

The organisation of securities clearing and settlement infrastructures in Europe.

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Abstract

This article addresses a very European issue, the reshaping of securities clearing and settlement infrastructures. Central Counterparties (CCPs) and Central Securities Depositories (CSDs) are today at the very heart of a bitter struggle to secure a European financial area in conformity with the Investment Services Directive (ISD). These post-market intermediaries participate in the reshaping of the European financial landscape. We examine the present consolidation process in this infrastructure industry. We also point out in so far a single pan-European clearing house and a "European Central Bank for Securities" are on the way on a more and more integrated financial environment.

JEL Classification: G21, G15, L13.

Key words : Clearing, securities custody, securities settlement systems, financial infrastructure, market infrastructures.

1. Introduction

The international financial integration favours the emergence of a large capital market covering all maturities, all over the world. This integration process must be accompanied by the evolution of the market technical infrastructure, *i.e.* the assembly of systems within the securities processing chain (trading, clearing, settlement-delivery systems), otherwise the overall market would remain just a concept. At European level, the issue of market integration is reinforced since the introduction of the Euro. The payment community should be extended by setting up a real financial community. But as a first approach, we have to think about it only within a unified¹ financial infrastructure, the

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¹ Chanel-Reynaud, Chabert (2004): "The financial infrastructure is made up of technical and regulatory elements allowing cash and securities circulation. It is structured around three spaces. A payment space (payment systems), a regulatory space (prudential rules and market regulation) and a financial space

intermediaries should lean on an area-level market infrastructure², and in this case the following will occur:

- A unique platform for trading on securities or, more realistically, several interconnected trading facilities;
- A European clearing house for ensuring the transactions³ security;
- A Central Bank in charge with settlement in Euro currency;
- A European Central Securities Depository (CSD) managing a unique Securities Settlement System (SSS).

It was really said a lot about building a unique European financial market, meaning an integrated structure that would ensure the various functions of the market for the entire Euro or even EU area. And yet, this vision does not correspond to the reality of evolutions encouraged by the European authorities. It implies that the “bodies” are mutual and representative of the community “well-being”; it involves a federal vision of Europe based on an “integration strategy”, – the same that having governed the monetary union. Finally, it is hardly compatible with an increasingly strong private financial industry, which is likely to result in monopoly positions.

In the absence of an integrated financial market, the European construction will cross a “cooperation strategy” in the event that the integration difficulties are too heavy. In this case, free competition is expected to harmonize “at the base” what the authorities can not harmonize “at the top”. However, the concentration on a trading place (even if it is a network), for monitoring the counterparty risks and for a unique settlement-delivery chain raises important questions in terms of systemic risk prevention. It leads to a “gender mix” which might be costly for the community in case of crisis. Therefore, free competition is not necessarily able to optimally shape the European financial market infrastructure. Therefore, it is important to highlight the functions that may and even should remain within the competition, and those that should, on the contrary, be collectively managed depending on their strategic nature.

Within this article, we address this issue and we try to analyse the various market models emerging in Europe as well as the limits that public authority should probably impose to these models.

This article is organized as follows. Section 2 analyses how the European financial spaces would reconfigure under the pressure of competition at the three organisational poles making up the markets. Encouraged by technology, the elimination of monetary borders and the philosophy of the Investment Service Directive (ISD)⁴, the reinforcement

(organisation of the securities processing chain)”.

² The expression "infrastructure" corresponds here to the market(s) managed by prices or orders, accompanied by organisations or mechanisms of clearing, settlement-delivery, custody.

³ An American controversial survey had “shown” that if a global clearing house had existed, the processing costs would have decreased by 63 %.

⁴ The ISD, adopted in 1993, helped clarifying and harmonizing the notion of investment service provision at European level. It was reviewed in spring 2004, for being integrated in the internal laws of EU countries as of 2006. The new ISD defines and classifies the competition between three market types: the classic market operators (traditional stock exchanges), the negotiation platforms (MTF – *Multi Trade Facilities*) and the internationalizers (banks in charge with the management and coordination of a stock exchange with an in-house order processing system). Even if it specifically refers to negotiation, the new ISD equally addresses the clearing and settlement issue forecasting the access to various clearing and settlement delivery systems. Article 34 of new ISD: “Member States shall require that investment firms from other Member States have the right of access to central counterparty, clearing and settlement systems in their territory for the purposes of finalising or arranging the finalisation of transactions in financial instruments. Member States shall require

of the competition dynamics are logically translated in a market concentration movement according to several approaches to be presented. In section 3, we examine how this market logic comes up against limits as it affects the collective advantages of the services provided by a financial market. If the competition interest is obvious for trading purposes, it raises significant questions for the “post-market” services: for instance, clearing houses involve the security of the entire market. Section 4 analyses the limits of the competitive logic are even clearer for bookkeeping / asset custody, which is at the heart of an in-depth debate on its status: collective provider (“*Utilities*”) for a financial community and provider of “rival goods” subject to the market forces. Section 5 presents our concluding remarks.

2. The rival diagrams of the European market infrastructures

2.1. Competitive pressures strongly influenced by technology

2.1.1. From national monopoly to competition

From an industrial point of view, building up a European space goes through the development of large providers of securities trading, *clearing*, settlement or custody services, this architecture being combined, depending on different market choices.

