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Financial markets regulation: political accountability challenged

Adrienne Heritier
Political and Social Science Department, European University Institute, Florence, Italy

Abstract

Purpose – This paper aims to conceptualize and empirically illustrate the challenges that financial market regulation presents to politicians and the organization tasked with specifying regulations and supervising their implementation in the interest of users and consumers of financial instruments. It analyses the problem from the viewpoint of the governor's dilemma and the control/competence conflict, the linked problem of the rent-seeking of agents/intermediators and consumers of financial instruments. Political accountability problems are enhanced by the materiality of the technologies used, i.e. algo trading.

Design/methodology/approach – The paper theoretically conceptualizes and empirically illustrates the argument.

Findings – The paper finds that regulators of digitalized financial markets are faced with considerable problems and depend on private agents when regulating financial transactions. However, the new technological instruments also offer new possibilities for securing compliance.

Research limitations/implications – Further research should focus more in-depth on the cooperation between public and private actors in the specification and implementation of regulatory details. It should further investigate the conditions which allow regulators to use RegTech in the surveillance of financial firms.

Practical implications – Since financial market transactions are opaque for most users, the creation of more transparency is crucial to hold regulators accountable in their activity of surveillance of financial firms. New algorithm-based technologies may lend important support in doing so.

Originality/value – By linking the different analytical perspectives, i.e. the governor's dilemma vis-à-vis the intermediator or agent and the possible rent-seeking of intermediators, under the condition of a highly developed technology of financial transactions as well as the market structure, the paper offers new insights into the limits as well as new opportunities of regulating financial markets allowing for political accountability of regulators and financial firms.

Keywords Financial regulation, Political accountability, Control and competence conflict, Governor's dilemma, Materiality of technology

Paper type Research paper

1. Introduction and research question

Financial markets with myriads of diverse transactions every second constitute the very embodiment of inaccessibility and opacity for users, consumers and, indeed, regulators (Mattli, 2019a, b). How do regulators face this daunting task? In response to the financial crisis of 2009, a new wave of international and European regulations was adopted to remedy the impact of the crisis and prevent further similar crises (Helleiner *et al.*, 2018). This led to a certain centralization of regulatory power with the European Commission (EC) and the European Securities and Markets Authority (ESMA). Nonetheless, national authorities still retained a considerable amount of regulatory power and discretion in the implementation of European regulations (Héritier and Schoeller, 2020). What is more, regulation continued

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to unfold on a parallel basis of private self-regulation and public–private co-regulation. The maze of regulations and their heterogenous structure gives rise to the research question: how can regulators control financial firms and how can political actors control the performance of the regulators? Accountability challenges abound under conditions of regulatory centralization, sustained decentralization and fragmentation. Accountability is defined as the control of a political actor over the clearly defined task delegated to another public or private actor. In case of non-performance, the agent charged with the task can be sanctioned by the political actor.

Empirically, the cases analyzed are central pieces of EU financial markets legislation, the Markets of Financial Instruments Directive of MIFID II and MIFIR II, the legislation on Capital Markets Union (CMU) and the European Markets Infrastructure Regulation (EMIR). They also include bottom-up financial activities by Fintechs and first attempts of their regulation at the European level and dwells on self-regulatory activities by private financial organizations: High-Frequency Trading (HFT); Central Counterparties (CCPS); the International Swaps and Derivatives Association (ISDA); and Fintechs.

In short, how do political actors control the administrative and private actors to whom they delegated authority to issue financial regulations and secure their implementation? Which accountability mechanisms come into play, procedurally and substantively, and how successful are they in achieving their objectives? Given that private actors are often included in financial regulation do they pursue the aims of their private members or of the entire community? Can new technologies support regulators when controlling the financial industry?

In the following, the article will first develop the conceptual and theoretical arguments (Section 2), then proceed to empirically assess them with the empirical material of the cases mentioned above (Section 3). It concludes by drawing out the main insights and points out the need for further research (Section 4).

2. Conceptual and theoretical arguments

Answers to the question of how the political accountability of actors tasked with financial regulation can be ensured are approached from four different conceptual and theoretical angles. Linking these different angles offers new insights into the complexity of financial market regulation and its political control.

The first analytical lenses consider what has been called *the governor's dilemma* (Abbott *et al.*, 2020) and the principal–agent approach (Bendor *et al.*, 2001); the second analytical approach focuses on the possible *rent-seeking of intermediators* (MacKenzie, 2019); the third analytical approach takes account of the *materiality of technological innovations* (MacKenzie, 2019; Knorr-Cetina and Preda, 2011); and the fourth approach points out the importance of the *capital market structure* in which regulation is deployed (Seddon and Mattli, 2020).

The argument about the governor's *dilemma* (Abbott *et al.*, 2020) starts from the assumption that no governor can realize his policy goals on his own but has to build on the competences of intermediators, i.e. expertise, credibility, legitimacy and operational capacity (Abbott *et al.*, 2020, p. 4). Moreover, the governing of capital markets has always relied on the intermediation of private actors (Seddon and Mattli, 2020, p. 165). But a governor also wishes to control the intermediator's activities to ensure that she follows the governor's policy goals. Here the governor's dilemma approach builds on the principal–agent approach (e.g. Bendor *et al.*, 2001; Miller, 2005; Weingast and Moran, 1983). The governor/intermediator relation is characterized by information asymmetry since the governor cannot easily verify the intermediator's intentions or behaviour. Therefore, the contract between the two introduces incentives and controls to limit the intermediator's possible shirking (Abbott *et al.*, 2020, p. 4) and engages in *ex post* controls. The governor's dilemma approach goes beyond the principal–agent approach by pointing to the competence-based power of the intermediator

and the control-competence conflict that it presents to the governor: The competent intermediator contributes to the policy thereby gaining power that, in turn, hinders political control (Abbott *et al.*, 2020, pp. 4/5). In financial market regulation, the governors are governments, parliaments, central banks and independent governmental agencies tasked with defending the public interest. For this purpose, they grant authority to intermediators, public actors and private market operators to regulate trading practices (Seddon and Mattli, 2020).

