission to recommend the Council to negotiate an international agreement regarding mutual and direct access so as to allow ESMA to establish cooperation arrangements.

76. Mutual direct access to data – Against the backdrop of the lengthy and potentially cumbersome process that precedes the eventual arrangement to be concluded between ESMA and the competent authority of a TC-TR, the EU legislator deemed it appropriate to moderate those requirements under certain conditions by conferring implementing powers on the European Commission and consequently establishing an alternate route which circumvents the necessity to the equivalence procedure.[441] To this end, a relevant authority of a third country in which one or more TRs are established may submit a request for the adoption of an implementing act to the European Commission with a view to instituting mutual direct access to TR data.[442]

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[435] Art. 75(1), point (a) EMIR.
[436] Art. 75(1), point (b) EMIR.
[437] Art. 75(1), point (c) EMIR.
[438] Art. 75(2) EMIR.
[439] Art. 75(3) EMIR.
[440] Art. 76 EMIR. Note that the EU legislator sensibly (as there are no TC-TRs, there are no specific rules governing TRs) omits the requirement of an equivalence framework in general, but seemingly inadvertently does not demand *at least equivalence* to the requirements under EMIR. Consequently, such jurisdiction does not need to meet the standards embedded within Regulation (EU) 2018/1725 (also known as "GDPR for EU institutions").
[441] Recitals 26 and 34 EMIR Refit.
[442] See art. 76a EMIR.

Interestingly, the relevant newly inserted article states that TC-TRs merely need to be duly authorised in that country, which contrasts with the "general" equivalence provision that demands TC-TRs to be subjected to legally binding requirements which are equivalent to EMIR.[443] Nevertheless, EMIR still requires that continuous and effective supervision and enforcement of TC-TRs takes place in that third country, and that there are guarantees of professional secrecy exist which are at least equivalent to EMIR.[444] However, those TC-TRs will have to be subjected to a legally binding enforceable obligation to grant direct and immediate access to the data reported *vis-à-vis e.g.* the ESAs, the ECB, NCAs, NCBs.[445] As per my understanding, this requirement aims to replicate the effects that would follow from the conclusion of an international agreement, under which a legally binding obligation to provide direct access to the relevant authorities equally arises.

77. Market access – A trade repository established in a third country (TC-TR) may provide its services (for the purposes of art. 9 EMIR) to entities established within the EU, provided that TC-TR is recognised by ESMA.[446] In this respect, a TC-TR that desires to obtain market access must file an application for recognition that elaborates on all the necessary information which enables ESMA to verify that the TC-TR is authorised and subject to effective supervision in that country.[447] Additionally, the country where the TC-TR is incorporated must have been recognised by the European Commission, entered into an international agreement regarding mutual access and exchange of information on the data reported to (TC-)TRs with the EU, and the respective competent authority or authorities has installed cooperation arrangements with ESMA in a way that ensures EU authorities have immediate and continuous access to all the necessary information.[448]

78. Food for thought: authorisation – Legal scholarship has pointed out that the equivalence framework for CCPs differs from the equivalence regime for TRs, the former being additionally required to assess whether, pursuant to art. 25(2)(a) and 25(6), the third-country legal regime provides for an effective equivalent system for the recognition of CCPs.[449] Thus, EMIR reciprocally requires the presence of a recognition regime to a similar effect in that third country, where, on the other hand, the European Commission would not need to examine whether similar arrangements are in place with respect to TRs (because art. 75 EMIR omits a similar provision for TRs).

For the sake of argument, art. 75(1)(a) EMIR states "*trade repositories authorised in that third country comply with legally binding requirements which are equivalent to those laid down in this Regulation*". In this respect, a key word could be "*authorised* in that third country". As you may remember, CCPs and counterparties must report the contents of their derivative contracts to registered or recognised TRs, respectively in accordance with arts. 55 and 77 EMIR. As previously mentioned, TC-TRs may only provide their services in the EU when they are recognised by ESMA. That recognition is conditional on the European Commission finding that the relevant third country lays down legally binding requirements which are

[443] Art. 76a(2), point (a) EMIR. *Cf.* art. 75(1), point (a) EMIR.
[444] Art. 76a(2), points (b) and (c) EMIR.
[445] Art. 76a(2), point (d) in conjunction with art. 81(3) EMIR.
[446] Art. 77(1) EMIR.
[447] Art. 77(2) EMIR.
[448] Art. 77(2), points (a) to (c) EMIR.
[449] *Cf.* E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 362-363.

equivalent to EMIR. Let's take the following elements into consideration: (i) EMIR lays down extensive requirements for TRs under Title VII EMIR; (ii) EMIR quite clearly demands that—as already mentioned twice in this paragraph—TRs that are *authorised* to operate in that third country must be subject to legally binding requirements which are equivalent to the ones laid out in EMIR; (iii) the rationale of the legal requirements related to points (i) and (ii) is to ensure that TRs are generally subjected to a satisfactory prudential regime[450].

Hypothetically, if a TC-TR's legal framework would unconditionally accept that a TR from another third country could enter that TC-TR's country upon demonstration of that TR's authorisation from another country, it would subvert the *ratio legis* of the equivalence regime. Because those TRs would potentially not need to adhere to legally binding requirements which are equivalent to the TC-TR's regime, and by consequence EMIR. As previously mentioned, those requirements include, *inter alia*, the establishment of robust governance arrangements, procedures to prevent potential conflicts of interest, and ensuring that the board and senior management are comprised with persons that are of sufficiently good repute and experience.

Thus, in my view, "*trade repositories authorised in that third country*" could be interpreted as encompassing both the registration and recognition of TRs. Consequently, with respect to recognition, a TC-TR's third country should have established sufficient checks and balances to verify whether the TR from another third country lays down binding requirements which are equivalent to that TC-TR's legal framework, just as is the case with respect to the recognition procedure for TC-TRs under EMIR. To be clear—or make things more complicated—, this does not imply, however, that a TC-TR's legal framework must necessarily have a reciprocal recognition framework in place as should be the case for CCPs. For instance, were a TC-TR's legal regime to completely exclude any possibility that TRs from third countries enter the market, there would be no risk of an authorised TR operating in that country under obligations that are not equivalent to the ones in that TC-TR's country (and therefore EMIR). Accordingly, the European Commission could be of the opinion that the requirements a TC-TR in that country must comply with are equivalent to those set out under EMIR. However, it must be noted that this is all mere conjecture which currently bears no practical relevance. At present, ESMA has not (yet) published a list on its website detailing any TR(s) it has recognised under EMIR, and because ESMA is legally required to do so.[451]

C. SUPERVISION

79. ESMA – Since ESMA's establishment, ESMA has maintained three objectives: rule-making authority in the Lamfalussy framework, supervisory convergence, and the production of technical standards.452 The institutional transformation has granted ESMA far-reaching quasi-rule-making powers, which only occasionally sees its proposals rejected or revised by the European Commission.453 In addition, some TRs are in the process of becoming Approved Reporting Mechanisms or they are planning to establish

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[450] See recital 75 EMIR.

[451] Art. 77(2), fourth subparagraph EMIR.

[452] E. GROSSULE, "Risks and Benefits of the Increasing Role of ESMA: A Perspective from the OTC Derivatives Regulation in the Brexit Period", *European Business Organization Law Review* 2020, vol. 21, (393) 401.

[453] E. HOWELL, "EU agencification and the rise of ESMA: are its governance arrangements fit for purpose?", *Cambridge Law Journal* 2019, vol. 78, (324) 328.

a joint venture with data service providers with the intention of offering complementary services, which implicates that ESMA will likely become the key actor in the derivatives market due to its high degree of integration within the EU and its prominent cross-border activities.454 In this respect, ESMA has a two-tier governance system with its Management Board charged with organisational affairs and the Board of Supervisors responsible for the main rule-making and decision-making process.455 Nevertheless, ESMA has received constructive criticism for its general lack of accountability which is believed to harbour risks such as arbitrary evaluations or its interactions becoming a political turf war.456 Furthermore, whilst in the complex field of derivatives regulation it seems a prerequisite to possess a satisfactory amount of technical expertise, on the other hand, the initial choice to involve experts is inherently political.457 This is the case because even among technical experts there is often internal debate which is the optimal solution, and, the outcome of such a discussion will impose costs on certain parties and may therefore alter competitive advantages.458 Specifically, the regulation of the OTC derivatives market is highly politicized as opposed to its technical nature, and hence, certain risks can be identified.459 At least two shortcomings may be identified: (i) the technical expertise enables interest groups to become permanently involved in the political decision-making process; (ii) the role of the member states actively defending their national interests, which, taken together, may undermine the quality and effectiveness of legislation when it would be the outcome of lobbying of interest groups or political compromise.460 In my view, these observations seem to be in conformity with the methodological benchmark of the political economy and the interplay between three main actors in international financial law (see supra; no X) .

80. Common provisions – First of all, EMIR commands that the confidential information which entities may receive to be subject to the obligation of professional secrecy whilst simultaneously confining the exchange of the information thereof within certain boundaries, by means of widespread application (covering all provisions of EMIR.

Whenever EMIR requires a competent authority or any other entity to acquire confidential information in the course of its respective responsibilities, that entity becomes subject to the obligation of professional secrecy.[461] Without prejudice to cases covered by EMIR or by criminal or tax law, these entities may not divulge that information other than in summarised or aggregate form such that it eliminates potential identification of individual CCPs, TRs or any other persons, and may only *utilise* that information for the

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[454] E. GROSSULE, "Risks and Benefits of the Increasing Role of ESMA: A Perspective from the OTC Derivatives Regulation in the Brexit Period", *European Business Organization Law Review* 2020, vol. 21, (393) 402.
[455] E. HOWELL, "EU agencification and the rise of ESMA: are its governance arrangements fit for purpose?", *Cambridge Law Journal* 2019, vol. 78, (324) 330.
[456] E. HOWELL, "EU agencification and the rise of ESMA: are its governance arrangements fit for purpose?", *Cambridge Law Journal* 2019, vol. 78, (324) 338.
[457] E. GROSSULE, "Risks and Benefits of the Increasing Role of ESMA: A Perspective from the OTC Derivatives Regulation in the Brexit Period", *European Business Organization Law Review* 2020, vol. 21, (393) 403.
[458] E. GROSSULE, "Risks and Benefits of the Increasing Role of ESMA: A Perspective from the OTC Derivatives Regulation in the Brexit Period", *European Business Organization Law Review* 2020, vol. 21, (393) 403.
[459] E. GROSSULE, "Risks and Benefits of the Increasing Role of ESMA: A Perspective from the OTC Derivatives Regulation in the Brexit Period", *European Business Organization Law Review* 2020, vol. 21, (393) 404.
[460] E. GROSSULE, "Risks and Benefits of the Increasing Role of ESMA: A Perspective from the OTC Derivatives Regulation in the Brexit Period", *European Business Organization Law Review* 2020, vol. 21, (393) 404.
[461] Art. 83(1) and 83(3) EMIR.

