

Integrating Europe's Back Office 10 years of turning in circles

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The financial crisis has sharpened the debate on Europe's back office architecture. This paper reviews the ECB's decision to proceed with its Target 2 Securities (T2S) project, which aims to establish a common IT platform for securities settlement, reducing differences between current infrastructures. The apparently solid configuration of the project shakes, however, when we closely examine the impact of this common infrastructure on the competitive landscape. Notably, non-discriminatory access to the platform (low barriers to entry), clearer and independent governance, and full participation by Central Securities Depositories (CSDs and ICSDs) are essential conditions to ensure the initiative's success. The paper also examines the possibility to build a level playing field for CSDs in Europe and evaluates the ESCB/CESR recommendations, discussing the progress achieved with the industry's Code of Conduct and evaluating, as follow-up to the financial crisis, the relative merits of multiple vs single Central Counterparty Clearing (CCP) in OTC markets.

The financial crisis sharpened the debate on Europe's back office architecture. Ten years after the launch of the Giovannini group, which first sparked the debate about the inadequacy of the European framework, it seems that we are finally moving towards a more harmonised regime for clearing and settlement (C&S) providers in the EU. This inability to advance on what seems an arcane issue initially benefited the European Central Bank (ECB), which decided in July 2008 to go ahead with its Target 2 Securities (T2S) project. In the face of a disunited front of market participants, the ECB had a fairly easy task in creating a securities settlement monopoly – not exactly part of its mandate as described in the Maastricht Treaty. The direct access to T2S however re-ignited the debate on the minimum standards for European clearing and settlement (C&S) operators, discussions which had stalled since 2004.

With the launch of T2S, other issues have come to the forefront. These concern the relationship between T2S and the non-eurozone EU member states and third countries, the European architecture for central counterparty (CCP) clearing, the treatment of derivative instruments and the impact of this infrastructure on the future competitive landscape in the post-trading sector. In addition, the crisis has highlighted the importance of safety, soundness and effectiveness of C&S but also the need for more transparency, and the benefits that would arise from a more

robust post-trade infrastructure in OTC markets, in particular CCPs for credit derivatives to reduce counterparty risk and information asymmetries, e.g. credit default swaps.

Although the subject is highly specialised and the know-how limited to a few circles, clearing and settlement has been at the centre of an intense debate in recent years.¹ This could be explained as a spill-over of the Financial Services Action Plan (FSAP) and the problem of consolidating the back-office, whereby the current predominantly national and vertically consolidated securities transactions industry appears to inhibit European market integration. The MiFID directive (EC/2004/39) has led to a fierce price competition between trading venues, and allowed them to choose the venue for clearing and settlement, re-emphasising the need for adaptations further down the trading chain. T2S, the most important initiative on the settlement side, is taking place alongside other private initiatives that will reshape the C&S industry in Europe.

¹ It suffices to look at the website of the European Commission on the subject to realise this. See for example the number of documents and positions posted under the heading 'CESAME group', dealing with the 'Giovannini barriers' to clearing and settlement (see http://ec.europa.eu/internal_market/financial-markets/clearing/index_en.htm).

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In this ECMI Policy Brief, we review the ECB's decision to establish the T2S and discuss the outstanding issues. We will look into the question of the level-playing field for Central Securities Depositories (CSDs) in Europe and the ESCB/CESR recommendations. We review the progress achieved with the industry's code of conduct and discuss the prospects for central counterparty clearing in OTC markets, as follow-up to the financial crisis.

The ECB and T2S

Following the green light of the EU Council of Finance Ministers, the ECB Governing Council decided on 17 July 2008, to formally launch the TARGET2-Securities (T2S) project and to provide the resources required for its completion. It assigned the development and operations of T2S to Deutsche Bundesbank, Banco de España, Banque de France and Banca d'Italia, with a start of the operations foreseen for 2013.

The ECB stated:

T2S constitutes a major step forward in the delivery of a single integrated securities market for financial services, thus reinforcing the Lisbon strategy, and in particular the Code of Conduct on Clearing and Settlement and the harmonisation efforts through the Giovannini process. T2S will provide a single, borderless pool of pan-European securities, as well as a core, neutral, state-of-the-art settlement process. Market users will be able to access these assets through CSDs in a way which can accommodate, rather than perpetuate, national and regional differences, and which already embodies agreed harmonisation measures in several key areas".²

In connection with T2S, a new collateral management system, CCBM-2, will be launched for the Eurosystem. CCBM-2 will allow the Eurosystem to manage collateral both for domestic and cross-border operations in a single pool for market participants. The decision was taken the same day as the decision to go ahead with T2S. The development and operations will be assigned to the central banks of Belgium and the Netherlands.