Given the regulatory goal of governors, i.e. central banks and independent government agencies to reduce micro risks and guarantee macro financial system stability, the second analytic perspective becomes relevant, i.e. *rent seeking by intermediators*. Since in financial markets, investors have to rely on private intermediators, i.e. fund managers, which in turn rely on other intermediators, i.e. large asset managers and investment banks, these intermediators may be tempted to require fees resulting in high prices for investors (MacKenzie, 2019; Peridis and Héritier, 2021, p. 40; Seddon and Mattli, 2020). In short, the intermediator draws a rent from the benefit of the investment. This is possible because of the structural dependency of the investor on the intermediator and the power-based politically created institutional rules allowing the intermediators to achieve a price that is beyond what a functioning market would allow (Peridis and Héritier, 2021, p. 41). These formal and informal institutional rules define the power relations such as the costs of access to and membership of a stock exchange (MacKenzie, 2019). These rules originally were developed by private actors engaged in self-regulating their financial transactions. For that purpose, they adopted institutional rules favouring their powerful members, which in turn allowed the latter to engage in rent-seeking vis-à-vis normal users of the organization. This type of rent-seeking step-by-step was limited by public regulation. The accountability channels created to secure compliance with the regulation sought to ensure that intermediators do not pursue biased interests of their clientele but the interests of the entire community (Peridis and Héritier, 2021, p. 41; MacKenzie, 2019).

The third theoretical argument refers to the *materiality of the technological innovations* on which financial transactions are based. This is directly related to the possibilities of rent-seeking by private intermediators and the governors' control of them. The options to offer trade execution services have enormously increased with the advances in electronic trading systems (MacKenzie, 2019; Knorr-Cetina and Preda, 2011; Seddon and Mattli, 2020, p. 166). Technological innovations such as algorithm-based trading – in principle – allow for *disintermediation* leading to "lit-venues" of stock trading, where fund managers are allowed to trade *directly w*ith each other at low cost, undercutting the commissions charged by investment banks, thereby reducing rent-seeking by intermediators.

The other face of complex technological innovations is that their functioning and implications are difficult to understand in their functioning and implications. Such financial instruments are *not politically salient* and generally do not give rise to public political conflicts.

Another implication is that technological innovations brought about an increasing fragmentation of market structures. Financial firms emerged which are large enough to make markets off-exchanges (Mattli, 2019a). Faced with this development, the governors to defend the public interest introduced new and strict regulations that market actors to survive and subsequently sought to circumvent (Seddon and Mattli, 2020, p. 164; Goodhart, 1986).

However, technological innovation also offers new control opportunities to the governor. RegTech organizations founded by the industry confronted with ever more regulatory requirements introduced information technologies to control the application of financial market regulations. Since the reporting requirements which were adopted post-financial crisis imply a high burden of reporting on market participants, RegTech firms launched various services such as data analytics, AI, machine learning and new interfaces to cope with these regulatory requirements (Arner *et al.*, 2017, p. 383; Micheler and Whaley, 2019;

Smolenska *et al.*, 2020 180ff). “Regtech allows for greater agility, timely reporting, speed, and integration .... by the supervised entities. With improved accuracy of reporting better compliance can be achieved” (Smolenska *et al.*, 2020, p. 180; Anagnostopoulos, 2018, p. 14 cited in Smolenska *et al.*, 2020, p. 180). However, the use of RegTech varies across EU member states depending on the availability of resources and regulatory encouragement and regulatory digitalization (Interview, 2019b cit. in Smolenska *et al.*, 2020 180). Most RegTech pilot programmes are run by the UK Financial Conduct Authority (FCA). In recent years, harmonizing steps were taken at the EU level in MiFII Art. 59 and ESMA under its 2019 review of Financial Supervisory Authorities (FSAs) (Smolenska *et al.*, 2020 180/181).

The *fourth theoretical argument* refers to the factor “market structure” influencing the governor’s possibilities to hold intermediators accountable. Capital markets, driven by technological innovations, have increasingly become fragmented with many exchange platforms, alternative trading systems, electronic communication networks, over-the-counter (OTC) markets and dark pools (Bodek and Dolgopolos, 2015; Mattli, 2019a, b) which are competing with each other [1]. In response, in the last decades of the 20th century, when the EU set out to integrate national financial markets (Lamfalussy reform), state intervention increased. Regulators reacted by imposing ever more rules, which – if written in vague terms, subsequently are specified by the implementing private actors. Or regulation often is developed in detail in cooperation with the financial industry because of the technological complexity of the issues requiring the input of expertise of the latter as conceptualized by the governor’s dilemma. This, in turn, as argued allows the intermediators to define issues in the interest of their specific clientele and engage in rent-seeking. All the more so because market fragmentation increases the divergence of preferences of governors and intermediators and reduces the public visibility of private intermediators’ actions, thereby possible political accountability. Rent-seeking augments because “. . . intermediaries can externalize the costs of regulation, whilst those committed to good governance have difficulty capturing the benefits of it, due to free-riding” (Mattli, 2019a). Fragmented market organizations are also engaged in a competition for liquidity that may incentivize them to lower standards. Intermediators engage in a regulatory competition of a “relative gains orientation” (Seddon and Mattli, 2020, pp. 163/164).