2.1.2. The rival market infrastructures greatly conditioned by technological positioning

Several months after adopting the unique currency in May 1999, 6 securities market of the Euro area (Amsterdam, Brussels, Frankfurt, Madrid, Milan, Paris) and 2 pre-in (London) and out (Zurich) markets had signed an intention letter aiming at creating a common platform (European Alliance) for the most liquid values. The establishment of the pan-European financial market wanted by public authorities seemed on the way. This ambitious project was rapidly abandoned and highlighted the need to consider the many regulatory and technological issues. Today, the market models which mix took all the importance of the market infrastructures:

The Euronext model pursues a market share profit policy based on spreading its trading system, NSC⁵, while searching to ensure that the clearing system, Clearing 21, is spread by its branch LCH.Clearnet⁶. The semi-flexible structure of Euronext enables this strategic approach. Trading is under the responsibility of Euronext^{NV}; clearing stage comes with the LCH.Clearnet competence acting as clearing house and central counterparty of other markets. As for the settlement and delivery stage, it is the object of an agreement entered into with the central securities depositaries of Euroclear group⁷. The different CSDs of Euronext markets try to integrate their SSS by 2007 in a single platform ESES/RGV⁸ for all Euronext markets. Thus, the Euronext model devotes the one of the development potentially separated from the three market stages.

that access of those investment firms to such facilities be subject to the same non-discriminatory, transparent and objective criteria as apply to local participants. Member States shall not restrict the use of those facilities to the clearing and settlement of transactions in financial instruments undertaken on a regulated market or MTF in their territory”.

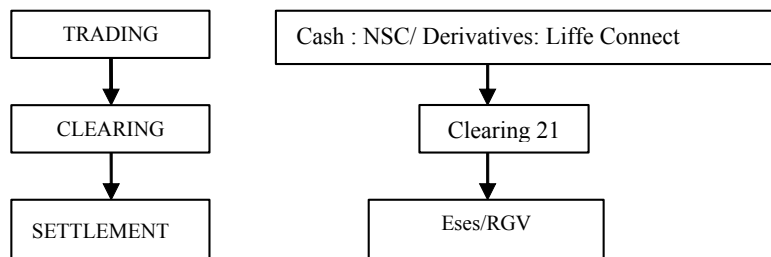
⁵ For instance, NSC was abandoned for the Liffe system (*Liffe connect*) benefit, for listing derivatives.

⁶ Clearnet, the Clearing house of Euronext, merged in December 2003 with LCH (London Clearing House), the clearing house of London Stock Exchange.

⁷ Euroclear France, Euroclear Belgium and Euroclear Netherlands.

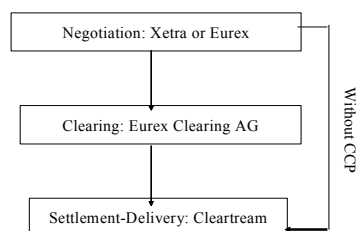
⁸ Euronext Stock Exchanges Settlement / Règlement-Livraison à Grande Vitesse.

Diagram 1: Target organisation: a market and integrated post-market systems



The German pattern existing around Deutsche Börse (DB) is characterised by an “in silo” completely integrated structure, even if, in March 2004, DB announced a more flexible vertical structure in order to comply with the orientations taken in the new ISD. The German model is nonetheless impregnated with this vertical logic according to which every placed order follows the entire securities chain of DB⁹ (trading in Xetra, clearing in Eurex Clearing AG¹⁰ and settlement-delivery in the Clearstream system). The model developed by the Deutsche Börse strangely resembles the former national place model¹¹, even though Clearstream, its central depository, is already an international specialized operator.

Diagram 1: The vertically integrated organisation of the Deutsche Börse



Source: from Duvivier and Hervo [2002], page 46

The third organisation model, fully specialised and flexible, is represented by the Swiss stock exchange within the Virt’x¹² framework. The clients may choose the way of settlement-delivery. This model would be perfectly adapted both to an oligopolistic competition and to the horizontal concentration process where one operator or only a very limited number of operators appear on the clearing or settlement-delivery shares. Virt’x is clearly located on the unique trading share on “blue chips” securities.

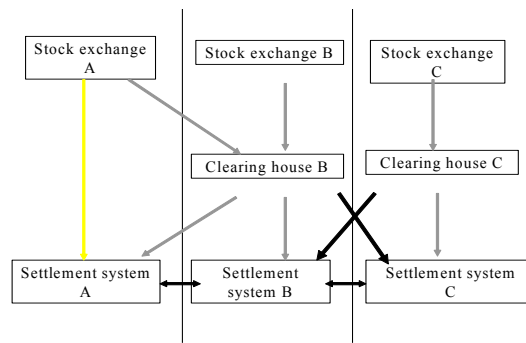
⁹ Regarding these statements, we consider with interest the propositions made within OPA on the LSE, i.e. that LSE freely chooses its securities chain.

¹⁰ The German stock-market clearing house was launched in the 2nd semester of 2002.

¹¹ In this model, the payment system space completely recuts the market regulatory and organisational spaces.

¹² European “blue chips” market developed by the SWX Swiss market and *Tradepoint*, a British electronic communication network (ECN).

Diagram 2: The flexible diagram



Origin link →

Privileged relation between clearing houses →

Cooperation agreements entered into between clearing houses and/or settlement systems favouring the interoperability: →

Source Duvivier and Hervot [2002] page 46 .

The British model is also rather close to this diagram. Every entity occurring in the processing chain represents an independent functional block. The relationships between the stock exchange (London Stock Exchange - LSE), the clearing house (LCH - London Clearing House) and the central depository (Euroclear/Crest Co) are more distant¹³. This is the diagram that should be adopted by all structures according to the new ISD.