The run-up to the formal launch of T2S had not been straightforward, however. The attitude of the EU Council of Finance Ministers was not unambiguous and even the final approval of the project was lukewarm. The Ecofin Council of 3 June 2008, simply stated "that the ECB has so far broadly met the conditions set by ECOFIN in February 2007 for its continued political support", and set some additional conditions, including "that the risks of cost and time slippage be robustly minimised for the sake of end-users" and that "interested CSDs take a clear and unambiguous position on T2S in consultation with their participants and with issuers".³

In February 2007, the Ecofin Council had already asked the ECB to proceed step by step, examining carefully the impact of the project on the securities settlement industry. It requested the ECB to clearly prove the business case for

T2S, and not to discriminate against non-participants. The Council expressed concerns about its possible monopolistic implications, when it stated that: "the design and operation of the project should comply with EU competition policy and aim at promoting competition and innovation in post-trading services", and raised questions about the governance of T2S.⁴

The financial crisis radically changed the scenario. In response, the Ecofin Council fully backed T2S in December 2008: "in particular insofar as it contributes to the systemic safety of the post-trading environment". Moreover, it stressed how important, safe and robust the post-trade infrastructure is and it affirmed that the EU should play a leading role in reshaping the post-trading foundations of the global financial system, even though T2S was not originally designed for that purpose.⁵

The basis for the ECB decision to implement T2S was a study conducted after the initial announcement of the project in July 2006 (ECB, 2008b). This study concluded that, if T2S had existed in 2007, settlement fees would be on average in a range between 39-57 cents per transaction in Scenario 1 (all transactions in euro) and between 26-44 cents in Scenario 2 (including also non-euro currencies). This seems to be a good result compared with current average CSDs fees of 73 cents in Scenario 1 and 62 cents in Scenario 2. According to the ECB, the inferior costs in post-trading services would translate into annual savings of:

- between €56 million p.a. and €118 million p.a. in Scenario 1,
- between €113 million p.a. and €228 million p.a. in Scenario 2, and
- between an additional cost (i.e. negative savings) of €14 million p.a. and savings of €17 million in Scenario 3 (if only 50% of eurozone transactions participated).

Table 1. The business case of T2S

	Scenario 1 All € transactions	Scenario 2 € and non- euro transactions	Scenario 3 50% of € transactions
T2S fees	39-57 cent	26-44 cent	
Current fees	73 cent	62 cent	
Savings (p.a.)	€56-118 million	€113-228 million	€(14)-17 million

Source: ECB (2008b).

The projections included development costs of €203 million for the complete project (2008-13). The study added, however, that even in scenario 3, T2S would generate sizeable economies if users' savings in back office and collateral operations were considered. The latter together with the possible dynamic effects of market integration and increased efficiency brought the ECB to conclude that T2S

² ECB press release, 17 July 2008.

³ Ecofin Council Conclusions, 3 June 2008, doc. 9720/08.

⁴ Ecofin Council Conclusions, 27 February 2007, doc. 6610/07.

⁵ Ecofin Council Conclusions, 2 December 2008, doc. 6212/08.

would result in a net macroeconomic result estimated between €1.1 and €1.6 billion per year. Using conservative estimates, the ECB thus concluded that the overall effect of the implementation of T2S would be very positive (ECB, 2008b).

A striking feature of the business case in favour of T2S is the importance of having non-euro markets on board, primarily the sterling market. The price per transaction goes down 30% if non-euro transactions are included. Further, if only 50% of euro transactions participate in T2S, there are no projected sizable savings in CSD fees, weakening the business case in favour of the scheme. Hence, the success of the initiative is related to the participation of all the CSDs in T2S, to thoroughly reap the benefits of the network's positive externalities (costs reduction for the common platform). In today's circumstances, an additional argument in favour of T2S is the additional tool it provides to monitor market stability, even though this is difficult to translate in a quantifiable economic gain.

Considering the Ecofin's request to maintain competition in the post-trading infrastructure, the viability of T2S thus raises serious questions. Moreover, it should be kept in mind that the ECB study was made on the basis of 2007 data on settlement turnover. Nowadays, the costs will be higher because of significantly lower turnover.⁶

The benefits of T2S must be furthermore qualified. T2S will only form a small part of the overall market for post-trading services,⁷ while the trade-off cannot be easily judged positive ex-ante (see Figure 1). In effect, the study does not calculate the negative costs of creating a monopoly, in terms of reduced efficiency and spur for innovation (dynamic efficiency). The issue of the low incentives to pass benefits on to final users through lower fees and to create synergies with other CSDs and custodians has not been addressed.⁸ Hence, our main concern is that, in a context of increasing competition in C&S, which is being further accelerated by a fierce competition between trading venues as a result of MiFID, settlement fees (anyway charged by T2S) might be fully internalised (through a cross-subsidisation mechanism). T2S may thus help to freeze the current market structure and reduce competition, slowing down the process that is positively shaping the competitive landscape and reducing the still high margins in the post-trading sector (see Figure 2).⁹ As shown below, at the end of 2007, the

⁶ The turnover of cash equity traded on stock exchanges (Electronic Order Book) decreased from €14,821 billion in 2007 to €12,723 billion in 2008 (source FESE).

⁷ Deutsche Bourse quantified the post-trading services in the EU (clearing, settlement, custody, safekeeping and notary) at €17.4 billion (which is 43% of the overall activities related to the trading of securities); Deutsche Bourse Group, "The European Post-Trade Market. An Introduction", *White Paper*, February 2005, p.14 (www.deutsche-boerse.com).

⁸ Economies of scale are usually developed on a vertical level.

