

The Giovannini Group

Second Report on EU Clearing and Settlement  
Arrangements

Brussels, April 2003

## Foreword

*Since the Group began working on EU clearing and settlement arrangements in January 2001, awareness of the importance of clearing and settlement for a well-working financial system has become widespread. Clearing and settlement are at the core of any financial system; inefficiencies in these processes have serious consequences. When clearing and settlement are too costly or complex, financial transactions are discouraged. In the context of the EU, the result is that national markets have remained isolated: resources are not pooled efficiently, the allocation of economic resources across time and space is sub-optimal, the techniques that allow the trading of risk are too expensive and financial asset prices fail to convey all information that is available to market participants. The analysis in the Group's first report provided ample evidence of inefficiencies in EU clearing and settlement arrangements and identified 15 barriers as the source of those inefficiencies. The main conclusion of the first report was that the EU financial market cannot be considered to be an integrated entity, but remains a juxtaposition of domestic markets. A financial market so fragmented not only does not perform its functions effectively, but also fails to attract investments from overseas.*

*In this second report on EU clearing and settlement arrangements, the Group addresses the question of what actions should be undertaken to eliminate the problems identified in the first report. The main conclusion is that a concerted removal of the 15 barriers identified in the first report is the essential ingredient to the reform of post-trading services in the EU. The barriers will be replaced by a set of technical standards, market conventions, rules, regulations and laws that are consistent with a barrier-free environment for the provision of post-trading services. A strategy to remove the barriers is proposed, based on an appropriate sequencing of actions, a clear allocation of responsibility for those actions and aggressive but realistic deadlines. An important characteristic of this strategy involves close co-operation between private sector agents and national governments.*

*The removal of the barriers will increase the pace of consolidation in the EU clearing and settlement industry. The nature of this industry means that the process of consolidation cannot be determined ex ante but will be path dependent. However, the one fact on which there is no ambiguity is that consolidation will lead to the progressive growth of service providers with significant size relative to the market. An orderly integration and consolidation process requires a regulatory/supervisory structure that has the power to make clearing and settlement providers deliver fair and low cost access, respond quickly and flexibly to changes in their operating environment, and charge prices that are close to a minimised level of costs. In addition, this structure should lay out a set of legal and operational safeguards that make the industry manage risk adequately and function efficiently in situations of financial crisis or strain.*

*In summary, this document argues that the process to create an adequate clearing and settlement infrastructure in European financial markets is made up of two ingredients: (a) a concerted system of initiatives designed to replace the fifteen barriers with standards, regulations, and laws adequate to an efficient and barrier-free market, and (b) adequate regulatory/supervisory structures that ensure that the benefits of a barrier-free market will be made available to all market participants through low-cost and safe post-trading services.*

*We believe accomplishing the tasks in (a) and (b) above to be a realistic prospect, well within the reach of European authorities and financial market participants. In particular, we believe that the economic and social benefits of the reform far outweigh the inevitable costs that the industry will have to incur to adapt to the new regime. Contrary to some fears that have been expressed, this is not a politically sensitive project, because in this project it is very easy to identify the distribution of costs and benefits, and the latter far outweigh the former.*

*Building integrated and efficient clearing and settlement arrangements is urgent and functional to other initiatives to strengthen the EU financial system. A project of such importance requires – and deserves – strong political support. With clear direction, the private sector and authorities can be expected to quickly implement those initiatives that will eliminate the barriers. With the creation of a barrier-free environment for securities trading in Europe and with the development of appropriate regulatory/supervisory structures, the remaining uncertainties on the nature of consolidation among providers of clearing and settlement will quickly disappear.*

*The completion of this second report fulfils the mandate provided to the Group by Commissioners Solbes and Bolkestein to whom I am personally grateful for the moral support received, and for the far-sightedness they have demonstrated in identifying this as an area worthy of exploration. The project has benefited tremendously from the contribution of all the members of the Group, who have always been generous with their ideas and feedback, and as a result have ensured the relevance and the quality of this report. Among the members I should single out a group of exceptionally gifted and motivated people who have helped with the various drafts of the report: John Berrigan (who, as head of secretariat, has also been the general manager of the project), Godfried De Vidts, Klaus Löber, Daniela Russo, Martin Thomas and Elizabeth Wrigley.*

Alberto Giovannini

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## Executive Summary

This is the second report of the Giovannini Group on EU cross-border clearing and settlement arrangements and complements the first report published in November 2001 (hereafter referred to as the 2001 report). The Giovannini Group is composed of financial-sector experts - meeting under the chairmanship of Alberto Giovannini - to advise the Commission on financial-sector issues. The work of the Group on clearing and settlement is expected to inform Commission policy in this field and responds to a mandate received from Commissioners Solbes and Bolkestein. The 2001 report was a diagnostic exercise. The objective was to introduce clearing and settlement to the uninitiated reader, highlight the specific problems of *cross-border* clearing and settlement and to identify the source of these problems. The Group identified the source of the problems in 15 barriers – based in market practice/regulatory requirements, tax procedures and issues of legal certainty. In the time since the publication of the 2001 report, there has been little or no dissent from the identification of these barriers.

