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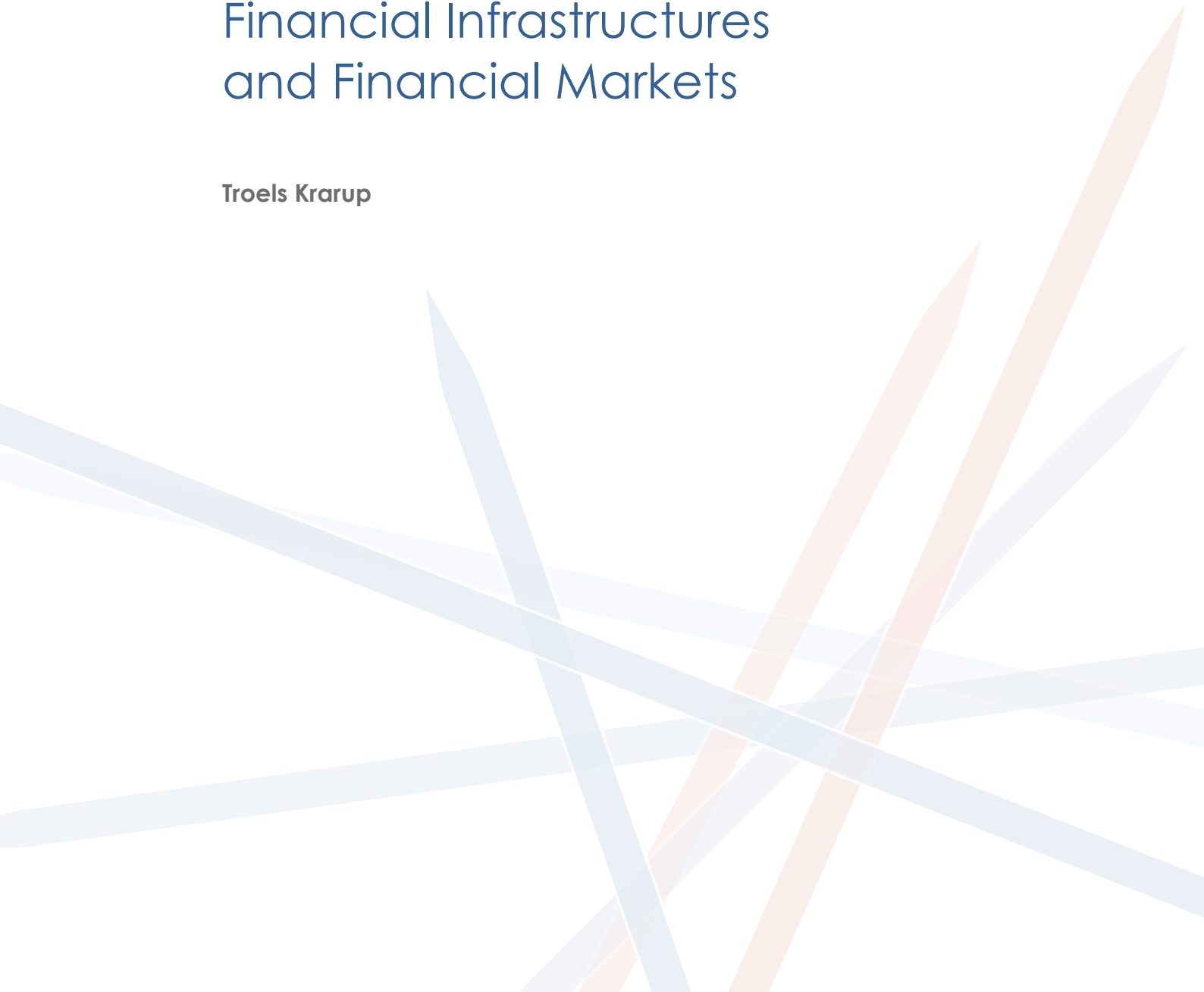
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# Economic Discourse and the European Integration of Financial Infrastructures and Financial Markets

Troels Krarup



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**About the author**

Troels Krarup is a doctoral fellow in sociology at the Max Planck Sciences Po Center on Coping with Instability in Market Societies, Paris.

Email: [troels.krarup@sciencespo.fr](mailto:troels.krarup@sciencespo.fr)

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## Abstract

European integration of financial markets appears to repeatedly encounter specific kinds of problems about the substance and limits of the notion of “the market” undergoing integration, and about the status and role of money, market infrastructures, and government within it. Moreover, these problems and the controversies around them parallel classical discussions in economic theory such as that between conceptions of the market as a frictionless space and as a process of competition. A “competitive conception of the market” is identified as producing these parallel problems and controversies in European market integration and economic theory because it implies a contradictory “integration of fragmentation.” These themes and parallels can be specifically identified in a recent major project to integrate financial market infrastructures: a pan-European settlement platform – “Target2-Securities (T2S)” – to overcome existing fragmentation between the systems that perform the actual delivery of money and securities from financial transactions. Moreover, a close analysis of T2S answers a question that existing sociological and political economy approaches to European integration – focusing primarily on the interests and ideas of powerful players – struggle with: why T2S will become de facto a monopoly for the European Central Bank when early on in the integration process EU institutions emphasized an industry-led integration. Foucault’s notion of “discursive formation” is employed to conceptualize these arguments.

**Keywords:** European integration, financial infrastructures, financial markets, money, discourse analysis, Target2-Securities, European Central Bank.

## Résumé

[Discours économique et intégration des marchés et des infrastructures financiers européens] L’intégration européenne des marchés financiers semble se heurter de manière répétée à un certain type de problèmes concernant la substance et les limites conceptuelles de ce « marché » en cours d’intégration, ainsi que le statut et le rôle qu’y revêtent l’argent, les infrastructures et la gouvernance publique. Ces problèmes et les controverses qu’ils soulèvent présentent un parallélisme avec des débats classiques de théorie économique tels que celui qui oppose les conceptions du marché comme espace sans frottements et comme processus de concurrence. Ce parallélisme de problèmes et de controverses observé entre intégration du marché européen et théorie économique est attribué ici à une « conception concurrentielle du marché » car celle-ci implique l’idée contradictoire d’une « intégration de la fragmentation ». Nous nous sommes plus particulièrement attaché à repérer ces thèmes et ces parallèles dans un grand projet récent d’intégration des infrastructures de marché financier : la plateforme paneuropéenne de règlement-livraison de titres Target2-Securities (ou T2S), censée surmonter la fragmentation des systèmes qui réalisent les transferts d’argent et de titres lors de transactions financières. L’analyse minutieuse de ce projet permet en outre d’avancer une réponse à une énigme que les approches habituelles de l’intégration européenne en sociologie et en économie politique (political economy) – principalement centrées sur les intérêts et idées des acteurs les plus puissants – sont bien en peine d’éclaircir : à savoir la raison pour laquelle T2S sera de facto un monopole de la Banque centrale européenne, alors que les institutions européennes privilégient depuis le début l’intégration par les acteurs privés. La notion foucauldienne de « formation discursive » est mise à contribution pour conceptualiser ces thèses.