⁹ EMCF slashed clearing fees of 40% for UK equities on 14 April 2009 (<http://www.euromcf.nl/editor/uploads/090407%20press%20release%20fee%20reduction.pdf>) and EuroCCP reduced fees to 5 euro cents per side on March 30 (http://www.euroccp.co.uk/euroccp_fee_reduction.php).

weighted average of the profitability ratio (EBTDA/Net Revenues) between the main players in clearing and settlement services was 51%.¹⁰

In addition, the ECB's role is only limited to the consolidation of the cash settlement leg of those securities. It does not affect the securities settlement, where links between CSDs for non-euro transactions and other money tools are required (e.g., commercial bank money). In the US – often embraced as a model for the EU (lower fees)¹¹ – the cash settlement is made through agents, which are competing on liquidity and credit services.¹² The US experience in fact encompasses a more 'market-oriented' approach¹³, which is, in this case, preferable to a 'top-down approach' (T2S).

A centralised infrastructure may potentially increase the barriers to entry for new market players, which are requested to link with another CSD before getting into the market.¹⁴ Thus, there is no evidence that a 'top-down' solution can improve competition in a market in which efficiencies usually come from vertical integrations and horizontal links between market players.¹⁵

The solution for the efficiency of the back office instead seems to be the "wrong tool", but at the "right moment". The regulator can better focus on the creation of an *ad hoc* regulatory framework and enforcement, following the pattern set by the code of conduct and exploiting the emerging private initiatives. The US experience was mainly focused on the establishment of a national market system for securities through the removal of barriers to competition, whereby the legislative action was a stimulus for an industry private solution.

¹⁰ In the US, DTCC (users-owned company) had a profitability ratio of 5% in 2007, while ICE US had a ratio of 42% in the same year.

¹¹ The US experience is expressly mentioned by the ECB as point of reference for T2S's objective of cost reduction; see ECB (2007b).

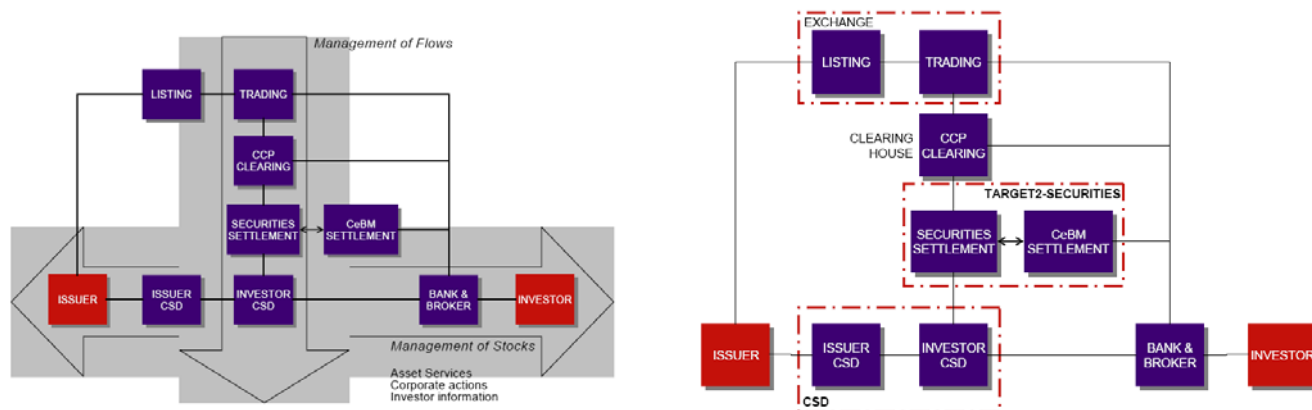
¹² The Federal Reserve's attempt to create an infrastructure similar to T2S (US Fedwire) for the settlement of government bonds was not successful (only 15% is settled through this infrastructure).

¹³ The legislative action enacted in 1975 (Securities Acts Amendments) aimed to promote a unified national system through five objectives: efficiency, competition, price transparency, best execution and order interacting. The SEC was charged with achieving these objectives with the higher priority "to remove barriers to competition" (see Loomis, 1975, p. 8).

¹⁴ The contestability of the market can only be assured through free entry and exit, not by the number of competitors (see Baumol et al., 1982).

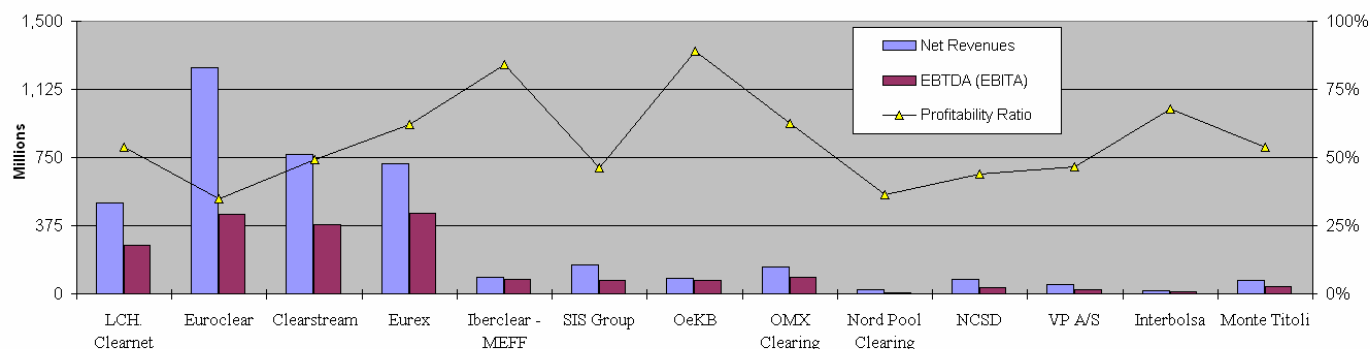
¹⁵ "By maintaining CSDs' current role in relation to intermediaries, investors and issuers, the project ensures that there will continue to be choice and competition in the provision of services; if anything, T2S will provide greater possibilities for choice and competition."; ECB (2007b), p. 3-4.