1.2. The great features of the current movements and the questions raised

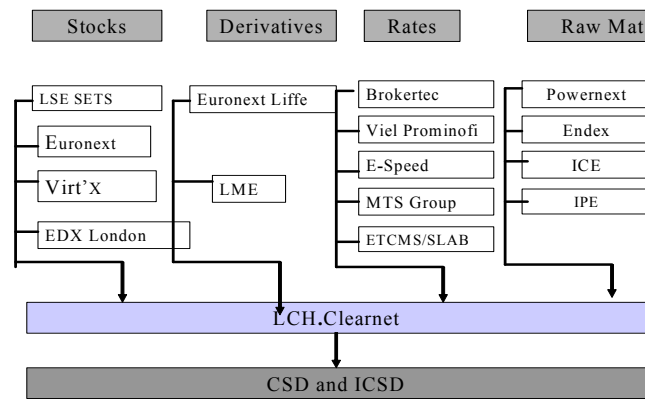
1.2.1. Organisation around the large settlement-delivery systems

The market concentration processes at European level generate four poles predominantly surrounding the large settlement-delivery bodies with the following:

- A pole around Euroclear with Euronext and LCH.Clearent. Euroclear and Sicovam, the French central depository, merged in spring 2000. Euroclear France is a 100 % branch of Euroclear Bank. The consolidation of this group was reinforced by the links established between Clearent and LCH, ensuring the clearing of Liffe, now a Euronext department since its buyout by Euronext. The new LCH.Clearent structure has a dominant position in the clearing field in Europe. We can represent it as follows:

¹³ Besides, Crest Co merged with Euroclear and the LCH also merged with Clearent SA. Here, we are facing the horizontal logic established between professions, and not the previous vertical logic.

Diagram 3 : The relations between LCH.Clearnet and the various markets.



Source: LCH, Clearnet¹⁴

In addition, Euroclear Bank took over the Dutch depository (Negicef) and it gets ready to take over CIK¹⁵, the Belgian depository. In addition, Crest Co., the settlement-delivery system of London Stock Exchange (LSE), also merged with Euroclear in June 2002.

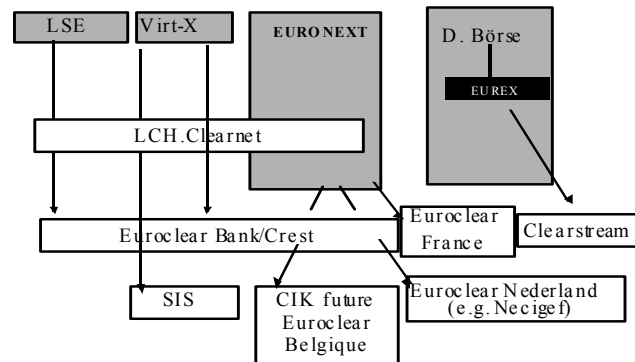
- A pole around Clearstream¹⁶ and DB¹⁷. After the failure of the merger between the LSE and the DB in 2004 (the iX project), a new attempt of merger was announced in December 2004. While the LCH.Clearnet and Crest/Euroclear merger could prefigure a link between the LSE and Euronext on the trading pole, the announcement of a merger between German and British stock exchanges may be astonishing. However, it shows the “functional dislocation” that is currently carried on within the securities chain organisation in Europe.
- A pole around SIS (Sega intersettle)/Euroclear with the setting up of VIRT'X ;
- A last pole around (rather in front of) the systems developed by OMX around the Nordic markets.

¹⁴ Diagram published in “La Tribune” dated 26/06/03.

¹⁵ On 2/11/04, Euronext, the current owner of 100 % of CIK and Euroclear signed an intention letter in this sense. Thus, Euroclear Bank can finish its project for a unique platform for settlement-delivery custody in 2007.

¹⁶ Resulted from the merger between CEDEL and *Deutsche Börse Clearing*.

¹⁷ The Deutsche Börse absorbed Clearstream in the 1st semester of 2002.

Diagram 4: The organisation around the clearing systems

Source: From an “up to date” Euroclear diagram.

The pressure for consolidation is extremely strong in this field. Market intermediaries may indeed find in this concentration process significant cost-cutting sources. In fact, the growing number of national bodies increases the trading costs on the European markets (notably, as compared to American markets), increases the risks (particularly, the pending risk) and harms liquidity (in the absence of real-time operation and procedure standardisation).

However, within this large consolidation movement, what really matters is to remind the specific nature of the processed products and the risks thereof. The two consolidations we have just highlighted (industrialisation and internalisation of market intermediaries; consolidation of the centralizing intermediaries) are far to be achieved without any interference and for the time being, they engender a certain confusion of genres and roles that may cause inefficiency and unjustified monopoly situations.

2.2.2. Beyond a “healthy competition”; the interferences between centralizing intermediaries and market intermediaries

The Lamfallussy report on regulating the European financial markets underlines that “The process of consolidating [the markets, NDA] should be largely in the hands of the private sector”. As for the various barriers for the efficiency of the cross-border exchange, the Giovannini report underlines that: “*In considering the scope to remove these barriers, a distinction is made between those that can be addressed by the private sector alone and those that can be addressed only on the basis of government intervention.*”¹⁸ The question on the status of private operators raises to the extent that, from now on, the market intermediaries¹⁹ and the centralizing intermediaries²⁰ are competitors. However, their relevant advantages are not similar to achieve for the various functions.