**Mots-clés:** intégration européenne, infrastructures financières, marchés financiers, argent, analyse de discours, Target2-Securities, Banque centrale européenne.

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# Economic Discourse and European Integration of Financial Infrastructures and Financial Markets

## 1 Introduction

Despite the long process of European market integration since the *Treaty of Rome* (1958), the single currency (1999), and, most recently, the harmonization and liberalization of stock exchanges, efforts to create a single integrated financial market in Europe are still ongoing – with projects such as the Banking Union and the Capital Markets Union – and appear to still have quite a long way to go. Subject to less public and academic interest, the integration of core financial market *infrastructures* is still ongoing more than 15 years after the implementation of the euro. A provisional pan-European payment system, called Target, was set up between central banks in 1999; a more permanent one, called Target2, was implemented only in 2007. Another (bigger and more complex) project for the harmonized and integrated settlement of securities transactions (i.e., of stocks and bonds), called Target2-Securities (T2S), was initiated only in 2006 and is expected to be fully implemented by 2017. T2S is not a marketplace like a stock exchange; rather, it is a system that conducts the “practical” delivery of securities and cash through bookkeeping *after* trading has taken place. The seemingly non-economic and very technical character of financial infrastructures is arguably the principal reason why the social sciences have taken only very modest interest in them – even though infrastructure integration is considered a prerequisite for further financial market integration (e.g., European Commission 2015: 23). As a market infrastructure, T2S thus provides an interesting case for sociology to develop its understanding of markets and market integration processes – notably of the relationship and dynamics between what is seen as part of “the market” and what is seen as outside it or as being at the intersection between the market and the non-market.

T2S is surprising because it is fully owned and operated by the European Central Bank (ECB). Whereas core payment systems such as Target2 are generally owned and operated by central banks – because they are crucial in order for banks to make payments and trade reserves in a safe and efficient manner, and therefore also to the implementation of a single monetary policy – existing securities settlement systems are generally managed by private companies (sometimes for profit, sometimes not) and are often owned by the local stock exchange and/or the community of banks, sometimes with a certain share owned by the local central bank. Moreover, T2S is based on the insourcing of settlement activity – often an important source of revenue – from the private national and international providers. Finally, whereas the European Commission had previously

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insisted on an industry-led solution, it immediately welcomed T2S when the idea was first aired by the ECB in 2006. T2S thus not only seems to contradict the free-market principles of the European Union, but also the broader tendency during recent decades for the public sector to retreat from owning and operating infrastructures in general (electricity, telephone networks, etc.). According to its proponents, T2S provides safer, more efficient, and in the long term, also cheaper settlement on a harmonized basis for the entire Eurozone – exactly because it centralizes the settlement of securities transactions on a pan-European platform using central bank money.

This paper identifies and examines four controversies surrounding the T2S project which are seemingly different and unrelated beyond their trivial chronological relationship with T2S: one technical, one legal, one economic, and one political controversy. Revealing the deeper relationships between these controversies cannot only help us understand how T2S became possible despite conflicting with EU market principles, but also help us conceptualize the kinds of problems that European financial market integration efforts face and the kinds of solutions that will be available to them. More specifically, I argue that the four controversies all relate to fundamental problems in what I term “the competitive conception of the market” underlying integration efforts. This conception of the market is inscribed in treaties and statutes of EU institutions and views the market as a competitive sphere of exchanging individuals and firms. It is based on a conceptual tension or contradiction between, on the one hand, the *fragmentation* of competing market agents and, on the other, the *integration* of a uniform medium in which they can conduct exchanges. In order for a market to be “efficient” in the sense of economic theory, such a medium must connect all market agents on an equal and unstructured basis with no significant frictions, risk, or costs. In this sense, it must be “outside” the market – because markets are exactly where frictions are serviced, risk is traded, and costs remunerated on a competitive and therefore fragmented basis. However, the medium must at the same time be “inside” the market since infrastructures are themselves a service (of removing market “frictions”) that requires investments along with the appropriation of risk and costs, and which should therefore be remunerated and exposed to competition in order to be “efficient.” Briefly, the paradox of market integration is that it must be an *integration of fragmentation*.

Based on the analysis of the T2S project, I argue that this fundamental problem emerges in the conceptual relationships or boundaries between the market and non-market, particularly between the market and *infrastructures*, between commodities and *money*, between competition and *monopoly*, and between private and *public*. Moreover, the problem continually re-emerges in different contexts (technical, legal, economic, political) and produces tensions and conflicts as well as attempts to solve them – as in the case of the four controversies related to T2S and the solutions eventually provided for them.

Economic sociology has long argued that markets are “embedded” in society (Granovetter 1985). On the one hand, this paper supports the argument that “markets” are not the free-floating entities that neoclassical economic theory portrays them to be. On the

other, it focuses less on the socially situated but strategic pursuit of interests by individual actors and the ideational and institutional constructs of dominant agents – that is, away from the question of “who wins?” – and more on the question of how major processes of market integration are structured by the fundamental conceptions underlying what it is possible to know. By emphasizing a process of constructing a market along the lines of a certain conception of the market, the argument draws on the literature on the “performativity” of economic theory (Callon 1998). However, rather than tracing a single economic theory into markets or the more complex construction of a socio-technological “assemblage,” this paper demonstrates how more fundamental *problems* in the “competitive conception of the market” underlying European financial market integration continuously produce conceptual tensions and thereby political controversies that call for solutions – and do so in ways that are structured by the specific character of these problems. At least in the case of T2S, these problems revolve around the market/non-market distinction and touch upon the important relations between market and market infrastructure, competition and monopoly, money as a commodity and money as credit, and the role of the state in markets. These are *problems* in a strong sense: they are fundamental contradictions in the conception of markets that structure what it is possible to know, say, and think about the economy.