(specific) exercise of their functions or for the purpose for which such information was provided to them.[462] Meanwhile, authorities (or other relevant bodies or persons) must nevertheless *exchange or transmit* that information to one another within a reasonable timeframe, provided that the confidential information (is only used) for the purposes of fulfilling their duties.[463] Notwithstanding the above, those conditions cannot prevent the relevant entity from exchanging or transmitting information with respect to the obligations under EMIR or any other (financial) legislation that applies to a number of specific entities[464], the NCAs in accordance with national law on the condition that such information has not been received from an NCA from another member state, or otherwise with the consent of the entity that communicated the information.[465]

81. Supervisory powers – ESMA may by sending out a (non-binding) request or by adopting a decision, require TRs and any related third parties to whom the TRs have outsourced operational functions or activities, to provide all necessary information ESMA requires in the exercise of its duties.[466] In addition, on the basis of its general investigatory powers, ESMA may conduct all indispensable investigations to fulfil its mandate, which include the examination of any type of (data) records or other materials, certified replication of those materials, the issuance of a summons demanding written or oral explanations, interviewing any other (natural or legal) person who consents thereto, and the request for records of telephone and data traffic.[467] The third type of measure involves on-site inspections, whether or not with or without prior announcement, on any business premises, land or property of the aforementioned entities and may lead to the sealing of any business premises and books or records for the period of the inspection.[468]

82. Supervisory principles – This dissertation attempts to distinguish approximately three sets of rules which EMIR bestows upon ESMA, pertaining to way in which supervisory powers are curbed by governing the exercise and demarcation, cooperation and authorisation process *vis-à-vis* the execution of its responsibilities. First, ESMA may only exert its supervisory (*in casu* predominantly investigatory) powers to the extent that is required to fulfil its duties, of which all but one are aimed at TRs and to whom have outsourced where they are established or domiciled.[469] The second set of rules pertains to the establishment of an supervisory environment based on the principle of mutual cooperation, which may be viewed in light of what this dissertation touched upon in a previous chapter. Accordingly, once ESMA requests or adopts a decision requiring the addressees to provide all necessary information for the purpose of its supervisory duties, it will immediately *forward a copy* thereof to the relevant NCA.[470] Furthermore, once ESMA decides to exercise its general investigatory powers it will *notify* the NCA concerned in due advance of the impending investigation where is to be carried out and of the identity of the authorised persons.[471] Whereas, prior to the adoption of an on-site investigation decision by ESMA, it is only authorised to do so following *consultation*

[462] Art. 83(1) and 83(3) EMIR. However, where the entity concerned consents thereto, the authority receiving the information may use it for other non-commercial purposes.
[463] Art. 84 and 83(5) EMIR.
[464] Specifically, any legislation applicable to investment firms, credit institutions, pension funds, UCITS, AIFMS, (re)insurance intermediaries, insurance undertakings, regulated market operators. See art. 83(4) EMIR.
[465] Art. 83(4) and 83(5) EMIR.
[466] Art. 61(1) EMIR.
[467] Art. 61(1) EMIR.
[468] Art. 63(1) and 63(2) EMIR.
[469] See arts. 61(1), 62(1), 63(1) EMIR.
[470] Art. 61(5) EMIR.
[471] Art. 62(4) EMIR.

with the relevant NCA.[472] Additionally, whenever ESMA requests so, NCAs must (actively) assist ESMA in fulfilling their investigatory responsibilities.[473] To that end, the assisting NCA (personnel) will enjoy the same powers as ESMA('s officials).[474] Finally, the NCA staff may on their request elect to attend the (on-site) investigation.[475] The third set of rules relates to legislative, regulatory, supervisory or judicial authorisation and review of requirements under EU or national law so as to ensure due process.[476]

83. Concerning authorisation – As regards authorisation, the above-described request or decision for information must include the legal basis and purpose for the request, which in principle should enable the addressee(s) to assess if ESMA is duly authorised (*i.e.* acting within the boundaries of its mandate).[477] Similarly, ESMA officials that aim to exercise their (on-site) investigatory powers, must present a written authorisation specifying the subject matter and purpose of the investigation.[478]

First, whenever ESMA adopts a decision requiring the addressee(s) to supply information, it must refer to the right to appeal the decision before ESMA's Board of Appeal and to have the decision reviewed by the CJEU.[479] Alternatively, a decision regarding the execution of (on-site) investigatory measures must indicate the legal remedies available under the ESMA Regulation and the right to have that decision reviewed by the CJEU.[480] Second, where an on-site investigation or a request for records of telephone or data traffic requires an NCA to be authorised by a judicial authority under national rules, ESMA will, or may as a precautionary measure, apply for such authorisation.[481] Such national judicial authority may only verify the authenticity and assess the proportionality of the coercive measures in light of potential arbitrariness or excessiveness of that the decision *vis-à-vis* the grounds for suspecting an infringement, the severity of the suspected infringement, and the nature of involvement of the person subject to the coercive measures.[482] However, the lawfulness of ESMA's decision may only be subject to review by the CJEU and therefore it is prohibited for that judicial entity to review the necessity for the investigation or demand ESMA to provide it with the information on ESMA's file (pertaining to the suspected infringement by the investigated entities).[483]

84. Supervisory measures by ESMA – Once ESMA has assessed the findings from the report of the investigation officer, it may conclude that a TR has committed one of the infringements listed in Annex I to EMIR. Accordingly, ESMA will adopt a decision imposing a fine and otherwise may issue a public notice, require the TR to bring the infringement to an end, or withdraw the registration of the TR as a last resort.[484] Additionally, whenever ESMA demands a TR to put an infringement to an end, it will adopt a decision

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[472] Art. 63(4) EMIR. For completeness' sake, pursuant to art. 63(3) EMIR, ESMA will still need to *notify* the relevant NCA in good time before the inspection; *Cf.* art. 62(4) EMIR.
[473] Arts. 62(4) and 63(5) to 63(7) EMIR.
[474] Art. 63(5) and 63(6) EMIR.
[475] Art. 62(4) and 63(5) EMIR.
[476] See arts. 62 and 63 EMIR.
[477] Art. 61(2), points (a) to (b) and 61(3), points (a) to (b) EMIR.
[478] Art. 62(2) and 63(3) EMIR.
[479] Art. 61(3), point (g) EMIR.
[480] Art. 62(3) and 63(4) EMIR.
[481] Art. 63(8) and 62(5) EMIR.
[482] Art. 63(9) and 62(6) EMIR.
[483] Art. 63(9) and 62(6) EMIR.
[484] Art. 73(1) EMIR.

imposing a periodic penalty payment in order to coerce the TR to remedy the situation.[485] Prior to choosing will require ESMA to conduct a balancing exercise which takes into account the nature and seriousness of the infringement, specifically depending on the following criteria: (i) the duration and frequency of the infringement; (ii) whether the infringement has unveiled serious or systemic weaknesses in the TR's procedures, management systems or internal controls; (iii) whether financial crime has been caused, facilitated or is attributable to the infringement in any other way; (iv) whether the infringement has been committed intentionally or negligently.[486]

85. Procedures preceding supervisory measures – ESMA is authorised to appoint an independent investigation officer whom is not or has not been involved in the supervision or registration process of the TR where it finds that there are serious indications of the possible existence of facts liable to constitute one or more infringements listed in Annex I to EMIR.[487] Following the appointment, the investigation officer will be empowered to request information and conduct (on-site) investigations as described above, and must submit a report with his findings to ESMA which shall take into account any comments the person(s) under scrutiny has made with regard to the matters being investigated.[488] Posterior to the submittal of the report, any investigated person will receive a notification thereof, shall become entitled to obtain restricted access to ESMA's file(s), and may request to be heard by ESMA in advance of ESMA's assessment.[489] Whereas in principle the rights of defence must be fully respected prior to the adoption of supervisory measures or a periodic penalty payment by ESMA, it may adopt an interim decision where the situation necessitates immediate action so as to prevent significant and imminent damage to the financial system or financial markets, which includes the stability or the correctness of the data reported to a TR.[490] Depending on the contents of the report, ESMA will decide whether the accused person(s) has committed one or more infringements listed in Annex I to EMIR, and in such a case it shall adopt a fine and may take other supervisory measures where appropriate.[491] Alternatively, if ESMA decides to impose no fines or periodic penalty payments it is still required to notify the European Parliament, the Council, the European Commission and the relevant NCA, and accordingly substantiate the grounds for that (non-)decision.[492]

86. Enforcement and the courts – Upon the adoption of a decision finding one or multiple infringement(s), the enforcement thereof will be governed by the applicable rules of civil procedure in the member state where it is to be executed, which requires that an order demanding enforcement will be appended to the decision, whereas, the designated authority may only verify the authenticity of the decision by the authority designated thereto, after which the party concerned may proceed with the enforcement by bringing the matter directly before the competent body.[493] Whereas the court of a member state holds the power to rule over grievances regarding irregular enforcement (*vis-à-vis* the national civil procedures), only the CJEU may suspend the enforceability of the decision, which follows from its unlimited jurisdiction to

[485] Art. 66(1), point (a) EMIR.
[486] Art. 73(2) EMIR.
[487] Art. 64(1) EMIR.
[488] Art. 64(2) and 64(3)EMIR.
[489] Art. 64(4) and 64(5)EMIR.
[490] Art. 67(1) EMIR.
[491] Art. 64(5) EMIR.
[492] Art. 68(3) EMIR.
[493] Art. 68(4), second and third subparagraph EMIR.

review any ESMA decision imposing a fine or periodic penalty payment, according to which it may annul, reduce or increase the sanction imposed.[494]

87. Annexes EMIR – The first two annexes to EMIR together establish a list of the infringements TRs can commit and a list of the coefficients connected to aggravating and mitigating factors for the adoption of a decision imposing a fine. Annex I to EMIR comprises four types of infringements respectively relating to organisational requirements or conflicts of interest, operational requirements, transparency and the availability of information, obstacles to the supervisory activities. The first type of infringement *inter alia* includes the absence of robust governance arrangements, an inadequate prevention of any conflicts of interest, a lack of directors and senior management of sufficiently good repute and experience, disregarding the formation of adequate policies and procedures so as to ensure compliance with EMIR, effective reconciliation of data between TRs, verification of the completeness and correctness of the data reported, the orderly transfer of data to other TRs.[495] Second, operational requirements pertain to *e.g.* the identification and minimisation of potential sources of operational risk, the establishment of a satisfactory business continuity policy and disaster recovery plan, TR failure to ensure the confidentiality, integrity or protection of the data reported (to it), shortcomings in the calculation of the positions by class of derivatives and by reporting entity.[496] The third kind of infringement revolves around ineffective mechanisms which should provide direct and immediate access to EMIR-authorised entities and deficiencies in the regular publication of aggregate positions by class of derivatives.[497] Finally, obstacles to the supervisory activities involve providing incorrect or misleading information to a thereto authorised entity, violating the compulsory adherence to a supervisory measure adopted by ESMA and not complying to the obligation to notify ESMA in due time of any material changes to the conditions in the registration of the TR.[498]

In addition, an adjustment coefficient linked to aggravating or mitigating factors *vis-à-vis* the committed infringement(s) will be (cumulatively) applied to the basic amount of the fine.[499] Aggravating circumstances include recidivism, an excessive duration of the violation (more than six months), systemic weaknesses in the organisation of the TR, whether the infringement negatively impacted the derivatives data quality, deliberate violations, an uncooperative attitude, and the absence of remedial action.[500] On the other hand, the relevant mitigating coefficient will be applied to the basic amount of the fine provided that the infringement has been committed for less than ten working days, the TR's senior management can attest to having installed adequate arrangements so as to prevent the infringement, the TR has adopted satisfactory measures of its own volition which will prevent similar infringements in the future, or that ESMA was promptly and fully informed of the infringement by the TR.[501]

88. Financial measures – Speaking from a strictly legal point of view, periodic penalty payments are not incorporated in the list of supervisory measures ESMA may adopt and hence they do not constitute a

[494] Arts. 68(4), fourth subparagraph and 69 EMIR.
[495] See Annex I(I) EMIR.
[496] See Annex I(II) EMIR.
[497] Annex I(III) EMIR.
[498] Annex I(IV) EMIR.
[499] Art. 65(3) EMIR.
[500] Annex II(I) EMIR.
[501] Annex II(II) EMIR.

"second type" of financial supervisory measure. However, as previously illustrated, since ESMA is obliged to adopt a decision imposing periodic penalty payments posterior to the adoption of a decision requiring a TR to put a halt to an infringement, it may be viewed as a *de facto* second type of financial supervisory measure.[502] Additionally, ESMA shall impose periodic penalty payments where ESMA has previously adopted a decision concerning (one of) the aforementioned three categories of supervisory measures (requests for information, investigatory measures, on-site inspections).[503] The imposition of periodic penalty payments must stay within certain boundaries, *i.e.* such payments shall be due for each day of delay with a maximum amount of 3% of the average daily turnover in the preceding business year or 2% of the average daily income in the preceding calendar year for natural persons, with a maximum period of six months following the notification of ESMA's decision, after which ESMA must review the measure[504].