The four analytical perspectives are interlinked: a specific material technology of financial trading, a specific regulatory structure and a specific market structure influence the political control of the governors over the public and private intermediators and the possibilities of their rent-seeking.

The existing literature on the political accountability of financial markets regulation mostly focused on the legislative political decision-making process (e.g. Quaglia, 2012; James and Quaglia, 2019) and substantive and procedural aspects from a legal perspective (e.g. Dawson and Maricut-Abkik, 2019; Biggins and Scott, 2012). The added value of this contribution consists in *jointly* considering the causal effects of the regulatory structure, the rent-seeking of private intermediators, the materiality of technology and the market structure on the possibilities of political accountability.

Methodologically, in light of the above theoretical considerations, the article will discuss the empirical cases of High-Frequency Trading (MiFiDII), Central Counterparty Infrastructure (EMIR), transnational hybrid regulation, i.e. the self-regulation by the International Swaps and Derivatives Association ISDA) in Over the Counter Derivatives Reform (OTC) (EMIR) and the activities of Fintechs. Using the congruence method based on the scrutiny of underlying causal mechanisms, the following factors will be varied and traced to the outcome: the governor’s political control in a hierarchical as compared to a decentralized or fragmented regulatory structure; the degree of dependency on the expertise of private actors; the influence of technological innovation; and the given market structure. The cases represent central pieces of European financial markets regulation (MiFiDII, EMIR),

then zoom in on an important private international intermediator (ISDA) and small private innovators (Fintech). The presumed explanatory factors are traced through the pertinent causal mechanisms (George and Bennett, 2005), mostly implicit or explicit bargaining processes of actors with different capabilities, to the outcome, i.e. the possibilities of political control to allow for accountability.

3. Illustrative empirical cases 1

3.1 High-frequency trading/MiFiDII

When the EU responded to the G-20 2009 agenda on the better regulation of financial markets, HFT was included in the revision of the Markets in Financial Instruments Directive MIFIDI 2004, and MiFiDII adopted in 2014. Technological change had brought about an enormous change as regard the speed and volume of such financial transactions by employing algorithmic trading leading to an increasing number of exchange platforms and alternative trading systems (Bodek and Dolgopolos, 2015; Mattli, 2019a, b).

The legislative aim was to subject market sectors to public oversight which had operated directly between buyers and sellers "in the dark". These transactions may imply a systemic risk because of the large volume and the speed of orders being placed and removed in the market and the ensuing volatility and uncertainty for market participants (Conac, 2017, p. 472).

The revised MiFIDII legislation including HFT was adopted after an extensive review of the MiFIDI legislation based on a large stakeholder consultation by the EC, an impact assessment and another stakeholder consultation by the European Parliament (EP). After negotiations in the Council of Ministers and several amendments by the EP, the act was adopted in May 2014. In short, political actors, including the EP, played an important role in shaping the HFT regulation contributing to the political salience of the act as one of the most important parts of MiFID II (Karremans and Schoeller, 2020, p. 39).

The objective of the HFT regulation is to increase the transparency of financial markets, a crucial precondition for securing political accountability. It defines the HFT technological infrastructure in terms of system determination, high message intraday rate of orders, quotes and cancellations. HF traders are obliged to apply internal controls according to technical standards defined by the ESMA. They have to pass on information, including their algorithmic strategy, to national authorities and the concerned trading platform and report on executed and deleted orders (Busch, 2018; Gomber and Nassauer, 2014, p. 140; Karremans and Schoeller, 2020, p. 34). These obligations imply high investments for firms for the storing of data, recording trading activities and, if necessary, interfering in them (Karremans and Schoeller, 2020, p. 42).

How well are these new obligations implemented? From the perspective of *the governor's dilemma,* the intermediators have to apply the technical standards proscribed by ESMA (ESMA/2015/1464; ESMA, 2016/1452). In this step of delegation, the technical standards directly apply in the Member States and contribute to the harmonization of implementation practices (Karremans and Schoeller, 2020, p. 43). Hence regulation through technical standards did *not* raise the *governor's dilemma* in that the public intermediator, ESMA, due to superior expertise may not abide by the rules defined by the governor.

By contrast, at the national-level Financial Supervision Authorities (FSAs) allowed for considerable discretion in supervision (Conac, 2017). National authorities with diverging views on how to intervene in financial markets resulted in diverging patterns in supervision. For instance, the UK and Northern member states such as the Netherlands tend to favour financial innovation and loose regulation, while France and Italy pursue a more restrictive approach (Quaglia, 2012). However, two factors tend to reduce these differences: ESMA's forum for national authorities helps obtain a certain convergence of practices and effective

market investigation requires trans-border cooperation which reinforces convergence (Karremans and Schoeller, 2020, p. 43ff).

From the perspective of the *materiality of technological innovation*, the rise of HFT is the obvious consequence of technological innovation based on algorithmic trading. This perspective is closely linked to the *rent-seeking theory* of the functioning of financial markets regulation because the new technology in principle allows actors to engage in direct transactions without an intermediating actor. In the case of HFT the structural dependency on the *intermediating market* actors, i.e. investment banks, was reduced and thereby the costs imposed by their institutional rules of accession and participation trading venues (MacKenzie, 2019; Peridis and Héritier, 2021, p. 43). Historically, the Security and Exchange Commission issued new rules prescribing investment banks to allow small firms to access the market and participate in HFT. In return, policing rules for HFT were introduced to prevent predatory and aggressive trading. In short, the introduction of algo-based HFT reduced the rent-seeking and high prices for end-users deriving from the intermediation of private actors (MacKenzie, 2019).