This argument has much in common with research identifying structuring aspects of economic thinking in economic government (e.g., Berndt 2015; Braun 2014), but introduces Foucault’s (2002) notion of *discursive formations* to conceptualize that which structures “the limits and forms of the sayable” (de Goede 2005: 9). More precisely, discourse analysis examines the problem structure that frames and shapes the formation of objects of knowledge, the intellectual operations, the concepts, and the theoretical options that are possible (Foucault 1991; see also Gutting 1989; Lima 2010). In contrast to other versions of discourse analysis that see discourse either as dominant ideologies (Kallestrup 2002) or as parts of broader social constructions (Smith/Hay 2008), a discursive formation in the Foucaultian sense is, rather, a conceptual space of knowledge that organizes the *relations* between *different* concepts, theories and even normative views, and thus both enables and structures the debate between them. As such, discursive formations or their constituent conceptual problems do not predetermine a specific outcome (such as T2S in the case of Europe). Similarly, “economic theory” as employed in this paper should not be understood as a coherent set of ideas and theories, but exactly as a field of different and conflicting perspectives structured in relation to a set of fundamental problems that in turn arise from the competitive conception of the market.

While there is substantial support in the material for the argument that the development and success of T2S can be explained by the integration agenda of the Commission in combination with the ECB’s strategy of pursuing its power interests in alliance with big finance, these explanations beg questions of their own. First, why did the Commission change its attitude completely in 2006 and embrace the creation of a central bank monopoly if its “ideational” profile is assumed to be stably based on market competition?

Second, why was T2S first conceived by the ECB as a solution to a seemingly small and technical conflict of little political salience and not at all as the important vector of integration that it soon became? In other words, more traditional sociological analyses of T2S would still need to account for what the *problem* was that T2S was conceived to solve, how that problem related to market integration, and how the structure of that problem made it possible for the Commission to make what looks like an ideological turnaround in 2006.

Section 2 outlines the discursive approach adopted in this paper. Section 3 presents the material analyzed and the analytical strategy pursued. Section 4 identifies the four controversies surrounding T2S. Section 5 discusses the strengths and weaknesses of more traditional sociological approaches in accounting for T2S. Section 6 further develops the analysis of the four controversies and links them to the discursive formation of economic theory, thus demonstrating the need for and analytical benefits from the discursive approach. Section 7 concludes.

## 2 Studying discourse

A discursive formation is founded in language and are structured by its own “rules” about the formation of objects of discourse (and thereby of knowledge), the intellectual operations that are possible, the formation of concepts and the relationships between them, and the theoretical positions and options available within it (Foucault 1991, 2002). Contrary to hermeneutical approaches, what is decisive about speech and writing from this perspective is not “meaning” in the sense of the intended message or emotional reality behind a given statement, nor “logic” in the sense of the formal content of a given proposition. Rather, it is the “enunciation” that derives its sense exclusively from its relation to other (possible) enunciations – that is, from its position within a given discursive formation (see Diez 2001 and Wæver 2009 for applications in the study of European integration). A discursive formation is a structured space of what it is possible to say, including designations of both the objects and the subjects of speech (see also Latour 1988). For instance, different scientific theories – indeed, the very distinction between scientific and non-scientific theories – are possible only within certain discursive formations and not within others (Foucault 2001). We may say that discourse analysis differs from both the “critical sociology” of Bourdieu and others that seeks to account for the interests and social institutions behind the conduct of individuals *and* from the “sociology of critique” that seeks to account for the ways in which individuals themselves mobilize motivations, justifications, and strategies in their conduct (see Boltanski 2011). Discourse analysis does not seek *causes* behind historical outcomes, nor *intentions* behind practices. Instead, it seeks to avoid the teleological pitfalls of such approaches by examining the tensions and dynamics within discourse itself as simultaneously structured and open-ended, aimed at a “critical understanding”



of EU policies (Diez 2001: 30; Foucault 2002, 1991; see also Hindess 1977). For instance, Beckert (2009) studies problems related to the concept of the market similar to those examined in this paper, but does so with reference to problems of social coordination that exist outside the conceptual problems themselves. By contrast, discourse analysis seeks to examine how these problems appear within a given discourse itself, and how references to, problems – of social coordination, for instance – appear within it as one of its constituent elements. In a similar way, discourse analysis differs from approaches that seek to uncover the social construction of economic knowledge (Fourcade/Khurana 2013; Gunten 2015; Polillo 2011). The idea is not to claim that nothing exists outside language, but to identify a specific object of study as well as a strategy to analyze it. In particular, like a related study (Panourgias 2015), this paper begins by identifying “controversies,” but seeks to take one step further by relating these controversies to the fundamental problems that structure them.

I combine this notion of discursive formations with Foucault’s later notion of “problematization” (Bacchi 2012; Osborne 2003). As an object of study, problematization refers to the discursive (and non-discursive) practices that establish something as a problem of knowledge and of control. As a research approach, problematization obliges the researcher not to subscribe to a particular vision of truth and not to respect boundaries – between different scientific disciplines and between science and non-science – but to consider “symmetrically” all enunciations about a given problem (see also Adler-Nissen/Kropp 2015). The kind of problems analyzed in this way – such as madness, sexuality, or, as in this paper, money and markets – is fundamental in the sense that “one can’t expect politics to provide the forms in which sexuality would cease to be a problem” (Foucault 1998: 114). On the other hand, the generality of the problems is not transcendental: it is not a fixed principle that simply varies between different epochs and contexts, but one that is constantly unstable and changing exactly because they are *problems* (Foucault 1984).

### **3 Material and analytical strategy**

Discourse analysis seeks to gather material (an “archive” of enunciations) that is as varied as possible from the discursive formation in question (Foucault 2002). For this purpose, 57 interviews with 70 persons were conducted in four countries: Germany and France, the two main countries involved in the T2S project; Belgium, a smaller country which is also a hub for major international players in the financial infrastructures sector; and Denmark, the only non-euro country to join T2S. They took place at different institutions that are involved in the T2S project in one way or another: national central banks and the ECB, national and international infrastructure providers, big and small banks, and, in one case, with the Commission (see the Appendix for an overview; any translations of interviews into English are by the author). Whereas the interviews

constitute the core of the material and the basis for the analysis, two other sources have been included: first, relevant reports from the involved institutions – notably documents mentioned by interviewees; second, economic theory which includes (a) studies of financial infrastructure integration in Europe and (b) classical debates over concepts and problems that also appear in the interviews and reports, such as competition and monopoly, market and state, money as a commodity and as credit, etc.

