

Post-market infrastructures and financial stability

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Post-market infrastructures execute critical functions — clearing and delivery versus payment — for the performance of trades in financial assets. This makes them potential vectors for destabilisation of the financial system in the event of malfunctions. Their impact on systemic risk warrants the supervisory and oversight authorities' concern for analysing the various risks that such infrastructures may incur and the efforts to establish a comprehensive set of recommendations for mitigating these risks. This objective has now been achieved with the publication of the CPSS/IOSCO recommendations in November 2001. These recommendations are intended to be universal in scope. In addition to setting adequate standards, the relevant authorities, and central banks in particular, have extended the scope of their responsibility in the field of maintaining financial stability by including the oversight of post-market infrastructures. The statutes of the Banque de France have recently been amended in such terms.

Securities clearing and settlement infrastructures are changing rapidly both in Europe, where consolidation and sweeping rationalisation are taking place, and on the wider international scene. Users expect greater functional integration of infrastructures, which should contribute to the expansion of low-cost cross-border transactions and greater efficiency in securities processing. These changes have prompted the relevant authorities to co-operate more closely in the regulation, prudential supervision and oversight of the cross-border infrastructures being developed in Europe. With the development of pan-European infrastructures in the Paris financial markets, the Banque de France has played a very active role in enhancing co-ordinated oversight in conjunction with the other relevant national authorities.

f the various securities infrastructures, clearing and settlement, generally referred to as post-market infrastructures, play a key role in the securities processing chain. In addition, the conditions under which these infrastructures operate have major systemic implications.

Clearing is the second stage in the processing of securities transactions following the trade itself. It generally ensures the following functions: reception and recording of individual transactions from the trading system, computing clearing house members' net positions, operation of risk-management systems, substitution of the seller and the buyer by the central counterparty, which takes on their respective obligations (novation) to guarantee performance on transactions, and, lastly, transfer of net orders to delivery versus payment systems.

The "delivery versus payment" function is the last stage in securities processing. It consists in the settlement of the buyer's and seller's commitments and the posting of the entries that make the transactions final, meaning the delivery of the

securities to the buyer and the payment of the corresponding funds to the seller.

1 The role of clearing houses and securities settlement systems

1|1 The clearing houses' role: risk management

To achieve multilateral netting, a clearing house computes the net position of each market participant by netting all of its transactions with all of the other counterparties. Under a central counterparty clearing arrangement, the clearing house fulfils the technical function of computing the buyers' and sellers' net positions, but it also takes legal responsibility for their obligations through novation and guarantees performance on their transactions.

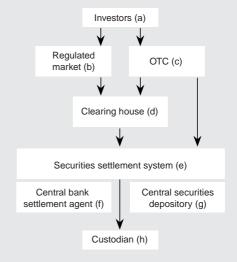
Clearing houses with central counterparties make a substantial contribution to improving risk management in financial markets. Netting reduces the net amounts of securities and funds to be delivered, which lessens the market participants' needs for securities and cash, and hence, liquidity risks. Clearing houses also guarantee final settlement of transactions, which reduces the market participants' credit risk exposure.

Clearing houses do not necessarily handle all securities trades. Whereas they usually handle derivatives trades, their processing of trades on spot markets varies. Yet, when a multilateral clearing arrangement is used and the central counterparty assumes the buyers' and sellers' obligations, then risks are concentrated on central counterparties, which may make them of critical systemic importance, depending on how much of the trading they handle. This is particularly true in Europe, where the three main central counterparties are: Clearnet especially for Euronext in Belgium, France, the Netherlands and, soon, Portugal, the London Clearing House, and Eurex Clearing for the German and Swiss derivatives markets.

The use of clearing houses may also create moral hazard, as market participants are tempted to increase their trading activity recklessly since the central counterparty bears the risks.

This means that the central counterparties' risk management arrangements are critical for the robustness of the systems and, more generally, for financial stability.