Figure 1. Clearing & settlement and T2S



Source: ECB (2007).

Figure 2. Profitability ratios in C&S, by company



Source: Companies' 2007 income statements, including revenues from custody.

Also other issues regarding the functioning of T2S remain to be clarified. An important point for existing CSDs in this regard is the governance of the system.¹⁶ It impacts on many issues raised above, such as the reach of T2S, the pricing and the use of rebates for important clients, which remain to be clarified. In sum, T2S has yet to meet one of the conditions set by the Ecofin Council in February 2007: all CSDs should embrace T2S unambiguously.

A final word on the legal background for T2S. Firstly, with T2S, the ECB will bear significant operational risk in the settlement of securities, which is not compatible with its primary objective, the maintenance of price stability.¹⁷ It is difficult to consider T2S as a tool to improve monetary policy under Article 105(2) of the EU Treaty. Secondly, the ECB found legal support in the fact that T2S, as structured, is "an ancillary facility to the operation of Target2-Cash" (ECB, 2008a, p. 2), to give legal substance to the Art. 22 of the ESCB Statute. In effect, this article gives power to the ECB to provide facilities and regulation for "clearing and payment systems", but there is no clear reference to

securities settlement. The assertion of "ancillary facility" is legally misleading, although technically correct. In civil law countries, the transfer of the property is legally concluded when the object of the transaction is physically delivered to the other party. The ECB's T2S plays – from a 'property rights' view – a more than ancillary role for the final delivery of the security and in respect to T2-Cash (e.g. failures in naked short selling).

Lastly, no financial stability issues seem to be addressed by this solution. In effect, ECB will bear just the operational risk of the IT platform. The management of the collateral will be still fragmented between the participating CSDs, since the ECB cannot bear counterparty risk. The contribution to the financial stability by T2S is limited to the use of "real-time DvP settlement in central bank money and the use of state of the art technology with the highest contingency standards",¹⁸ which is still to prove since this is a solution never seen before and the risks of operational failures of the IT platform may give rise to negative financial consequences for all participants in the system (Kazarian, 2006). More in terms of better management of the collateral might be done with the introduction of Collateral Central Bank Management 2 (CCBM2), but this remains to be seen.

¹⁶ Further details on the governance arrangements for T2S were made public by the ECB in early April 2009, "Effective governance [...] is necessary [...] to ensure that [...] benefits are passed on to the customers of the CSD" (ESCB-CESR, 2008, p. 37).

¹⁷ See ECB Statute (available at <http://www.ecb.int/ecb/legal/1341/1343/html/index.en.html>) and ECB (2008a).

¹⁸ See ECB (2008a), p. 10.

T2S may provide the post-trading sector with a robust and efficient infrastructure for securities settlement. However, more should be done to seal the future infrastructure from risks and costs potentially burdening the whole post-trading sector. Non-discriminatory access to the platform (lowering barriers to entry), clearer and independent governance and full participation by CSDs to the initiative are the minimum conditions for success.

What is left for CSDs and ICSDs?

The prospect of T2S and the industry's code of conduct gave a further boost to the restructuring and consolidation of the settlement industry. Two competitors are emerging: Link-Up Markets and the Euroclear group. Link-Up Markets is a partnership among 8 CSDs (initially 7) launched in May 2007 to build a common infrastructure in order to facilitate interoperability, which went live in April 2009.¹⁹ Euroclear launched ESES (Euroclear Settlement of Euronext-zone Securities) in January 2009 as a further step towards a single platform following on its earlier launch of a Single Settlement Engine. It has also included the Finnish and Swedish CSDs since October 2008 in the Euroclear group, and now brings together 7 CSDs.²⁰

Link-Up Markets creates one common infrastructure with a centralised standard through which the participating CSDs interoperate. Clients are able to choose a single CSD as a service provider for all the participating markets, which should considerably reduce the costs of cross-border settlement. The cost savings should also result from leveraging the functionality and infrastructure of the existing CSDs, rather than creating a new settlement engine, as T2S does. In addition, Link-Up should allow its members to consolidate their custody activities. As T2S is likely to reduce income from settlement activities, CSDs need to expand their services in other directions such as custody and asset servicing. The value proposition of Euroclear group is similar but goes further, a common interface and single settlement and custody platform, providing savings to the industry, with the difference that the Euroclear platform builds upon an existing core of settlement, custody and asset servicing activities.

One more important difference remains between Link-up markets and Euroclear's Single Platform. Link-up markets will have to settle its transactions through T2S, whereas Euroclear insists on maintaining the choice between direct settlement (in central bank or commercial money) through its Single Platform and T2S. The point that T2S should not be anti-competitive was made all along the discussions on T2S in the EU Council of Finance ministers, but it strongly influences the economic case of T2S, as discussed above.