#### 4 Target2-Securities

Modern financial infrastructures have existed at least since the nineteenth century, when London bankers organized the multilateral clearing of checks (Millo et al. 2005; Munnies et al. 2011). In the 1980s and 1990s, most Western countries developed national Central Securities Depositories or CSDs to handle the settlement of national financial transactions in an organized way. CSDs “immobilized” the physical bonds deposited with them and could thus settle transactions by simple bookkeeping (no physical delivery; Norman 2007). National CSDs were often set up by – or under strong pressure from – national central banks. The result was generally that CSDs were highly automated and closely integrated both with central banks (settling in central bank money for maximum safety) and with the rest of the national financial system (for maximum efficiency).

However, national CSDs were rarely connected cross-border and did not possess the skills and resources to link between different technical and legal systems. Instead, global custodian banks like JP Morgan and Bank of New York Mellon, along with two international CSDs in Belgium and Luxembourg, provided settlement and other securities services for cross-border trading on a for-profit basis (Norman 2007). However, with the advent of the euro and with the continuous efforts to integrate European financial markets, the European Commission concluded that cross-border settlement was generally less safe, and less efficient – and, as a consequence, also slower, more costly, and more fragmented (Giovannini Group 2001). The European Commission was clearly dedicated to further integration both as a treaty obligation and as a lever for economic growth, but insisted that it should be industry-led (European Commission 2004; Lamfalussy Group 2001; McCreevy 2006). For instance, the *Treaty of Maastricht* (EU 1992: Art. 3.a) establishes the “principle of an open market economy with free competition” as foundational for policy which is also referred to in the *Statute* of the ECB (EU 2012: Art 2). Norman (2007: 103) argues that Commission documents from 1998–1999 suggest that it believed that “financial integration was ‘within reach’ and suggested that the post-trade sector could be left to market forces.”

By insisting on industry-led integration supported by regulatory harmonization, the Commission was largely in line with economic studies of the European integration of financial infrastructures which saw the sector as – or at least approaching – a “natural monopoly” with its high “economies of scale” and “network externalities” (Milne 2007; Serifsoy/Weiß 2007; Van Cayseele/Mededinging 2004). Yet these studies unanimously warned against the creation of a monopoly – that is, against the creation of a single European CSD. The problem was not economic efficiency, but the concern that *innovation* – or what they call “dynamic efficiency” – would be hampered in the sector if there was no competitive pressure.

Nevertheless, only one considerable private integration effort occurred. In an ambitious project, one of the ICSDs, Euroclear, started acquiring national CSDs in order to integrate them on a single platform (see Panourgias 2015). While it was initially crowned with success in the integration of the French, Belgian, and Dutch CSDs, it soon encountered problems advancing with the English, Irish, Finnish, and Swedish CSDs that it had also acquired (Interview 16). By 2005, both Euroclear’s project and the Commission’s attempt to remove barriers to integration had stalled (Interview 17).

It was in this climate that T2S emerged in 2006, as the ECB announced that it was “evaluating opportunities to provide settlement services for securities transactions” (ECB 2006). Charles McCreevy (2006), the Commissioner for Internal Markets and Services, was immediately welcoming. Two years later, the T2S project was launched by the Governing Council and the ECB as “a major step forward in the delivery of a single integrated securities market” (ECB 2008a). This is surprising not only because T2S would be owned and operated by the ECB – a public actor – but also because it would imply the “insourcing” of settlement activity which was an important source of revenue for the mostly private CSDs. One interviewee thus reports that settlement accounts for about 30 percent of turnover in his CSD (Interview 24). T2S thus clearly broke not only with the previous line of integration, but was also seemingly at odds with the very principles of European market integration.

In an attempt to understand how this shift was possible, the following four subsections trace the process leading up to the conception of T2S in 2006 and follow the different phases of the project up until the first implementation wave in 2015. In doing so, they identify four different controversies that occurred around T2S: a technical, a legal, an economic, and a political controversy. Sections 5 and 6 analyze and discuss the controversies in greater detail.

## Who creates central bank money? The technical controversy over “Delivery versus Payment”

Despite quickly being turned into a project to relaunch integration, T2S was not first conceived to this end. During the 1999–2006 discussions about integration, when Euroclear was pushing its single platform initiative, “the ECB was not really involved, they were interested but they were not the overseers and regulators. What happened was that the ECB was very involved in one particular topic: DvP. That is what generated T2S” (Interview 52). DvP stands for “Delivery versus Payment” and refers to the *simultaneous* payment of central bank money and delivery of securities in the settlement system (i.e., when trades have been concluded on the stock exchange or elsewhere) to avoid any risk of default sneaking in between the two. Yet, this apparently simple principle was implemented in different ways in different countries (see also Quaglia 2010: 121–122).

In most countries, notably in Germany, the private CSD was “interfaced” with the central bank, meaning that a series of messages were sent between the two systems. Because messaging comes at a cost (see Scott/Zachariadis 2012), these systems would not settle individual transactions in real time, but accumulate transactions in “netting cycles.” By contrast, the French central bank had allowed the private CSD to manage special central bank cash accounts for settlement purposes. This enabled “integrated” DvP settlement because both cash and securities accounts were in the same system. The CSD could therefore settle transactions in real time and was generally considered both safer and more efficient (see Riles 2004). However, inflow and outflow of payments are never evenly distributed through the day, and one failure to pay in time may cause a chain of failures by those who expected inflows from the first one. To avoid a temporary lack of cash, the French central bank had allowed the private CSD to create free-of-charge, intraday central bank settlement credit (to be reimbursed by the end of the day). Later, Euroclear implemented the technique for the Belgian and Dutch CSDs as well. In view of increased competition between CSDs in Europe, this sparked a tense conflict in the Eurosystem because the technique was seen by some as “heretic” outsourcing of central bank accounts (Interview 27), but also as monetary creation<sup>1</sup> to a private agent (Interviews 14, 44, 51). The French, Dutch, and Belgian central banks, on the other hand, would not abandon the model which they saw as more efficient, insisting that it was absolutely safe with all possible controls in place.

From 2004 to 2006 the conflict did not come to a conclusion. Then, an ECB staff member (with a background in the French CSD) came up with the idea that instead of outsourcing credit creation to CSDs, the central banks could “insource” securities settlement

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1 It should be noted that some central bankers insist that intraday credit is not money creation – only overnight credit is (Interviews 27, 40). Yet intraday credit is automatically rolled over into overnight credit if not repaid (with a penalty rate of interest), and some interviewees did refer to the controversy as one about outsourced money creation which should be avoided on principle (Interview 44, 48). I hope to treat this issue in more detail elsewhere.

from them (Interviews 27, 29, 51). This was the only solution acceptable to both camps, because it would enable integrated DvP under central bank control (Interview 29). The ECB Board accepted the idea, but insisted that “we need to put it differently because we cannot simply say we will take business away from CSDs. ... But we can say that it is European integration of the post-trade market” (Interview 51). The official objective of T2S thus became “to facilitate post-trading integration by supporting core, borderless and neutral pan-European cash and securities settlement in central bank money” (ECB 2015: 24). In this way, a technical debate down in the engine room of the central banks led to a large political project of market integration.