Securities processing chain for a purchase of securities



- (a) Investors: pension funds, insurance companies, individuals, etc.
- (b) Trades on the regulated market are cleared through the clearing house.
- (c) Only some of the OTC trades go through the clearing house.
- (d) The clearing house:
 - computes each participant's net position by netting its offsetting transactions,
 - guarantees performance on transactions by acting as the sole counterparty for sellers and buyers,
 - $-\ conducts\ multilateral\ netting\ of\ participants'\ positions.$
- (e) The securities settlement system provides delivery versus payment and eliminates principal risk.
- (f) The settlement bank holds the cash accounts.
- $(g) \ \ The \ central \ securities \ depository \ holds \ the \ securities \ accounts.$
- (h) The securities are recorded on the investor's account with the custodian. The custodian administers the events relating to securities holdings.

1 | 2 Securities settlement systems: a secure framework for settling trades

In order to eliminate principal risk ¹, securities trades should be settled on a delivery versus payment basis. This process ensures that the delivery of securities to the buyer and the payment of the corresponding price to the seller are simultaneous and reciprocal.

The systemic importance of securities settlement systems lies in their contribution to the smooth operation of financial markets, their close links to payment systems and their key role in the implementation of monetary policy operations. They are used to transfer the collateral provided for monetary policy operations and intraday credit operations in payment systems.

- Securities settlement systems play a key role in the smooth operation of markets by ensuring safe and efficient settlement of trades in financial instruments. The high value and the large number of trades handled by the main systems testify to the importance of their role.
- Secondly, the cash legs of trades processed by the systems run by the central securities depositories are settled across accounts held at the central banks through their RTGS payment systems ². This means that payment systems and securities settlement systems are highly interdependent. Securities settlement systems also handle the operational aspects of delivering the collateral needed to obtain intraday credit from central banks, which is essential for the smooth operation of RTGS payment systems. Furthermore, the settlement of the cash legs of securities trades

through payment systems could transfer risks to these payment systems in the event of disruptions in securities settlement systems.

The importance of securities settlement systems has risen in recent years following the increasing use of securities by financial intermediaries as collateral to guarantee credit operations. The growing use of collateral concerns both market financing (repos) and central bank credits, and, more particulary, the central bank intraday credits granted in the payment systems that compose Target ³.

Securities constitute a significant proportion of the assets used as collateral. Collateral is usually delivered in the form of temporary transfers of securities, including repos in France (pensions livrées). These operations are processed by the securities settlement systems, which means that these systems are critical for the smooth operation of payment systems and the implementation of monetary policy. This explains why, in 1998, the ESCB drafted nine standards that securities settlement systems in the European Union must comply with to be eligible for the settlement of collateral for ESCB credit operations. The ESCB assessed compliance with these standards to determine whether systems are eligible to provide services to the central banks in the ESCB. The operators of systems that fell short of full compliance were given recommendations and assessments have been reviewed annually.

The number of cross-border collateralisation operations increased with the introduction of the euro and when the ESCB allowed counterparties in its lending operations to use eligible securities located

Main activity statistics for securities settlement systems (2001)

	Euroclear (Including Euroclear France)	Euroclear France	Crest (United Kingdom)	Clearstream International (Clearstream Banking Luxembourg + Clearstream Banking Frankfurt)	DTC (United States)
Number of transactions (thousands)	161,000	31,000	73,600	118,900	-
Value of transactions (EUR billion)	130,600	43,600	98,000	-	250,000
Capitalisation (EUR billion)	7,858	3,452	2,897	7,460	23,300

¹ Principal risk is the risk that the seller of a security delivers a security but does not receive payment or that the buyer of a security makes payment but does not obtain delivery. In such an event, the full principal value of the securities or funds transferred is at risk (CPSS/IOSCO definition).

² RTGS: Real Time Gross Settlement.

³ Target is the cross-border system for wholesale payments in euros. It is made up of the interconnected domestic real time gross settlement systems of the 15 European Union countries.

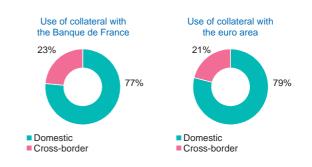
anywhere in the European Union as collateral. This development is part of a more general increase in cross-border flows throughout the world.

Under these circumstances, the links established between the different securities settlement systems are more exposed to spill-over risks in the event of disruptions affecting one part of the network. This new aspect has increased the systemic importance of the European Union's securities settlement infrastructure as a whole.