3. The future of clearing houses in the context of the internationalisation financial transactions

3.1. A consolidation movement

¹⁸ Giovannini Group, 2001, Report on the cross-border clearing and settlement arrangements in the European Union, November.

¹⁹ The market intermediaries are the intermediaries ensuring the link between end-clients and market (negotiator, clearing operator etc.).

²⁰ The centralizing intermediaries manage the market systems: Euronext, LCH.Clearnet, Euroclear etc.

In Europe, the links between the trading poles may be translated by strong impacts on clearing and settlement-delivery. Moreover, it is difficult to separate consolidation in the field of clearing and settlement-delivery infrastructure field as they are closely related, both functionally and operationally.

In November 2001, the first Giovannini report on clearing (and cross-border settlement) arrangements in the European Union concluded that one source of the market inefficiency was related to splitting up the clearing and settlement-delivery²¹ arrangements. In December 2001, *European Central Counterparty Limited* (EuroCCP), a 100% branch of the American central depository DTCC (*Depository and Clearing Corporation*) had announced that it would provide clearing, settlement and risk management services for Nasdaq Europe²². In other words, EuroCCP was positioned as a central counterparty able to propose pan-European cross-border services, including the American securities negotiated in Europe. Thus, EuroCCP emphasized that its services would significantly decrease the costs and the fund requirements for the Nasdaq Europe participants. This project competed with that of the LCH.Clearnet showing a “pan-European” ambition on the clearing share. Moreover, since December 2001, LSE and *London Clearing House* (LCH) agreed on setting up with Euroclear an integrated settlement of the LSE trade, cleared by LCH, and thus competing with the services of Crest Co.²³, the British depository, for cutting the cross-border transaction costs. Since then, LCH and Clearnet merged, similarly for Crest Co and Euroclear, a new Bridge is also to be set up by Clearstream and Euroclear²⁴.

3.2. Issue of a Central European Counterparty

The agreements/alliances between clearing enterprises aim at widening the clients of the clearing members for a fixed-rate activity (IT costs for development and implementation). What is at stake for the European clearing is the “*One stop shopping*” principle:

- A central counterparty
- A unique clearing house for several markets and several products
- A unique legal and regulatory environment
- A unique and integrated IT tool.

However, the role and the risks presented by the clearing house, and also those presented by the custodian bodies should be the object of a debate in order to determine their status (either mutualist, private or public). We may consider the market security as “collective goods” and with this feature it has to be ensured by a body accounting for its activities whose particular nature is not necessarily considered by the prudential rules.

4. The securities custody: between collective service and “rival goods”

4.1. The intermediaries of assets “domestic” custody

With the dematerialization of securities, this activity does not consist anymore in the physical custody in safes of tones of “living” papers, but keeping the securities stock on an information support, so that any financial assets may be localised at any time.

²¹ These conclusions may be found in the second report published in April 2003.

²² Whose existence has been thrown back into doubt ever since.

²³ BIS quarterly report, March 2002, International bank and financial activity, page 104.

²⁴ According to the Euroclear website: www.euroclear.com

The intermediaries in charge with the securities custody, are of two types: either market intermediaries or centralizing intermediaries.

4.1.1. The domestic actors of custody

a. Intermediate custodians (*local custodian*)

The subcustodian is the market intermediary which stores financial assets in informational systems, in a hierarchic framework, and “redeposit” them to a central custodian. It carries on only the intermediate custody. On the other hand, starting from this activity, it proposes a range of purely commercial services, with a strong added value but distinct from the information storing activity.

b. The central depository (*CSD, Central Securities Depository*)

The national CSD (*Central Securities Depository*) stores all the securities issued on its territory and, therefore, it is a guaranty of the existence of securities. It ensures the custody of securities for the participants’ account and delivers securities on the participants’ or the clearing houses’ instructions. All the European countries have such a national central depository (table 1):

Table 1- The main central depositories in Europe

Country	Bodies
Austria	OeKB
Belgium	Euroclear Belgium
Denmark	VP
Finland	APK
France	Euroclear France
Germany	Clearstream (former DBC)
Greek	CSD; Central Bank
Italy	Monte Titoli
The Netherlands	Euroclear Nederland
Portugal*	Interbolsa
Spain	Iberclear
Sweden	VPC
United Kingdom	CREST

*For Portugal, a merger is ongoing with Euroclear for the Euronext group.

4.1.2. The relationships between subcustodians and *CSD*

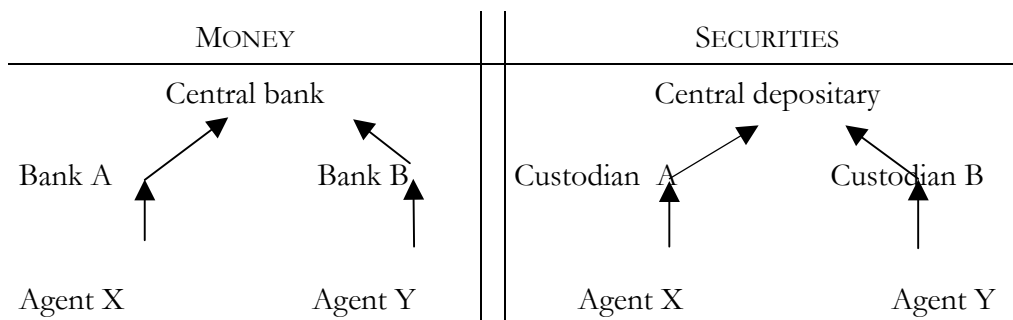
Starting from an analogy with the hierarchical organization of the monetary system, we could characterize the links between the subcustodians and *CSD*.