### Things are not what they seem: The legal controversy over the Legal Assessment

The adoption of the T2S idea soon led to the second of the four controversies. The ECB conducted a *Legal Assessment* to *determine* if and on what legal grounds T2S was feasible (ECB 2008b). Unsurprisingly, the CSDs were not happy about handing over core business activity to the central banks: “You never say: ‘I don’t like it,’ because that is weak. ... So they said: ‘Actually it is not so much that we don’t like it, but legally we can’t do it’” (Interview 54). Euroclear in particular, with its consolidation project underway, was unwelcoming. Moreover some member countries saw T2S as “an intrusion of the public sector into the private sphere” (Interview 27). A key question was the interpretation of the *Statute* of the ECB, which states that central banks “shall act in accordance with the principle of an open market economy with *free competition*, favoring an *efficient allocation of resources*” (EU 2012, italicized by the author). This formulation obviously leaves little room for the creation of public monopolies. However, if settlement infrastructures are “natural monopolies,” as we have seen, the juxtaposition of competition and efficiency may not hold.

Surprisingly perhaps, for the legal lay person, the ECB (2008b) argued that although T2S is a system that settles securities, it would not be a “securities settlement system” in the legal sense. Instead, T2S would be “a purely technical platform providing specific services to central securities depositories” (ECB 2008b: 1). Another puzzling argument was that although T2S would provide “final settlement” in the legal sense of being binding, in another sense it would only be technical settlement because the CSDs would remain responsible for the securities (cf. ECB 2008b: 7–9). These arguments provided important support for T2S. First, since T2S would only conduct “technical settlement,” it did not “envisage the outsourcing of CSDs’ core functions,” – i.e., of final settlement (ECB 2008b: 5). Many national jurisdictions distinguished between critical and non-critical CSD functions – the latter being open for outsourcing but the former not. Second, describing T2S as a “facility” was convenient because Article 22 of the *Statute* of the ECB states that it “may provide *facilities* ... to ensure efficient and sound clearing and payment systems” (EU 2012, italicized by the author).

One CSD interviewee doubts the legal validity of the arguments, but says it would have been futile to pursue protracted legal action (Interview 14). Another calls the idea of outsourcing “ridiculous,” claiming that they “had to hand in part of their business” (Interview 24). The legal validity, however, is not for me to decide. The important thing to note is that the legal *problem* was about matching the concepts of market, infrastructure, competition, monopoly, efficiency, public, and private.

### In the market or outside the market? The economic controversy over cost recovery

The legal assessment prevailed and gave way to the third controversy around T2S when the “insourcing” contracts had to be signed by CSDs and central banks. The ECB gained support from the big European custodian banks – notably BNP Paribas. These would benefit from a more harmonized environment in which they could provide custody services at a lower cost (Interview 13).<sup>2</sup> As noted, the CSDs were not happy about losing a vital source of revenue, but in addition, T2S would create competition between them because banks would (ideally) be able to hold and settle all their European securities in just one CSD. Many CSDs might not survive such competition, especially given the “monopolistic nature” of the sector. The support of the big custodian banks was important because they were the main shareholders of Euroclear and could therefore push it to the table, as they eventually did (Interviews 27, 51). Similarly, the smaller CSDs came under pressure from the national central banks (Interview 43).

The CSDs still objected that the ECB had no legitimacy to compete with private providers and make profits on an unequal basis. Therefore, T2S became based on a principle of “full cost recovery” operating on a “not-for-profit basis” (ECB 2007: 6). The principle of cost recovery “was also how T2S was sold to the reluctant Member States and to the Parliament by saying ‘We are not outside the market but in it because we will recover our cost’” (Interview 27). Similarly, when CSDs later raised demands in the negotiations, claiming their rights as outsourcers to do so, the central banks would say: “Listen, we are not IBM, we offer services at cost price, we are not making profits but do it to improve the market structure” (Interview 17). Thus, T2S would align benefits with costs by charging fees from users and thus be *inside* the market – rather than a subsidy to selected companies or an unfair competitor. On the other hand, T2S is still *outside* the market exactly because it is a public monopoly that is not allowed to make profits.

In order to achieve cost recovery, the ECB committed to 15 cents per transaction – a “low” fee compared to the transaction fees of CSDs thanks to “economies of scale” (ECB 2015: 19). CSDs argued that this comparison is unfair since T2S provides *only* settlement, and that the 15 cents would be charged *on top* of CSD fees (Interview 36).

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2 T2S will also increase the mobility of collateral. I hope to treat this topic elsewhere.

Custodians saw it as “a false topic” altogether because without T2S, twenty-two national settlement systems would need frequent costly updates (Interview 31). Later, transaction volume forecasts dropped in the wake of the financial crisis. The ECB extended the cost recovery period from 8 to 10 years (Interview 27) and introduced fees on “a lot of services that we thought would be part of the package [laughs]” such as updating the browser to have your cash balance (Interview 22). The attempt to walk the fine line between subsidy, profit, and cost neutrality was not that easy indeed.

### Ferrari on a bumpy road: The political controversy over harmonization

The low transaction fee was the last effort necessary to push the CSDs on board, and the *Framework Agreement* was signed in 2012. However, a fourth controversy soon emerged. The ECB gradually realized that although T2S would simply provide “technical settlement,” substantial legal harmonization was needed in order for T2S to be effective (Interview 11).