The scale and the nature of the activity of these infrastructures mean that their functions are critical for the implementation of the single monetary policy. This requires special attention on the part of oversight authorities, with the central banks being the authorities most directly concerned. This requirement is particularly clear, since securities

settlement systems, unlike payment systems, are not backed up by a lender of last resort that could produce the securities needed out of thin air in the event of a default.

Use of collateral in the Eurosystem (December 2001)



2 Policies to ensure the safety of securities clearing and settlement systems

2 | 1 Standards: CPSS/IOSCO recommendations

There is nothing new about the regulators' concern with post-market infrastructures. Back in the early nineteen-nineties, the G10 central banks drafted a set of recommendations for interbank clearing systems that were published in the Lamfalussy Committee Report.

In November 2001, this work was carried forward by a joint group made up of the G10 Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organisation of Securities Commissions (IOSCO), which drafted a report known as the *CPSS/IOSCO Report* ⁴. This report contains nineteen recommendations that are included in the Financial Stability Forum's list of key standards. They apply to securities in a very broad way and are intended to apply to all existing arrangements for trade confirmations, central counterparty clearing, securities settlement and custody for both domestic and cross-border transactions. The essential aspects of the recommendations can be summarised as follows.

Legal soundness, a pillar of risk management

Securities law is very complex and it is far from harmonised either in Europe or on the broader international scene. The *CPSS/IOSCO Report* calls for the establishment of a sound legal framework, which is a prerequisite for smooth operation of cross-border securities settlement systems. This involves many aspects, notably the laws governing the issuance, ownership and transfer of ownership of securities, the soundness of clearing and collateral arrangements, as well as protecting settlement systems from the enforcement of ordinary bankruptcy law provisions.

The pivotal role of central securities depositories

The use of central securities depositories is a key recommendation for managing securities issues, safekeeping and processing operations affecting dematerialised securities. The primary function of central securities depositories is a notary one. They register all of the existing securities and the transactions involving them. Their links to securities

 $^{^4}$ The CPSS/IOSCO report can be viewed on the Bank for International Settlements' web site (www.bis.org)

issuers and investors or investors' representatives enable them to ensure that the number of securities in the intermediaries' accounts always corresponds to the number of securities posted in the issuers' records. The numbers are matched to ensure that there is no fictitious creation or destruction of securities. In addition to acting as account holders, most central securities depositories also perform settlement functions for securities account owners (and sometimes also cash account owners), which act both on their own account and on behalf of their customers.

An example of legal problem: the "zero hour" rule

As is the case for payment systems, the problem with the "zero hour" rule is that a court or an administrative authority may rule that a member of a clearing house or a securities settlement system is insolvent and then proceed to unwind all of that member's transactions within the systems in question. The effect is retroactive, starting at zero hour on the day on which the ruling is made.

At the European level, measures have been taken to eliminate this risk, which could cause major disruption in the systems. The Settlement Finality Directive that has been in force in the European Economic Area since November 1999 protects securities clearing and settlement systems, along with payment systems, from this risk. The Directive states that orders entered in recognised systems designated to the European Commission shall be deemed to be irrevocable under the rules of each system until the time when the bankruptcy ruling becomes known to the system operator.

Sound risk management arrangements are critical for central counterparties

The recommendations state that each market should assess the potential benefits of using a clearing house that acts as a central counterparty.

When a central counterparty is used, it should implement appropriate risk management arrangements. These would usually include monitoring compliance with participation criteria, marking members' position to market at least once a day, using deposit margin requirements and issuing margin calls, along with management of mutual clearing funds.

In view of the importance of the central counterparties' tasks, extra prudential supervision measures may be called for, in addition to those set out in the CPSS/IOSCO recommendations. This means that clearing houses acting as central counterparties are required to apply for authorisation as credit institutions (Article L 442-1 of France's *Monetary and Financial Code*). This is done to ensure that they have adequate capital to guarantee performance on transactions.