Furthermore, a decision imposing a fine shall be adopted by ESMA where it finds that a TR has breached the list of infringements in Annex I EMIR (as described above), irrespective of whether the infringement made by a TR was committed intentionally or negligently.[505] In this respect, ESMA considers an infringement to be committed intentionally where it finds objective factors which demonstrate that the TR or its senior management acted deliberately to commit the infringement.[506] The amount of the fine is limited to a maximum of 20% of the annual turnover of the TR concerned in the preceding business year, at least to the extent that the TR has not (in)directly benefited financially from the infringement which in any event will be the minimum amount of the fine.[507]

Additionally, EMIR maintains a threefold distinction depending on the infringement at stake, which will determine the applicable boundaries of the basic amounts of the fines.[508] ESMA must subsequently take into account the annual turnover of the preceding business year of the relevant TR upon deciding whether the basic amount of the fine shall be at the lower, the middle or the higher end of the applicable limits.[509] As a final remark, it may be interesting to note that the enactment of EMIR Refit increased the upper limit for (the first three types of) infringements relating to organisational requirements or conflicts of interest, operational requirements, and transparency and the availability of information tenfold for which the rationale is to be found in the (alleged) proven insufficiently dissuading level of those fines in view of the current turnover of the TRs.[510]

§ 4. US SWAP REPORTING

89. US legislation – When this dissertation references US legislation, it will refer to the provisions in the codified and consolidated United States Code (USC), as prepared by the Office of the Law Revision

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[502] Art. 66(1), point (a) in conjunction with art. 73(1), point (a) EMIR.
[503] Art. 66(1), point (b) EMIR.
[504] Art. 66(2) to 66(4) EMIR.
[505] Art. 65(1), first subparagraph EMIR.
[506] Art. 65(1), second subparagraph EMIR.
[507] Art. 65(4), first subparagraph EMIR.
[508] Art. 65(2), first subparagraph EMIR.
[509] Art. 65(2), second subparagraph EMIR.
[510] Art. 65(2), first subparagraph EMIR in conjunction with recital 25 EMIR Refit.

Counsel of the US House of Representatives.[511] With respect to US derivatives legislation, the main act that is particularly relevant to this dissertation is the Dodd-Frank Act. The Dodd-Frank Act is the main legislative act that was adopted following the deleterious effects the GFC had produced, which aims to promote US financial stability by improving accountability and transparency in the financial system. As regards the reporting of the details of derivative contracts concluded between market participants, Title VII "Wall Street Transparency and Accountability" of the Dodd-Frank Act is especially relevant, which is further subdivided between Subtitle A "Regulation of Over-the-Counter Swaps Markets and Subtitle B Regulation of Security-Based Swap Markets. Moreover, the Commodity Exchange Act (CEA),[512] the Securities Act,[513] and the Securities Exchange Act[514] are also relevant for the purpose of this dissertation.

90. US division of powers – The US regulatory and supervisory responsibilities with respect to derivatives are divided between the US Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC). The CFTC exclusively holds the competences to regulate and oversee accounts, agreements, and transactions involving (i) swaps or (ii) contracts of sale of a commodity for future delivery, traded or executed on a contract market, swap execution facility, or any other board of trade, exchange, or market, and transactions subject to regulation by the CFTC, all in accordance with Title 7 USC.[515] Furthermore, the SEC enjoys exclusive jurisdiction with regard to security-based swaps, security futures, options on security futures, and persons effecting transactions in security futures and options thereon.[516] In this respect, the security concept as defined by the Securities Exchange Act, generally may be interpreted (in a circular way) as any instrument commonly known as a "security".[517] To finalise, the CFTC and the SEC are jointly responsible for the prescription of rules regarding mixed swaps, provided that commissions seek prior consultation with the US Board of Governors.[518]

A strand of legal scholarship has criticized this complex division (as will become more clear below) for impeding the efficient and coherent performance of the relevant regulatory and supervisory responsibilities, but due to political considerations—or financial donations—any prospects of a merger between those entities are suppressed because the CFTC and SEC report to different US committees in both the US Senate and House of Representatives.[519] To conclude, the relative weight of the notional volume of the US regulated swap markets approximately amounts to 95 percent for CFTC-regulated swaps as opposed to approximately five percent for SEC-regulated security-based swaps.[520]

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[511] See https://uscode.house.gov/browse.xhtml.
[512] Pub. L. No. 74-675, 49 Stat. 1491 (1936).
[513] Pub. L. No. 73-22, 48 Stat. 74 (1933).
[514] Pub. L. No. 73-291, 48 Stat. 881 (1934).
[515] 7 USC § 2(a)(1)(A) in conjunction with 15 USC § 8302(a)(1).
[516] 7 USC § 2(a)(1)(D) in conjunction with 15 USC § 8302(a)(2).
[517] See 15 USC § 78c(a)(10).
[518] 15 USC § 8302(a)(8).
[519] See *e.g.* E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 209; A. J. KRIPPEL, "Regulatory Overhaul of the OTC Derivatives Market: The Costs, Risks and Politics", *Ohio State Entrepreneurial Business Law Journal* 2011, vol. 6, no. 1, (269) 278.
[520] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 216.

91. US swap notion – As discussed above, CFTC jurisdiction is grafted on two concepts, the first of which is the US swap notion which generally encompasses a vast array of agreements, contracts or transactions that aligns with the three derivative conceivable "types" of derivatives, *i.e.* options, forwards and swaps.[521] However, the Dodd-Frank act establishes quite an extensive list of exclusions, such as, (options on) contracts of sale of a commodity for future delivery, options on any security or group or index of securities that is subject to the Securities Act or the Securities Exchange Act, any security-based swap other than a mixed (security-based) swap.[522] Thus, to my understanding, the US swap notion covers a vast array of agreements which contrasts with the way in which that term is usually understood in financial markets jargon. In addition to the very broad phrasing and extensive enumeration of conceivable swap agreements, certain formulations such as, "any payment or delivery that is dependent on the (non-)occurrence of a potential economic or commercial consequence" in conjunction with "that is or in the future becomes commonly known to the trade as a swap" seemingly establishes an endless conceivable amount of agreements which may be covered by this swap notion. In this respect, US legal phraseology closely resembles what derivative contracts may entail from a conceptual perspective, contrary to the EMIR and MiFID II derivatives notions which attempt to define the concept in a limitative manner, thereby restricting the span of events which may or may not occur.[523] For the second major leg of the CFTC's jurisdictional powers over derivatives, I refer to another extensive analysis on (commodity) futures.[524]

92. Security-based swaps – Security-based swaps are agreements, contracts, or transactions that are swaps in the sense of the Commodity Exchange Act which are based on: (i) an index that is a narrow-based security index, including any interest therein or on the value thereof; (ii) a single security or loan, including any interest therein or on the value thereof; (iii) (the extent of) the (non-)occurrence of an event relating to a single issuer(s) of a security(ies) in a narrow-based security index, provided that such event directly affects the financial statements, financial condition, or financial obligations of the issuer.[525] However, without

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[521] Pursuant to 7 USC § 1a(47)(A) swaps comprise the following: (i) put, call, cap, floor, collar or similar options of any kind that is for the purchase or sale, or based on the value of 1 or more interest or other rates, currencies, commodities, securities, instruments of indebtedness, indices, quantitative measures, or other financial or economic interests or property of any kind; (ii) that provides for any purchase, sale, payment or delivery (other dan a dividend on an equity security) that is dependent *on the (non-)occurrence, or the extent of the occurrence of an event or contingency associated with a potential financial, economic, or commercial consequence*; (iii) that provides on an executory basis for the exchange, on a fixed or contingent basis, of 1 or more payments based on the value or level of 1 or more variables as mentioned under (i), or any interest therein or based on the value thereof, and that transfers, as between the parties to the transaction, in whole or in part, any such value or level without also conveying a current or future direct or indirect ownership interest in an asset (including any enterprise or investment pool) or liability that incorporates the financial risk so transferred, including any agreement commonly known as, *e.g.* (I) interest rate swap, (IX) a total return swap, (XI) an equity swap, (XVI) a credit default swap, (XVII) a weather swap, (XX) an agricultural swap, (XXI) an emissions swap, and (XXII) a commodity swap; (iv) that is or in *the future becomes commonly known to the trade as a swap*, (v) including any security-based swap agreement which meets the definition of 'swap agreement' as defined in section 206A of the Gramm-Leach-Bliley Act of which a material term is based on the price, yield, value, or volatility of any security or any group or index of securities, or any interest therein; or (vi) that is *any combination or permutation of, or option on,* any agreement, contract, or transaction described in any of clauses (i) through (v).

[522] See respectively, 7 USC § 1a(47)(B)(i), (iii) and (x).

[523] E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 43.

[524] See E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 211-214. In addition, for security futures see *ibid.*, 217.

[525] 15 USC § 78c(a)(68)(A).

attempting to make things more complicated, even though security-based swaps are agreements, security-based swaps exclude the term security-based swap agreements.[526] To sum up, security-based swaps essentially entail swaps referencing (events relating to) narrow-based security indices or securities. To conclude, mixed swaps are security-based swaps that qualify as security-based swaps, in addition to deriving its value of *e.g.* one or more commodities, indices, other economic interests, or the (non-)occurrence of an event with a commercial or economic consequence and therefore qualifying as a swap.[527]

93. (Security-based) swap data repositories – Swap data repository (SDR) or a security-based swap data repository (SBSDR) means any person that collects and maintains information or records with respect to transactions or positions in, or the terms and conditions of, (security-based) swaps entered into by third parties for the purpose of providing a centralized recordkeeping facility for (security-based) swaps.[528] Thus, (SB)SDRs differ at least in two respects with TRs. Whereas, an SDR can (theoretically) be a natural person that centrally collects the records for all transactions qualifying as swaps, TRs, on the other hand, must be legal persons that centrally collect the records of derivative transactions (in the sense of EMIR as a subsection of the notion financial instruments as established by MiFID II).[529]

[526] See 15 USC § 78c(a)(78)(B).
[527] 7 USC § 1a(47)(D) and 15 USC § 78c(a)(68)(D).
[528] 7 USC § 1a(48) in conjunction with 15 USC § 78c(a)(75).
[529] *Cf.* art. 2(2) EMIR, which defines a TR as a *legal* person that centrally collects and maintains the records of *derivatives*.