In contrast, the factor *market structure* makes the working of accountability channels more difficult. Because of the fragmented market structure exchanges and other market service providers see themselves under pressure to offer ". . . a variety of private incentive programs to firms, such as special order types and privileged data feeds, to attract order flows and volume traders" (Gallagher, 2017; Mattli, 2019a; Seddon and Mattli, 2020, p. 173). The resulting lack of transparency prevents political control.

In short, the case of HFT shows several delegation links. From the political governors EC and EP to the public intermediator ESMA; from ESMA to member state authorities; and from the latter to financial firms. Implementation works well through the direct causal mechanism of technical standards, but less if based on the diverging national administrative practices allowing for more or less political control depending on national administrative stringency. Rent-seeking is possible because of the fragmentation of service markets and the competition between service providers enabled by digital technologies. However, the latter also allows for circumventing private intermediators. What is more, public authorities using RegTech could also reduce rent-seeking by private intermediators and control rule applications in real time.

3.2 Central Counterparty Infrastructure regulation: OTC derivatives trade

The central counterparties regulation (CCPs), a part of the Capital Markets Union (CMU) regulatory reform, plays a crucial role in the trading of Over-the-Counter (OTC) derivatives, financial instruments that derive their value from the value of other assets and are not traded on official trading platforms. CCPs are situated between buyers and sellers of derivatives and engage in "central clearing" to increase the transparency of financial transactions, i.e. the traceability and quality of derivative transactions and to reduce the systemic risk (G20, 2009; Lockwood, 2018). Increasing the safety and efficiency of CCPs in the EU allows for smooth cross-border CCP services, builds up supervisory capacity and seeks to establish a level playing field in the supervision of CCP services (EC, 2017; Smolenska and Héritier, 2021). Now the use of central clearing is mandatory when engaged in the trading of OTC derivatives. In 2020 14 CCPs were authorized in the EU. 80% of interest rate derivatives and 55% of credit defaults are currently cleared by CCPs (BIS cited in Smolenska and Héritier, 2021, p. 71).

EMIR regulates the terms of market access of CCPs, such as the level of capital requirements and the rules of governance (Bulfone and Smolenska, 2020, p. 58f). With supervisory competences delegated to ESMA, these rules led to a certain centralization of substantive requirements and allow for political control. However, supervising implementation remained with national authorities. This resulted in a variegated institutional structure: some member states are tasking national supervisory authorities,

others central banks with implementation while ESMA is only controlling the functional equivalence of their supervisory qualities over CCPs (Bulfone and Smolenska, 2020, p. 59).

EMIR legislation was evaluated by the EC in 2015. This accountability check of the performance of the public intermediators, i.e. ESMA and the national authorities, was conducted as a public consultation of the industry. In general, it expressed satisfaction with the EMIR regime; in consequence, the EC only proposed more streamlining of the CCP clearing and reporting obligations. But the EC, supported by the EP, used the opportunity of Brexit and the absence of an important political veto player to take a further step of centralization in 2019. ESMA's power, with the support of the EP, was further strengthened, but the formal intra-EU supervision structure remains decentralized (James and Quaglia, 2019).

Through the theoretical lens of the g*overnor's dilemma*, the oversight regime of the CCPs presents a complex centralized, as well as decentralized, even fragmented, picture. The EP and the Council delegated to the EC and ESMA and national authorities, and those two to private CCPs, and the CCPs in turn interact with private contracting parties. The first accountability steps are the legislative budgetary process and the political appointment of ESMA members. Another accountability channel consists of ESMA reporting to the EC, the EP and the Council based on both *ex ante* and *ex post* control mechanisms, such as member states' rights to revoke any decision made by ESMA. Further political control can be deployed by national governments and parliaments over the national supervisory authorities and through the network of national FSAs participating in the decisions of ESMA (Smolenska and Héritier, 2021, p. 73). Because of this wide, differentiated, and complex oversight structure, the EC and, in particular, the EP sought to centralize accountability by ESMA. However, despite the EMIR 2.2. reform seeking to tame the accountability jungle in CCPs, fragmentation remained a crucial feature of the entire accountability process (Smolenska and Héritier, 2021, p. 83) characterized as "bespoke accountability channels" (Chiu, 2016; Riles, 2018).

To illustrate the information asymmetry between the governor EP and the intermediator ESMA, during the political supervision of the EP, MEPs did not ask questions as regards technical operational procedures on the occasion of the yearly budgetary discharge of ESMA. Rather, in the EP hearings of candidates for the CCP supervisory committee EP substantive questions focused on general salient political issues of the "greening" of finance and gender (EP, 2020; Smolenska and Héritier, 2021, pp. 93/94). The level of expertise required by technical issues constitutes a barrier to intensive political accountability strategies.

Given the variegated structure of political accountability channels, one would expect rent-seeking on the part of the private intermediators, i.e. CCPs. The hearings held by the EC and EP with stakeholders on their experience with clearing houses offer some information in that respect: It appears that the fragmented control structure favours the arbitrage of financial firms choosing CCPs with less strict rules, e.g. regarding margins, capital requirements, etc. This happens, in particular, in third countries outside the EU in which ESMA only assesses the functional equivalence (Smolenska and Héritier, 2021, p. 90ff). The EC consultation of 2017 found that most financial firms and associations considered EU standards stricter than third-country standards (EMIR review of EC, 2017). The rent-seeking behaviour of CCPs was also mentioned on the occasion of the recovery and resolution regulation of CCPs of 2020. In the case of a possible failure of a CCP strict rules of CCP resolution and insolvency are not applied which results in a bail-out by a Member State instead of a bail-in (EC, 2017). This aspect of *rent-seeking* is closely linked to the *fragmented market structure* and the fact that financial firms can choose among a variety of CCPs.