Delivery versus payment eliminates credit risks

Delivery versus payment can be defined as the mutually binding legal, operational and technical mechanism that ensures that delivery of securities occurs if, and only if, payment of the price occurs. This type of arrangement is critical for eliminating principal risk and liquidity risk and for reducing replacement cost risks ⁵ incurred in the settlement of securities transactions. Since the publication of the G30 recommendations in 1989, most securities settlement systems have decided to offer their participants delivery versus payment functions. However, there are different delivery versus payment models and not all of them offer the same degree of protection. Participants in a system must have a clear understanding of the advantages and drawbacks of the different models so that settlements can be carried out efficiently.

Minimising risk exposure on the settlement agent

The use of central bank accounts for settlement of the cash legs of transactions offers two key advantages: no settlement risk, since funds transfers are made across accounts at the central bank and easy transfers since the assets held with the participants' respective central banks are perfectly liquid.

But not all of the participants in securities settlement systems are eligible to hold an account with the central bank. Furthermore, some securities settlement systems

⁵ Replacement cost risk is the risk that a counterparty will have to replace a failed transaction by entering into a new one at a market price that is less favourable.

Different delivery versus payment models

There are three common models for delivery versus payment systems:

- Model 1: Flows of securities and funds are settled on a gross basis. This model can be organised with real-time continuous trade-by-trade processing, as is the case with the irrevocable channel of the Euroclear France RGV2 system. Transfers become final in real-time, as they occur. Batch processing can also be used, as is the case with Clearstream. In this case, transactions are still settled on a gross, trade-by-trade basis, but at specific times during the day.
- Model 2: Securities transfers are settled on a gross basis and funds transfers are settled on a net basis. This is what happens in the revocable channel of the Euroclear France RGV2 system.
- Model 3: Both securities transfers and funds transfers are settled on a net basis, as is the case in the Italian LDT system.

From the point of view of risk management, Model 1 offers the best protection, especially when settlements are carried out in real-time, but this system can entail fairly large cash requirements. On the other hand, securities transactions under Models 2 and 3 may not be settled until several hours after trades are executed, and sometimes not until the end of the day. The resulting risk exposure may require the implementation of complex protection arrangements or even arrangements for unwinding transactions. These circumstances create liquidity risks for the participants.

offer payment functions in different currencies. However, for the time being, no mechanism is capable of ensuring multiple-currency payments on central bank accounts.

This is why it is recommended that risk exposure on the settlement bank be strictly limited when commercial bank money has to be used for funds transfers. The risk control arrangements could take the form of an institution with a specific status

Different models of delivery versus payment in central bank money

In technical terms, there are two main models of delivery versus payment in central bank money:

- The first model operates across accounts held with the central bank, but these accounts are operated by the securities settlement system.
 This means that funds transfers are settled directly within the securities settlement system.
 The French RGV system is based on this model.
- The second model establishes a link between the securities settlement system and the RTGS payment system operated by the central bank.
 Final transfers of securities are made once the central bank has confirmed completion of the payment to the central depository.

(a "limited" or "single purpose" bank) with the sole task of handling payments related to securities settlement, thus eliminating possible interference from other banking business.

If a settlement bank grants cash credit or securities lending facilities to participants in a securities settlement system to ensure smooth operations, it must implement a risk management arrangement combining credit limits for each participant and full collateralisation of loans of securities or cash.

2|2 Oversight of post-market infrastructures

Supervisors and regulators once seemed to have lost interest in post-market infrastructures, since attention was supposed to focus on the markets per se and market participants. This is no longer the case. The oversight of such structures has become critical for the sake of financial stability, since they now have proven systemic importance.

Current developments around the world and in Europe more particularly, with concentration of custody, consolidation of market operators and overhaul of trading platforms, obviously raise important questions for the authorities, such as defining the limits of their supervisory scope, risk concentration and organising co-operation between authorities.

The Banque de France is involved in major initiatives relating to pan-European developments that have implications for the Paris markets.

Oversight issues

The close relations that link payment systems and central banks justify the special role that the latter play in the oversight of post-market infrastructures.

First of all, central banks use securities settlement systems to handle the delivery of securities put up as collateral for their credit operations (intraday credit for payment systems and monetary policy operations).

Secondly, they act as the settlement agents for fund transfers in most of the securities settlement systems.