¹⁹ The CSDs Clearstream Banking AG Frankfurt (Germany), CSE (Cyprus), Hellenic Exchanges S.A. (Greece), IBERCLEAR (Spain), Oesterreichische Kontrollbank AG (Austria), SIS SegalInterSettle AG (Switzerland), VP Securities Services (Denmark) and VPS (Norway).

²⁰ Euroclear group comprises International Central Securities Depository (ICSD) Euroclear Bank in Brussels and Central Securities Depositories (CSDs) Euroclear Belgium, Euroclear Finland, Euroclear France, Euroclear Nederland, Euroclear Sweden and Euroclear UK & Ireland.

Assuming that Euroclear has 50% market share in equity and debt securities settlement in the EU and stays outside T2S, it would imply that the fee structure of T2S could become considerably less attractive. Euroclear is not expected to choose between T2S and its own platform until 2012, waiting to see how the market develops. As T2S will be a narrow settlement entity, additional services will be left to the local CSDs and ICSDs. And this is where the overall cost structure becomes important again, and the demand of clients. Much will thus depend on the exact cost figures of T2S, and the final answer of market players to the ECB initiative.

The same choice does not apply to Link-Up Markets' participants, which is why they want to extend and pool their services beyond pure settlement. However, their competitive strength will be affected as market participants could exploit differences among CSDs to their own benefit. This situation raises the question of the non-existence of harmonised rules for CSDs, and ultimately of the direct access to T2S. Although work on common standards was re-started in the context of the ESCB-CESR group, this has just set a framework of non-legally binding rules (recommendations). In our view, the work on the recommendations, as well as the industry's code, are a surrogate for an EU directive or regulation, as we will explain below.

The ESCB-CESR Recommendations

The search for common standards for CSDs started in 2001, in the maelstrom of the work undertaken by the Giovannini group, set up by the European Commission to assess barriers to cross-border clearing and settlement.²¹ Given the absence of common EU-wide rules on clearing and settlement, CESR, the ECB and the national central banks agreed to work together to set common standards to enhance the safety, soundness and efficiency of the securities market infrastructure. The group took the CPSS-IOSCO Code as the basis, adapting them to the European situation. The CESR-ECB standards concerned the streamlining of procedures, the safety of the process, and the governance of and access to CSDs. In October 2008, they were watered down to recommendations and custodians were excluded from the scope.

When work on the standards started in 2001, the authorities clearly indicated that they were not supposed to simply be recommendations, as in the case of the CPSS-IOSCO proposals, but more binding in nature. While the standards did not have Community law status, the relevant supervisors pledged to monitor their implementation. "Regulators, supervisors and overseers will thus integrate the standards into their respective assessment frameworks on a 'best endeavour' basis and in this way will assess compliance with them".²² On the other hand, the authorities stated that the standards would not prevent any future rules to be implemented regarding C&S activities. Should a directive

²¹ Giovannini Group (2001). The recent CESAME report (2008) provided an update on the progress achieved to eliminate these barriers.

²² CESR-ECB (2004, p. 4) (available at www.ecb.int).

on clearing and settlement be finally adopted, the recommendations would have to be assessed for conformity and, if necessary, amended accordingly.

Work on the standards stalled soon after their publication in September 2004. Market participants were rather reluctant towards the initiative, considering that the rules were not binding and including custodian banks. One member state was radically opposed, and the European Commission was not so enthusiastic about the CESR-ECB initiative. The Commission had clearly indicated in April 2004 that it would adopt a high level directive, providing, *inter alia*, a common regulatory/supervisory framework for securities' clearing and settlement in the EU. However, by the end of 2004, the Commissioners changed, and with them the priorities. The new European Commissioner in charge became a firm proponent of self-regulatory initiatives.

In 2008, the standards re-surfaced as recommendations with the European Commission request to CESR "to identify regulatory arrangements for post-trading infrastructures and to advise on possible solutions in terms of bridging any potential differences in post-trading arrangements in the Member States".²³ As market participants had made a large number of link requests further to the adoption of the Code of Conduct's Access and Interoperability Guideline in June 2007, national regulators were concerned about the safety and soundness of financial infrastructure arrangements in other member states. The Commission request continues: "in the absence of common definitions and of authorisations and common operational requirements at European level for post-trading infrastructures such as CCPs and CSDs, the regulatory [...] approaches [...] differ",²⁴ which sounds surprising, given the work of the CESR-ECB group, and the deliberate choice of the European Commission not to adopt a directive in 2006.

ESCB-CESR restarted their work in June 2008, following the formal demand of the EU Council of Finance Ministers. In October 2008, it published a draft set of non-binding recommendations addressed to public authorities only, rather than standards addressed to the providers of post-trading services. The scope of the work is limited to securities settlement systems and CCPs based on the assumption that the capital requirements directive (CRD) applies to custodian banks. At the same time, CEBS was invited by the ECOFIN Council to examine whether the level playing field was respected as compared to custodians. The problem is that there is no single prudential regime for CSDs and CCPs in Europe, which may extend credit in some countries, and not in others, or only when it is fully collateralised. The report puts forward about 34 recommendations for CSDs and CCPs, of which authorities should ensure a consistent implementation at both national and cross-border level. Barriers between member states should be removed to permit less burdened links between

²³ Mandate to CESR for technical advice, identifying regulatory arrangements for post-trading infrastructures and advising on possible solutions in terms of bridging any potential differences in these arrangements, European Commission, 28 July 2008, available at http://ec.europa.eu/internal_market/financial-markets/docs/clearing/2008_07_28_cesr_mandate.pdf.