CHAPTER 3. THE DERIVATIVES REPORTING CONUNDRUM

§ 1. BARRIERS TO TRADE REPORTING

94. Identifiers initial uptake – Approximately one year after the Pittsburgh summit (2010), the first proposals regarding the standardisation of derivatives were publicized by the FSB, which still contained rather obscure general terms like “transaction data”, as opposed to the newly established US Office for Financial Research that took the lead by publishing a policy statement concerning the creation of the LEI by 2011, which was subsequently endorsed by the fourteen largest US derivatives dealers.[530] To this end, the DTCC, the global leading firm in the post-trade market infrastructure, had purchased a reference data management technology system in 2010 which enabled the creation of the Global Market Entity Identifier by 2012.[531] Furthermore, the CFTC had published regulation that would make trade reporting mandatory by 2012, two years before the establishment of the Central Operating Unit.[532] In turn, market participants were required to register with the CFTC-sponsored Local Operating Unit (LOU) in order to obtain a 10-digit identifier called the Unique Swap Identifier (USI).[533]

95. Identifiers global uptake – Zooming out to the international scene, IOSCO and the committee on Payment and Settlement Systems (CPSS) created a taskforce on counterparty identification, and, on the other hand, the FSB convened regulators and industry groups for a LEI workshop in September 2011 so as to facilitate the data standardization challenge.[534] However, after the LEI workshop, progress stalled until the FSB managed to issue a report by 2012, which, as policymakers have indicated, was rather optimistic, but the data standardization challenge became quite apparent as the time went by.[535] In its report, the FSB

[530] KNAACK, P., “A Web Without a Center: Fragmentation in the OTC Derivatives Trade Reporting System.” in HELLEINER, E., PAGLIARI, S., SPAGNA, I. (eds.), *Governing the World’s Biggest market: The Politics of Derivatives Regulation After the 2008 Crisis*, Oxford, Oxford University Press, 2018, 226-256. 244
[531] KNAACK, P., “A Web Without a Center: Fragmentation in the OTC Derivatives Trade Reporting System.” in HELLEINER, E., PAGLIARI, S., SPAGNA, I. (eds.), *Governing the World’s Biggest market: The Politics of Derivatives Regulation After the 2008 Crisis*, Oxford, Oxford University Press, 2018, 226-256. 244-245
[532] KNAACK, P., “A Web Without a Center: Fragmentation in the OTC Derivatives Trade Reporting System.” in HELLEINER, E., PAGLIARI, S., SPAGNA, I. (eds.), *Governing the World’s Biggest market: The Politics of Derivatives Regulation After the 2008 Crisis*, Oxford, Oxford University Press, 2018, 226-256. 247
[533] KNAACK, P., “A Web Without a Center: Fragmentation in the OTC Derivatives Trade Reporting System.” in HELLEINER, E., PAGLIARI, S., SPAGNA, I. (eds.), *Governing the World’s Biggest market: The Politics of Derivatives Regulation After the 2008 Crisis*, Oxford, Oxford University Press, 2018, 226-256. 247
[534] KNAACK, P., “A Web Without a Center: Fragmentation in the OTC Derivatives Trade Reporting System.” in HELLEINER, E., PAGLIARI, S., SPAGNA, I. (eds.), *Governing the World’s Biggest market: The Politics of Derivatives Regulation After the 2008 Crisis*, Oxford, Oxford University Press, 2018, 226-256. 245
[535] L. QUAGLIA, *The Politics of Regime Complexity in International Derivatives Regulation*, Oxford, Oxford University Press, 2020, 76.

established fifteen global high-level principles and 35 recommendations for the development of a unique identification system.[536]

96. GLEIS – The report envisioned the adoption of the Global Legal Entity Identifier System (GLEIS) that would establish a three-tiered structure encompassing the following: (i) a Regulatory Oversight Committee (ROC) comprising authorities that would support the High Level Principles, which would enjoy the ultimate governance responsibility for the GLEIS; (ii) a Central Operating Unit (COU) that is the pivotal operational arm which bears the responsibility for ensuring uniform application and guaranteeing a seamless open access system; (iii) a network of LOUs that would register all entities aspiring to acquire a LEI.[537] At the G20 Los Cabos summit, the G20 leaders endorsed the FSB recommendations regarding the framework for the development of a Global Legal Entity Identifier System (GLEIS), which would be launched by March 2013.[538] In addition, the G20 endorsed the recommendations concerning the revised FSB Charter with a view to granting the FSB legal personality, strengthened governance and greater financial autonomy.[539] Thus, GLEIS should lead to the creation of a system attributing certain globally recognizable traits to legal entities, which should reinforce efforts aimed at managing and monitoring systemic risk.[540]

97. Identifiers explained – The global derivatives identification scheme involves three principal identifiers, the LEI, the UTI, and the UPI. Rudimentary explained, the global identifiers transmit information about *who* is trading, *what* product is being traded, and *which* underlying specific transaction it is about. Specifically, the LEI had been developed in cooperation with the International Organization for Standardization (ISO), which had the required expertise in the development of technical standards. The LEI would become a 20-digit alphanumeric number as set out in the LEI standard ISO 17442, which would exhibit certain reference data such as the legal entity and the address of the headquarters.[541] Furthermore, the product identifier would contain certain specific information regarding the traded product and the attributes it stores, which would enable the generation of a transaction identifier in conjunction with the data accompanied within the LEI.[542] Accordingly, these identifiers are inextricably intertwined with the formatting, aggregation and accessibility of the data reported since the information pertaining to the other data standards are conveyed via these identifiers.[543] From a network perspective, the LEI represents the node in the network, while the

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[536] L. QUAGLIA, A. SPENDZHAROVA, "Regime complexity and managing financial data streams: The orchestration of trade reporting for derivatives", *Regulation & Governance* 2021, (1) 10.
[537] FSB, *A Global Entity Identifier for Financial Markets*, 8 June 2012, available via https://www.fsb.org/wp-content/uploads/r_120608.pdf, 4-5.
[538] G20, *G20 Leaders Declaration*, 19 June 2012, available via http://www.g20.utoronto.ca/2012/2012-0619-loscabos.html, point 44.
[539] G20, *G20 Leaders Declaration*, 19 June 2012, available via http://www.g20.utoronto.ca/2012/2012-0619-loscabos.html, point 46.
[540] P. DELIMATSIS, "Transparent Financial Innovation in a Post-Crisis Environment", *Journal of International Economic Law* 2013, vol. 16, no. 1, (159) 180.
[541] FSB, *A Global Entity Identifier for Financial Markets*, 8 June 2012, available via https://www.fsb.org/wp-content/uploads/r_120608.pdf, 36.
[542] L. QUAGLIA, *The Politics of Regime Complexity in International Derivatives Regulation*, Oxford, Oxford University Press, 2020, 74.
[543] L. QUAGLIA, *The Politics of Regime Complexity in International Derivatives Regulation*, Oxford, Oxford University Press, 2020, 74.

UPI characterizes the ties between the nodes, and the combination of both would produce a UTI.[544] However, the FSB report did not specify the manner in which such product and transaction identifiers would have to be constructed.

98. Reporting conundrum – Naturally, problems may surface where (US) market participants have obtained a 10-digit identifier, and subsequently, a global 20-digit LEI standard is being actively promoted by the FSB. Moreover, the interconnectedness between the identifiers may have aggravated the situation. Furthermore, global efforts with a view to achieving cross-border compatibility were halted when market participants discovered that different LOUs may have assigned the same identifier to different firms.[545] This eventually led to the meaningless datasets, since the TRs could not process the data submitted, in addition to them being pointless for prudential risk analysis due to the inability to aggregate the disparate datasets.[546] This may be perfectly illustrated by discrepancies in the measurements of the total notional outstanding value in derivatives exposures. Whilst the BIS had estimated that 630 trillion US dollar was outstanding, the regulators' measurements amounted to 1.9 quadrillion US dollar, and TRs even calculated a total outstanding amount of 2.3 quadrillion US dollar.[547]

99. Market failures – The first problem pertained to launching a public-private transnational network.[548] In accordance with network theory, only after the establishment of the COU (in 2014) as a central node in the derivatives network it became possible to standardise the adoption of the LEI, since, in the absence of a central node, there was no possibility to ensure global consistency and interoperability of the entire network.[549] Public goods are commodities that often exhibit two closely related features: (i) nonrivalrous consumption, *i.e.* consumption by one person does not limit consumption for another); (ii) nonexcludability, *i.e.* the costs of exclusion are so high that no profit-driven entity wants to supply the goods.[550] In addition, public goods often provide strong incentives for persons to engage in free riding, *i.e.* consuming a certain good with the aim to benefit from that good without incurring any costs.[551] Against this background, it may not surprise that the initial progress in the adoption of the LEI stalled, since it was based on voluntary adoption. Indeed, the LEI's public good character provided no early mover incentive and market incentives proved to be too low because of the collective benefits that prospectors investors would not be able to internalise.[552]

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[544] KNAACK, P., "A Web Without a Center: Fragmentation in the OTC Derivatives Trade Reporting System." in HELLEINER, E., PAGLIARI, S., SPAGNA, I. (eds.), *Governing the World's Biggest market: The Politics of Derivatives Regulation After the 2008 Crisis*, Oxford, Oxford University Press, 2018, 226-256. 245

[545] KNAACK, P., "A Web Without a Center: Fragmentation in the OTC Derivatives Trade Reporting System." in HELLEINER, E., PAGLIARI, S., SPAGNA, I. (eds.), *Governing the World's Biggest market: The Politics of Derivatives Regulation After the 2008 Crisis*, Oxford, Oxford University Press, 2018, 226-256. 247

[546] Knaack 22

[547] Knaack 23

[548] L. QUAGLIA, *The Politics of Regime Complexity in International Derivatives Regulation*, Oxford, Oxford University Press, 2020, 74.

[549] Knaack 24

[550] R. COOTER, T. ULEN, *Law and Economics, 6th edition*, Boston, Pearson Education, 2012, 40.

[551] R. COOTER, T. ULEN, *Law and Economics, 6th edition*, Boston, Pearson Education, 2012, 41.

[552] L. QUAGLIA, *The Politics of Regime Complexity in International Derivatives Regulation*, Oxford, Oxford University Press, 2020, 74-75.

The second source of market failure was a coordination problem, *i.e.* the occurrence where the vested interests of parties align but.[553] However, the coordination failure in the interconnected derivatives market does not manifest itself at the implementation but rather at the negotiation stage.[554] As described above, the US took a largely unilateral approach in adopting the Dodd-Frank Act and subsequently expecting other nations to follow suit in its legislative and regulatory direction.[555] Despite the US' historical success through unilateral action, the global derivatives market is not an area where uncoordinated efforts will lead to a desirable result.[556] Literature (*e.g.* historical institutionalism or regulatory capture theories) does not provide a satisfying answer to this atypical transnational coordination failure, instead it may be found in the dynamics of competitive deregulation and post-crisis politicization.[557] As already touched upon elsewhere in this (see supra; no X), further deregulation of the derivatives market, as enacted by the CFMA, proved to be a contributing factor to the GFC, with Lynn Stout even arguing that it may have been the single most contributing cause to the dramatic magnification of the deleterious effects of the GFC.[558] Notwithstanding that the crisis has aligned incentives between the EU and the US in favour of more stringent financial legislation, the following three factors may elucidate the matter: (i) the EU and the US (perhaps now also the UK) remain embroiled in a struggle of redistributive cooperation, *i.e.* the creation of an international institution that intentionally reduces at least one other government's welfare compared to the status quo;[559] (ii) government networks are hindered by national laws and legislatures that fail to engage in cooperation; (iii) weak government networks due to domestic regulatory fragmentation.[560]

100. LEI state of play – Globally, there were 1.95 million issued LEIs outstanding at the end of the fourth quarter of 2021.[561] In the EU, the LEI is being employed for a variety of financial legislation (*e.g.* the SFTR, Market Abuse Regulation, Credit Rating Agencies Regulation).[562] With respect to OTC derivatives, LEIs identify reporting entities for "close to 100%" of the gross notional outstanding, and is increasingly being dispersed to other sectors.[563] The LEI is believed to be crucial in assessing financial contagion channels, since

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[553] L. QUAGLIA, *The Politics of Regime Complexity in International Derivatives Regulation*, Oxford, Oxford University Press, 2020, 76.

[554] P. KNAACK, "Innovation and deadlock in global financial governance: transatlantic coordination failure in OTC derivatives regulation", *Review of International Political Economy* 2015, vol. 22, (1217) 1232.

[555] T. WHITE, "From the Group of Twenty to the Group of Two: The Need for Harmonizing Derivatives Regulation between the United States and the European Union", *Law and Contemporary problems* 2015, vol. 78, no. 4, (301) 303.

[556] T. WHITE, "From the Group of Twenty to the Group of Two: The Need for Harmonizing Derivatives Regulation between the United States and the European Union", *Law and Contemporary problems* 2015, vol. 78, no. 4, (301) 303.

[557] P. KNAACK, "Innovation and deadlock in global financial governance: transatlantic coordination failure in OTC derivatives regulation", *Review of International Political Economy* 2015, vol. 22, 1233-1234.

[558] P. G. MAHONEY, P. G., "Deregulation and the Subprime Crisis", *Virginia Law Review* 2018, vol. 104, no. 2, (235) 267.

[559] T. OATLEY, R. NABORS, "Redistributive Cooperation: Market Failure, Wealth Transfers, and the Basle Accord", *International Organization* 1998, vol. 52, no. 1, (35) 36.

[560] P. KNAACK, "Innovation and deadlock in global financial governance: transatlantic coordination failure in OTC derivatives regulation", *Review of International Political Economy* 2015, vol. 22, 1233-1234.

[561] GLEIS, *Global LEI System Business Report*, Q4 2021, available via https://www.gleif.org/en/lei-data/global-lei-index/download-global-lei-system-business-reports/download-global-lei-system-business-report-q4-2021, 1.