They also play an important part in maintaining financial stability and their statutes increasingly includes oversight duties with regard to securities settlement systems and clearing houses for financial instruments.

They are also bound to act as the lender of last resort in the event of a major crisis affecting post-market infrastructures.

The Banque de France's tasks

The Emergency Economic and Financial Measures Act of 11 December 2001 amended Article L 141-4 of the French Financial and Monetary Code. The new wording states that, "As part of the ESCB's tasks and without prejudice to the powers of the Financial Markets Council and the Commission bancaire (Banking Commission), the Banque de France shall ensure the safety of securities clearing and settlement systems." The Act thus gives the Banque de France indisputable legal authority to oversee post-market infrastructures and its responsibilities in this area are derived from its own statute. This means that the Banque de France is responsible for overseeing securities clearing and delivery versus settlement systems. Therefore, it assesses their compliance with the principles set out in international standards, such as the CPSS/IOSCO recommendations and the upcoming European standards now being drafted by the Committee of European Securities Regulators and the ESCB.

In addition, since supervision of post-market infrastructures in France is organised by function, the Financial Markets Council acts as the regulatory authority responsible for approving the rules governing central securities depositories, settlement systems and the clearing house. It also supervises the enforcement of these rules. The *Commission bancaire* ensures that the system operators are financially sound when the law requires such operators to be authorised as credit institutions or investment firms, as is the case for the Clearnet clearing house and securities custodians. This division of powers gives rise to close co-operation between the three relevant authorities.

3 Growth of cross-border transactions: implications for the organisation and supervision of post-market infrastructures

Growing integration of financial markets in recent years has led to an expansion of cross-border transactions and increasing demand for more efficient securities infrastructures. This general trend is promoting concentration of European infrastructures and moves to the operational integration or interoperability of systems. It is also spurring efforts to adapt the oversight framework.

3|1 Difficulties arising from the expansion of cross-border transactions

Limits on intermediation in cross-border transactions

Intermediaries, such as local agents, custodians and global custodians proposing services in several countries, handle most of the cross-border transactions. Intermediation developed because of the problems encountered by remote participants regarding access to settlement systems and liquidity in the country where the securities are located. The problems are usually legal ones arising from the lack of harmonisation in the legal requirements for access to systems, which can sometimes exclude remote participants, or technical problems relating to incompatible communications protocols used between different systems, for example.

However, excessive increase of intermediation can create other risks. The processing chain for cross-border transactions is considerably longer than the chain for domestic transactions. This gives rise to financial and operational risks, which means that the default rate is much higher for cross-border transactions. It also means that operations are less efficient and the costs involved are higher.

The demand for more efficient cross-border systems primarily led to concentration of transactions on a

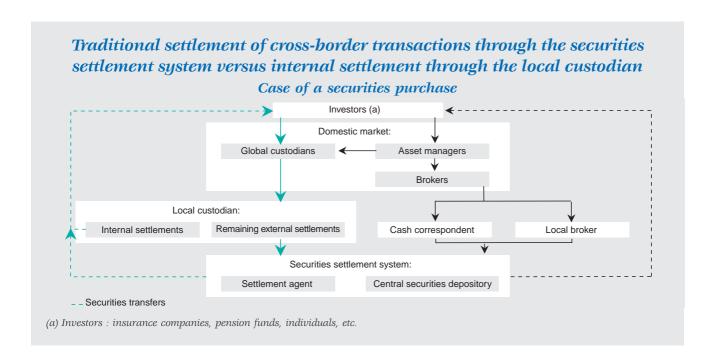
limited number of institutions that have attained critical mass. Custody is now highly concentrated in both Europe and the United States. Custodians are now so large that they have developed their own quasi-systems for settling transactions between their customers internally under conditions that are comparable to those of multilateral settlement systems.

These internal quasi-systems sometimes handle more trades and more trading value than the systems of traditional operators, such as national and international central securities depositories, although there are few such examples in the euro area. Supervisors need to pay full attention to these internal quasi-systems.

Specific risks incurred in cross-border transactions

The risks associated with cross-border links between securities settlement systems are greater than the sum of the risks associated with the individual national systems. The risks are both specific and complex. There may be legal risks relating to conflicts of laws, especially with regard to transfer of ownership, and complex operational risks may arise since cross-border links require special operations to realign and reconcile positions and accounts.