²⁴ *Ibid.*, p. 1.

CDSs and more efficient coordination in the cross-border clearing activities of CCPs.

The Code of Conduct

After much hesitation, Commissioner McCreevy announced in July 2006 that there would be no EU directive, but that he would let the markets and the member states show that they can ease the environment for cross-border clearing and settlement. The Commissioner took comfort from the commitment of the industry to enact a Code of Conduct, which was formally announced in November 2006. Three years on, it seems that the policy discussion is back where it was some years ago. Work on the code seems to have opened some doors, but the basic problem, the unlevel playing field, remains and ultimately a directive will be needed.

McCreevy based his decision in 2006 on 3 facts: 1) the environment of C&S is complex and rapidly changing, which makes any policy response difficult to tailor but also eventually constraining; 2) the implementation of MiFID brings more competition to exchanges and opens the possibility for direct membership of a clearing and settlement facility to investment firms (Art. 34); and 3) and the work on the Giovannini barriers is progressing, although more remains to be done (McCreevy, 2006a). An additional reason for not proposing a directive was the polarisation of interests of the different market participants. The Commissioner explicitly said that it would be very difficult to guarantee a good end-result, ("It could lead to an outcome far less optimal than letting things evolve..."), a rather dangerous statement vis-à-vis the EU Council and Parliament.²⁵ The EU Commissioner also referred to the T2S initiative, announced by coincidence a few days earlier, although it is well-known that he was unaware of the ECB's plans.

From an EU regulatory perspective, the code is a fairly revolutionary concept. It was announced on 7 November 2006, by Commissioner McCreevy and the industry as a "voluntary self-commitment" towards "transparency, interoperability and competition in the sector". The Code is essentially focused upon cash equity markets, although it could be extended, and covers trading venues, CCPs and CSDs. The infrastructures commit themselves to greater price transparency, access and interoperability, service unbundling and accounting separation. The Code was formally signed by the representatives of the European exchanges, the CCPs and CSDs, which created a joint project office for this purpose.²⁶

The follow-up that has been given to the Code indicates how closely this is being monitored by the regulators, and could be considered as quasi-regulation. The European Commission created a Monitoring Group (MOG), which meets every quarter, and progressively discusses and details the different aspects of the code. It is attended by about 10 officials, most of whom come from the European Commission, and includes representatives from CESR and

²⁵ McCreevy (2006a).

²⁶ The code was signed by 60 institutions from 29 countries from all layers of the value chain.

the ECB as well as about 45 industry representatives (users and infrastructures). It makes detailed summaries of the meetings, which set the progress on the different topics of the code.

The progress on the code was initially impressive, but decelerated as more difficult issues such as access and interoperability came on the table. It could however also be related to the huge expectations that were created, and the limited patience of observers. Some of these matters effectively take time to materialise.

- Price transparency. Universal publication of fee schedules, discount and rebate schemes are part of the information already disclosed, thanks to the code, and implemented also by exchanges and CCPs. However, full comparability is extremely difficult to achieve, because of differences in business models, but progress has been achieved through the publication of conversion tables. The discussions led infrastructures to agree on a common glossary for settlement services. CSDs have agreed to disclose details about discount and rebate schemes on their websites, but some price simulators are still missing and the comparability is still difficult since the information is often complex. The competition policy directorate of the Commission added its voice on this subject, indicating it will monitor whether private discounts and abusive rebates are offered.²⁷
- Access and interoperability. Progress under these principles has recently been considerable, with the Link-up Markets initiative on the settlement side and the arrival on the clearing side of EuroCCP and EMCF, which provide a multi-trading platform clearing facility and more competition between clearinghouses. In addition, LCH Clearnet started interoperability with SIS x-clear after the LSE's decision to provide competing clearing services.²⁸ Recently, EuroCCP started interoperability with SIS x-clear for Turquoise's platform. In addition, several other competitive clearing deals have been agreed, like LCH for European MTFs Bats Europe, Chi-X, Turquoise and Nyse Arca Europe²⁹ as well as Nasdaq OMX competitive clearing solution to be launched later this year³⁰. However, vertically integrated exchanges remain dominant, which hampers the emergence of more horizontal model along the functions of the trading chain. On the operational side, the access to the provision of clearing services in competition is associated with the creation of three links (Commission 2008): i) a link with the trading venue for the transaction feed; ii) a link with the incumbent CCP in order to have interoperability; and iii) a link with the CSD in order to insure the access to the existing settlement platform. Transparency in negotiations,

²⁷ See Joint Statement by DG Internal Market and DG Competition, 20 April 2007.

²⁸ See press release of 24 September 2008 (<http://www.londonstockexchange.com/NR/exeres/98718B10-71DB-4C8A-91D6-94B9C76394D9.htm>).

²⁹ See <http://www.finextra.com/fullstory.asp?id=20006>

³⁰ See <http://ir.nasdaq.com/releasedetail.cfm?ReleaseID=382961>

specific binding rules and enforcement are needed in order to avoid discrimination and unfair conditions for access among competitors.