One problem was that, as a market standard, two days pass between trading and settlement. This gap exists to allow time for non-automated and complex cross-border settlement to take place (Interview 17). But what if there is a dividend payment and it is mistakenly paid to the seller – what set of legal rules apply and how is it going to be settled? Such issues are

of an absolutely unbelievable complexity. ... [But] if there is no regulatory harmonization behind T2S, it will be like having a Ferrari but driving small country roads with bumps on them. If you want to drive 250 you need a track, a circuit, something completely flat. (Interview 14)

The Commission’s encompassing new *CSD Regulation* helped, but many issues remained. For instance, Germany had to move firms’ dividend payments one additional day from their annual general meeting – a seemingly trivial change which nevertheless caused opposition from the *Mittelstand* of thousands of unorganized German middle-sized companies. One interviewee recounts: “I can tell you that at the beginning of 2014 I doubted whether we would achieve it” (Interview 55). Not admitting a major country like Germany onto the platform because of a lack of harmonization was impossible, so in order to speed up harmonization, the Eurosystem introduced what one interviewee called the “name and shame” method (Interview 55), listing all harmonization points for each country in the yearly *Harmonisation Progress Report* with red, yellow, and green fields. The list was “widely published, commented by Mario Draghi, etc.” (Interview 55). Eventually the strategy succeeded, and T2S was launched as planned with the first of four CSD “migration waves” taking place in June 2015. The seemingly simple technical project of T2S thus had deep and wide legal consequences, reaching into seemingly unrelated domains like the organization of the companies’ annual general meetings.

## 5 The limits of existing approaches

Most studies of European market integration have been conducted in the fields of political economy and European integration studies, which generally seek to explain processes of European integration as the outcome of interplay between the interests and ideas of the powerful players involved. For instance, Jabko explains that the integrationist strategy of the European Commission was centered on a purposefully inclusive and open-ended notion of “the market” which served to “bring together many actors behind the European cause” (Jabko 2006: 2). Story and Walter (1997) emphasize the role of national politicians and bureaucrats, while Grossman (2012) observes a shift in the power balance in favor of the European Commission when international capital had grown sufficiently powerful for European solutions to be indispensable. Quaglia (2010) and Mügge (2010) advocate a more dynamic vision of shifting coalitions between states, European institutions and major firms.

In support of such a perspective, we have seen that T2S was welcomed as a project that clearly supported the Commission’s agenda of financial market integration at a time when perspectives were rather dim. Several interviewees evoke the ideological and integration objectives of the EU institutions as set down in the *Treaty of the European Union*. Moreover, the ECB clearly succeeded in expanding its power and scope of influence by taking on a major project in a field in which it had not yet been involved. Furthermore, it did so only due to an alliance with some of the biggest financial market players in Europe (who will gain considerably from T2S), against the interests of a comparatively small infrastructure industry.

Yet, the explanatory logic also encounters some important problems. First, it tends to let the successful outcome of T2S look like a natural development. But at no point was it certain that T2S would be a success. We have seen how controversies throughout the project threatened its achievement. It is also noteworthy that similar projects failed (Drummond 1999; ECB 2012). Second, if T2S is the product of EU integration ideology, then why did it have to be a public monopoly? Finally, if T2S is the product of ECB power interests, then how do we account for the fact that it was not originally conceived in that context? What was the *problem* that T2S sought to solve? Furthermore, how are the different specific problems or controversies (technical, legal, economic, political) related?

Alternatively, from the traditional perspective of economic sociology, it could be argued that T2S is a case of how states – or rather European institutions – help “to construct markets” by institutionalizing and setting up rules for competition and corporation (Fligstein 1996: 173). Such an approach would emphasize the role of action taken by individuals such as the ECB staff in a specific “organizational context” in order to understand “what their projects might be” (Fligstein/Stone-Sweet 2001: 33). According to this literature, the difficulties and controversies over what “the market” is, and what roles of the central bank and market infrastructures play in it, would be evidence of markets



not being as autonomous from society as certain economists pretend they are. However, having identified the main actors, situated them in a bargaining process over market integration, and shown how the conception of the market is actually flexible according to their changing interests and strategies begs the question of why the problems faced in the four controversies were all seemingly “economic” rather than “social” – concerning, as it were, monetary creation, public or private production, cost, and the legal framework of the market.

Finally, one might turn to the social studies of finance for an approach that is more attentive to the role of economic concepts and theories in processes of constructing and changing market realities. In its early formulation, this tradition drew on speech act theory to argue that the often “unrealistic” assumptions of economic theory can become real when economic theory is “performed” in markets (Callon 1998: 22; see also MacKenzie 2006). Yet, no single specific economic theory seems to lie behind T2S. Later, social studies of finance have developed a more complex notion of *performance* by *agencements* – French words referring to the complex of action in the socio-technological ensemble of human and non-human actors (ibid. 2008: 320; see also Callon/Millo/Muniesa 2007). Whereas the present work has been inspired by this tradition’s emphasis on technological details and the importance of economic theory, it is not clear how the notion of *agencement* would further the analysis at this point. Indeed, this problem seems to identify a limit to many studies in this tradition. Panourgias (2015) identifies a series of controversies around Euroclear’s consolidation project, but he arguably fails to determine the deeper relationships between them. Riles (2004) abandons her analysis of the whole tension between real time and net settlement halfway in favor of Japanese family relations. In their study of clearinghouses, Millo and colleagues (2005: 243) point to “the failure to maintain an effective boundary between trading and clearing,” but do not develop their analysis of the conceptual problem of separating markets and settlement.

Whereas these existing approaches have clearly identified important tensions in relation to the conception of “the market,” they would not be able to analytically link the different problems and controversies that emerged across different domains (technical, legal, economic, political) in the T2S project. In the following section, drawing on discursive analysis, I seek to link and develop these problems in a systematic manner with respect to T2S.

## 6 Economic discourse and European integration

What we have observed so far about the centrality of the flexible, paradoxical or contradictory concept of “the market” at play in the integration process around T2S is well summarized by one CSD interviewee who remarks with irony:

We said: “Wait a minute, this is not logic because on the one hand you acknowledge that to have a unified and efficient European capital market you need one CSD, and then you want more competition?” And the Commission escaped by an intellectual pirouette saying: “Yes, but the competition is an intermediary step that will lead to consolidation” [laughs], which is a bit easy to say. (Interview 14)

On the one hand, the market is about competitive *fragmentation* between different products, services, suppliers, and customers. On the other hand, it is about the *integration* of a safe and “frictionless” medium in which these fragmented parts can be exchanged. In the case of T2S, the paradoxical definition of a market as the “integration of fragmentation” takes the shape of a fundamentally problematic relationship between *markets* and market *infrastructures*. According to the ECB, integrated infrastructures are needed in order to create a “level playing field” for markets to develop and prosper (ECB 2015: 25). However, infrastructures themselves are also a market – or at least they were before the ECB insourced settlement; or will be, when T2S introduces competition. One could, of course, argue that one market provides the infrastructures of another market – for instance, in the way that the market of Internet providers creates the infrastructure for the market of electronic commerce. However, this would not explain why this issue continuously returns as a problem in the T2S project. The problem is in the contradictory conception of the market. Let us consider each of the four controversies more closely in order to demonstrate this.