As to the *materiality of technology* employed in OTC derivatives trading, and the complexity of the technical issues involved in central clearing, the accessibility threshold for political control is high. The above-mentioned absence of substantive detailed technical

scrutiny of MEPs shows that intermediators, public and private, with their expertise, and competences can develop a certain power vis-à-vis the political governors and eschew control.

3.3 A private transnational regulator: the International Swaps and Derivatives Association (ISDA)

OTC derivatives deriving their value from other assets were largely unregulated until 2000 (Awrey, 2010, p. 162). The underlying contracts represent the right or obligation to buy or sell certain security, commodity, currency or another financial instrument at some future point in time at a defined settlement rate (Karremans and Héritier, 2020, p. 139; Biggins and Scott, 2012, p. 312). They are not traded on exchanges, but "over-the-counter", directly between buyers and sellers, hence are not centrally cleared in CCPs (Karremans and Héritier, 2020, p. 139). As bespoke agreements between buyers and sellers, they are considered useful investment and risk strategies, but – not being cleared – are also considered to be riskier at a micro and macro level (Biggins and Scott, 2012, p. 316).

The internationalization of financial markets and the increase in new digital technologies gave OTC derivatives a new importance (Schinasi *et al.*, 2000). "In this transformation, OTC derivatives became increasingly complex instruments involving multiple payment exchanges, with credit exposures being increasingly associated with time-varying derivatives" (Schinasi *et al.*, 2000, pp. 3, 16 cited in Karremans and Hé ritier, 2020, p. 140). In their complexity, they became difficult to understand and predict. Based on new digital technologies, the volume and speed of these instruments increased very quickly (Schinasi *et al.*, 2000) and became the world's biggest, not publicly-regulated market (Helleiner *et al.*, 2018). The reason is, for one, the complexity of the market and that ISDA, the association, became the world's private regulator of this market (Karremans and Héritier, 2020, p. 140).

ISDA as a private self-regulating organization established itself to ensure stability and predictability in the trading of derivatives, especially OTC derivatives in the 1980s. It developed contractual standard practices of derivative trading to reduce transaction costs of trading. The most important one is the Master Agreement which became a global standard, defining contract standards to trade derivatives (Rauterberg and Verstein, 2013). In the course of this development, ISDA became a crucial authority in dealing with public regulators. It was considered to guarantee system stability and reliability in the settling of obligations in derivatives contracts (Karremans and Héritier, 2020, p. 140). Inversely, private self-regulatory actors of financial transactions depend on the enforcement of private law by public authorities and, in the case of a liquidity crisis, on the guarantee of a central public authority (Pistor, 2019).

ISDA started with 11 financial institutions and comprises over 900 today, such as the world's largest banks, financial operators and large corporations. Banks are primary members, service providers with a key role are associate members [2] and end-users are subscribers [3]. Only primary members develop ISDA's self-regulatory policy and decide on which policies to support (Karremans and Héritier, 2020, p. 141; Morgan, 2008, 2009).

In its early phase, ISDA sought to ensure that the legislation of states, particularly in the field of insolvency and bankruptcy, was congruent with the standards of the Master Agreement. It particularly sought to ensure that OTC derivative transactions remained *outside* the realm of bankruptcy and gambling legislation (Biggins and Scott, 2012), i.e. that the parties to derivative exchanges would be able to net out their balances in the case of bankruptcy of one of the parties *without* going through the legal procedures associated with national bankruptcy legislation (Morgan, 2008, pp. 647–651; Karremans and Héritier, 2020, pp. 142/143).

Through the *governor's dilemma* lenses ISDA, the private intermediator and the governor/legislator have a common interest in the stability of the financial system. Legislators trust the

expert advice of ISDA, and the intermediator/self-regulator in return depends on legislation to harmonize legislation across different jurisdictions to facilitate transactions and to rely on private law for the enforceability of contracts (Pistor, 2019).

After the financial crisis and the G20 decisions, public regulators stepped up international and European regulation. In shaping EMIR ISDA was an important interlocutor of public authorities, i.e. ESMA, when defining technical standards which OTC derivatives have to comply with. New reporting and clearing obligations were introduced to authorize trade repositories and CCPs (Karremans and Héritier, 2020, p. 145). In this process, ISDA fully cooperated with ESMA and did not oppose these measures (Karremans and Héritier, 2020, p. 145). At the same time, it also sought to secure that certain market sections would be exempt from the new regulations, arguing that some central clearing obligations do not suit certain derivatives and that defining the eligibility criteria required detailed financial technological expertise (Biggins and Scott, 2012, p. 340). It insisted on "... uniform criteria across jurisdictions, but against using uniform criteria in applying the new rules across the whole market ..." (Karremans and Héritier, 2000, pp. 147/48).

In short, from the analytical view of the *governor's dilemma*, ISDA, initially established itself as a private regulator with large expertise advantages compared to the public regulator. After the financial crisis, public actors increasingly issued regulations at the international and European levels to reduce the micro and macro risks of derivatives trading under the roof of ISDA. But the governor quickly faced the classical competence/control conflict. ISDA played an active lobbying role in shaping these public regulations. Through the *materiality of the technology lens,* this is not surprising given the complexity of OTC derivatives trading. This influence was even more pronounced during the implementation of the public regulations: advocating a myriad of detailed specifications based on ISDA's expert knowledge, the association was able to claw back power to the benefit of its clientele. As a private intermediator, it sought to secure rents for a selected clientele to be exempt from public regulations. The fact that ISDA was able to do so depended also to a large extent on the *materiality of the technologies* used in derivatives OTC trade with its high speed and highly complex interconnections.

