

Disentangling Derivatives:
Explaining Coordination in International Derivatives Regulation

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Abstract

Post-crisis international standards were adopted on various inter-related aspects of derivatives markets, drawing attention to the need to coordinate international standard-setting activities more effectively. This paper focuses on the making of international rules concerning the resilience, recovery and resolution of central counter parties (CCPs). This was a hard case for international coordination, considering the complex policy area and the large number of regulatory bodies involved. It was also intrinsically important, given that CCPs had become neuralgic centres of systemic risk. After considering a state-centric and a financial industry explanation, the paper argues that transgovernmental networks have an independent causal effect on international regulatory coordination and identifies the mechanisms at work. These mechanisms are applicable to other areas of international standard setting in finance, such as shadow banking, and to other policy areas characterised by regulatory complexity, such as environmental policy, intellectual property rights and counterterrorism.

1. Introduction

After the international financial crisis, a wave of international regulatory reforms focused on derivatives (Helleiner 2014; Helleiner *et al.* 2018; Knaack 2015; Newman & Posner 2018; Pagliari 2011), especially over the counter derivatives (OTCDs).¹ International efforts agreed upon by the Group of Twenty (G20) countries focused on four areas: i) increase the trading of standardised OTCDs on regulated markets (exchanges or trading platforms); ii) expand OTCDs clearing through central counterparties (CCPs), whenever possible, for example, via mandatory clearing of certain types of OTCDs, or by increasing the margins and capital requirements for OTCDs not cleared through CCPs; iii) ensure that all OTCDs transactions were reported to trade repositories; and iv) tighten up the regulation of financial market infrastructures, including new rules on resilience, recovery and resolution of CCPs (also known as clearing houses), in recognition of the fact that they had the potential to concentrate systemic risk and hence threaten financial stability.

Given the massive regulatory effort at stake and the several disparate aspects of derivatives trading and clearing that needed to be regulated, almost all the main international standard-setters in finance were involved in the post-crisis reforms, namely: the Financial Stability Board (FSB), the International Organization of Securities Commissions (IOSCO), the Committee on Payment and Settlement Systems (CPSS), subsequently renamed as the Committee on Payments and Market Infrastructures (CPMI), and the Basel Committee on Banking Supervision (BCBS).² Moreover, several standards concerning the OTCDs were jointly issued by two (or more) international standard setters, for example, the CPSS-IOSCO *Principles of Financial Market Infrastructures* (2012), the CPSS-IOSCO *Recovery of Financial Market Infrastructures* (2014), the BCBS-IOSCO *Margins for Uncleared Derivatives* (2013). These regulatory efforts required considerable ‘joined-up thinking’ among different international standard-setting bodies as well as among the relevant transgovernmental networks³ of national financial regulators (Bach & Newman 2014, 2010; Jordana 2017; Verdier 2009).

The existing literature has mostly focused on the making of international financial regulation (‘soft law’, see Brummer 2005) by one international standard-setting body at the time, notably, the BCBS (for example, the Basel accords, Goldbach 2015; Young 2012), or the IOSCO (for example, the regulation of hedge funds, Fioretos 2010; the regulation of insider trading, Bach and Newman 2010), albeit with notable exceptions (Mügge & Perry 2015; Rixen 2013). Consequently, we know relatively little about how and why different international standard-setting bodies cooperate with each other and with what results. This topic has become increasingly important due to the augmented complexity of finance and the large number of cross-sectoral issues to tackle, which have resulted in ‘over-crowded’ regulatory space. For example, we observe a similar pattern of regulatory complexity in the post-crisis reform of the international regulation of shadow banking (see the special issue of the *Review of International Political Economy* 2016), which, together with OTCDs, substantially contributed to the 2008 financial crisis.

The central research question in this paper is: what explains the international coordination of different aspects of post-crisis derivatives regulation? By international regulatory coordination, we mean purposeful actions to achieve the consistency of the rules concerning different aspects of post-crisis derivatives regulation. By international regulatory consistency we mean that the sets of rules issued by various international standard-setters⁴ in finance do not contradict each other and are instead compatible.

We examine the post-crisis activity of and interactions within and amongst transgovernmental networks (TGNs), not the bilateral regulatory relations between the main jurisdictions (for example,

on transatlantic regulatory relations on derivatives, see Knaack 2015; Newman & Posner 2018), or the regulatory reforms of derivatives markets adopted at the national level (several country studies are discussed in Helleiner *et al.* 2018). We focus on three sets of standards which were crucial for the systemic stability of derivatives markets and were included in the six priority areas of post-crisis reforms closely monitored by the FSB (2018). These international standards concerned the resilience, recovery and resolution (the 3 ‘R’s) of CCPs, through which derivatives are cleared. Clearing is the process by which a ‘clearing house’, also called a ‘central counter party’ (CCP), acts as the middleman for both the buyer and the seller of a financial instrument. Clearing is important for financial stability, given the huge volume of trades in derivatives and securities that are conducted daily.

We selected the rules on the resilience, recovery and resolution of CCPs for this study as a hard case for international regulatory coordination to take place. Nevertheless, considerable coordination was achieved over time, albeit with important qualifications. There are three main reasons why international coordination in this area could not be taken for granted. First, there were neither pre-set international standard-setters dealing with CCPs, nor existing international regulatory templates on CCPs that could be amended post-crisis. Only the CPSS-IOSCO had issued a limited set of recommendations in 2004. Second, there was considerable fragmentation at the national level in terms of the regulatory authorities dealing with CCPs supervision, resolution and oversight, which made it difficult for coordination to occur even at the national level. Third, there were no national policy templates on CCPs recovery and resolution that could be adopted at the international level, thus regulators had to start from scratch, sometimes borrowing from existing private sector practices (Helleiner *et al.* 2018).

Most of the political economy literature on international standard-setting in finance considers TGNs as fora where the interests and the bargaining power of states are paramount (Drezner 2007; Helleiner 2014; Fioretos 2010; Goldbach 2015; Posner 2009; Rixen 2013; Quaglia & Spendzharova 2018; Simmons 2001; Singer 2004), or where (indirectly) the interests and power resources of the financial industry play out (Baker 2010; Bell & Hindmoor 2016; Culpepper & Reinke 2014; Tsingou 2008; Young 2012; Underhill & Zhang 2008). Thus, TGNs are often considered as empty vessels, devoid of independent agency. At the same time, Helleiner *et al.* (2018) have observed that ‘the speed with which the G20 agenda was developed can be attributed at least in part to the density of transgovernmental networks of financial officials with expertise in this area’. The literature on the ‘new interdependence’ (Farrell & Newman 2014, 2016; Newman & Posner 2016, 2018) has paid serious attention to TGNs and the soft law they issue, however, this literature has mostly focused on the ‘policy feedbacks’ and ‘second order effects’ of international soft law at the domestic level. Legal scholars (Brummer 2015; Gadinis 2015; Slaughter & Zaring 2006; Verdier 2009) have also investigated the role of TGNs, especially in finance. We argue that transgovernmental networks (TGNs) have an independent causal effect on international regulatory coordination. To further develop the literature on TGNs, we explain how this causal effect works through a range of coordination mechanisms used by TGNs in the case of international derivatives regulation.