### The four controversies revisited

First, what is important to note about the technical controversy over DvP is that it was fundamentally about the concept of money, and specifically about central bank money. The reason why money is important in infrastructures is precisely that – in the vocabulary of economic theory – money is a “medium of exchange.” In order to create efficient markets, central banks want this medium to be as efficient (frictionless) and safe (riskless) as possible. Central bank money is the only safe asset, but a problem then emerges of whether central bank money is itself a commodity in the market, or rather a medium and an infrastructure outside it. The problem is that it has to be both. In the perfect barter economy with fully transparent markets, utility functions and future, there is no money (Arrow/Debreu 1954). But as soon as markets and commodities are conceptualized as qualitatively different and stratified – that is, as soon as *fragmentation* is included in the conception of the market, “frictions” occur, and money becomes a special commodity that can mitigate that problem and *realize* that perfect market state (Brunner/Meltzer 1971).

There is another dimension to the issue that further complicates the picture. Modern money is also credit, and as such it is ideally a pure bookkeeping system that registers debit and credit positions. In the French integrated DvP model later adopted for T2S,

central bank credit was created free of charge when needed for settlement purposes. It is not a commodity in the sense of an asset which exists prior to exchange. As a bookkeeping system – like a Walrasian auctioneer – money should be riskless and frictionless: that is, a fully integrated system (which requires an enormous effort to create) under the control of the central bank. And yet, money would still be a commodity exactly because it is used to settle exchanges. As such, it would have to circulate in the market as well. To my great surprise, after having learned that the DvP conflict was centered on the outsourcing of central bank money creation, an interviewee suddenly told me that such intraday settlement credit is not money at all (Interview 25). Money is only credit that lasts overnight, he explained. The distinction is paradoxical but important. Although both are central bank liabilities used for final settlement (i.e., intraday credit is money in the hands of the receiver), intraday credit is provided *automatically* and *free of charge* whereas overnight credit is a loan that pays an interest. Intraday credit is money as an infrastructure, as a pure bookkeeping system, while overnight credit is money as a market medium, as a commodity. However, this is a fundamentally problematic distinction. For instance, if intraday credit is not reimbursed, it will automatically be rolled over into an overnight credit – but at a penalty interest rate in order to avoid this technique being used except in urgent situations. The argument here is not that intraday settlement credit creation is “really” monetary creation or that there are important “spillover” effects from the one to the other. This may be, but most likely is not the case. The argument is that it is not because markets and infrastructures are different matters that such an effect would be hard to find, but because they are inextricable as problems – so great effort is made to keep such an effect from occurring. Similarly, we may say that settlement preferably takes place in central bank money because this is the only asset that can be traded in financial markets while being simultaneously anchored outside these markets, as a riskless and all-encompassing medium. Contrary to certain debates within the “sociology of money” literature, the argument here is thus not whether money is “really” or “fundamentally” a commodity, a state credit or a social fact (Ingham 2004; Lapavitsas 2005; Zelizer 1989). Rather, the contradictions between these different definitions in the concept of money concern one of the core characteristics of the discursive formation of economic theory of which European market integration is a constituent part.

Second, the legal controversy around the *Legal Assessment* concerned whether the public sector could take on private activity. The problem, as conceived by economists, was that since infrastructures are natural monopolies this may be more efficient in reducing cost but not in promoting innovation. But settlement is not just a market among others that happens to be a natural monopoly. Markets need settlement as *infrastructures*, not in a banal sense of inputs, but as “connections” between private parties through which they can exchange. Moreover, in order for the market to be “efficient,” these connections must include *everyone* on an *equal* basis as a “level playing field.” But as such, settlement infrastructures cannot be part of the market itself because that would imply their stratification and fragmentation. The question, then, becomes to sort out which activities are (or should be) part of the market and which belong to infrastructures. As a service (for

removing frictions) they are an economic activity involving investment, cost, and risk; but as infrastructures they are there for the express purpose of eliminating these things from the “moment” of exchange (as opposed to that of trading). From this perspective, it was possible for the Commission to change opinion about whether integration of settlement systems should come from competing firms or in the form of a central bank monopoly, because the concept of (public) monopoly is already present in the concepts of (private) competition and market integration. The legal arguments provided by the ECB only made this easier. The seemingly big shift in opinion thus turns out to be rather small – in the same sense that the seemingly small issue of DvP resulted in a major integration project. Indeed, the distinction between big and small questions seems to lose its meaning when one examines discursive problems (see also Latour 2005 on the classical micro-macro distinction).

Third, the economic controversy over ECB fees which led to the commitment to a principle of cost recovery was over the question of whether central banks (or other public actors) can make profits on the services they provide. Paradoxically, if they do, the “public” sector is in “competition” with “private” players *in* the market, and if they do not, they are “subsidizing” or at least promoting some market agents on behalf of others (e.g., big custodian banks on behalf of small CSDs). The principle of cost recovery is the attempt to balance on the razor’s edge between the two. Yet it does not reconcile the tension between remuneration and non-remuneration of public services and investments. Only the market – understood as a competitive sphere of private exchange – can be “profitable.” But the state or the public sector is also economically active; it endures “costs” and takes on “risks,” which are supposed to be traded and remunerated as commodities in the market (e.g., Black 2009). The double nature of banks as both dealers in credit (market) and providers of payment services (infrastructure) is another case of the same problem, as are global custodians and private CSDs in connecting markets.<sup>3</sup>

Economic theory has a reputation of seeing the state as an opposing or outside force to the market, but the analysis here suggests that the competitive conception of the market *implies* a certain notion of “the state.” From the perspective of discourse analysis, Walras’s auctioneer, Lucas’s (1972) fiat money provider, Black’s (2009) provider of the riskless asset, and even Keynes’s (1965) stabilizer of aggregate demand are all concepts that seek to remove the tension between market and infrastructure from the concept of the market itself so as to ensure its status as a “level playing field.” We may say that some notion of a powerful non-market actor (in this case the ECB) was already implied in the original idea of European “market integration,” and that T2S is the result of a process of tensions and conflict ensuing from that problem. This is different from seeing

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3 From the perspective of discourse analysis, this is perhaps why finance in economic theory can simultaneously be neutral “intermediation” and the most perfect market because it trades abstract “risk” (cf. Black 2009).