[562] ESMA, *Briefing: Legal Entity Identifier (LEI)*, 9 October 2017, ESMA70-145-238, available via https://www.esma.europa.eu/sites/default/files/library/esma70-145-238_lei_briefing_note.pdf, 1.

[563] ESRB, *Occasional Paper Series No 18: The benefits of the Legal Entity Identifier for monitoring systemic* risk, September 2021, available via https://www.esrb.europa.eu/pub/pdf/occasional/esrb.op.18~7977fb4f23.en.pdf, 0.

it enables supervisors to monitor concentrations and assess interconnectedness.[564] However, adoption is low outside securities markets, spread uneven across jurisdictions, low uptake with small entities, and less successful where not made mandatory.[565] Some of the challenges pertain to the cost of obtaining an LEI (the business model), limited usability of data in the LEI system, lack of awareness on the importance of its potential application in the context of money laundering (know-your-customer policy).[566]

101. UPI & UTI – The UTI is a reference code with up to maximum of 52 characters that identifies individual transactions reported to TRs and allows authorities to follow their modifications during their lifecycle, it can be particularly relevant in ensuring consistent aggregation of OTC derivative transactions by minimising the likelihood that a transaction will be counted twice.[567] In addition, the UPI is a 12-character code that uniquely identifies the product reported to TRs consistently across jurisdiction, which is mapped to a set of reference data elements with specific values.[568] In 2020, the LEI ROC's mandate expanded to become the International Governance Body of the globally harmonised LEI, UPI, UTI, and Critical Data Elements (CDE).[569] Accordingly, the ROC became the overseer of the designated UPI service provider, *i.e.* the Derivatives Service Bureau (DSB).[570] This was done at the behest of the FSB, which took responsibility of the more controversial part in the governance structure of the UTI and UPI, whilst CPMI-IOSCO was demanded to provide the technical guidance.[571] Unfortunately, only significant progress has been made on LEI because there were no clear and comprehensive standards established at the time of the implementation phase of the reporting of derivatives to TRs.[572] Overall, it may be concluded that the FSB has succeeded in its overarching goal of attaining the "Rosetta Stone of Swaps Data" in establishing international cooperation with regard to global identifiers.[573]

102. Fragmented reporting requirements – The US and EU regime differ in quite a few respects in derivatives reporting, which increases compliance costs and impedes an effective reporting regime. In the EU, there are currently 129 reportable fields with Table I including Counterparty Data and Table 2 including

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[564] ESRB, *Occasional Paper Series No 18: The benefits of the Legal Entity Identifier for monitoring systemic* risk, September 2021, available via https://www.esrb.europa.eu/pub/pdf/occasional/esrb.op.18~7977fb4f23.en.pdf, 2.

[565] ESRB, *Occasional Paper Series No 18: The benefits of the Legal Entity Identifier for monitoring systemic* risk, September 2021, available via https://www.esrb.europa.eu/pub/pdf/occasional/esrb.op.18~7977fb4f23.en.pdf, 10 and 15.

[566] ESRB, *Occasional Paper Series No 18: The benefits of the Legal Entity Identifier for monitoring systemic* risk, September 2021, available via https://www.esrb.europa.eu/pub/pdf/occasional/esrb.op.18~7977fb4f23.en.pdf, 15.

[567] LEI ROC, *Progress report: 2019-2021*, January 2022, available via https://www.leiroc.org/publications/gls/roc_20220125.pdf, 4.

[568] LEI ROC, *Progress report: 2019-2021*, January 2022, available via https://www.leiroc.org/publications/gls/roc_20220125.pdf, 5.

[569] LEI ROC, *Progress report: 2019-2021*, January 2022, available via https://www.leiroc.org/publications/gls/roc_20220125.pdf, 1.

[570] LEI ROC, *Progress report: 2019-2021*, January 2022, available via https://www.leiroc.org/publications/gls/roc_20220125.pdf, 2.

[571] L. QUAGLIA, A. SPENDZHAROVA, "Regime complexity and managing financial data streams: The orchestration of trade reporting for derivatives", *Regulation & Governance* 2021, (1) 11.

[572] C. ZAZZARA, "The new OTC derivatives landscape: (more) transparency, liquidity and electronic trading", *Journal of Banking Regulation* 2020, vol. 21, (170) 175.

[573] L. QUAGLIA, A. SPENDZHAROVA, "Regime complexity and managing financial data streams: The orchestration of trade reporting for derivatives", *Regulation & Governance* 2021, (1) 11.

common data.[574]Double-sided reporting renders the implementation of the reporting obligation less complex, on the other hand, it may be more efficient to demand only one report from the party that is most suitable to bear that cost.[575] This complicated things since this resulted in the creation of two UTIs, thereby measuring double the exposure.[576]

103. EU Data quality – Several issues regarding data quality may surface. For instance, the data provided to international standard-setting bodies are self-reported and often stem from information provided by regulated financial entities which are subject to little supervisory scrutiny.[577] Furthermore, regulators under scrutiny from their legislature may be incentivized to interpret adherence to international standards in a way that artificially inflates the degree of compliance.[578] Derivatives trade processing is particularly susceptible to processing risk in the sense that the combined volume and extensive possibility to tailor OTC contracts—even in the application of the ISDA Master Agreement—significantly increase the room for error.[579] Furthermore, NFCs may not have the same operational infrastructure and therefore presumably will be necessitated to outsource (*i.e.* delegated reporting) the reporting obligation which in turn increases the likelihood of errors by inserting another node into the network.[580] Accordingly, since ESMA has published a report stating that the extent of delegated reporting is very large across all TRs,—only 4705 of approximately 600.000 counterparties contract directly with TRs—the risk of processing errors may be significantly enhanced.[581]

104. Jurisdictional frictions – In a multiplicity of reporting regimes, the main driving factors influencing the outcome of a specific regime pertain to the purpose and subsequent intended data use by regulators.[582] Differences in scope, purpose and timing of the introduction of a specific reporting regime therefore is determined by the extent to which their compatibility and predefine the level of harmonisation which is feasible during implementation.[583]

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[574] See EMIR ITS 1247/2014 on the format and frequency of trade reports to trade repositories.

[575] O. JAYEOLA, O., "Inefficiencies in trade reporting for over-the-counter derivatives: Is blockchain the solution?", *CMLJ* 2020, (48) 55.

[576] KNAACK 23

[577] C. BRUMMER, *Soft Law and the Global Financial System Rule Making in the 21st Century*, New York, Cambridge University Press, 2015, 165.

[578] C. BRUMMER, *Soft Law and the Global Financial System Rule Making in the 21st Century*, New York, Cambridge University Press, 2015, 165.

[579] A. DEJOY, *Behind the Swap: The Broken Infrastructure of Risk Management and a Framework for a Better Approach*, *s.L.*, Worth, 2022, 51.

[580] A. DEJOY, *Behind the Swap: The Broken Infrastructure of Risk Management and a Framework for a Better Approach*, *s.L.*, Worth, 2022, 52.

[581] ESMA, *Thematic Report: On fees charged by Credit Rating Agencies and Trade Repositories*, 11 January 2018, ESMA-80-196-954, available via https://www.esma.europa.eu/sites/default/files/library/esma80-196-954_thematic_report_on_fees_charged_by_cras_and_trs.pdf, 24.

[582] O. PETRENKO, "Understanding the EU's approach to harmonized regulatory reporting", *Journal of Securities Operations & Custody* 2016, vol. 8, no. 4, (311) 312.

[583] O. PETRENKO, "Understanding the EU's approach to harmonized regulatory reporting", *Journal of Securities Operations & Custody* 2016, vol. 8, no. 4, (311) 312.

105. Legal deficiencies – A legal interpretation risk presumably resides within the definition of derivative contracts since it excludes spot contracts which has subsequently led to difficulties due to EU jurisdictions and markets wielding diverging interpretations of the notions spot contract *vis-à-vis* the maximum time a settlement cycle may entail to be able to qualify as a spot contract.[584] In the US, there is a lack of clarity as to the delimitation of competences of several key actors that have been created in response to the GFC, which underscores the need for effective institutional management and cooperation both in a domestic and cross-border context.[585]

1. DATA ACCESS AND DATA-SHARING (IN A CROSS-BORDER CONTEXT)

a. International perspective

106. CPSS-IOSCO data access principles – Consistent with the G20 commitments and FSB recommendations *vis-à-vis* OTC derivatives, CPSS-IOSCO has developed international standards for FMIs, including responsibilities for TRs and all relevant authorities with respect to data access.[586] In consideration of FSB Recommendation 16, which demands that market regulators, central banks, prudential supervisors, resolution authorities and official international financial institutions should be provided with effective and practical access to TR data where so required to carry out their respective mandates, the CPSS-IOSCO expects authorities to remove legal, procedural, policy, operational, regulatory and technological barriers so as to provide TR data to a relevant requesting authority.[587] Moreover, in view of PFMI Responsibility E, Key Consideration 8 which states that relevant authorities should coordinate to ensure timely access to TR data recorded in a TR, a TR supervisor should establish an appropriate access process that is fair and consistent with the responsibilities of the other relevant authorities, to the extent legally permissible.[588] To this end, CPSS-IOSCO developed a data access mapping table which summarised the minimum typical data access levels for each relevant mandate, and, specifies that authorities aspiring to gain a broader view of the network across jurisdictional borders should have the option of seeking agreements on reciprocal data sharing.[589] As a final remark, the fact that TC-TRs may hold valuable and relevant data relating to participants located in other jurisdictions, is exemplified by the principle that a TR supervisor may not purposefully and deliberately access data for a purpose not related to the authority's supervisory responsibilities (to the extent that a TR holds such data).[590]

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[584] P. BRANDT, "EMIR Regulations Continue to Impact Derivatives Markets in 2014"*, Banking L.J.* 2014, vol. 131, (269) 270.

[585] P. DELIMATSIS, "Transparent Financial Innovation in a Post-Crisis Environment", *Journal of International Economic Law* 2013, vol. 16, no. 1, (159) 181.

[586] CPSS-IOSCO, *Authorities' access to trade repository data*, 12 August 2013, available via https://www.bis.org/cpmi/publ/d110.pdf, 28.

[587] CPSS-IOSCO, *Authorities' access to trade repository data*, 12 August 2013, available via https://www.bis.org/cpmi/publ/d110.pdf, 28.

[588] CPSS-IOSCO, *Authorities' access to trade repository data*, 12 August 2013, available via https://www.bis.org/cpmi/publ/d110.pdf, 29.

[589] CPSS-IOSCO, *Authorities' access to trade repository data*, 12 August 2013, available via https://www.bis.org/cpmi/publ/d110.pdf, 32-35.

[590] CPSS-IOSCO, *Authorities' access to trade repository data*, 12 August 2013, available via https://www.bis.org/cpmi/publ/d110.pdf, 30.