The paper is organised as follows. Section 2 reviews the literature on international standard-setting in finance and spells out the theoretical framework and the research design of the paper. Section 3 provides an overview of the international reforms concerning derivatives regulation after the crisis. Section 4 discusses the main standards on the resilience, recovery and resolution of CCPs. Section 5 presents an overall assessment and teases out the main coordination mechanisms at work. Section 6 summarises the main findings. Methodologically, we use process-tracing to explain the coordination processes concerning international derivatives regulation – thus, we set out to explain

the process of coordination rather than the outcome (the consistency of the adopted rules). The empirical material was gathered through a systematic survey of press coverage, publicly available policy documents, responses to consultations, and confidential semi-structured elite interviews. Some interviews could not be cited even anonymously and were used for background information only.

2. State of the art, theoretical framework and research design

At the domestic level, when there is rule overlap or jurisdictional conflicts among different actors, the issue is often ‘passed on’ to a higher level in the government’s organizational hierarchy, eventually to be resolved by the relevant minister, or in a collective cabinet discussion (see Peters 2006). However, such vertical transfer of issues upwards to a higher organizational level to resolve jurisdictional overlaps and avoid rule fragmentation is not feasible at the international level in the absence of an overarching government. Thus, other mechanisms are needed in order to ensure coordination among different international organisations and standard-setting bodies in the same issue area. Although the burgeoning literature on international financial regulation has not specifically addressed the issue of coordination between international standard-setters, some scholars have discussed the actors and the mechanisms that may play a role in this respect. It is, therefore, possible to tease out three main explanations that can shed light on the drivers of regulatory coordination with reference to OTCDs regulation in general, and the resilience, recovery and resolution of CCPs in particular.

To begin with, a state-centric explanation, which speaks to rational choice theoretical approaches, would focus on the role of national policy-makers in the main jurisdictions in promoting (or hampering) international coordination between standard-setters and/or the consistency of their regulatory outputs. For example, Koremenos *et al.* (2001: 762) start from the assumption that ‘states use international institutions to further their own goals, and they design institutions accordingly’. The authors define international institutions as ‘explicit arrangements, negotiated among international actors, that prescribe, proscribe, and/or authorize behavior’ (Koremenos *et al.* 2001, pp. 762-3) and argue that ‘many institutional arrangements are best understood through “rational design” among multiple participants’ (Koremenos *et al.* 2001, p. 766; see also Urpelainen & van de Graaf 2015).

Several authors have investigated how and why the interests of the main jurisdictions and their bargaining power have shaped financial standards pre and post-crisis (Drezner 2007; Posner 2009) by looking, for instance, at international capital requirements for banks (Goldbach 2015; Thiemann 2014), or the international regulation of hedge funds (Fioretos 2010). Other works have examined the competitive dynamics between advanced jurisdictions and developing countries concerning the regulation of shadow banking (Rixen 2013) and tax havens (Sharman 2012). Although these works do not specifically focus on the issue of international coordination processes, one could argue that the main jurisdictions are well positioned to promote (or hamper) coordination, depending on their economic interests and the alignment of those interests amongst the ‘great powers’ (Drezner 2007). For example, Drezner (2007) notes that when the main jurisdictions disagree on a certain issue, they are likely to promote rival international standards, as was the case in accounting standards.

Nevertheless, the rational pursuit of interest-driven goals by state actors may result in a less than rational institutional design. For example, Kalyanpur & Newman (2017) argue that the evolution of the international securities regime has been strongly shaped by an experimental bricolage approach of trying out different solutions to the problems at hand, rather than by comprehensive rational institutional design. Furthermore, especially in new complex policy areas, national preferences are

not always formed at the domestic level and negotiated at the international level, but rather they are defined and redefined through international negotiations and repeated interactions in TGNs (Newman & Posner 2018).

A second explanation would focus on the role of private actors, namely, the financial industry (Baker 2010; Bell & Hindmoor 2016; Pagliari & Young 2015), especially transnational mobilisation patterns, and the formation of cross-border coalitions (Cerny 2010; McKeen-Edwards & Porter 2013) in the making of rules for international finance. For example, some works have pointed out the lobbying power of the Institute for International Finance (IIF), and other internationally active banks in the negotiations on the Basel accords (Tsingou 2008; Young 2012).⁵ Furthermore, interest groups and other actors that have succeeded in embedding themselves within the relevant institutional frameworks can use their advantageous position through ‘policy feedback loops’ to pursue regulatory policies that favour them (and potentially disfavour other groups) (Newman & Posner 2016).

Usually, transnational associations and large individual companies are better positioned to lobby at the international level. They also have the resources to mobilise in several different international fora at the same time, or they can engage in venue shopping by strategically lobbying the fora that are likely to be more receptive to their goals and preferences. For instance, in trade policy, venue shopping by interest groups is one of the main causes of rule overlapping and regime complexity (Alter & Meunier 2006; Eckhardt & De Bievre 2015). One consequence of venue shopping might, therefore, be to make international coordination more difficult, as different interest groups may seek to influence the different venues, thus increasing rule fragmentation and potentially resulting in ‘regulatory capture’ (Mattli & Woods 2009).

These explanations work well if there is low policy complexity, clear-cut preferences of the national authorities and/or of interest groups and relatively high certainty about the expected costs and benefits of international coordination. However, we expect that more nuanced, complementary explanations may be necessary if we observe high policy complexity and relatively high uncertainty about the anticipated benefits and costs of international coordination, which in turn makes state and industry preferences and strategies less clearly definable. As we explain below, this was eminently the case of the post-crisis international derivatives regulation of CCPs 3Rs.

A third explanation would focus on the role of TGNs of regulators, which have similar educational training (Chwieroth 2010), professional background (Seabrooke & Eriksen 2017), and share the same body of technical knowledge (Tsingou 2015). The independent role of TGNs is often downplayed in the political economy literature. Yet, these networks have an agency of their own and are more than just the sum of their members (Posner 2018). Indeed, several academic works have stressed the influence of transnational bodies that issue soft law, which, over time, ‘disrupt’ domestic regulatory templates and affect the patterns of interactions amongst domestic actors (Farrell & Newman 2014; Newman & Posner 2018, 2016). In turn, these dynamics have feedback effects by reshaping how domestic actors engage in international standard setting. This explanation speaks to the historical institutionalist literature, because the ability of international standard-setting bodies to have a ‘life of their own’ also depends on their past regulatory activity (see, for example, Posner 2018).