System operators need to take these special risks into consideration when they establish cross-border links between systems.



3|2 Europe's solution: consolidated infrastructures

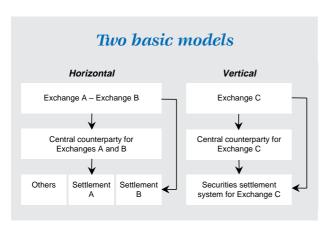
Stage III of Economic and Monetary Union opened up the prospect of a unified domestic securities market within the euro area. There is still much to be done to achieve this objective. The obstacles highlighted by the *Giovannini Report* have yet to be overcome. These include the lack of legal and tax harmonisation, fragmentation of infrastructures and inadequate cross-border mechanisms.

But, with the advent of the single currency, business alliances and mergers have substantially changed the securities business in Europe.

European integration models

Several solutions have been implemented to consolidate securities clearing and settlement infrastructures, as well as trading systems. The solutions are directly or indirectly derived from three standard models:

- The first model features "vertical" integration of trading, clearing and settlement, which in its strictest form enables partners in the same system to deal with each other exclusively. In this case the system is referred to as a "silo" structure.
- The "horizontal" model is based on clearly identified functional blocks that are established at each stage in the securities processing chain, without any obligatory links between them.



Other arrangements combine horizontal and vertical integration by linking entities providing comparable services in different countries. These structures allow users to choose which entity's services they will use at every stage in the processing chain for their securities transactions, without sacrificing the transparency or integration of the process and without imposing exclusivity. The links between Euronext ⁶, Clearnet and the Euroclear group are examples of this type of arrangement.

In addition, the merger between Euroclear and Crest announced in July 2002 should increase the pace of post-market infrastructure integration in Europe.

In addition to the cross-shareholding deals and mergers currently under way, various initiatives are being undertaken to ensure interoperability of independent systems. This means making it possible for one system to link up to complementary systems, generally located in other countries, to offer users transparent cross-border operations without requiring special technical adaptations.

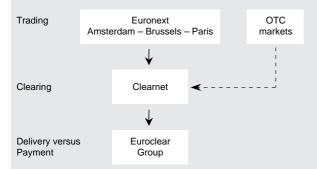
Requirements for operational integration

Business alliances and mergers, regardless of the forms they take, are only the first step towards rationalisation of securities processing in Europe. These moves are required for financial integration in Europe because they simplify the legal organisation and ownership of infrastructures, but on their own, they are not enough. The important aspects to be dealt with next are operational in nature.

The second stage of the rationalisation process, which is the operational and technical integration of systems, is usually a more complex stage than the consolidation of the legal entities that run the systems. When the planned system is intended to handle cross-border transactions, the legal soundness of the new arrangement must be verified beforehand. Risk management arrangements need to be harmonised and the technical characteristics of integrated systems must ensure reliability while being suited to the users' needs. All of the recent mergers have involved plans for integrating systems.

⁶ Euronext: structure before integration of the Portuguese stock exchange and Liffe

Example of combined horizontal and vertical integration Links between Euronext / Clearnet / Euroclear in 2002



Euronext is the result of the merger of the Paris, Amsterdam and Brussels stock exchanges in September 2000. In January 2002, Euronext also absorbed the Portuguese stock exchange and the London derivatives exchange, LIFFE. The group's holding company, Euronext NV, has a subsidiary in each of these countries and each subsidiary has clearly defined responsibilities.

Clearnet is a French credit institution that is a subsidiary of Euronext and Euroclear. Under French law, it is the central counterparty for all of the trades on the Euronext spot and derivatives markets. The ongoing expansion of Clearnet's activities to Belgium, the Netherlands and, when the time comes, to Portugal is being carried out in a two-stage process. The first stage started with the merger of the clearing houses on 1 February 2001. This made Clearnet the central counterparty in each of the three markets. This stage marked the beginning of a transitional period during which risk control arrangements will gradually be harmonised. The transitional period will end with the deployment of the Clearing 21 system developed by Clearnet. It will replace the existing clearing systems in the Netherlands, Belgium and, when the time comes, in Portugal. At the end of the second stage, the risk management arrangements will be fully harmonised.