107. FSB recommendations– As a preliminary remark, direct access allows a continuous access to TR data without further involvement from the primary regulator (*e.g.* ESMA) in that jurisdiction, whereas indirect access is grafted on *ad hoc* queries or other negotiated exchanges of TR data via the primary authority.[591] In 2015, the FSB conducted a peer review which resulted in three broad findings on access to TR data, respectively one finding on intrajurisdictional barriers and two findings on (in)direct interjurisdictional barriers.[592] On the basis of the FSB's findings as described below, the FSB formulated two recommendations. Pursuant to Recommendation 3A, all jurisdictions should have established a legal framework by June 2018 which enables domestic and foreign authorities to access data held in domestic TR(s) within the boundaries of their respective mandates and eliminates any conditions that in practice prevent such access.[593] On the other hand, Recommendation 3B demands that all relevant authorities should coordinate in establishing cooperative arrangements regarding authorities' access to data held in TRs.[594]

108. Domestic barriers – First, the FSB found there were predominantly no barriers to domestic authorities' access to TR data, however for some cases only the primary authority had access. For instance, in India and China only their central banks are legally allowed to access the domestic TR data because they are the primary authorities.[595] In addition, Hong Kong, Japan, Korea, Mexico and Saudi Arabia's domestic access is subject to an MoU or any other coordination mechanism to be established with the relevant primary authority, of which the access is indirect (save for Hong Kong).[596] Moreover, whereas Argentina, Australia, Brazil, Indonesia, Russia, Singapore, Switzerland and the EU member states in principle allow some domestic authorities other than the primary authority to obtain (in)direct access to domestic TR data, South Africa and Turkey were still considering the issue at the time.[597] As a final remark, the FSB peer review also identified US and corresponding Canadian domestic and interjurisdictional barriers, which will be discussed as a case-study elsewhere in this dissertation,.[598] Three years later, an FSB follow-up report determined that domestic barriers had been or were being addressed by China, India, Canada, the US, Japan, Korea, Mexico, South Africa so as to enable domestic authorities to acquire direct access to domestic TR data.[599]

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[591] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 25.
[592] See FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 56 p.
[593] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 29-30.
[594] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 30.
[595] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 25.
[596] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 26.
[597] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 26.
[598] See FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 25-26.
[599] FSB, *Trade reporting legal barriers: Follow-up of 2015 peer review recommendations*, 19 November 2018, available via https://www.fsb.org/wp-content/uploads/P191118-4.pdf, 11-12.

109. Direct interjurisdictional barriers – Finding 8 of the FSB stated that foreign authorities' direct access to TR data is generally quite limited, with only a small number of jurisdictions having established a legal framework to facilitate direct access and merely a few examples where access arrangements have been put in place.[600] The FSB distinguished the following two primary reasons that impede(d) foreign authorities' direct access: (i) an absence of a legal framework to allow for such direct access; (ii) where such a legal framework exists, the requirements to obtain such direct access may be (too) difficult to meet.[601] A total of ten jurisdictions did (or do) not have a framework in place regarding foreign authorities' direct access to domestic TR data, namely Brazil, China, India, Indonesia, Japan, Korea, Mexico, Russia, Saudi Arabia, South Africa and Turkey, whereas, contrary to the aforementioned FSB members, Argentina, Australia, Canada, the EU, Hong Kong, Singapore and the US had already established a legal framework relating thereto.[602] The latter enumerated states only granted such access provided that the relevant authorities would respectively enter into an MoU, enter into an international agreement, become "prescribed" following specific written presentations (*e.g.* regarding confidentiality requirements) or adhere to indemnification requirements.[603]

Following the FSB peer-review, the European Commission responded to the assertion that EMIR's precondition to enabling the attainment of direct access, namely the conclusion of an international agreement, *de facto* constituted a barrier due to the required legal powers (*i.e.* "treaty-making authority") which impeded (specifically the US') authorities to establish exchange of information arrangements.[604] Accordingly, the EU contacted FSB Chairman Carney to explain that EMIR was currently under review and that amendments were being considered with a view to eliminating all remaining legal barriers, which specifically mentioned the possibility of a more flexible approach as had been established by the recently adopted SFTR.[605] With respect to the FSB follow-up report, Canada, the EU, Japan, Korea, Mexico, South Africa and the US had established, or were in the process of establishing or removing correlated legal barriers, a legal regime which theoretically enables (or would enable) foreign authorities to directly access foreign TR data, whereas, on the other hand Argentina, Brazil, China, India, Indonesia, Russia, Saudi Arabia, Turkey had not .[606] Note that, as follows from the above, Argentina has actually altered their legal framework so that currently there is no possibility, or at least a possibility under very challenging conditions, to acquire direct access to their TR derivatives datasets.

Finally, the EU and Mexico eventually removed existing barriers to direct access to TR data by, on the one hand, the enactment of EMIR Refit and corresponding introduction of art. 76a EMIR regarding mutual access

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[600] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 27.
[601] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 27.
[602] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 27. Note that Switzerland was in the process of establishing such a framework as of 2016.
[603] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 27-28.
[604] FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 27.
[605] EUROPEAN COMMISSION, *Addressing Legal Bariers to Reporting of, and Access to, OTC Derivatives Transaction Data*, 16 June 2016, available via https://www.fsb.org/wp-content/uploads/EC.pdf, 2.
[606] FSB, *Trade reporting legal barriers: Follow-up of 2015 peer review recommendations*, 19 November 2018, available via https://www.fsb.org/wp-content/uploads/P191118-4.pdf, 11 and 18.

to data, in addition to Mexico addressing the issue by removing barriers to full reporting which enables CCPs and derivatives exchanges to directly share derivatives data with foreign TRs and foreign financial authorities[607].

110. Indirect interjurisdictional barriers – The last issue pertaining to TR data access as identified by the FSB peer review, concluded that notwithstanding the theoretical possibility to acquire indirect access existed in many FSB jurisdictions, the corresponding approval procedure nevertheless was or is subject to varying degrees of conditionality and accordingly had produced no tangible outcomes.[608] In this respect, some jurisdictions' conditions prevented or significantly challenged the ability of foreign regulators to acquire indirect access, *i.e.* China, South Africa and Turkey had not (yet) established a legal framework that enabled foreign authorities to indirectly access derivatives data held in TC-TR(s), whereas India required prior written consent by market participants to obtain indirect access.[609] On the other hand, several other jurisdictions offered the possibility of indirect access to foreign authorities where there was no framework for direct access or where the conditions relating thereto could not be met.[610] To this end, Argentina, Brazil, Indonesia, Japan, Korea, Mexico, Russia, Saudi Arabia, the EU, Canada, and the US indicated that such access could be granted provided that the relevant authorities inter into an MoU.[611]At the end of 2018, all FSB members, except for presumably China[612], had put in place arrangements concerning foreign authorities' indirect access to TR data, which made the FSB reach to the conclusion that all other FSB jurisdictions comply with Recommendation 3A.[613]

b. Case-study:Dodd-Frank indemnification controversy

111. Indemnification controversy – In order to recount the events concerning the so-called US indemnification controversy in an intelligible manner, a prior analysis of the relevant provision is required. Accordingly, Dodd-Frank authorized SBSDRs to divulge all data which it has received in the course of its activities upon request of (and after notifying the SEC thereof): (i) each appropriate prudential regulator; (ii) the Financial Stability Oversight Council (FSOC); (iii) the Department of Justice; and (v) any other person the SEC determines to be appropriate, including (I) foreign financial supervisors (including foreign futures

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607 FSB, *OTC Derivatives Market Reforms: Note on implementation progress for 2020*, 25 November 2020, available via https://www.fsb.org/wp-content/uploads/P251120.pdf, 3.

608 Finding 9 FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 28.

609 FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 29. Note that whilst (p. 29 of) this report does mention that Canada had indicated that indirect access would be subject to the conclusion of an MoU, Table 9 (p.48) seems to partially contradict this by declaring that the situation is uncertain.

610 FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 28.

611 FSB, *Thematic Review on OTC Derivatives Trade Reporting: Peer Review Report*, 4 November 2015, available via https://www.fsb.org/wp-content/uploads/Peer-review-on-trade-reporting.pdf, 28-29.

612 The FSB had demanded clarifications from China because, whilst there seemingly was no legal possibility to acquire indirect access, China had nevertheless concluded an MoU with the Hong Kong Monetary Authority which signified, according to the FSB, that there appeared to be no legal barriers in practice.

613 FSB, *Trade reporting legal barriers: Follow-up of 2015 peer review recommendations*, 19 November 2018, available via https://www.fsb.org/wp-content/uploads/P191118-4.pdf, 11 and 18.

authorities), (II) foreign central banks, and (III) foreign ministries.[614] However, the SBSDR may only do so after it has received a written agreement from each entity stating that the entity shall abide by the confidentiality requirements described in section 24 relating to the information on security-based swap transactions that is provided, and, in addition, each entity agrees to indemnify the SBSDR and the SEC for any expenses arising from litigation relating to the information provided (under section 24).[615] Furthermore, SDRs must adhere to those confidentiality and indemnification requirements on a *mutatis mutandis* basis.[616]

Against this backdrop, the enactment of this indemnification requirement prompted national and international authorities across derivatives markets to voice their concerns and issue (or threaten with the adoption of) reciprocal requirements. With respect to the EU, ESMA sent a letter to SEC chairman Schapiro in order to express their view on the matter, which was that such an indemnification undermined the key principle of trust according to which exchange of information should occur.[617] Furthermore, this had induced France's Member of the European Parliament Jean-Paul Gauzès to propose an EMIR amendment which replicated the US indemnification requirement as a direct response to the adoption of the Dodd-Frank Act.[618] Moreover, speaking at a Fordham Law School event in London, the head of Financial Markets Infrastructure (*i.e.* Patrick Pearson) in the European Commission's Internal Market Directorate General had even suggested to simply not enforce the rules.[619]

112. SEC testimony – This eventually resulted in a testimony by a director of the SEC's Office of International Affairs before the Subcommittee on Capital Markets and Government Sponsored Enterprises of the US House of Representatives.[620] That testimony raised the following issues: (i) Inefficiency due to potential duplicative requirements imposed on market participants, in addition to (SB)SDRs collecting overlapping data; (ii) protectionist measures as foreign authorities incentivized (SB)SDRs to set up TRs in their local jurisdictions which did not subject them to an indemnification requirement, thereby shifting TR business away from the US markets; (iii) a fragmentated derivatives data landscape, for that authorities would need to collect and obtain prior approval from (inter)national authorities to access TR/(SB)SDR data, which in turn would threaten supervisors' ability to effectively monitor risks as they are impeded to acquire a complete overview in the global derivatives market; (iv) Apart from the SEC's unwillingness to agree to such a requirement, the SEC lacked the legal competences to even agree to such an indemnification requirement.[621]

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[614] Section 10B(n)(5)(G) Dodd-Frank Act, 407.
[615] Section 10B(n)(5)(H) Dodd-Frank Act, 407-408.
[616] See section 728 inserting section 21(d) Dodd-Frank Act, 324.
[617] ESMA, *Rulemakings on Registration of non-resident Swap Data Repositories*, 17 January 2011, ESMA/2011/16, available via https://www.esma.europa.eu/sites/default/files/library/2015/11/2011_16.pdf, 2.
[618] BECKER, L., "Breaking the deadlock: Dodd-Frank's requirement for Trade Repositories to receive indemnities before sharing information is confusing But an EC official has a solution – don't enforce the rules", *International Financial Law Review* 2011, vol. 30, no. 6, 38-39.
[619] L. BECKER, "Breaking the deadlock: Dodd-Frank's requirement for Trade Repositories to receive indemnities before sharing information is confusing But an EC official has a solution – don't enforce the rules", *International Financial Law Review* 2011, vol. 30, no. 6, (38) 38.
[620] See E. TAFARA, *Testimony Concerning Indemnification of Security-Based Swap Data Repositories*, 21 March 2012, available via https://www.sec.gov/news/testimony/2012-ts032112ethtm, 4 p.
[621] E. TAFARA, *Testimony Concerning Indemnification of Security-Based Swap Data Repositories*, 21 March 2012, available via https://www.sec.gov/news/testimony/2012-ts032112ethtm, 3.