In many policy areas, TGNs of bureaucrats or regulatory officials are often engaged in a high degree of horizontal collaboration and act as crucial intermediaries (Jordana 2017) in designing and reforming the international rules. This has also been highlighted by scholars of global public law (e.g. Brummer 2015; Gadinis 2015; Slaughter & Zaring 2006; Verdier 2009). Abbott *et al.* (2015)

develop the concept of ‘orchestration’, which occurs when an international organisation ‘enlists and supports intermediary actors to address target actors’ in pursuit of the governance goals of the international organisation. Hence, orchestration is ‘indirect’ because the orchestrator works through intermediaries to influence targets, and ‘soft’ because the orchestrator often lacks authoritative control over intermediaries and targets. Indirect governance is especially important transnationally, as international organisations often lack direct access to the targets of regulation. Nevertheless, orchestration cannot fully ensure effective coordination among the different actors and bodies involved in the regulatory process. In this paper, the concept of orchestration may help to explain the key role that the FSB has come to play over time in coordinating the work of other TGNs active in derivatives regulation, such as the BCBS and the CPMI-IOSCO (see also Knaack 2015).

Our dependent variable is the pattern of coordination in international derivatives regulation post-crisis. Even though the examined standards cover different aspects of derivatives regulation, they are interconnected and horizontal regulatory coordination among the different TGNs involved is important to ensure that the sets of rules issued by different standard-setting bodies do not contradict each other and are instead compatible. For the purposes of this paper, our analysis of horizontal regulatory coordination at the international level does not extend to vertical consistency and domestic compliance, that is to say, the implementation of international rules at the domestic level in a consistent way.⁶

We aim to unpack the processes and mechanisms through which TGNs contribute to international coordination concerning various aspects of derivatives regulation. We glean two important dimensions of variation in the observed coordination mechanisms: 1) informal v. formally institutionalised mechanisms and 2) ad hoc coordination v. ‘orchestrated’ coordination led by one (or a few) bodies. Along these two axes, a variety of coordination mechanisms can be identified, clustered in four quadrants (see Figure 1). Figure 1 presents a typology of important horizontal coordination mechanisms, some of which have been explored in different studies, which we seek to bring together in a more comprehensive model. For example, Petrie (2016) organised multiple cooperation mechanisms among TGNs by the depth of cooperation. Thurner and Binder (2009) identified hierarchy among the different EU TGNs that they analysed, but this is in the context of a highly institutionalised regional integration regime – the EU. They also distinguished between informal and highly formal coordination mechanisms. Black (2013, p. 74) distinguished modes of international coordination that are more hierarchical, in the sense that one institution takes the lead in standard-setting and the others follow, and coordination that is based on communities of peer groups, operating through mutual recognition, MoUs and peer review. Below we elaborate on the types of coordination mechanisms in each of the four quadrants in Figure 1.

[FIGURE 1 ABOUT HERE]

Quadrant I

Institutional deference is the strongest coordination mechanism in our model, approximating domestic governance arrangements. It means that ‘member states of one organization formally adopt a set of rules established by a different institution... Other cases of deference are less formal, with member states altering an international organisation’s operational routines, technical assistance programs, or monitoring systems to support the rules of another organization’ (Pratt 2018, p. 563). Notable cases of deference occur in the regime complexes dealing with counterterrorism, intellectual property, and election-monitoring. According to Pratt (2018, pp. 583-4), the main drivers of institutional deference are efficiency concerns, in order to efficiently pool resources among disparate international organisations, and power politics, whereby international

organisations with weaker member states tend to defer to organizations with more powerful members. Another powerful mechanism for international coordination among TGNs is the *mutual recognition of standards by another TGN or international organization*. An example of this mechanism is the International Monetary Fund's and the World Bank's formal endorsement and use of financial sector standards issued by other TGNs as part of their work on the Reports on the Observance of Standards and Codes. In financial regulation, often the expertise and standard-setting record of the TGN drive institutional deference, rather than asymmetries in the power or hierarchical standing of different TGNs.

Quadrant II

An important mechanism of international coordination is the use of *memoranda of understanding (MoU)* among different TGNs to set out their tasks and responsibilities. The FSB describes MoUs as 'statements of intent which do not impose legally binding obligations on signatories. As such, they have no power to overcome domestic laws and regulations... The strength of MoUs, however, is that they facilitate the exchange of information by accommodating the differences between regulators and by responding to changing legal environments' (FSB 2019). In addition, TGNs may engage in *joint standard-setting*, whereby they co-produce standards together. Finally, other formal international coordination mechanisms include *joint studies* and *joint action plans*, pertaining to the TGNs' work.

Quadrant III

Commonly used coordination mechanisms in this quadrant refer to *regulatory dialogues* between TGNs regarding their ongoing work of mutual interest and future activities, and the *exchange of information*, for example, through emails, informal meetings, phone calls, cross-membership of the same individuals in working groups of different TGNs.

Quadrant IV

The international coordination mechanisms in this quadrant are based on learning from another TGN or international organization, which has more expertise and may have developed relevant good practices or codes of conduct. In this case, a TGN may choose to replicate (or adapt) the existing good practices developed by another body in order to improve its own standard-setting work.

3. Overview of post-crisis international standard-setting on derivatives

Prior to the crisis, derivatives markets mostly relied on self-regulation (Helleiner 2014; Pagliari 2011), mainly by the International Swaps and Derivatives Association (ISDA) (Newman and Bach 2014) and the Group of Thirty (Tsingou 2015). Hence, there was no specific international standard-setting body designated to regulate derivatives (Posner 2018). It was a bit a 'no man's land' (interview). The IOSCO and the BCBS discussed the matter, but they did not recommend the direct regulation of derivatives markets. Instead, they called for better self-regulation, endorsing the recommendations issued by the Group of Thirty. CCPs, which are key in the post-crisis regulation of derivatives, existed but were not systemically important. Indeed, CCPs were an 'arcane and niche part of the financial market' (interview). Central banks took an interest in the regulatory process because of their role as infrastructure overseers, whereas securities regulators were not very engaged and often lacked expertise. In 2004, the CPSS-IOSCO issued some *Recommendations on CCPs* which were, however, rather general rules that mostly relied on voluntary compliance.

Post-crisis, international standard-setting concerned several aspects of derivatives markets. Figure 2 outlines some of the main standards in this issue area (including principles, guidelines, reports) adopted by a variety of international standard-setting bodies. At the outset, the division of work amongst them was unclear for several reasons. To begin with, this was a new area that previously had not been subject to international regulation, thus there were no pre-defined standard-setting bodies. Some of the issues discussed were cross-sectoral and it was unclear which specific regulatory body should take the lead. The issues ‘cropped up in the regulatory agenda in a non-linear way, and not necessarily in the most logical order’ (interview). The main international standard-setters had different membership, competences as well as regulatory approaches, even in a relatively narrow issue, such as CCPs regulation.