Within the money payment system, the banks manage the deposit accounts of economic agents and they ensure, on their authority, the payment service for their account. A payment initiated by X for Y supposes an interbank settlement to be effective in central money by the registration in the central accounts opened by bank A and bank B in the books of the Central Bank.

In the securities world, the same hierarchical and centralized organization may occur: the custodians manage the securities accounts of agents X and Y and ensure the securities “transport service” from one to the other. The securities deposited by X to A are then “re-deposited” to the central depository that ensures the custody of all securities issued on the

“assets territory”. Therefore, the custodians are only the intermediate depositaries of the securities they “have on custody” for the account of their clients.

Diagram 5: 2 parallel worlds: the money world and the securities world



As compared to money, securities refer to another logic: while X has securities, it is their owner and can enjoy their features (interest, for interest bearing financial products, dividends, for share certificates). Also, the local custodian is only the depositary of the securities. It does not own the securities²⁵ and it cannot lend them to other economic agents. This practice establishes the notion of “segregation of assets”.

4.1.3. The distinctive obligations of the domestic custody activity

a. The segregation of assets

A bank should clearly separate the securities owned for its own account and the assets for which it is the depositary for the third parties' account. The developing activity of lending securities between banks can be carried on only with securities owned for the bank's own account. This difference between money and securities is important in the event of bankruptcy: the holders of securities accounts remain the securities' holders in so far as the securities are subject to a deposit with the central depository.

b. Check on the strict reconciliation between securities under custody and issued securities

To the extent that banks may lend the funds they manage for the account of their depositors, they are not bound to re-deposit all these funds to the Central Bank. Only a tiny part is kept as compulsory reserves. On the other hand, for the securities there is a strict reconciliation between the securities number under custody and the number re-deposited to the central depository. Therefore, there is no place for a “securities multiplier”.

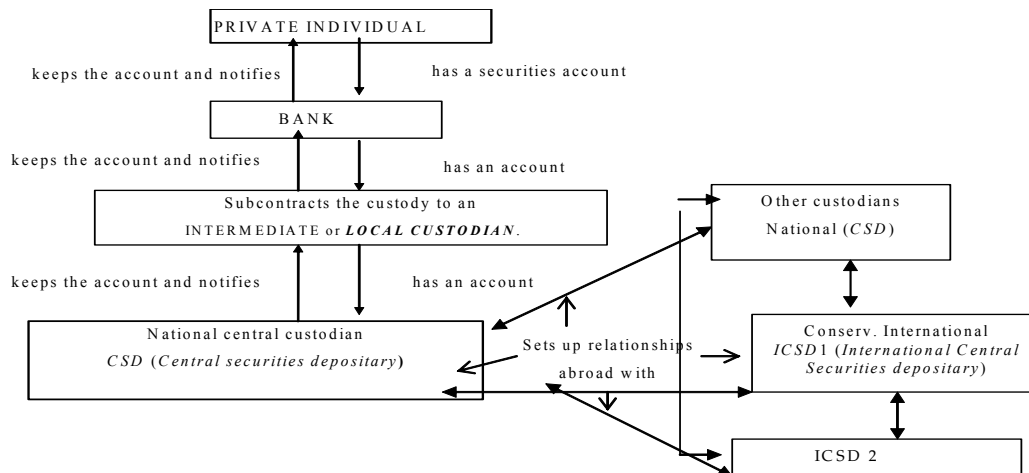
c. Management of the corporate events

The third difference between securities and money is that the securities have a more eventful life than money. In fact, money brings an interest rate depending on the account features. Securities may be the object of dividends, bonus issues corporate events (corporate events). They may also be subject to pledges, loans, speculation (in the event of selling *out of money* call-options), they may act as collaterals (under the pretence of complying with the “segregation of assets” principle). The account depositary and securities bookkeeper should manage all these movements and should accurately keep the accountancy, so that one knows exactly the status of every client's account for every asset, at any time.

²⁵ The securities accounts are not registered so, they are not in the bank's balance sheet or anyway, unlike derivatives: they come close to the “matter accountancy”. From the economic point of view, the activities related to securities intercession, out of which the custody, are paid on a commission basis and not on an intermediation margin basis.

The relations established within bookkeeping by various actors may be represented in the following diagram:

Diagram 6: The relationships between the security custodians



4.2. The role of *global custodians* in the cross-border circulation of securities

The activity of the securities intermediate custodians became a strategic axis of development for certain international institutions. This activity is called *global custody* as the banks manage the securities from several countries. By providing a global service, the *global custodian* undertakes to process the securities in an administrative manner within an environment of different jurisdictions, more often by subcontracting to local *subcustodians*. As they manage only the securities of an area, i.e. local custodians, or even *regional custodians* (for instance, the euro area), this evolution is related to the internationalization of investing activities and particularly related to the development of institutional investment funds which multiply their cross-border operations and try to widen their asset portfolios. Currently, the custodians fit into a commercial type approach towards investors. Therefore, they are service providers for this custody activity going beyond the unique administrative and technical function.

There are several service types provided to investors:

- Communication supports relating to transaction outcome;
- Detailed informations on portfolios (pricing, reporting),
- Technical information on the markets,
- Fiscal formalities processing
- Securities borrowing-lending activity,
- Foreign exchange services,
- Risk analysis
- *Proxy voting*.