Delivery versus payment for securities trades and custody of collateral put up for Clearnet will be handled by the securities settlement systems of the Euroclear group, which has been designated as the top service provider for the Euronext group.

Impact of the Euroclear – Crest merger

The Euroclear group, which already provides securities settlement services in France and the Netherlands, and partly in Belgium and Ireland, has announced its merger with its British counterpart CrestCo. The merger will create the largest securities settlement system in Europe. In the medium term, it should make European settlement systems more efficient by offering users a single account for managing French, British, Irish, Belgian and Dutch securities and by charging about the same prices for cross-border transactions between these markets and for domestic trades. Ultimately, a fully integrated securities settlement system should be created. This will be a major step towards establishing an efficient and integrated European financial market.

Infrastructures are being reengineered in many different ways all over Europe. Yet, regardless of the organisational models used, all of the systems must achieve standardisation and automation of all of their processing chain so that they can implement straight through processing (STP). The introduction of STP will create a fully automated securities processing chain and eliminate the need for intermediate manual operations, which disrupt information processing flows and give rise to errors. The introduction of STP in Europe would make postmarket systems more efficient. It would speed up the settlement cycle and create an integrated European financial market.

Under these circumstances, the harmonisation that would be preferable in the worldwide context becomes critical in the European context. Systems cannot be made to communicate efficiently and safely if their operating rules are too different. For example, a system offering settlement at the start of the day or continuous settlement may not be able to connect to a system that provides only end-of-day finality of settlement. Such disparities give rise to risk and inefficiency.

In this regard, the CPSS/IOSCO recommendations and the guidelines laid out by the securities industry representatives in the G30 call for full dematerialisation

of securities issues, harmonisation of communications protocols and interoperability of settlement systems.

The ESCB/CESR group believes that straight through processing will be a critical catalyst for the securities business in Europe. Consequently it has made implementation of STP a top priority for the adaptation of the CPSS/IOSCO recommendations to the European environment.

3|3 Harmonisation of standards and co-ordination of supervisors in Europe

It is up to the market to determine the best form of consolidation and the best way to achieve operational integration, but these changes must be made in compliance with certain key principles. More specifically, the main euro area market infrastructures must be located within the euro area, in view of their systemic importance. They must have an appropriate oversight framework, as stated by the Eurosystem on 27 September 2001. Locating the infrastructures within the euro area is better from a regulatory point of view and for maintaining financial stability. It will also help the Eurosystem, in its capacity as the euro "central bank", to ensure smooth operation of payment systems and effective implementation of monetary policy. The consolidation of post-market infrastructures in Europe will obviously require changes in the way the oversight authorities carry out their tasks. These changes include the transposition of the CPSS/IOSCO recommendations into the European framework and the development of co-operation agreements between authorities for the supervision of cross-border systems.

Adapting the CPSS/IOSCO recommendations to the European framework

The harmonisation of risk control arrangements for post-market systems in Europe and co-operation between authorities will be facilitated by the work of the joint Working Group of the European System of Central Banks (ESCB) and the Committee of European Securities Regulators (CESR), which started in October 2001.

The Group's work focuses on three areas:

- deepening and strengthening the CPSS/IOSCO recommendations for application in the European context,
- analysing central counterparty clearing activities in Europe,
- reviewing the *Report* published in early 2002 by the Giovannini Group (in charge of advising the European Commission on financial market issues), in order to reduce the barriers to the integration of European securities clearing and settlement infrastructures highlighted in the *Report*.

As part of the Group's work, the first question put to the authorities concerns the scope of their tasks. Up until now, the supervisory policies of regulators and central banks applied mainly to clearing and settlement systems run by specialised operators, such as central counterparties, national and international central securities depositories. The concentration of the custody business, which has come with keener competition, has brought new players into the field. These players operate their own quasi-systems that have functional characteristics very similar to those of traditional clearing and settlement systems.