- Service unbundling and accounting separation. This was initially the most difficult part of the code, as it touches the heart of the business model of vertically integrated exchanges, i.e. the provision of straight through processing, and thus the separation of trading, clearing and settlement within a single entity. CSDs have to unbundle also specific services, e.g. credit provision or securities lending. However, the recent progress under the other elements of the code, such as price transparency and the lack of standardisation for a complete interoperability has relegated this principle to a secondary role. At the October 2008 meeting, the MOG insisted that underpricing in a part of the trading chain would constitute cross-subsidisation. As part of the measures defined under the Code of Conduct, separate accounts will have to be submitted for the different layers of the value chain to external auditors and regulators (although these accounts remain confidential). This demand was underscored by the EU Council of Finance Ministers during its December 2008 meeting. But as the European Commission will supposedly not assess the detailed information, the question can be raised about how meaningful this will become, and to what extent the lessons will be drawn.

The drawbacks of the Code of Conduct are the lack of a set of binding rules and risks of weak enforcement and implementation at national level. On the other hand, the code provides the basis for work on more binding rules, in an EU directive or regulation. Experiences in other sectors with high fixed costs (as telecommunications, transport, etc.) suggest that direct intervention through regulation could be a more preferable way to address market players' incentives to enact the code's principles (instead of 'pure' self-regulation). In effect, price transparency, access and interoperability, service unbundling and accounting separation need a background of binding regulation on which the private players can eventually self-regulate with the strong supervision and the flexible enforcement of the authorities at a national level. The supervisory and enforcement function could be done efficiently by national securities regulators, with supranational control exercised by the CESR.

The impact of the financial crisis: Multiple or centralised solution(s)?

The crisis not only strengthened the political support for more binding post-trade solutions, it also underscored the benefit of more centralised approaches to maintain financial stability. Whereas MiFID had abolished trading monopolies and liberalised markets, the crisis re-emphasised the usefulness of mandating central solutions. Policy-makers, with Commissioner McCreevy in the first place, suddenly changed their tone and called for industry initiatives to bring more centralised clearing in over-the-counter (OTC) markets.

The first segment in sight was the credit derivatives market, more in particular the credit default swaps (CDS), which

accounted for 4% of the OTC derivatives market, according to the BIS (\$38 trillion out of \$680 trillion by end-2008).³¹ By 19 February 2009, a commitment was made by the nine largest dealer firms in the US to use a central counterparty for CDS, the product which brought Bear Sterns and AIG down. By March 4, IntercontinentalExchange (ICE) began processing and clearing credit default swaps through ICE Trust, its central counterparty clearing (CCP) house for CDS. It is likely that this initiative will spread to other segments of the securities transaction chain, increasing transparency in non-equity markets.

The competition among CCPs to be the first mover in CDS clearing, both in Europe and in the US, is intense. CCPs need to have the adequate infrastructure, know-how and personnel to manage the business. They need to have the operational and risk management capacity to run a CCP, and attract the capital for the guarantee fund. ICE Trust was the first who managed to launch operations in the US with an *ad hoc* infrastructure for CDSs. In assessing the authorisation, the Federal Reserve took financial and managerial aspects closely into account.³² Moreover, the recent ISDA publication (April 2009) of new standards for CDS contracts will help the clearing and settlement of these derivatives with contractually disclosed information and the creation of a committee for asset evaluation. This protocol will further standardise CDS contracts, helping to reduce the outstanding notional amounts in the future.

CCPs interpose themselves between counterparties in financial contracts, becoming the buyer to the seller of the contract and the seller to the contract's buyer. In the absence of a CCP, each market participant bears the risk, known as counterparty credit risk, that one or more of its counterparties will default. By interposing itself between participants and thereby assuming counterparty credit risk, a CCP enables market participants to accept the best bids and offers that reduce the risk that a counterparty may default. By assuming counterparty credit risk and enforcing participation standards and margin requirements, CCPs also can help to diminish systemic risk in market settlement activities. They can also reduce systemic risk by mutualising the losses of closing positions of a defaulting participant.³³

In the EU, candidates for CDS clearing are Eurex, LCH Clearnet and Liffe (NYSE-Euronext), which through Bclear, launched their CCP on CDSs already from last December, and others are preparing to be operational. ICE also plans to create a CCP for CDSs in Europe through its subsidiary, ICE Clear Europe (ICE Trust Europe). The Japan Securities Clearing Corporation (JSCC) and the Tokyo Stock Exchange (TSX) have expressly showed interest to enter in the market for clearing of CDSs and interest rate swaps in EU and US, through links with LCH Clearnet for the EU.

From a bank's management perspective, given the global and concentrated nature of the CDS business, a single CCP would be more beneficial than multiple ones. However, the management of counterparty risk through a centralised

solution for clearing should be balanced with stricter margin requirements also for non-clearing financial institutions (regulated and not-regulated), which trade these products.³⁴ In effect, centralised solutions allow better management of collateral and greater transparency, but the huge exposure to a single CCP could increase systemic risk. Therefore, stricter requirements for participants should be balanced with the greater possibility of moral hazard that would burden markets with unsustainable risks, especially in case of a single CCP.