At international scale, the asset custody market is strongly focused and dominated by the American banks²⁶ that, for the first time, turn the custody into a specific financial activity.

²⁶ The main world's depositories are the following: State Street (USD 9,100 billion), Bank of NY (USD 8,906 billion), JP Morgan (USD 8,014 billion), Citigroup (USD 6,640 billion), BNP Paribas (USD 2,958 billion), MellonGroup (USD 2,946 billion), UBS, Northern Trust, HSBC IFS and Société Générale. Source: La Tribune 23/11/04

Involving a lot of computer investments, the asset custodian activity assumes attracting constantly new institutional investors, new credit institutions or investment enterprises wanting to subcontract their custody. The custodian constantly looks for economies of scale due to mass processing, while being able to face specific demands of a specific client .

4.2.1. The relationships between *CSDs* and *ICSDs* in Europe

The international assets custody strengthened under the blow of internalisation. And this is notably in order to accompany the development of euro-markets²⁷ that the Euroclear and Cedel²⁸, *International Central Securities Depositories (ICSDs)*, were launched at the end of the '60s.

Box 1: The European ICSDs: Cedel / Clearstream and Euroclear

Cedel (Centrale de Livraison de titres) in Luxembourg and Euroclear (*Euroclearing*) in Brussels have been for a long time international *clearing* centrals; centrals because they have acted for a long time as central depositaries of euro-bond securities (meaning that, for these securities, they are on top of the chain). For instance, Euroclear was established in 1968. At the beginning, it was just a department of the Morgan Bank, planned for the S&D. By mutual agreement it was sold and then, it became independent.

However, they are not only intermediate custodians of domestic securities as they cannot own them. In this case, they “re-deposit” them to a domestic custodian (e.g. French securities deposited to a French bank) or to a central depositary if they have access to.

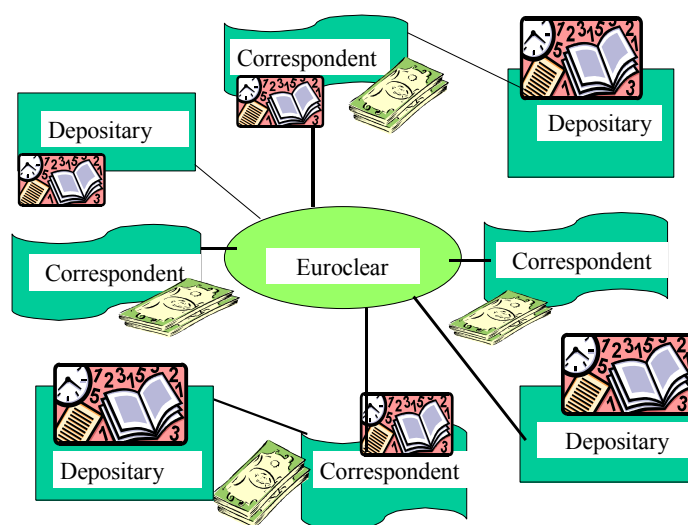
Today, what was the basis of the “Xeno-markets” specificity in a strongly regulated universe tend to disappear for the benefit of securities having a potential international carrier. The specificity of the international *clearing* centrals decreases and this partly explains the setting up of a partnership with the national *CSD* trying to be present on the European securities space. Thus, on the one hand, Clearstream appeared from the merger between the German DBC and Cedel and on the other hand, Euroclear France appeared from the merger between Sicovam and Euroclear. These two entities are present as central depositaries in the European securities area, but they have not this official status.

The domestic securities are listed to a *CSD* as national ultimate depositaries. In some countries, the *ICSDs* have not the right to have direct relationships with the *CSD* (for a long time, the banks refused this idea as they were often stockholders of the local *CSD* and they had no interest in seeing the development of these direct links). As a consequence, *ICSDs* have not any accounts in every *CSD*. That is why they also develop relationships with local correspondents (bank’s intermediaries, *subcustodians*). The securities are immobilized (locked-up) on behalf of Euroclear or of Clearstream in these banks. The *subcustodian* banks have a direct access to a *CSD* of the country in which they are located and to the settlement-delivery systems managed by this *CSD*.

²⁷ Historically, around the euro-bonds, the *euro-equities*, then more recently around the *global bonds*, ECP – *European commercial papers*, EMTN – *European middle term notes*.

²⁸ It became Clearstream after its merger with Deutsche Börse Clearing, the former german *CSD*.

Diagram 7: The relationships between CSDs and ICSDs



Source: after a Euroclear diagram (revised)

4.2.2. The distribution of operations between CSDs or ICSDs

The relationships between CSDs and ICSDs cross without any real separation for the moment. But when CSD develop links between them or when ICSDs "buy" a local CSD, competition clearly appears. As the international exchanges are growing, this situation will be increasingly frequent:

Within an "ideal" of task distribution (mainly for the ICSD)

a. The relationship is untied by a CSD

In the case of a domestic security processed by domestic counterparties, in the local currency - this transaction type shall obviously become rare.

b. The relationship is untied by an ICSD

- For a domestic security: when either party is not domestic,
- For an international security, regardless of the investors' nationality.

Thus, by merging with CSDs, ICSDs could monopolize all securities flow and position really as international custodians.