This change has created a market-led demand for the same oversight arrangements and the same sets of standards to be applied to the same category of services, even though providers do not all have the same legal status. This is called the functional approach. If the supervisory authorities adopt this type of approach, it would become a complement to the standard institutional approach. It would help to create a truly level playing field in terms of systemic oversight. The various authorities are currently studying the requirements for adopting a functional approach to their tasks that is in keeping with the CPSS/IOSCO recommendations, which set out recommendations for each category of service, without reference to the types of providers.

The second issue for the authorities concerns access to infrastructures and the right of these infrastructures to develop their business in other countries. Neither of these issues has hitherto been dealt with in the main European Directives on financial matters, such as the Banking Directives or the Investment Services Directive. At the end of May 2002, the European Commission started public consultations to determine whether a Framework Directive is required to define an authorisation procedure and a special status for securities settlement systems, clearing houses and custodians, and, if so, what the practical procedures for a "passport" for such service providers should be.

Another important issue deals with procedures for co-operation between domestic authorities as crossborder systems develop. Central banks usually oversee cross-border post-market infrastructures according to the same principles as those applied to payment systems (Lamfalussy principles). These principles are based on designating a "lead overseer" with the primary responsibility for overseeing the cross-border system. This responsibility usually goes to the central bank in the country where the system is legally established. The other central banks concerned (i.e., the central bank of countries whose currencies or securities are processed by the system, and of countries in which a large number of participants are located, or which are host to some or all of the technical infrastructure), also take part in oversight tasks through a consultative committee.

Co-ordination of European supervisors within the context of Euronext and Euroclear

The supervisory authorities from the various countries concerned have reached a formal agreement on co-ordinated monitoring of securities clearing and settlement in response to the consolidation of financial markets and securities infrastructures. The creation of Euronext and the expansion of the Euroclear group have recently led to application of the co-ordination principle.

At the end of January 2001, the French, Belgian and Dutch authorities adopted a *Memorandum of Understanding* that co-ordinates their respective responsibilities for regulating and overseeing Euronext. The first part of the Memorandum of Understanding was signed on France's behalf by the French Securities and Exchange Commission —

Commission des opérations de bourse — and the Financial Markets Council — Conseil des marchés financiers. It organises regulation of trading in securities and derivatives within the Euronext group. The second part of the Memorandum of Understanding, which the Financial Markets Council, the Banking Commission and the Banque de France signed on France's behalf, deals with the co-ordinated oversight of Euronext clearing activities, which are handled by Clearnet.

Co-operation on the oversight of Clearnet is based on the principle of mutual recognition of each authority's powers that is derived from European law. Co-operation is aimed at instituting joint assessments of Clearnet's risk management arrangements, with each authority maintaining responsibility for taking the decisions within its powers under its own institutional framework.

Another *Memorandum of Understanding* was signed on 22 October 2001, by the National Bank of Belgium and the Belgian Banking and Financial Commission on behalf of Belgium and by the Financial Markets Council and the Banque de France on behalf of France. This document organises the prudential supervision of the Euroclear group's entities Euroclear Bank and Euroclear France, as well as the oversight of the group's securities settlement systems. This Memorandum of Understanding differs from the preceding one in that it is based on the principles of international co-operation between central banks for the oversight of payment systems set out in the 1990 *Lamfalussy Report*.

A third Memorandum of Understanding with the Belgian and Dutch authorities was signed by the Financial Markets Council and the Banque de France on behalf of France in 2002. It organises co-operation for prudential supervision and oversight of the securities settlement services provided by Euroclear Bank for trades on Euronext markets.

These three agreements testify to the progress made on achieving effective co-operation between authorities in the performance of their supervisory tasks as systems become increasingly internationalised and pan-European post-market infrastructures develop.

There have been substantial changes in post-market infrastructures in recent years. These changes have been accelerated in Europe by the introduction of the single currency.

The authorities have kept pace with the changes, especially the central banks, which have made a significant contribution to the definition of harmonised standards and co-operation arrangements that ensure the effective and non-redundant oversight of new cross-border infrastructures.

Other initiatives will soon be introduced. The joint work of the CESR and the ESCB will mark a new and decisive step towards achieving harmonisation of market practices and standards, and will speed up the integration of post-market infrastructures in Europe.