The *materiality of the used technologies* and the internationalization of financial markets led to a *fragmentation of OTC derivatives markets* difficult to subject to regulatory control. The standard contract of ISDA, then step-by-step subject to public regulation which was deployed in co-regulation with ISDA. This type of cooperation with the financial industry association implies clear limits to political accountability.

3.4 Fintech

Fintech defined as digitized financial product innovation and new business models challenges regulators because they do not comprehend the new disruptive digitized technologies and the micro and macro risks they imply for users.

This substantive uncertainty as regard the nature and application of new financial products and services induced regulators to cooperate with Fintechs, i.e. individual Fintech firms, and to *jointly develop regulatory solutions* to the new product or service in a process called "sandboxing". This type of regulatory reaction led to a fragmentation of the Fintech market, albeit to competitive, regulatory activities that, in a second instance, are now sought to be overcome by steps of harmonization at the European level by MiFIDII (Smolenska *et al.*, 2020, p. 167). Many member states established "facilitator programmes" that engage in public–private interaction and information sharing such as innovation hubs or sandboxes. The UK's FCA has been a pace-setter in this process, introducing an innovation hub and sandboxes. It organized roundtables with Fintech firms in 2014 to support innovations by small and large businesses that can benefit consumers in financial services markets (FCA,

2014, p. 5) (Smolenska *et al.*, 2020, pp. 168/69). They support them when dealing with regulators and also after the authorization of a business (FCA, 2014, pp. 7–9). FCA also clearly states the objective to keep a competitive edge in the European Fintech market (Smolenska *et al.*, 2020, p. 168). At the same time, however, FCA also developed an international network of regulatory sandboxing ("Global Financial Innovation") with bilateral Fintech bridges (Smolenska *et al.*, 2020, p. 169). Sandboxes offers Fintechs the possibility to jointly with regulators, "... conduct limited tests of their innovations with fewer regulatory constraints, real costumers, less risk of enforcement action, and ongoing guidance with regulators" (Allen, 2019, p. 580, in Smolenska *et al.*, 2020, p. 169). Since then a global race took off for establishing sandboxing as regulatory experiments in Europe, e.g. in France, Switzerland and worldwide. At the same time, cross-border regulatory cooperation in securities regulation – beyond bilateral agreements – in international regulatory networks sponsored by the International Organization of Securities Commissions (IOSCO) is extended (Bromberg, 2017).

In terms of *political accountability* of its activities the FCA, the pioneer regulatory actor, a non-profit limited company is entirely funded by the firms it regulates. It is officially functionally independent of the UK government but reports annually to the Treasury and bi-annually to Parliament, to evaluate its performance (Smolenska *et al.*, 2020, p. 167).

At the European level, before the national facilitator programmes, since 2013/14, ESMA and EBA have been engaged in monitoring and advising Fintechs, such as in areas of crowd-funding and cryptocurrencies. In 2019, the EC published a Fintech Action Plan "... mapping the private and regulatory landscape establishing guidelines and best practices, and reviewing the impact of related regulatory frameworks such as the General Data Protection Regulation (GDPR) and Digital Single Market strategy in the context of Fintech" (EC, 2018, p. 4).

The latter from the view of political accountability or the g*overnor's dilemma* is of interest because as part of a large European legislative programme, it only decides broad guidelines and subsequently hands over the decision on the specific technical details to standardization bodies creating what was called "the hidden underground" of the regulation (Helberger *et al.*, 2021). In these standardization processes, however, political control by national parliaments and the EP only play a marginal role.

Through the lens of the g*overnor's dilemma*, Fintech is the very area in which the governor is dependent on the expertise of the new firms and, in consequence, chooses to cooperate with the industry in the development of the appropriate regulations of these new firms. To protect the public interest in their financial trading activities and to prevent *rent-seeking by private intermediators* public authorities engage in this cooperation. The *materiality of the technologies* used in trading challenges the understanding and control capacity of regulators including the micro and system risks they involve. What is more, the fragmented and very competitive area of Fintech markets renders political and administrative control difficult.

4. Conclusion

The analysis of the cases from the view of the different theoretical angles shows that a centralized regulatory structure as compared to a decentralized or even fragmented regulatory structure facilitates political control through accountability channels. In the decentralized and fragmented structure, competing public intermediators may make concessions to the regulated firms. In an environment of multiple accountability channels, as in the cases of HFT and CCPs, private intermediators may engage in rent-seeking to protect their clientele.

The innovative material technologies enable direct contact between buyers and sellers and thereby tend to reduce rent-seeking. At the same time, they also resulted in a fragmentation of

markets making political control of regulations and their implementation more difficult. This is enhanced by the fact that the new technologies are very complex and not accessible to the wider public. As such they are not salient and do not lend themselves to political debates pressing for political control. However, new control technologies (RegTech) may also be used by regulators if they dispose of the necessary material resources and digital infrastructure.

Because of their expertise, private firms and their associations play a dominant role when shaping and implementing regulation, as both the cases of ISDA and Fintechs show. Unless public regulators build up counter expertise or considerably invest in RegTech, the information asymmetry in favour of private firms and private regulators cannot be contained. While the powerful ISDA was forced by international and European regulation to cooperate in regulation with public actors, the small Fintech firms spontaneously developed regulatory cooperation with supervisory authorities, which led to certain market fragmentation. The first steps of European and international regulatory harmonization have been launched by public actors to contain this development and allow for political accountability of the regulation of these new market actors.