4.2.3. The evolutions proposed for the international circulation of securities

All the surveys related to the *post*-market transaction costs indicated that one of the main restraints for efficiency of the "European market" is the complexity of securities cross-border transactions. The relationships we highlighted in the above diagram are difficult to implement because of the variety of systems, the lack of links and the heterogeneity of practices. Consequently, the operations need multiple human interventions, and thus the operations are less reliable (problems of data re-entering / operational risk), longer and more costly. Under these circumstances, the *Straight Through Processing* procedures are impossible, for the moment, at international level. Consequently, the practice uniformisation takes on a very particular importance in this field and raises the question of implementing a unique custodian. Such a diagram that could enjoy the favours of the regulatory agencies would have the advantage of making the European securities exchanges easier (notably on the monetary market), of turning the European securities area more consistent and subsequently, of making exchanges easier with other areas and finally,

of enabling the implementation of a collective control for the relevant entity. The other solution, towards which we are moving, would remain the competition by maintaining the two ICSDs within the intervention area of each of them, some kind of “Target of securities” meant for making the exchanges easier. Then, the link between these two entities is ensured by the “bridge” made up of Clearstream and Euroclear.

Even if the final organisation diagram for the custody in Europe is not yet stopped, important evolutions are taking place. In fact, since May 1999, the securities deposited by credit institutions to central depositaries in a certain number of countries may be pledged through the refinancing granted by a National Central Bank of another country, due to a bilateral interconnection of central depositaries.

Therefore, the needs of the monetary policy hastened the thoughts on interconnecting various depositaries with the very strong need of simplifying the securities exchange networks. In the new united Europe of 25, there are about twenty central depositaries managing 33 settlement-delivery systems as compared to 2 (DTC and FEDWIRE) in the United States. In fact, several organisation diagrams overlap, with a few great lines of possible evolutions²⁹:

a. The multi-access model

This hypothesis is based on the participation of national central depositaries, an international depositary, local and global *custodians* and investors. The latter have available several outcome procedures for all the listed, domestic, foreign and international values.

It has the advantage of proposing several options to its participants:

- A financial intermediary may use its own network of local *custodians* for untying its transactions in domestic currency, while another may untie directly to a supranational depositary.
- A local *custodian* may use its network of local *custodians* for a market and a depositary for another market.

This option preserves the competition between actors. However it is rather difficult to implement because of the differences noticed in the European countries.

b. The Worldclear hypothesis

It is the proposal of creating a unique international central based on the American DTCC (*Depository Trust and Clearing Corporation*) model. Then, the horizontal integration process is complete on this share. The supranational central depositary should provide all the securities custody and *clearing* services for all the domestic and international values, on the entire European markets. This model has the advantage of substantial scale economies, but the central depositary becomes the only interlocutor of financial institutions for untying the operations and there is an important systemic risk, focused on a sole settlement-delivery system.

On the practical level, this diagram would involve a merger between Euroclear and Clearstream that doesn't seem on the agenda anymore since the latter's absorption by the German stock exchange.

²⁹ For further details on these issues, refer to Karyotis [2003]

c. The hypothesis of the global “Hub”

For the securities, it takes the diagram adopted by the payment systems with Target. The global depository manages the links to domestic and foreign values with every depository and a general interoperability of systems is reached. Every depository keeps its functions related to its participants in domestic securities and the links between depositories pass through the global hub. Consequently, the intervenors remain in contact with their national depository, and thus they master the procedures very well. However if, within the payment system, with a central bank, the Target status is perfectly defined, in the securities field, and in the absence of a unique securities central having a hierarchical force that may be compared to that of the European Central Bank, we could ask who would be in charge of the hub management and depending of what mandate?

d. The hypothesis of bilateral links

Adapted to the model initially proposed by Ecsda³⁰, this model will favour the links between central, national and international depositories. These link models implemented by Ecsda enable the standardisation of links between the members of association in order for their participants to benefit from the transfer into their national system of the securities issued by a foreign system. More than sixty links between the securities settlement systems of the European Union have been developed, most of them complying with the *franco*³¹ link pattern of Ecsda. However, just a few of them are significantly³² used. And yet, this system is pertinent as the relationships between countries are rather regular.

However, the Eurosystem decision to extend CCBM³³ is the sign of insufficient efficiency of links. Thus, considering the only titles delivered to ESCB as collateral for credit transactions, the market share of the links doesn't reach 5% against 23% for the CCBM³⁴.

4.2.4. The development of commercial activities by centralizing intermediaries for the custody stage

We have already seen that the centralizing intermediaries throughout their computer subsidiaries develop an intense commercial activity and try to make profitable their investments, thus strongly influencing the technological structuralization of financial markets. In this type of activity, they do not compete with the market intermediaries. On the other hand, certain centralizing intermediaries develop commercial activities while carrying on their protected activity. This is the case of the large international depositories (*ICSD*) using their monopoly to propose, for a cheaper price, the same services as the market intermediaries. This scenario concerns mainly the custody stage. This stage, considered as a “related” stage is not included in the ISD. Obviously, it is one of the most strategic and one of the least regulated of all market.

³⁰ *European Central Securities Depositories Association.*

³¹ A *franco* transfer is a simple securities transfer without any related money payment, as compared to the delivery upon payment where the securities transfer does not occur from the legal and technical point of view unless the money payment is simultaneous.

³² Duvivier and Hervo [2002].

³³ Correspondant Central Bank Model. This model allows to a European commercial bank to borrow cash with its central bank by a repo operation. In the repo operation, the securities can be European securities of whatever “EU nationality”.

³⁴ M. Roncin, Conference of AFTI, October 11, 2003.