For these reasons, the SEC recommended that Congress should remove the indemnification requirement so as to safeguard the critical function to obtain an overview about the cross-border OTC derivatives markets.[622]

113. Repeal – Over three years after its testimony, the SEC could finally applaud US Congress for the much-needed, long overdue, and common-sense reform which repealed Dodd-Frank's indemnification requirement for data access to SBSDR data.[623] On the other hand, the CFTC had already voted to elucidate the matter via an interpretative statement with a view to alleviating concerns regarding the similar obligation that existed for obtaining access to SDRs' data. Accordingly, a registered SDR would not be subject to the confidentiality and indemnification provisions if such registered SDR is also registered, recognised, or otherwise authorised in a foreign jurisdiction's regulatory regime, and the data sought to be accessed by a foreign regulatory authority has been reported to such registered SDR pursuant to the foreign jurisdiction's regulatory regime.[624] In 2017, the indemnification requirement—which no domestic nor foreign regulator had provided—was finally abolished by the CFTC following the repeal thereof by Congress on 3 December 2015.[625]

114. Appropriateness – Evidently, the above-sketched repeal does not in any way mean that domestic and foreign regulators have acquired unfettered access to (SB)SDR data. For instance, the repeal of the indemnification requirement did not implicate the abolishment of the confidentiality requirement. Furthermore, Foreign Regulators must obtain an appropriateness determination (order) from the CFTC that assesses the following: (i) whether the applicant (regulator) is acting within the scope of its jurisdiction in seeking access; (ii) whether the applicant employs appropriate confidentiality safeguards.[626]

However, insofar the foregoing requirements are not deemed sufficient to support a determination decision, the CFTC may evaluate each filing on a case-by-case basis with reference to these and other factors that the CFTC may find germane to its determination decision.[627] To this end, the CFTC provides the following two conducive, but nevertheless not dispositive factors: (i) the existence of a memorandum of understanding (MoU), which fosters a cooperative relationship and encourages the development of shared understandings related to regulatory responsibilities, or other indications of a strong cooperative relationship with another authority, as established by the existence of such an arrangement, would likely be a factor supporting an

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[622] E. TAFARA, *Testimony Concerning Indemnification of Security-Based Swap Data Repositories*, 21 March 2012, available via https://www.sec.gov/news/testimony/2012-ts032112ethtm, 3.
[623] SEC, *Statement Regarding Repeal of Indemnification Requirement*, 8 December 2015, available via https://www.sec.gov/news/statement/statement-repeal-indemnification-requirement-piwowar.
[624] CFTC, *Swap Data Repositories: Interpretative Statement Regarding the Confidentiality and Indemnification Provisions of Section 21(d) of the Commodity Exchange Act*, 30 April 2012 , available via https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/federalregister043012.pdf, 11-12.
[625] CFTC, *CFTC Unanimously Approves Proposals on Swaps Data and Other Amendments*, 13 January 2017, available via https://www.cftc.gov/PressRoom/PressReleases/7513-17.
[626] CFTC, *Proposed Amendments to Rules Relating to Swap Data Access by Certain Foreign and Domestic Authorities*, 13 January 2017, available via https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/nprm_factsheet011317.pdf, 1-2.
[627] CFTC, *Proposed Amendments To Swap Data Access Provisions and Certain Other Matters*, Federal Register, vol. 82, no. 15, 25 January 2017, available via https://www.cftc.gov/sites/default/files/idc/groups/public/@lrfederalregister/documents/file/2017-01287a.pdf, 8373.

appropriateness determination; (ii) similarly, the CTFC expects to consider whether it receives access to swap data maintained by TRs in that regulator's jurisdiction, and accordingly, CFTC access to swap data maintained by TRs in such other regulator's jurisdiction, an arrangement prospectively to assist the CFTC in obtaining data from other jurisdictions, and a history of assistance from a foreign regulator, would be viewed favorably by the CFTC in considering appropriateness, whereas a failure to cooperate or comply fully with the terms of an existing or prior arrangement might be expected to weigh against such decision.[628]

115. EU-US data access comparison – Thus, the TR (mutual) data access rules as enacted by EMIR Refit which bypassed the rather stringent requirements to conclude an international agreement and establish cooperation arrangements posterior to the adoption of an equivalence decision by the European Commission—, signify legal, regulatory and supervisory convergence towards the Dodd-Frank (SB)SDR data access requirements.

Indeed, as described elsewhere in this dissertation, TC-TRs must be duly authorised and subject to guarantees of professional secrecy which are at least equivalent to EMIR. In the same vein, both jurisdictions make reference to an extraterritorial, reciprocal component, that is to say, whether the domestic regulator which is requested to grant access to its domestic derivatives datasets to a foreign regulator, is also authorised to obtain access in that foreign regulator's jurisdiction.

Whereas, EMIR requires a legally binding and enforceable obligation to grant a specific list of entities direct and immediate access to the relevant data, the CFTC, on the other hand, does not seem to require a legally binding and enforceable obligation to grant access to a limitative enumeration of entities nor does it specifically indicate to demand direct and immediate access. Contrary to the US, EMIR additionally requires that TC-TRs' compliance with the rules is effectively supervised and enforced by the relevant authority, which does not seem a CFTC requirement.

Against this background, it could be stated that *de jure* the EU is more demanding of foreign jurisdictions. However, the CFTC approach generally seems more flexible in that regard as the CFTC underscores that it evaluates each filing on a case-by-case basis with reference to these or other factors it may find germane to an appropriateness determination. Therefore, the CFTC enjoys a significant amount of discretionary power to (potentially) cherry-pick a set of circumstances or other factors at will. Arguably, it could be said that such an open-end approach *de facto* has the potential to be or may be as or more demanding than the EU's approach. Regardless, the specific phrasing of the relevant EMIR provision equally entails a certain degree of discretionary appraisal, for instance, the European Commission could also decide that a TC-TR's home jurisdiction does not effectively supervise and enforce the corresponding rules in a continuous manner on the grounds it deems to support that hypothetical decision.

c. Data access: (EU) state of play and future outlook

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[628] CFTC, *Proposed Amendments To Swap Data Access Provisions and Certain Other Matters*, Federal Register, vol. 82, no. 15, 25 January 2017, available via https://www.cftc.gov/sites/default/files/idc/groups/public/@lrfederalregister/documents/file/2017-01287a.pdf, 8374.

116. Data access: state of play – The previously mentioned Recommendation 3B demanding FSB members to establish cooperative arrangements did not instigate collaborative enthusiasm between the FSB jurisdictions.[629] Accordingly, there are currently no supervisory authorities that have a truly global view of the OTC derivatives market, (apparently) even on an anonymized or aggregate-level basis.[630] To date, global regulators (especially key jurisdictions such as China, the EU and the US) and industry participants all consider cross-border data sharing a very sensitive issue, which is an issue the FSB still has not been able to resolve.[631]

117. EU international data access – With respect to the EU,—from what I could gather on the relevant channels,—ESMA has only concluded four MoUs or Multilateral Memoranda of Understanding (MMoUs) in total regarding access to data held in TRs. First, ESMA has concluded an MoU with the Australian Securities & Investments Commission (ASIC) (and the Reserve Bank of Australia a few months later) regarding direct access to TR data under art. 76 EMIR because there was no Australian derivatives trade repository (ADTR) at the time.[632] However, since ASIC has approved a license which has granted DDRS[633] ATDR status, [634] the conditions under art. 76 EMIR are not fulfilled anymore in addition to arts. 2(d) and 10(4) ESMA-ASIC MoU already requiring notification of (pending) non-fulfilment of those obligations and consequently determining termination of the ESMA-ASIC MoU. Thus, once the DDRS became an ATDR the MoU ceased to apply, and to my knowledge, no arrangements regarding mutual data access have been put in place ever since.

Second, in November 2015, ESMA concluded an MoU with the Securities and Futures Commission (SFC) of Hong Kong concerning arrangements for indirect access to TRs' derivatives information.[635] Remarkably, the ESMA-SFC MoU was concluded on the basis of (unamended) art. 33 ESMA Regulation.[636] In this respect, old art. 33(1) ESMA Regulation states the following: "*Without prejudice to the respective competences of* the member states and *the EU institutions*, the Authority may develop contacts and enter into administrative arrangements with supervisory authorities,…". In addition, an attentive reader might recollect that art. 75(1) and 75(2) EMIR respectively require the European Commission to adopt an implementing act

[629] See Appendix C FSB, *Trade reporting legal barriers: Follow-up of 2015 peer review recommendations*, 19 November 2018, available via https://www.fsb.org/wp-content/uploads/P191118-4.pdf, 21-24.
[630] C. ZAZZARA, "The new OTC derivatives landscape: (more) transparency, liquidity and electronic trading", *Journal of Banking Regulation* 2020, vol. 21, (170) 175.
[631] L. QUAGLIA, A. SPENDZHAROVA, "Regime complexity and managing financial data streams: The orchestration of trade reporting for derivatives", *Regulation & Governance* 2021, 11-12.
[632] ESMA, *Memorandum of Understanding on Cooperation Arrangements to access information on derivatives contracts held in European Union trade repositories*, 26 November 2014, available via https://www.esma.europa.eu/sites/default/files/library/2015/11/esma_asic_mou.pdf, 10 p (hereinafter: ESMA-ASIC MoU).
[633] DTCC Data Repository (Singapore) Pte Ltd (hereinafter: DDRS).
[634] ASIC, *Derivative trade repositories*, last updated 30 March 2021, available via https://asic.gov.au/regulatory-resources/markets/otc-derivatives/derivative-trade-repositories/.
[635] ESMA, *Memorandum of Understanding on Cooperation Arrangements and Exchanges of Information related to Information on derivatives contracts held in trade repositories*, 19 November 2015, available via https://www.esma.europa.eu/sites/default/files/library/mou_esma-sfc_indirect_access_to_tr_data_-_mou.pdf, 11 p (hereinafter: ESMA-SFC MoU).
[636] See recitals ESMA-SFC MoU.

determining equivalence and the Council to negotiate an international agreement, anterior to ESMA establishing cooperation arrangements. To conclude, art. 33 ESMA regulation quite clearly states that the relevant ESMA competence to establish such cooperation arrangements can only be exerted without prejudice to the competences of EU institutions (*i.e.* the European Commission and the Council), and therefore, in my view, the ESMA-SFC MoU seems to have breached EU law.

Third, the ESAs have concluded an MMoU with the EFTA Surveillance Authority regarding, among other things, information exchange where so required in the fulfilment of their respective mandates (and by extension EMIR).[637] Fourth, in anticipation of a "no-deal Brexit", and in addition to an MMoU concluded between the EU/EEA securities regulators and the UK Financial Conduct Authority (FCA), the FCA and ESMA concluded an MoU which also involved the exchange of information pertaining to the supervision of TRs.[638]

118. TRACE – At the request of a number of NCAs who have delegated the task to ESMA so as to provide a single access point to TR data under EMIR, ESMA launched the "(access to) Trade Repositories Project' in 2016.[639] However, later it would be commonly known as the TRACE project.
Further, ESMA stated that the project represents a clear EU cooperative solution producing central systems in support of the single market and are expect to enhance harmonisation and mitigate compliance costs for market participants.[640] Accordingly, ESMA has recently submitted a proposal to establish a European Single Access Point (ESAP)[641] by 31 December 2024, which is accompanied by two other proposals amending certain directives and regulations (including EMIR)[642].

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[637] See arts. 4 and 14 ESMA, *Multilateral Memorandum of Understanding on cooperation, information exchange and consultation*, 26 March 2018, available via https://www.esma.europa.eu/sites/default/files/library/esas_and_efta_sa_mmou_-_signed.pdf, .

[638] ESMA, *Memorandum of Understanding concerning consultation, cooperation and the exchange of information between ESMA and the UK Financial Conduct Authority*, 1 February 2019, available via https://www.esma.europa.eu/sites/default/files/library/mou_esma-uk_fca_on_consultation_cooperation_and_exchange_of_information.pdf, 29 p.

[639] ESMA, *Press release: ESMA launches centralised data projects for MiFIR and EMIR*, 1 April 2015, ESMA/2015/674, available via https://www.esma.europa.eu/sites/default/files/library/2015/11/20150326_2015-674_esma_launches_centralised_data_projects_for_mifid_and_emir.pdf.

[640] ESMA, *Press release: ESMA launches centralised data projects for MiFIR and EMIR*, 1 April 2015, ESMA/2015/674, available via https://www.esma.europa.eu/sites/default/files/library/2015/11/20150326_2015-674_esma_launches_centralised_data_projects_for_mifid_and_emir.pdf.

[641] Proposal for a Regulation of the European Parliament and of the Council establishing a European single access point providing centralised access to publicly available information of relevance to financial services, capital markets and sustainability (text with EEA relevance), 25 November 2021, COM(2021) 723 final, 2021/0378 (COD) (hereinafter: Proposal for ESAP Regulation).