In the face of the complexity and opacity of financial market transactions, it is crucial that the operative patterns of financial innovation and the regulatory response by public actors, frequently jointly with private actors, are better understood. Only such an understanding can ensure that there is political pressure to strengthen the use of financial instruments to prevent micro and macro risks for the real economy, in particular, to enhance the environmental and social sustainability of investments.

Notes

1. The empirical data are to a large part based on the research project funded 2018–2021 Grant No 2016-01596 by the Swedish Research Council "Governing Finance in Europe: A centralization of rule-making?" Principal investigator Carl Fredrik Bergstroem; Adrienne Héritier co-investigator responsible for the political science part of the research project.
2. Such as the European Investment Bank and the European Stability Mechanism.
3. The New York Stock Exchange, for instance, now competes with about 50 off-exchange venues, including dark pools. This resulted in a drop in market share from 85% of total securities trading in 1980 to about 20% in 2015 (Seddon and Mattli, 2020, p. 166).

References

Abbott, K.W., Genschel, P., Snidal, D. and Zangl, B. (2000), *The Governor's Dilemma. Indirect Governance beyond Principals and Agents*, Oxford University Press, Oxford.

Allen, H.J. (2019), "Regulatory Sandboxes", *The George Washington Law Review*, Vol. 87 No. 579, pp. 580-643.

Anagnostopoulos, I. (2018), "Fintech and regtech: impact on regulators and banks", *Journal of Economics and Business*, Vol. 100 July, pp. 7-25.

Arner, D.W., Barberis, J. and Buckley, R.P. (2017), "Fintech, regtech and the reconceptualization of financial regulation", *Northwestern Journal of International Law and Business*, Vol. 37, pp. 371-414.

Awrey, D. (2010), "The Dynamics of OTC derivatives regulation: bridging the public-private divide", *European Business Law Organization Review*, Vol. 11, pp. 155-193.

Bendor, J., Glazer, A. and Hammond, T. (2001), "Theories of delegation", *Annual Review of Political Science*, Vol. 4, pp. 235-269.

Biggins, J. and Scott, C. (2012), "Public-private relations in a transnational private regulatory regime: ISDA, the state and OTC derivatives market reform", *European Business Organization Law Review*, Vol. 13 No. 3, pp. 309-346.

Bodek, H. and Dolgopolos, S. (2015), *The Market Structure Crisis: Electronic Shock Markets, High Frequency Trading, and Dark Pools*, Decimus Capital Markets, Stanford, CT.

Bromberg, L. (2017), "Fintech sandboxes: achieving a balance between regulation and innovation", *Journal of Banking and Finance Law and Practice*, Vol. 28 No. 4, pp. 314-336.

Bulfone, F. and Smolenska, A. (2020), "The internal and external centralization of capital markets union regulatory structure: the case of central counterparties", in Héritier, A. and Schoeller, M.G. (Eds), *Governing Finance in Europe. A Centralisation of Rulemaking?*, Edward Elgar, Publ, Cheltenham, Northhampton, MA, pp. 52-78.

Busch, D. (2018), "A stronger role for the European supervisory authorities in the 27", in Busch, D., Avgoulas, E. and Ferrarini, G. (Eds), *Capital Markets Union in Europe*, Oxford University Press, Oxford, pp. 29-54.

Chiu, I.H. (2016), "Fintech and disruptive business models in financial products, intermediation and markets — policy implications for financial regulators", *Journal of Technology Law and Policy*, Vol. 21 No. 1, pp. 55-112.

Conac, P.-H. (2017), "Algorithmic trading and high frequency trading", in Busch, D. and Ferrarini, G. (Eds), op.cit., pp. 469-485.

Dawson, M. and Maricut-Abkik, A. (2019), "Procedural vs substantive accountability in EMU governance:between payoffs and trade-offs", publ online 24.7.2020.

European Commission (2017), "Proposal for a regulation of the European parliament and the Council amending regulation", (EU) No 1095/2010ESMA 2016/1452ESMA 2015/1464.

European Commission (2018), Commission Implementing Decision (EU) 2018/2031, 19.12.2018.

EP (2020), Hearing of CCP Supervisory Committee Candidates in the ECON Committee, 14.9.2020.

Financial Conduct Authority FCA (2014), "Project Innovate: call for input-feedback-statement", London.

G20 (2009), *Pittsburgh Summit*, Sept 24/25.

Gallagher, D. (2017), "How to reform equity market structure: eliminate 'RegNMS' and build venture exchanges", available at: https:/www.heritage.org/markets-and-finance-report/how-reform-equity- market-structure-eliminate-regnms- and-build-venture-exchanges

George, A.L. and Bennett, A. (2005), *Case Studies and Theory Development in the Social Sciences*, MIT Press, Cambridge, MA.

Gomber, P. and Nassauer, F. (2014), "Neuordung der Finanzmaerkte in Europa durch MiFIDII/MiFIR", White Paper Series Nr.10.

Goodhart, C. (1986), "Financial innovation and monetary control", *Oxford Review of Economic Policy*, Vol. 2 No. 4, pp. 70-102.

Helberger, N., Micklitz, H.W. and Rott, P. (2021), "The regulatory gap: consumer protection in the digital economy addendum to the report 'structural asymmetries in digital consumer markets'".

Helleiner, E., Pagliari, S. and Spagna, I. (2018), (Eds), in *Governing the World's Biggest Market: The Politics of Derivatives Regulation after the 2008 Crisis*, Oxford University Press, Oxford.