[FIGURE 2 ABOUT HERE]

The CPSS, established in 1990 and renamed as the CPMI in 2014, brings together the central banks of the G20 – central banks generally oversee CCPs, but their primary responsibility is monetary policy. The IOSCO, whose membership includes more than one hundred jurisdictions, brings together securities market supervisors, which supervise CCPs in some countries (e.g. in the US and Germany), but not in others (e.g. in the UK), or share this responsibility with the central bank (such as in Italy and France).⁷ The FSB brings together central bankers, financial supervisors and treasury ministry officials from the G20 countries. In the case of smaller G20 jurisdictions, only the national central bank is a member of the FSB. Because the FSB also includes representatives from all other international standard-setting bodies (CPSS/CPMI, IOSCO, BCBS, IAIS, IASB), as well as the BIS, the World Bank, the IMF, the OECD, it has the potential to play a crucial role in international coordination. The FSB was established by the G20 in the wake of the international financial crisis in 2009, building on its predecessor, the Financial Stability Forum. It was supposed to be the transmission mechanism between the G20 (the ‘political’ level) and the international standards setters (the ‘technical’ level). Helleiner (2014) notes that the charter of the FSB gave this body a specific mandate to ‘promote and help coordinate the alignment of the activities’ of international standard-setters and to ‘undertake joint strategic reviews’ of their work to ensure it was ‘timely, coordinated, focused on priorities and addressing gaps’. Yet, the FSB charter also noted that the TGNs’ reporting to the FSB would be ‘without prejudice to their existing reporting arrangements or their independence’.

The fact that regulatory competences were fragmented at the national level, with considerable variations across countries, did not facilitate international coordination either. In the US, the Securities and Exchange Commission (SEC) supervises CCPs clearing non-OTCDs, the Commodity Futures Trading Commission (CFTC) supervises CCPs clearing OTCDs, the Federal Reserve supervises globally systemically important CCPs and resolution is the responsibility of the Federal Deposit and Insurance Corporation (FDIC). In the UK, the central bank deals with CCPs supervision and resolution. In the EU, CCPs supervision and resolution are mostly the competences of the national authorities, albeit new EU legislation has been proposed with a view to increasing the role of EU level authorities, which are the European Securities Markets Authority (ESMA) for CCPs supervision and resolution, and the European Central Bank (ECB) for CCPs oversight. Within the EU, the member states allocate competences on CCPs in a variety of ways. In Germany, the Federal Financial Services Authority (BaFin) is the CCP supervisor, in close cooperation with the Bundesbank. In France, CCPs supervision is shared between the Banking Supervisory Authority (ACPR), the Financial Markets Authority (AMF) and the Bank of France, with the ACPR in the lead. In Italy, CCP supervision is shared between the Bank of Italy and the Securities Markets Authority (Consob).

Section 4. International standards on CCP resilience, recovery and resolution (3 Rs)

After the global financial crisis, there was a clear need for international rules, stronger than recommendations, to underpin the international clearing system. Furthermore, ‘it was the first time that there was so much focus on this group of international standard-setters’, namely, the CPSS and the IOSCO (interview). One option was to re-issue institution-specific standards (e.g. on CCPs, payment and settlement systems, etc.), updating the existing pre-crisis regulation. Another option was to consolidate the different standards into one single document. This second option was eventually chosen, which generated ‘self-imposed complexity because it was not easy to issue standards suitable for various types of financial market infrastructures’ (e.g. CCPs, trade repositories, payment and settlement systems etc.) (interview). In 2012, the CPSS-IOSCO issued the *Principles on Financial Market Infrastructures*, a bulky document of approximately 200 pages. The *Principles* included the pre-existing rules on payments and settlement systems, as well as a recommendation for CCPs and trade repositories.

Soon after adopting the *Principles for Financial Market Infrastructures* (2012), the CPSS-IOSCO began discussing the recovery and resolution of financial market infrastructures. Amongst financial market infrastructures, the main focus was on CCPs, rather than other types of financial market infrastructures (e.g. payments and settlement systems, trade repositories) because CCPs had become neuralgic centres of systemic risk, following a series of post-crisis regulatory reforms concerning the derivatives markets. At the outset, it was understood that ‘splitting resilience from recovery was not suitable for CCPs, unlike what it had been done for banks, where resilience was discussed by the BCBS and resolution by the FSB’ (interview). Hence, the recovery of CCPs was to be discussed by the CPSS-IOSCO, which set the rules on resilience. Furthermore, since recovery and resolution for CCPs are a continuum, and most of the tools used for recovery are also used for resolution, whereas that is not the case for banks, it was felt that the CPSS-IOSCO should also discuss resolution (not only recovery).

In 2012, the CPSS-IOSCO issued a joint document for consultation, the *Report on Recovery and Resolution of Financial Market Infrastructures* (2012b). The document also discussed how the recovery and resolution of financial market infrastructures related to the FSB’s *Key Attributes of Effective Resolution Regimes for Financial Institutions* (2011). Subsequently, the discussion on the rules for the resolution of CCPs was taken over by the FSB for several reasons. To begin with, there was the need to ‘have a consistent approach with bank resolution’ (interviews), which was dealt with by the FSB, which already issued *Key Attributes for Resolution of Financial Institutions* in 2011. Furthermore, finance ministry officials, which are present in the FSB (but not in the CPSS-IOSCO) took an interest in this matter, given its potential implications for the national level (interviews). On the one hand, the FSB recognised that expertise on CCPs was not in the FSB, but rather in the CPSS-IOSCO, so the FSB built on the joint work of these bodies. On the other hand, the moving of the discussions of resolution from the CPSS-IOSCO also suggests that sometimes the leadership on a certain issue moved between the main international standard-setting bodies.

In 2014, the CPSS and the IOSCO, after public consultation, issued a *Report on Recovery for Financial Market Infrastructures*, including CCPs. This report was intended to provide guidance on the recovery planning process and the content of recovery plans, as well as a menu of tools for recovery. It specified that ‘some jurisdictions may not allow financial market infrastructures to use all the tools listed in this report.... Some tools may be used for either recovery or resolution. However, some jurisdictions may reserve certain tools for exclusive use by the resolution authorities’. In 2017, the CPMI-IOSCO issued *Resilience and Recovery of Central Counterparties (CCPs): Further Guidance on the Principle for Financial Market Infrastructures*. The guidance

was not intended to create additional standards for CCPs beyond those set out in the CPSS-IOSCO *Principles* (2012a), it rather aimed to provide increased clarity and granularity on the implementation of the *Principles* by CCPs.