In 2004, the European Commission launched a second consulting meeting on the clearing and settlement-delivery activity in the Union³⁵. It results that the most part of the financial community is for reducing the legal and technical barriers. Beyond this façade unit, while certain actors are demanding to abandon the obligation to deposit the securities to a local custodian (and it would cancel a level and allow an easier circulation of securities at international level), others (essentially the large banks assuming *global or regional custodian* activities) are complaining of the competition distortion exercised by *ICSD* benefiting from their connections with the local depositaries for proposing securities custody services. What is at stake with this debate is the separation of the settlement-delivery and pure custody activity (collective interest activities) from the added value services (cash management, collateral management, securities loans, etc.)³⁶.

The authorities should come to a decision for knowing whether certain activities fall within the competence of community and the same or other or a mixture of both, are potentially generative of systematic risks and should be subject to a particular control. From this perspective, adopting a European directive on clearing and settlement-delivering setting up the framework of these activities is particularly expected.

5. Conclusion

The limits needed for the financial industrialisation: determining the collective-interest activities

- In order to better ensure the savings protection

The difference between securities and industrial products is based on the existence of a major secondary market and on determining the prices starting from the comparison of an offer and of a demand. Another difference is generated by the origin of the market service (price determination and securities circulation), i.e. for the profit of both clients and mediators. Their presence and their weight to all levels, turned the markets into large interbank markets. The issuer and the final holder of securities have but a rather reduced role and it is not obvious that authorities could ensure an efficient protection for the savers.

- In order to clarify the roles between centralizing intermediaries and market intermediaries

Investment firms are only mediators authorized to use the materials made available for them by the centralizing intermediaries. We conceive that the industrialization of finance currently reaches this situation and we easily imagine the pressures that could be exercised for eliminating the market activities centralisation and welcome a real financial industry on a diagram comparable to that of any “on line market place”. By focusing and covering multiple territories, intermediaries may provide in-house services comparable to those provided by the centralizing bodies they directly compete with. The question arises then to know if the latter will be brought to disappear for the investment firms’ benefit or

³⁵ Commission of the European Communities, 2004, *Clearing and settlement in the European Union – The way forward*, Communication from the Commission to the Council and the European Parliament, April, COM (2004) 312 final, Brussels.

³⁶ Refer especially to this issue: the position of French banks. Federation Bancaire Française (*French Banking Association - FBA*), 2004, Remarks and Observations of the FBA relating the document “Communication from the Commission to the Council and the European Parliament. Clearing and Settlement in the European Union: the way forward”, August, 42 p.

if they can be authorized to carry on the same activities as the investment firms or, finally, if they can (should) merge by themselves to keep their monopoly position and what should be their status (either public or private).

In fact, there could be various answers depending to the functions performed by intermediaries. Making up a unique securities listing entity is not anymore on the agenda and, with the new ISD we go towards a competition between a more important number of actors, in the mean time, banks and “centralizing” intermediaries. It is not necessarily the same on the other shares or for carrying on other functions, the risks being more difficult to manage.

- In order to avoid any risk generated by a clearing problem

For clearing, the debate was not really started. The LCH.Clearnet clearing house has a rather strong position. However, the “general interest service” question is raised as far as the very sophisticated system used from now on by LCH.Clearnet allows not only flow clearing, in the classical meaning of the term (cash and securities flows), but also aftermarket risk clearing (physical position and derivative market position, for instance). From now on, the clearing activity itself becomes a risky activity to the extent that sales are based on a probabilistic calculation. It implies that it is subject to particular monitoring.

- In order to ensure a better control of the securities custodians influence regarding *corporate governance*

Finally, the model problem is clearly shown for settlement-delivery and mainly for custody. The solution of the non-profit making entity does not necessarily seem the best to keep in mind. On the other hand, what matters is that the users have the possibility to directly control these entities. Users mean the ISP but also the securities holders and the issuing enterprises.

- In order to avoid a systematic risk generated by a custody problem

This problem is more important as the operation of the international securities centrals is rather different from the operation of the national centrals. For instance, Euroclear bank ensuring the settlement-delivery in central currency plays in the mean time a bank role, throughout credits³⁷ within “*settlement*”. It plays a real role of securities borrower by “mass draft” too. In fact, contrary to the segregation principle for the domestic securities custody, the securities that are registered with the Euroclear Bank accounts are fungible. It means that, for the multiple managed currencies (i.e. a total number of 32), the bank organizes a real refinancing market, both on cash (as against collaterals) and on securities without the same guarantees as the extremely strict rules requested for the same operations within the ESCB.

Obviously, the operations are made not without guarantees. Euroclear Bank goes guarantor for the titles’ return and manages the loan limits. The Central asks, on an agreement basis, the approval of its institutional clients. However, the final holder of securities is not notified. In order to avoid risks, the Central is voluntarily placed under monitoring of the British FSA³⁸ (the securities originating from London are 60 % of the transactions). As a bank, it depends on the National Bank of Belgium, of the Belgian

³⁷ The credit line is the result of a negotiation between the client and Euroclear, but Euroclear asks for collateral. The credit line may be used, for instance to undo an operation.

³⁸ We have to remind that the FSA is in charge, among others, of watching the problems of money laundering, what spares to Euroclear the critics which were able to be formulated (in the absence of a clear decision of justice) against Clearstream before its merger with Deutsche Börse.

commission of banks and finance and of the ECB. On the other hand, it is not really subject to a specific control because of the particularity and the strategic character of its activity. The same applies also for Clearstream. We may be surprised: at present, the Brussels Commission is weighing up to eventually set up a unique mutual agent or a real competition between several agents, subject to a real surveillance.

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