Héritier, A. and Schoeller, M.G. (2020), *Governing Finance in Europe*, Edward Elgar Publ., Cheltenham and Northhampton, MA.

James, S. and Quaglia, L. (2019), *Brexit and the Political Economy of Euro-Denominated, Clearing*, Review of International Political Economic, pp. 1-23.

Karremans, J. and Héritier, A. (2020), in Héritier, A. and Schoeller, M.G. (Eds), *The Emergence of Transnational Hybrid Governance: How Private Risks Trigger Public Intervention*, op.cit., pp. 137-162.

Karremans, J. and Schoeller, M.G. (2020), in Héritier, A. and Schoeller, M.G. (Eds), *MIFID II between European Rule-Making and National Market Surveillance: The Case of High-Frequency Trading*, op.cit., pp. 32-51.

Knorr Cetina, K. and Preda, A. (2011), *The Sociology of Financial Markets. Reprint*, Oxford University Press, Oxford.

Lockwood, E. (2018), "Governing the world's biggest market: the politics of financial markets regulation after the financial crisis", in Helleiner, E., Pagliari, S. and Spagna, I. (Eds), *The Politics and Pracies of Central Clearing in OTC Derivatives Markets*, Oxford University Press, Oxford, pp. 168-198.

MacKenzie, D. (2019), "Market devices and structural dependency: the origins and development of 'dark pools'", *Finance and Society*, Vol. 47 No. 4, pp. 501-523.

Mattli, W. (2019a), *Darkness by Design. The Hidden Power in Global Capital Markets*, Princeton University Press, Princeton.

Mattli, W. (2019b), *Global Algorithmic Capital Markets. High Frequency Trading, Dark Pools and Regulatory Challenges*, Oxford University Press, Oxford.

Micheler, E. and Whaley, A. (2019), "Regulatory technology – replacing law with computer code", *European Business Organization Law Review*, pp. 349-377, doi: 10.2139/ssrn.3210962.

Miller, G.J. (2005), "The political evolution of principal-agent models", *Annual Review of Political Science*, Vol. 8, pp. 203-225.

Morgan, G. (2008), "Market Formation and governance in international financial markets: the case of OTC derivatives", *Human Relations*, Vol. 61 No. 5, pp. 637-660.

Morgan, G. (2009), "Legitimacy in Financial Markets: credit default swaps in the current crisis", *Socio-Economic*, Vol. 8 No. 1, pp. 17-45.

Peridis, P. and Héritier, A. (2021), "Policy effects and accountability: unbundling research and execution under MIFIDII", in Héritier, A. and Karremans, J. (Eds), *Regulating Finance in Europe. Policy Effects and Political Accountability*, Edward Elgar, Publ, Cheltenham, Northhampton, MA, pp. 38-70.

Pistor, K. (2019), *The Code of Capital: How the Law Creates Wealth and Inequality*, Princeton University Press, Princeton NJ.

Quaglia, L. (2012), "The 'ol' and the 'new politics of financial services regulation in the EU", *New Political Economy*, Vol. 17 No. 4, pp. 515-535.

Rauterberg, G. and Verstein, A. (2013), "Assessing transnational private regulation of the OTC derivatives markets: ISDA, the BBA and the future of financial reform", *Virginia Journal of International Law*, Vol. 54 No. 9, pp. 9-50.

Riles, A. (2018), *Financial Citizenship:experts, Publics, and the Politics of Central Banking*, Cornell University Press, Ithaca.

Schinasi, G., Craig, R.S., Drees, B. and Kramer, C. (2000), *Modern Banking and OTC Derivatives Markets, Occasional Paper*, International Monetary Fund.

Seddon, E.J. and Mattli, W. (2020), "Governing capital markets", in Abbott *et al.* (Eds), 2020, ibd., pp. 159-179.

Smolenska, A. and Héritier, A. (2021), "Critical Infrastructures (CCPs): political accountability and the policy effects of EMIR", in Héritier, A. and Karremans, J. (Eds), op cit., pp. 38-70.

Smolenska, A., Ganderson, J. and Héritier, A. (2020), in Héritier, A. and Schoeller, M.G. (Eds), *The Impacts of Technological Innovation on Regulatory Structure: Fintech in Post-crisis Europe*, op. cit., pp. 137-163.

Weingast, B.R. and Moran, M. (1983), "Bureaucratic discretion or congressional control? Regulatory policy-making by the federal trade commission", *Journal of Political Economy*, Vol. 91 No. 5, pp. 765-800.

Further reading

Bank for International Settlements, BIS (2020), "Quarterly monitor. Sept. 2020".

Ganderson, J. (2021), in Héritier, A. and Karremans, J. (Eds), *Fighting for Fintech: Competition, Regulation and Accountability in a Europe of Financial Innovation*, Op.cit, pp. 101-125.

Héritier, A. and Karremans, J. (2021), *Regulating Finance in Europe. Policy Effects and Political Accountability*, Edward Elgar Publ., Cheltenham, Northhampton, MA.

Prosser, T. (1970), *Law and the Regulators*, Clarendon Press, Oxford.

Smolenska, A. (2017), "Connecting and disconnecting critical financial markets infrastructures: oversight and regulation of CCPs after Brexit", in Allen, F., Carletti, E., Gray, J. and Gulati, M. (Eds), *The Changing Geography of Finance and Regulation in Europe*, Florence School of Banking and Finance, Florence, pp. 141-151.

Corresponding author
Adrienne Heritier can be contacted at: adrienne.heritier@eui.eu

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