The clearing of CDSs in multiple CCPs, instead, increases the cost for the banks and reduces the efficiency and the transparency of the transaction. There are also concerns from a supervisory perspective in a fragmented scenario. Policy considerations may be different, and a CCP authorised in the US falls outside any EU control (relying on US supervision and enforcement). The European Parliament called, in its amendments to the capital requirements Directive, for an EU supervised clearing house for CDS.³⁵ This situation, however, highlights the absence of harmonised standards for clearing and settlement entities in the EU. A regulatory level playing field does not exist if different entities want to propose CCPs for credit derivatives in the EU.³⁶

Moreover, questions can be raised about the desirability of a decentralised and fragmented supervisory framework for clearing of other products in the OTC market. It seems preferable that for clearing of OTC products (not including CDSs), conclusions can be drawn in favour of multiple CCPs. These products have on average less concentrated risk than CDSs, even though they are extremely fragmented. A competitive clearinghouse environment with lower fees, more capital and increasing dynamic efficiencies appears to be more suitable than expensive centralised solutions. The growth of electronic execution platforms and specific technology will improve real time transactions and price discovery. A decentralised solution, in effect, may help to monitor the fragmented reality of OTC products to better face the ever-changing risk and structure behind these sophisticated products. However, the financial turmoil will press for centralisation also for other OTC products, as well as for higher capital and tighter margin requirements for clearing and non-clearing institutions (mainly unregulated institutions) operating with these products. This debate will come even more to the forefront as this crisis unfolds, and the tendency towards more mandated centralised solutions will progress.

³¹ See ISDA's website at <http://www.isda.org/credit/>.

³² See <http://www.federalreserve.gov/newsevents/press/orders/20090304a.htm>.

³³ Drawn from Federal Reserve (2009).

³⁴ See Recommendation 2 and 4, ESCB-CESR (2009), pp. 13-18.

³⁵ After a commitment from the industry to create a CCP, the EP called for an EU Commission study on the functioning of CDS markets by the end of 2009, see A6-0139/2009 EP first reading – Amendment of Directive 2006/48/EC Art. 156, paragraph 3a (added); see <http://www.europarl.europa.eu/oeil/file.jsp?id=5696832>.

³⁶ Although the ESCB-CESR standards were revised to take into account CCP for OTC derivatives.

Conclusions

The architecture for the post-trading infrastructure has been an issue of intense debate over the last ten years. The financial crisis highlighted again the lack of an EU-wide regulatory and supervisory solution for C&S, the same question on which the Giovannini group started in 1999. Many issues at stake in clearing and settlement (Giovannini's barriers) are still related to differences in regulation, taxation and enforcement, which cannot be solved by infrastructures with unclear benefits. In effect, the regulatory vacuum benefited the European Central Bank to embark into this field and launch T2S. T2S is a narrow settlement entity, which will force CSDs to focus their competitive efforts further downstream the trading chain. However, the big question for the viability of T2S remains the participation of Euroclear and the Sterling market. The ECB can benefit from the reputation earned during the financial crisis to convince these parties to participate when the project starts in 2013.

T2S emphasises again the lack of a common regulatory model for C&S in the EU. T2S should be open for all CSDs

in the EU, but lacking a common regulatory framework, an uneven playing field continues to exist. The work on the code, although useful, cannot be entirely satisfactory, as the enforcement of price transparency, access and interoperability remains tricky. The code is therefore just an initial step; it draws a pattern on which the European legislator can base a specific regulatory framework. Those objectives, therefore, need specific regulation and strong enforcement that can eventually be performed by national securities authorities in cooperation with an upgraded CESR.

Also the crisis highlighted the importance of safety, soundness, and effectiveness of C&S in the EU, and the lack of a common regulatory framework. Policy-makers now want centralised clearing for certain credit derivative contracts, but a more harmonised regulatory and integrated supervisory framework is missing. Hence, they want more control without setting the scene for a harmonised European clearing and settlement industry.

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The European Capital Markets Institute (ECMI) was established as an independent non-profit organisation in October 1993, in a collaborative effort by the European Federation of Financial Analysts Societies (EFFAS), the Federation of European Securities Exchanges (FESE) and the International Securities Market Association (ISMA), now the International Capital Market Association (ICMA). ECMI is managed and staffed by the Centre for European Policy Studies (CEPS) in Brussels. Its membership is composed of exchanges, banks, trade associations and academics.

European capital markets have experienced rapid growth in recent years, corresponding to the gradual shift away from relationship banking as a source of funding and at the same time, have had to absorb and implement the massive output of EU-level regulation required to create a single market for financial services. These developments, combined with the immense challenges presented to European financial institutions by the globalisation of financial markets, highlight the importance of an independent entity to undertake and disseminate research on European capital markets.

The principal objective of ECMI is therefore to provide a forum in which market participants, policy-makers and academics alike can exchange ideas and opinions concerning the efficiency, stability, liquidity, integrity, fairness and competitiveness of European capital markets and discuss the latest market trends. These exchanges are fuelled by the publications ECMI regularly produces for its members: quarterly newsletters, annual reports, a statistical package, regular commentary and research papers, as well as occasional workshops and conferences. ECMI also advises European regulators on policy-related matters, acts as a focal point for interaction between academic research, market sentiment and the policy-making process, and promotes a multidisciplinary and multidimensional approach to the subject.



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