In parallel to the CPSS-IOSCO's discussion on the recovery of financial market infrastructures, the FSB carried out work on the resolution of financial market infrastructures. In 2014, after public consultation, the FSB reissued the *Key Attributes of Effective Resolution Regimes for Financial Institutions*, incorporating guidance on their application to non-bank financial institutions in four new Annexes. *Annex 1 Resolution of Financial Market Infrastructures*, including CCPs, was developed by the FSB in conjunction with the CPMI and the IOSCO. In July 2017, the FSB issued *Guidance on Resolution and Resolution Planning for Central Counterparties (CCPs)*, which complemented the FSB's *Key Attributes of Effective Resolution Regimes* by issuing guidance on implementing the attributes in resolution arrangements for CCPs.

There were some overlaps, but also some gaps, in the work of the three main international standard-setters on CCP recovery and resolution. Hence, there was a need to promote their coordination to ensure the consistency of their regulatory outputs. The CPSS-IOSCO *Principles for Financial Market Infrastructures* (2012) set the rules designed to strengthen the resilience of financial market infrastructures, including CCPs, so as to prevent them from getting into troubles, which would then trigger recovery, regulated by the CPSS-IOSCO and resolution, regulated by the FSB. Consequently, the stricter the prudential rules for CCPs (for example, the amount of financial resources to deal with credit or liquidity risk), the less likely it was that CCPs would need to undergo recovery and resolution, but the less profitable CCPs became and the more expensive their use by dealer banks and end users. The CPSS-IOSCO rules on recovery had implications for the FSB rules on the resolution of financial market infrastructures, including CCPs and vice versa, given the fact that several tools used for recovery (e.g. cash calls, termination of contracts) were also used for resolution. Moreover, there were some resolution only tools, some of which were also used for banks resolution and indeed were 'borrowed from the banking toolkit' (interview).

5. Assessing international coordination in derivatives regulation

We now move to examining the extent to which the three sets of theories outlined in Section 2 can explain the observed pattern of international coordination in derivatives regulation. To begin with, a state-centric explanation would primarily focus on the role of jurisdictions or entities hosting large financial centres, such as the US, the UK and the EU, in promoting international regulatory coordination. A supportive role of the key financial jurisdictions is indeed important for international coordination to occur in the first place (see Singer 2004; Drezner 2007; Helleiner 2014). The empirical record suggests that the US and the UK were supportive of international standards on CCPs, but they did not play a leading role in coordinating the activities of international standard setters. When international standards were set, no jurisdiction had a fully-fledged domestic regulatory template on CCP recovery and resolution to upload. Hence, national policy-makers did not have (pre-set) views – mostly deriving from existing domestic regulatory frameworks and the structure of national financial systems - concerning the regulation of CCPs recovery and resolution. Furthermore, there were heterogenous views within the jurisdictions, because a multiplicity of regulatory authorities were involved, with different outlooks and competences. Last but not least, unlike in the instances of capital requirements for banks or rules on hedge funds, the international standards on CCPs did not have substantially different distributional implications across jurisdictions, depending on the configuration of national financial systems.

In the US, the Dodd-Frank act (2010) and enacting regulation extended the resolution regime for banks to CCPs: the FDIC was appointed as the resolution authority and the Federal Reserve as the supervisor for systemically important CCPs. The resolution regime for CCPs in the UK, introduced by the Financial Services Act (2012), established a new resolution regime for CCPs, which was inspired by that in the banking sector (Bank of England, FSA, HMT 2012). Consequently, the Bank of England became the resolution authority not only for banks but also for CCPs. The extension of the resolution regime from banks to CCPs that took place in the US and the UK informed part of the international regulatory debate on these issues. This approach was criticised by some observers, for example, the IMF, which argued that '[T]he toolkit which has been assembled for resolving banks is of limited use for troubled CCPs. Furthermore, CCP resolution may have to take place much more rapidly than the resolution of a bank'.

A vast array of US regulatory agencies, with different mandates, competences and views were involved in the international and domestic regulatory debate on CCPs (Lavelle 2018). The Federal Reserve, which sits in the CPSS, mainly paid attention to matters of concerns for central banks, notably, the liquidity resources of CCPs and their access to central bank liquidity. The CFTC and the SEC, which supervise different types of CCPs, at times had uneasy relations at the domestic and international levels (Knaack 2015). The FDIC, which is the resolution authority for CCPs, also had its own view, clearly expressed when tools for CCPs resolution were discussed. For example, the FDIC supported the wiping out of CCPs capital, which was instead resisted by the CFTC. For the US Treasury, the priority in setting the rules for CCPs recovery and resolution was to rule out taxpayer support (interview). Several interviewees pointed out that the US position in this regulatory debate very much depended on which domestic authority took the lead in a given forum, or on a certain matter. Lavelle (2019, p. 1) explains the puzzle of 'American ambivalence' in the governance of finance by pointing out 'the fragmented U.S. regulatory system, which inhibits the United States from acting as a unitary, lead actor of multilateral negotiations'.

Similarly to the US, the EU also experienced internal divisions and legislation on CCPs recovery and resolution was proposed as late as 2017. The European Commission, the ECB, and the ESMA had different mandates, competences and views on the reform of CCPs regulation and supervision in the EU (EMIR II), which was also affected the debate on Brexit (James & Quaglia 2019). The member states had different preferences on the proposed EU legislation on recovery and resolution, which resulted in a gridlock (interviews). The main member states were also involved in the international standard-setting process, together with the EU authorities, which did not improve the cohesiveness of the EU. Previous research points out the lack of a cohesive position of the EU internationally, especially when the EU lacks a domestic regulatory template to upload (Quaglia 2014b) and several EU and national authorities are present at the same times in international fora (Mügge 2011). The UK position was more cohesive, as the Bank of England was in the driving seat, but the issue of CCPs regulation and supervision then became entangled in the Brexit negotiations and the tug of war on euro clearing.

Concerning the industry-led explanation for coordination, the financial industry was broadly supportive of the CPSS-IOSCO (2012a) *Principles*, as suggested by the responses to public consultations. Actually, the big financial players asked for more fully-fledged international rules, as pointed out, for example, by the IIF and the ISDA (2011). By contrast, recovery and resolution were more controversial for various parts of the financial industry, as suggested by the consultation responses. The crux of the matter concerned the distributional effects of recovery and resolution, that is to say, how losses should be allocated between CCPs, direct participants and indirect participants – each group was keen to shift the costs onto another group (interviews). Furthermore, the CPSS-IOSCO and the FSB organised several events and workshops with the financial industry

with a view to gathering a better understanding of the issues at stake, given that CCPs had been mostly subject to self-regulation before the crisis (interviews).

The empirical record suggests that the financial industry somewhat un-deliberately promoted coordination between standard-setters by stressing the need for consistent rules on CCPs recovery and resolution and by mobilising in several international regulatory venues. For instance, several financial associations and private actors submitted similar responses to the consultations carried out by the CPSS-IOSCO on recovery and those carried out by the FSB on resolution. Indeed, financial industry responses often cross-referenced each other, meaning they referred to prior responses sent by the same interest group to the same international standard-setting body over time, but also the same interest group sent very similar responses to different international bodies working on related standards.