This second report attempts to provide solutions to the problems identified in the November 2001 report and has three main parts. The first part focuses on removing the 15 barriers and reflects a conviction within the Group that efficiency in EU clearing and settlement arrangements cannot be optimised within an environment of multiple regulatory, fiscal and legal regimes. Accordingly, a coherent strategy for removing the barriers is presented. This strategy has been derived on the basis of several considerations: (i) some barriers are more important than others and so there is a need to establish priorities; (ii) some barriers are inter-dependent so that there is merit in establishing a sequence for their removal that minimises the logistical effort and risk that may be involved; (iii) it is necessary to identify the specific action that is needed to remove each barrier and to identify who – private or public agent – is responsible for that action; (iv) the need for co-ordinated action in removing each barrier requires that a co-ordinator be identified in each case; and (v) there is a need to provide the necessary momentum and sense of urgency by establishing realistic but aggressive deadlines for removing each barrier.

The priority barriers – from the perspective of integration – are clearly those that restrict the location of settlement activities. If these are removed, investors can choose where to locate their post-trading activities and set in train a market-led integration of clearing and settlement arrangements across the EU. Removal of these barriers would encourage a significant increase in cross-border securities trade but, if other barriers remain place, there may be unacceptable levels of operational and legal risk. To avoid this outcome, an appropriate sequencing is required for removing the barriers – a sequencing that ends rather than begins with the removal of the “restriction barriers”. This sequencing applies to the actual removal of barriers but not to preparatory work. In effect, preparatory work for removing each of the barriers will begin at the same time.

As far as the private sector is concerned, barriers relating to information technology and operating hours should be removed first. The removal of these two barriers would facilitate the removal of four other technical barriers relating to differences in settlement periods, in rules on corporate actions, in issuance practices and intra-day settlement finality. Barriers related to taxation and legal certainty should be lifted by national governments at the same time as these remaining technical barriers – ultimately paving the way for the safe removal of the restriction barriers.

For the removal of each barrier, the Group has identified the action required, the party responsible for that action and a deadline.

If the strategy for removing the barriers is credible, market participants can immediately prepare for life in a “barrier-free” environment. In such an environment, many of the obstacles to delivering efficient and integrated clearing and settlement arrangements for the EU – which seem insurmountable today – would be manageable. Although consolidation is not an inevitable feature of the integration process, some degree of consolidation is likely. The second part of this report deals with public policy considerations in the integration/consolidation of clearing and settlement providers in the EU and examines several models of integration in this context. Three such public policy considerations have been identified – cost effectiveness, competition and safety. Cost effectiveness is of interest to public policy as this is a central objective of the internal market, i.e. to exploit the integration of clearing and settlement arrangements so as to deliver economic benefits. The delivery of benefits to the economy as a whole – rather than to any sub-set of economic agents – requires an appropriate degree of competition. Competition implies freedom of access for both users and providers and the absence of any restrictive practices that might limit the extent of or distort competition among providers. If competition cannot be assured, then more regulation-based solutions might be appropriate. Finally, integration of clearing and settlement arrangements must be consistent with a desired level of systemic stability.

The various possible models of integration/consolidation affect these public policy considerations differently. As it is not feasible to cover all possible models in this report, a representative subset has been chosen. Each of the (three) models chosen implies a progressively higher degree of consolidation and has been examined in the context of the public policy considerations identified. The analysis in this section shows clearly that alternative structures could emerge in the consolidation process, and that an ex-ante assessment of these structures does not lead to a preferred solution, without much more clarity on the type of regulatory environment that will be needed to support integration and consolidation. However, the analysis provides practical guidance on the kind of issues that such a regulatory environment will need to address. The Group believes that, to build a system of clearing and settlement that constitutes a strong pillar of a truly integrated and liquid European financial market, a clear drive towards the elimination of barriers will have to be accompanied by a regulatory/supervisory structure which can function effectively on a pan-EU basis. With this set of conditions in place, the convergence towards the most efficient structure will occur rapidly and without disruptions.

The final part of the report addresses the next steps required for integrating EU clearing and settlement arrangements and highlights the role of national governments. The Group believes that market participants should play the greatest role possible. However, the fundamental importance of clearing and settlement to the functioning of securities markets imposes a special responsibility on the public sector in promoting the integration process. In this context, the Group believes that progress cannot be achieved without the strong commitment of national governments and the EU Commission.