European market integration as simply an ideological project, since the discursive formation of economic theory does not necessarily make everyone a free-market fanatic. Several interviewees are good examples of this (see also Braun 2014):

There are many ways of organizing a market. The optimum in my opinion ought to be [pauses]. I may shock you, but the optimum should be largely defined by public authority in my opinion. (Interview 36, clearinghouse executive)

In Europe we have an approach based on governmental sovereignty, meaning that no matter whether you are conservative or socialist, the state has a role in the transfer of value between people. I personally find it logical that it is a governmental structure that operates T2S, that is, the Eurosystem – that it is not a commercial enterprise. (Interview 31, major custodian banker)

Although resembling the Polanyian view that markets run themselves to death on intrinsic paradoxes if not structured by society, the critique of economic theory in this paper differs both from the view of traditional economic sociology – that economic theory is based on “unrealistic” assumptions – and from the performativity thesis that these assumptions can become “real.” Correspondence between language (economic theory) and reality (markets) is not the question here; rather, our concern is with discursive structures. Economic theory assumes a conception of markets that it shares with the European project for market integration, but which relies on fundamental problems that continuously create tensions and conflict around the notions of infrastructure, money, monopoly, public services, and so on.

Fourth, the political controversy over the legal harmonization necessary to make T2S realize its potential was centered on the wide-reaching consequences of the seemingly simple project to “technically” connect different markets. The problem of making isolated units carry out exchanges requires more than establishing contact – that is, much more than an integrated infrastructure in a purely technical sense: it requires the organization and concertation of massive economic systems. Endless chains of small but complexly interconnected and therefore wide-ranging legal and technical differences have to be “levelled.” If “frictions,” such as the German organization of dividend payments, are not removed, settlement will be a source of risk – which is exactly what integrated infrastructures are intended to remove. Risk is to be traded in the market at a price, not slowing down and threatening the market in its practicalities. The need for harmonization, therefore, illustrates the problem that entire *systems* have to be integrated into a single consolidated system in order to remove frictions.

## 7 Conclusion: On the competitive conception of the market

This paper has shown that the European Union's seemingly general and abstract ambition of "market integration" by the European Union in fact commits it to a specific and wide-ranging discursive formation based on the competitive conception of the market and implying a specific structure of ensuing problems and possible solutions along which specific projects such as T2S can be negotiated and developed.

Whereas authors from political economy, traditional economic sociology and social studies of finance have pointed out how the concept of the market is fundamentally problematic in different ways, I have elaborated on that analysis, showing that the conception of markets as a competitive sphere of exchanging individuals, foundational to the discursive formation of economic theory and inscribed in European financial market integration processes, implicitly relies on a "medium" or an "infrastructure" in which exchange can take place. Paradoxically, however, this medium simultaneously *has* to be and *cannot* be part of the market itself. This is because, on the one hand, in order for market exchange to be efficient, this medium must be riskless, frictionless and costless and connect all traders on an equal basis. On the other hand, however, the establishment of such a medium itself requires substantial investments and involves the provision of services, while it also has to be *in* the market in order to process exchange. This creates a problem that is bound to emerge again and again – even in different shapes and contexts. It can occur in technical, legal, economic, or political contexts. It can occur as a tension between public and private, between markets and market infrastructures, between finance and the "real" economy, between economy and society. Attempts can be made to solve it with concepts of money, infrastructures, the state or even that of the market itself. This is also how the four controversies identified around T2S are discursively related and structured – beyond the trivial fact that they occur chronologically in relation to the same project.

A discursive formation is non-teleological in that it is not based on predetermining causal mechanisms or the realization of some set of intentions or ideas. Furthermore, it is not dominant ideology (such as free-market dogmatism), nor an inevitable necessity (such as economic laws). It is not even necessary that agents "believe" in the existence – even ideally – of a "pure" market. What is necessary is that the conception of such a market is structuring the problems and conflicts that the agents encounter. A discursive formation is the structure of what it is possible to know, say and conceive in relation to a given problem. As such, it enables and structures the possible debate and conflicts between different views and different (economic) theories. Furthermore, it does not allow us to distinguish *a priori* between big and small questions, political and technical questions, or theoretical and practical questions. The analysis of this paper has demonstrated that these principles help identify aspects of European market integration that other approaches would most likely miss. They allowed very general problems of economic theory to be traced even in the technical domain of financial infrastructures that simply provide the "practical" delivery of money and securities *after* trading has taken place on

“the market.” This supports the argument that the competitive conception of the market is foundational to European market integration, and that the tensions and contradictions intrinsic to it therefore continuously produce and structure not only problems and conflicts, but possible solutions as well. Future studies will most likely be able to clarify how the discursive formation of economic theory structures related processes such as monetary policy, post-crisis financial market regulation, or the Capital Markets Union project. These phenomena cannot meaningfully be understood exclusively as the outcome of political negotiation between powerful actors with fixed or flexible interests and ideas, even if one includes non-human actors. We must also examine the discursive formation that makes such negotiations – as well as the mere conception of problems and conflicts – possible in the first place.

## Appendix: Interviews

I conducted fifty-one interviews with a total of seventy interviewees from December 2013 to May 2015; of these, forty-five were conducted between June 2014 and March 2015. The interviews lasted an average of about one hour and forty-five minutes, with eleven exceeding two hours. All interviewees were promised anonymity. The exact meaning of this, however, was often negotiated during the interviews. I initially proposed anonymizing names, but several interviewees explicitly required that I not mention the name of their institution, either. This has complicated the writing somewhat and had an impact on the transparency of the data. There is only one central bank and one CSD (Central Securities Depository) per country, for example, and each EU institution is totally unique. In the cases where an interviewee requested his or her institution not be named, it is thus not possible to report, let's say, that a quote or piece of information is from an interview with a German CSD employee or a French central banker. I have decided to fully comply with these restrictions only when quoting interviews where total anonymity was explicitly requested, but because some interviewees made this stipulation, I cannot provide a complete list of interviewees with their country and institutional affiliation, nor can I crosstab the two. What I can provide is the number of interviewees by country and by sector in Tables A-1 and Table A-2 below.

Table A-1 Interviews per country

	Interviews	Interviewees
Germany	14	19
France	15	16
Denmark	19	24
EU institutions <sup>a</sup>	4	4
Belgium	4	6
Greece	1	1
Total	57	70

a European Central Bank and European Commission.

Table A-2 Interviews per sector

	Interviews
Central Bank	20
CSD and ICSD <sup>a</sup>	10
Bank	19
Other <sup>b</sup>	8
Total	57

a Central Securities Depositories and International Central Securities Depositories.

b clearinghouses, stock exchanges, covered bond institutions, banking federations, and regulators.



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