For example, in their responses to the CPSS-IOSCO (2013) consultation on CCPs recovery and the FSB (2013) consultation on resolution, the association of European CCPs (EACH 2013) advocated clear boundaries between recovery and resolution, arguing that CCPs should be empowered to perform their recovery plans before any resolution was initiated by the authorities. It also opposed the use of CCPs capital to cover losses. The dealer banks in their responses to the CPSS-IOSCO (2013) consultation on CCPs recovery and the FSB (2013) consultation on resolution, argued in favour of a clear boundary between recovery and resolution, without creating adverse incentives and potential unpredictable liabilities for participants (ISDA *et al.*, 2013). The AIMA-MFA (2013), which mostly represented the indirect participants, stressed the need to prevent CCPs failure ex-ante through rules of CCP resilience, in particular, financial resources. These trade associations argued that any resolution regime should allocate losses in a way to prevent disproportionate burdens for indirect participants.

Concerning the explanation that focuses on TGNs themselves, the empirical account suggests that the limited experience of the CPSS-IOSCO in joint standard setting was initially problematic as was the division of work between the CPSS-IOSCO and the FSB, because recovery and resolution of CCPs were new issues in the international regulatory agenda and most of the tools used in recovery are the same as those used in resolution. Furthermore, the ‘FSB looked at CCPs resolution from the bank resolution side’, that is to say, using as a starting point the toolkit devised for bank resolution and also considering what would happen to banks that were direct members of CCPs (interviews). Several interviewees also pointed out that they did not participate in these TGNs as ‘national representatives, representing the national interest, but rather with a problem-solving approach’ (interview). Another regulator sitting in a joint working group argued that, if anything, he felt he represented the TGNs he was a member of (interview). In order to address the challenges of coordination between different international standard setters and consistency of regulatory outputs, multiple coordination mechanisms were used by TGNs, which we outline below.

Quadrant I

Institutional deference and *mutual recognition* are similar mechanisms, but with different degrees of formalisation and leading role played by a TGN. An example of institutional deference between TGNs can be found at the intersection between the rules on CCP resilience (the CPSS-IOSCO Principles) and the capital requirements for banks (the Basel III accord issued by the BCBS) and concerned the criteria to determine which CCPs were ‘qualifying CCPs’ for Basel III exposure purposes. The BCBS decided to define ‘qualified CCPs’ by the CPSS-IOSCO Principles, adopting a preferential capital treatment for qualifying CCP exposures, as compared to non-qualifying CCPs exposure, on the ground that the former CCPs would be more resilient than the latter.

Mutual recognition of standards between TGNs occurs when they extensively cross-reference each other's standards to ensure consistency. For example, the CPSS-IOSCO *Recovery of Financial Market Infrastructures* (2014, p. 1) states that 'This report is consistent with the *Key attributes of effective resolution regimes for financial institutions* of the Financial Stability Board (FSB)'. It also points out that 'This report is intended to provide supplemental guidance to the CPSS-IOSCO (2012) *Principles on Financial Market Infrastructures* regarding recovery planning. It is not intended to create additional requirements for financial market infrastructures' (CPSS-IOSCO 2014, p. 4). The FSB (2014, p. 68) *Key Attributes of Effective Resolution Regimes for Financial Institutions*', Annex 1: resolution of Financial Market Infrastructures makes clear that 'The scope of the guidance is aligned with that of the CPSS-IOSCO *Principles for Financial Market Infrastructures* (2012)... and take into account the guidance in the CPMI-IOSCO report on *Recovery of Financial Market Infrastructures* (2013)'.

Quadrant II

The most important mechanisms of international coordination in this quadrant are: the use of *memoranda of understanding (MoU)* among different TGNs; *joint standard-setting*; issuing *joint studies* and *joint action plans*, pertaining to the TGNs' work. There were several instances of *joint standard-setting* in the post crisis regulation of derivatives. For example, the CPMI-IOSCO jointly issued international standards on CCP resilience first, and recovery later. The joint standard-setting was coordinated by a Steering Group that carried out a review of the existing standards on financial market infrastructures and an Editorial Team that implemented the review. The co-chairs of the Steering Group came from the CPSS and the IOSCO, respectively, and represented the US Federal Reserve, the SEC and the Financial Services Authority of Japan. The co-chairs of the Editorial Team also came from the CPSS and the IOSCO, respectively, and represented the SEC and the ECB. The other members of the two committees were central bankers and securities markets regulators, almost in equal numbers. Like for the other joint groups at work, membership and chairs reflected a balance in term of the 'parent' committees (in this case, the CPSS and the IOSCO) and geographical coverage.

There were several *joint working groups* among different TGNs dealing with various aspects of OTCs. An early example is the OTC Derivatives Working Group, set up in April 2010, composed of regulators from ten jurisdictions, together with members of other standard-setting bodies, notably the BCBS, the IOSCO and the CPSS. The group was chaired by the CPSS, the IOSCO and the European Commission and had a mandate to propose 'policy options supporting the consistent implementation of appropriate measures regarding trading, clearing, and reporting across jurisdictions'. It produced a *joint report*, submitted to the G20 Finance Ministers and Central Bank Governors in October 2010 by way of an FSB Report (2010) (Knaack 2015). Another important example is the Cross-border Crisis Management Group for financial market infrastructures, established in 2017 as a forum for the relevant authorities from member jurisdictions to discuss and agree on resolution measures (FSB 2018).

As a general pattern, a joint working group usually produces a joint study and, subsequently, issues a joint standard. Furthermore, as part of the Joint Workplan mentioned below, a *joint BCBS, FSB and IOSCO study group* was established in July 2015 to analyse interdependencies between CCPs and major clearing members and any resulting systemic implications. Showing the approach of putting together different types of expertise from the different TGNs in order to achieve better international coordination, the study group was composed of about 15 members covering a range of policy areas and expertise, drawn from the committees' institutions and other interested authorities

and supported by the committees' secretariats (FSB, BCBS, CPMI and IOSCO 2015). The outputs of the group's work were *joint studies* (reports issued in 2017 and 2018) mapping interdependencies between CCPs and their clearing members and other financial service providers. These joint studies were used as input for designing supervisory stress tests and further work to promote CCP resilience, recovery and resolvability.

While there was no formal use of MoUs in the cases analysed here, in September 2015, the FSB, the BCBS, the CPMI and the IOSCO (2015) published their Joint Workplan on CCPs, which fulfilled a very similar function. It served both as a *quasi-MoU* among the FSB, the BCBS, the CPMI and the IOSCO, setting out their responsibilities and division of labour, and a *joint action plan*, specifying what further work would be carried out by each TGN. The workplan identified both substantive priority areas to complete the post-crisis reforms and the division of tasks among the different international bodies regarding CCP resilience, recovery and resolution.