[642] See proposal for a Directive of the European Parliament and of the Council amending certain Directives as regards the establishment and functioning of the European single access point (text with EEA relevance), 25 November 2021, COM(2021) 724 final, 2021/0379 (COD); see Proposal for a Regulation of the European Parliament and of the Council amending certain Regulations as regards the establishment and functioning of the European single access point (text with EEA relevance), 25 November 2021, COM(2021) 725 final, 2021/0380 (COD).

119. Data access problems – With respect to EMIR, ESMA has set out in a specific project presentation document why the ESAP is of particular importance to EMIR reporting.[643] The origins of the current problems lie in the lack of prescriptive rules regarding NCA access to TR data under EMIR or the subsequent TS related thereto, and hence, the TRs could at their own discretion provide the data to the relevant authorities.[644] Specifically, after the reporting go-live NCAs tried so access the derivative datasets and were confronted with the several complications of material importance, which are fuelled by a lack of a common format and channels for data access, thereby impeding the NCAs in pursuit of their supervisory duties to easily compare and aggregate data received from a multiplicity of TRs and consequently resulting in a costly and time-consuming exercise to access all relevant data as required to fulfil their mandate.[645] Whereas ESMA anticipates that the ESAP solution will allow NCAs and ESMA to benefit significantly by reducing the cost of accessing the TR data in addition to the increased comparability of the datasets provided by each TR, the main risk (*i.e.* cost) will presumably fall to the TRs whom "may" be required to rebuild their current systems which would lead to additional complexity and demand prolonged implementation time.[646]

120. ESAP proposal – As a preliminary remark, it may be interesting to note that at the time of the aforementioned press release, the NCAs from Germany, Austria and Bulgaria did not want to participate in the TRACE project.[647] At present, only Austria's NCA has not concluded a delegation agreement to participate in the TRACE project.[648] The Proposal for ESAP Regulation aims to ensure efficient functioning of ESAP by requiring the collection bodies to make the information available to ESAP in automated ways via a single application programming interface (API), whereas the entities should make such information available in a data extractable format or (where required,) in machine-readable format.[649][650] Moreover, to ensure a smooth processing of that information through ESAP, certain specifications will prescribe the format and the metadata of that information, the characteristics of the automated validations to be carried out, the characteristics of the qualified electronic seal, as well as requisite requirements to enable efficient search

[643] See ESMA, *Single Access Point to EMIR Transaction Data: Annex 2.3 – Project Presentation Document (PPD)*, 6 October 2017, ESMA/2016/144 Annex 2.3, available via https://www.esma.europa.eu/sites/default/files/library/esma-2016-1144_annex_2.3-_project_presentation_document_trace_project.pdf, 11 p.

[644] ESMA, *Single Access Point to EMIR Transaction Data: Annex 2.3 – Project Presentation Document (PPD)*, 6 October 2017, ESMA/2016/144 Annex 2.3, available via https://www.esma.europa.eu/sites/default/files/library/esma-2016-1144_annex_2.3-_project_presentation_document_trace_project.pdf, 4 and 6.

[645] ESMA, *Single Access Point to EMIR Transaction Data: Annex 2.3 – Project Presentation Document (PPD)*, 6 October 2017, ESMA/2016/144 Annex 2.3, available via https://www.esma.europa.eu/sites/default/files/library/esma-2016-1144_annex_2.3-_project_presentation_document_trace_project.pdf, 4.

[646] ESMA, *Single Access Point to EMIR Transaction Data: Annex 2.3 – Project Presentation Document (PPD)*, 6 October 2017, ESMA/2016/144 Annex 2.3, available via https://www.esma.europa.eu/sites/default/files/library/esma-2016-1144_annex_2.3-_project_presentation_document_trace_project.pdf, 5 and 8.

[647] See ESMA, *Press release: ESMA launches centralised data projects for MiFIR and EMIR*, 1 April 2015, ESMA/2015/674, available via https://www.esma.europa.eu/sites/default/files/library/2015/11/20150326_2015-674_esma_launches_centralised_data_projects_for_mifid_and_emir.pdf;

[648] ESMA, *Delegation agreements overview*, 6 October 2017, ESMA65-316-2640, available via https://www.esma.europa.eu/sites/default/files/library/esma65-316-2640_delegation_agreements_overview.pdf.

[649] Recital 4 Proposal for ESAP Regulation.

[650] For an explanation regarding the concepts collection bodies, entities, API, data extractable format, and machine-readable format, see respectively: Art. 2(2), 2(1), 2(6), 2(3) in conjunction with recital 4, 2(4) in conjunction with recital 4 Proposal for ESAP Regulation.

functions such as the LEI.[651] Furthermore, the European Commission underscored that it is aware of (potential) operational risks as ESAP may be prone to confidentiality breaches, integrity risks or risks on availability of the system which include accidents, errors, deliberate (cyber-) attacks and natural events.[652] Concerning EMIR, ESMA will provide NCAs with an extranet to submit their data queries which will subsequently be distributed to TRs.[653] After ESMA has received the datasets from the TRs in a common technical format via the data transmission hub, it will relay them to the relevant NCA(s).[654]

[651] Recital 17 Proposal for ESAP Regulation. For a definition on metadata and qualified electronic seal, see respectively art. 2(7) and 2(5) Proposal for ESAP Regulation.
[652] Recital 8 Proposal for ESAP Regulation.
[653] ESMA, *Single Access Point to EMIR Transaction Data: Annex 2.3 – Project Presentation Document (PPD)*, 6 October 2017, ESMA/2016/144 Annex 2.3, available via https://www.esma.europa.eu/sites/default/files/library/esma-2016-1144_annex_2.3-_project_presentation_document_trace_project.pdf, 6.
[654] ESMA, *Single Access Point to EMIR Transaction Data: Annex 2.3 – Project Presentation Document (PPD)*, 6 October 2017, ESMA/2016/144 Annex 2.3, available via https://www.esma.europa.eu/sites/default/files/library/esma-2016-1144_annex_2.3-_project_presentation_document_trace_project.pdf, 6-7.

§ 2. TRADE REPOSITORIES

121. Registered TRs – Currently there are only four TRs that are registered with ESMA and to whom reporting entities may submit the details of their derivative contracts for all asset classes under EMIR, namely: Krajowy Depozyt Papierów Wartosciowych S.A. (KDPW), REGIS TR S.A. (REGIS-TR), UnaVista TRADEcho B.V. (UnaVista), and DTCC[655] Data Repository (Ireland) Plc. (DDRIE).[656] However, since March 2019 there have been seven TRs that have de-registered with ESMA.[657]

122. Withdrawals – A longstanding issue with market infrastructure development has been that of a collective action problem, which may be particularly pertinent in the derivatives market.[658] Since market infrastructure development is costly market participants can earn more profits by allocating their resources more efficiently in new derivative transactions, which in turn would increase systemic risk.[659]

123. Systemic flaws public access?– Market participants need to report the details of their derivative contracts to TRs with a view to centrally storing the data and making it easily accessible to the authorities.[660] At this point, this dissertation clearly has already established that the reporting obligation was enacted with a view to mitigating systemic risk. Accordingly, EMIR requires TRs to weekly publish certain aggregate anonymized data on an easily accessible public website or other online portal.[661] In this respect, a commentator has pointed out that the post-trade transparency on which the reporting obligation is premised may be systematically flawed, in the sense that it may not even mitigate systemic risk in the way it intended to do. Information contagion may occur in a situation where an unexpected shock transpires and makes a creditor suddenly aware of the fact that he was previously poorly informed, in such a scenario it stands to reason that a creditor might reconsider his prior convictions and stop lending until he could acquire more information about his other counterparties.[662] In such an "informational black hole", this could trigger an

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[655] DDRIE is a subsidiary of the Depository Trust & Clearing Corporation (hereinafter: DTCC). See DTCC, *About DTCC: DTCC's Businesses, Subsidiaries and Joint Ventures*, available via https://www.dtcc.com/about/businesses-and-subsidiaries.

[656] ESMA, *List of Registered Trade Repositories*, last updated 31 March 2020, available via https://www.esma.europa.eu/sites/default/files/library/esma_register_emir_art59_3.xlsx.

[657] See *e.g.* ESMA, *Press Release: Brexit: ESMA withdraws the registrations of six UK-based credit rating agencies and four trade repositories*, 31 May 2017, ESMA-71-99-1498, available via https://www.esma.europa.eu/sites/default/files/library/press_release_cra_tr_uk_withdrawn_4_january_2021.pdf.; ESMA, *Press Release: ESMA withdraws the registration of Bloomberg Trade Repository Ltd*, 1 March 2019, ESMA71-99-1121, available via https://www.esma.europa.eu/sites/default/files/library/esma71-99-1121_press_release_bbg_tr_withdrawel.pdf.

[658] BAKER, C. M., " Regulating the Invisible: The Case of Over-the-Counter Derivatives", *Notre Dame Law Review* 2010, vol. 85, no. 4, (1287) 1307.; See recital 42 EMIR.

[659] BAKER, C. M., " Regulating the Invisible: The Case of Over-the-Counter Derivatives", *Notre Dame Law Review* 2010, vol. 85, no. 4, (1287) 1307.

[660] Recital 41 EMIR.

[661] Art. 81(1) EMIR in conjunction with art. 1(1) Commission Delegated Regulation (EU) No 151/2013 of 19 December 2012 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories, with regard to technical standards specifying the data to be published and made available by trade repositories and operational standards for aggregating, comparing and accessing the data (Text with EEA relevance), *OJ L* 52, 23 February 2013, 33 .

[662] J. ROE, "The Derivatives Market's Payment Priorities as Financial Crisis Accelerator", *Stanford Law Review* 2011, vol. 63, no. 3, 567-568.

information-sensitive panic in which it becomes profitable to produce private information, whereas, had the creditor been more informed he might not have had systematically underestimated his counterparties creditworthiness.[663] Naturally, such a phenomenon could be particularly relevant in the opaque OTC derivatives markets. Against this backdrop, literature has suggested that the reporting obligation is unlikely to mitigate this type of systemic risk, since the weekly publication of aggregate data is anonymized (because it would give rise to predatory trading).[664] Based on the scenario sketched above, it is difficult to see a reason why a creditor would not err on the side of caution because he could consult the website of a TR that merely provides a limited amount of aggregate data that bears no direct relevance to the creditor's individual counterparty exposures.

[663] J. ROE, "The Derivatives Market's Payment Priorities as Financial Crisis Accelerator", *Stanford Law Review* 2011, vol. 63, no. 3, 568.

[664] See E. CALLENS, *EU Regulation of CCPs for OTC Derivatives: CCP Market Access Regimes in Light of Systemic Risk*, unpubl. doctoral dissertation Ghent University, 2021, 305-307.

CONCLUSION

This dissertation has studied a vast body of literature stemming from a variety of scientific fields. The main goal was to gain a broad and interdisciplinary perspective that would unveil the opaque world of the reporting obligation of OTC derivatives.

In the build-up to the global financial crisis of 2007-2008, derivatives played a prominent role. When the G20 leaders convened in Pittsburgh and agreed to globally require the reporting of OTC derivatives, there was a general lack of awareness how tremendously challenging such an undertaking would be, which in turn further exacerbated the problem.

With the benefit of hindsight it would be too easy to criticize the lack of international standards. However, we have gained some insights from the political and organizational perspectives viewed through an economic lens which enables us to explain the behaviour of the relevant governments and institutions. In the aftermath of the financial crisis, there were a variety of problems to be addressed in a regime complex that would have to regulate a historically unregulated market. Over time, standards have become more broadly adopted and incremental progress is being made.

The legislative framework in the European Union certainly has it flaws. It may be inefficient from a conceptual perspective in many regards and is sometimes inconsistent in establishing duplicative or unharmonized requirements. It must be said that the task at hand was not

The most prominent issue pertains to the inability of international regimes and their conflicting interests, resulting in a multiplicity of trade repositories that effectively constitute isolated centres that do not share their data across borders. Yet, risks know no boundaries. If anything the Archegos debacle has shown, is that market participants will find loopholes when they search for them. This will cause deleterious effects on an international scale. It is of utmost importance that this challenge will be overcome in a cooperative manner.

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