Quadrant III

A commonly used coordination mechanism in this quadrant refers to *regulatory dialogues* and *exchange of information*. In our case, the chairs of the FSB, the CPMI, the BCBS and the IOSCO were engaged in very active information exchange and dialogue about ongoing policy work in their respective committee, they exchanged draft documents before they were made public and participated in relevant meetings taking place at another committee. There were also frequent informal phone calls, cross-membership in different committees working on related issues and intensive cooperation among the members of different working groups within the four TGNs (interviews). Moreover, the members were often the same officials covering multiple policy files and participating in a variety of working groups.

Quadrant IV

The international coordination mechanisms in this quadrant are based on learning from another TGN or international organisation. One example could be the fact that post-crisis, in the adoption of the international standards on CCPs discussed in this paper, the CPSS, the IOSCO and the FSB adopted as a best practice the public stakeholder consultation process that had previously been employed by the BCBS in the making of Basel II (2004) and III (2010).

6. Conclusion

The pursuit of international regulatory coordination and consistency of rules was particularly challenging after the global financial crisis due to the cross-border nature of derivatives markets, the lack of pre-existing national or international regulatory templates, and the fragmented responsibilities for derivatives regulation among many international and domestic regulatory bodies. We investigate an understudied dynamic: the need to *coordinate* the regulatory activities of different international standard-setters working on the same (or interconnected) issues, so as to promote rules consistency (the consistency of regulatory outputs). As one interviewee put it, the main challenge in the post-crisis international regulation of derivatives markets, with specific reference to CCPs, was to coordinate the work of several different standard-setters dealing with various aspects of CCPs regulation: the CPSS, the IOSCO, the FSB (which, in the past, had dealt with rules on bank resolution) - 'it was a learning process for all'.

We argue that TGNs have agency and an independent causal effect on international regulatory coordination. We explain how this causal effect works through a range of coordination mechanisms

used by TGNs in the case of international derivatives regulation, specifically, the rules on CCPs resilience, recovery, and resolution. As for the generalisation of our findings and avenues for further research, our analysis highlights the importance of formal coordination mechanisms, where one or a few bodies take the lead in the coordination process. Most of the identified coordination mechanisms would also apply to other areas of financial regulation characterised by rule overlap and overcrowded regulatory space, such as shadow banking. Moreover, they could travel to other areas of international regulation outside finance, such as environmental standards (see Abbott et al. 2016), intellectual property standards and counter-terrorism (see Pratt 2018), where a multiplicity of public and private bodies need to coordinate their work.

Our research suggests that more nuanced explanations are necessary to supplement state-centric and industry-led ones under conditions of relatively high policy complexity and relatively high uncertainty about the anticipated benefits and costs of international coordination, which make state and industry preferences and strategies less clearly definable. Specifically, a state-centric explanation tends to assume that domestic financial regulators have similar views or, at the very least, that they are able to project a unified position externally, mostly on the basis of agreed upon domestic regulatory templates. We suggest that this is less likely when a multitude of domestic regulatory agencies with distinctive mandates and competences are involved, also in international fora, and when a domestic regulatory template is absent. In these instances, TGNs play a very important role in international regulatory coordination and are keen to prevent regulatory inconsistency. The financial industry explanation tends to assume that big financial players engage in venue shopping, hampering, rather than facilitating, international regulatory coordination. We show that, on the contrary, the financial industry can contribute to promoting international regulatory coordination, albeit un-deliberately. Although private actors are not in the driving seat when international standards are set, TGNs often actively seek interaction with and information from the industry, particularly in complex and technical policy areas, as suggested in several interviews.

List of interviews⁸

Interview A, 18-10-2018 [on background only; not for citation]

Interview B, 9-11-2018 [on background only; not for citation]

Interview C, 20-11-2018

Interview D, 23-11-2018 [on background only; not for citation]

Interview E, 3-12-2018

Interview F, 14-12-2018

Interview G, 24-01-2019

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Figure 1: Coordination mechanisms among TGNs

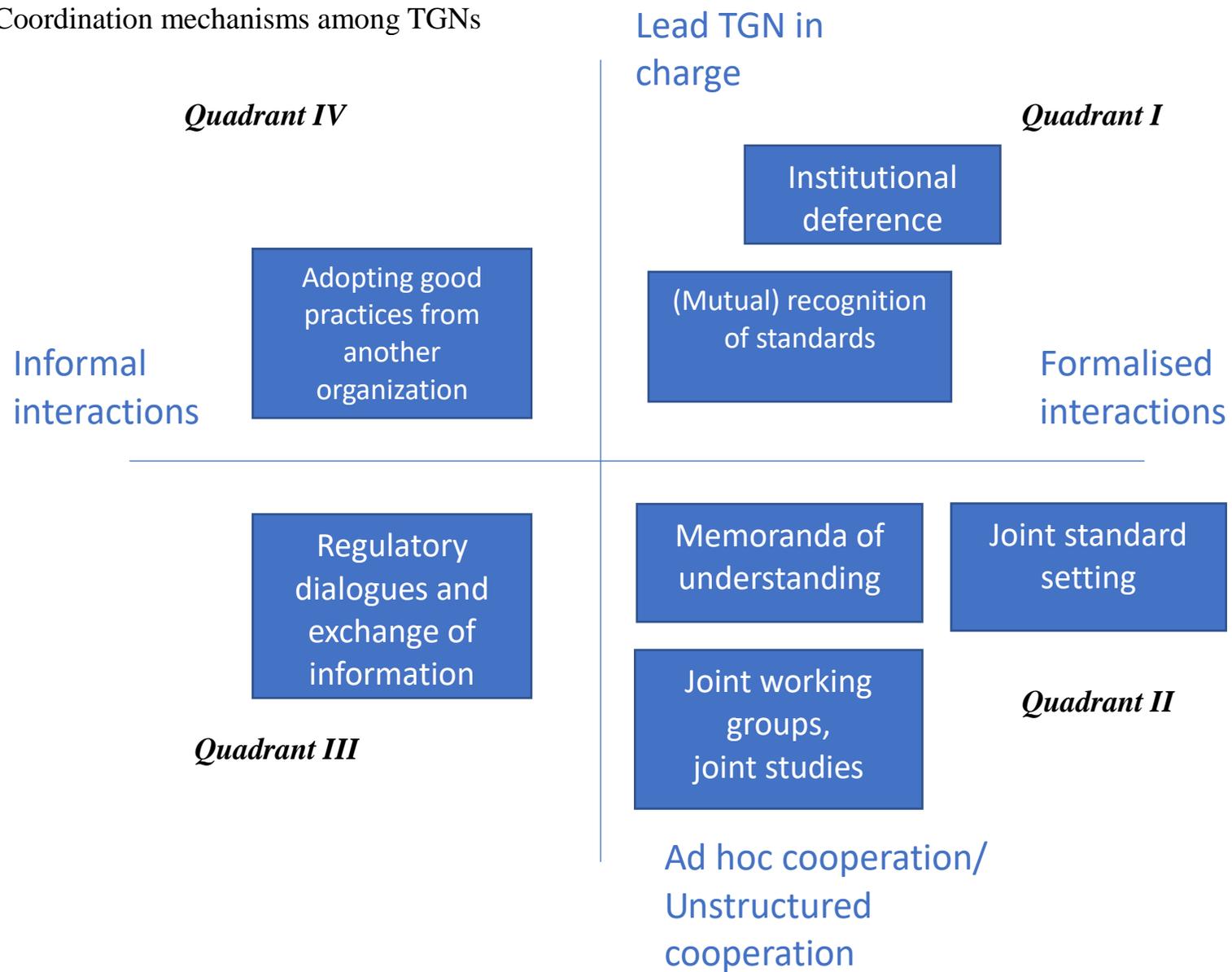
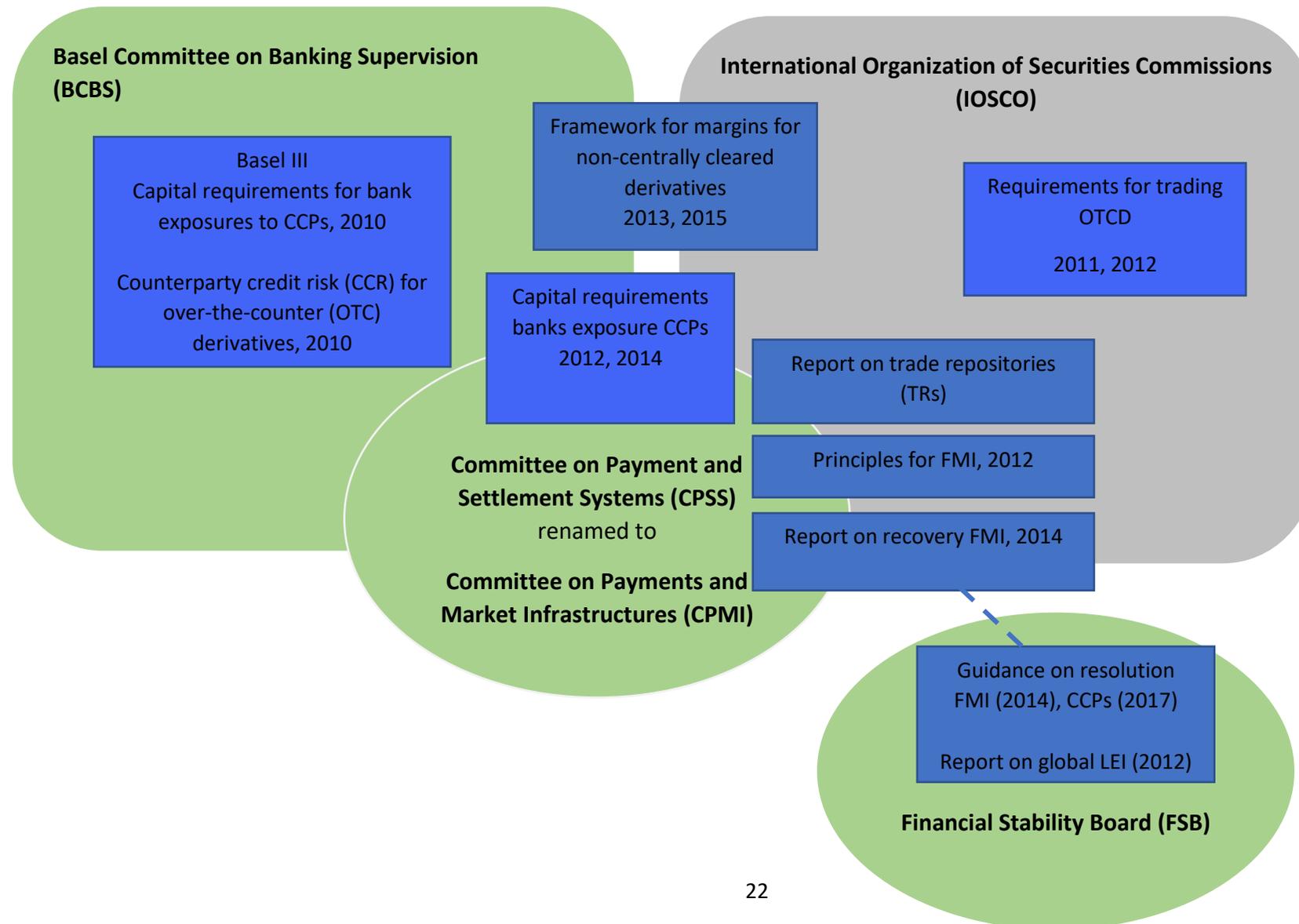


Figure 2: International standard setting on derivatives post-crisis



Endnotes:

¹ A derivative is a contract between two or more parties, the value of which is derived from an underlying asset, such as bonds, currencies, interest rates, or commodities. Derivative contracts can be standardised and traded over an exchange, or they can be traded directly between two parties, these are called over-the-counter derivatives (OTCDs). In the decade prior to the crisis, there was a massive growth in the use of OTCD, such as interest-rate and credit default swaps.

² Private standard setters, such as the International Swaps and Derivatives Association (ISDA) were also involved, but this paper focuses on public standard setters.

³ We define transgovernmental relations as ‘sets of direct interactions among sub-units of different governments that are not controlled or closely guided by the policies of the cabinets or chief executives of those governments’, drawing on Keohane and Nye (1974: 43).

⁴ By international standard-setters we mean international bodies, such as the BCBS, the FSB and IOSCO. In addition, by looking at transgovernmental networks, we focus specifically on the role of the national regulators and international officials participating in the work of these international standard-setting bodies.

⁵ Other works have argued that the structure of the national financial system (or the variety of national financial capitalism) affects national preferences on international standard setting, for example on hedge funds (Fioretos 2010), shadow banking (Thiemann 2014), tax havens (Rixen 2013), and capital requirements for banks (Howarth and Quaglia 2016). We consider this aspect as part of the state-centric explanation.

⁶ Vertical regulatory consistency occurs when adopted at the international, regional (e.g. EU) and national level are compatible and do not undermine each other (see Quaglia and Spendzharova 2018)

⁷ For an overview, see https://www.esma.europa.eu/sites/default/files/library/esma70-151-812_2017_ccp_peer_review_report_0.pdf

⁸ The interviews have been given anonymised codes and refer to the date when the interview was conducted. Additional information is only available to the authors to respect the anonymity requests of the interviewees.