## Section 1: Introduction

This is the second report of the Giovannini Group on EU cross-border clearing and settlement arrangements and complements the first report published in November 2001 (hereafter referred to as the 2001 report).<sup>1</sup> The Giovannini Group is composed of financial-sector experts - meeting under the chairmanship of Alberto Giovannini - to advise the Commission on financial-sector issues.<sup>2</sup> The work of the Group on clearing and settlement is expected to inform Commission policy in this field and responds to a mandate received from Commissioners Solbes and Bolkestein.<sup>3</sup>

*This is the second report by the Giovannini Group on EU cross-border clearing and settlement arrangements.*

From the outset of its work on clearing and settlement, the Group was aware that it was entering an already crowded arena. Other bodies such as the G-30, CPSS-IOSCO, and ECB-CESR were either already active or about to become active on related issues. Each of these bodies has been highly productive in the intervening period, making important contributions to the ongoing debate on clearing and settlement at both the EU and global level. The Group has taken care to position itself correctly vis-à-vis these other bodies so as to avoid duplication of work and to ensure consistency in any recommendations. To this end, the work of the Group has been focused on two limited objectives.

*The Group has sought to avoid duplication of work and to ensure consistency with the recommendations of other bodies.*

- The first objective was to fulfill the Commission mandate by identifying the requirements for efficient clearing and settlement arrangements for the European Union. The Group has not recommended the creation of the ideal clearing and settlement system – but only a system that works efficiently on a pan-EU basis.
- The second objective was to address an important dilemma in trying to improve EU clearing and settlement arrangements. Clearing and settlement are basic functions in a financial system, but they are also very complex processes. As basic functions in the financial system, it is essential that clearing and settlement should be efficient. However, achieving this objective requires input not just from experts, but also from non-experts such as senior managers and public policymakers. The dilemma is that non-experts find the complexity of clearing and settlement to be daunting and so have tended to shy away from issues in this field. In that context, the work of the Group has been an attempt to bridge the gap between the highly technical nature of the problems involved in integrating EU clearing and settlement arrangements and the policy decisions that must be taken to resolve those problems.

The 2001 report was mainly diagnostic and fulfilled the first element of the Solbes/Bolkestein mandate by providing: (i) a stylised description of the clearing and settlement processes; (ii) an indication of the additional

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<sup>1</sup> “Cross-border Clearing and Settlement Arrangements in the European Union” – Report by the Giovannini Group, Economic Paper No.163 (February 2002). The executive summary of the 2001 report is reproduced in Annex I.

<sup>2</sup> The list of participants in the Group’s work on clearing and settlement is presented in Annex II.

<sup>3</sup> The mandate from Commissioners Solbes and Bolkestein is presented in Annex III.

risk associated with effecting these processes on a cross-border (i.e. cross-system) basis; (iii) an overview of current institutional arrangements in the EU; (iv) a tentative indication of the relative cost differential in settling a domestic and a cross-border securities transaction; and (v) a list of 15 barriers identified by market practitioners as preventing the efficient provision of cross-border clearing and settlement services within the EU. Drawing on the 2001 report and other relevant work, the Commission adopted a Communication to the Council and the European Parliament on 28 May 2002. The Communication was a consultative document and represented the first step toward developing a policy on clearing and settlement arrangements in the EU.<sup>4</sup>

*The 2001 report was diagnostic and informed the Commission Communication of May 2002*

This second report on EU clearing and settlement arrangements fulfils the remaining elements of the Solbes/Bolkestein mandate, building on the analysis presented in the 2001 report and any subsequent inputs such as the Commission Communication, the Resolution of the European Parliament on that Communication<sup>5</sup>, the CESR-ESCB initiative<sup>6</sup>, the G-30 report<sup>7</sup> and the recent announcement by DG COMP of the Commission<sup>8</sup>. In this context, the central message of this report will be that the inefficiencies in EU cross-border clearing and settlement arrangements should be eliminated by removing the 15 barriers that were identified in the 2001 report. In other words, a structured effort – involving both private and public agents – to eliminate these barriers is by far the most consistent and efficient strategy to achieve an integrated post-trading environment for the EU securities market. To this end, Section 2 of the report proposes a strategy for removing the barriers by identifying the actions required, allocating responsibility for those actions and establishing a timetable for achieving them.

*This second report presents a strategy for removing the 15 barriers to efficient clearing and settlement arrangements that were identified in the 2001 report.*

Removal of the 15 barriers is a medium-term proposition. However, the search for efficiency gains has already created a dynamic toward consolidation among EU clearing and settlement providers. The rather limited and sporadic process of consolidation that has been witnessed so far reflects uncertainty about the future regulatory, fiscal and legal environment in which clearing and settlement will be provided in the EU. The existence of clear and credible strategy for removing the 15 barriers is vitally important to remove this uncertainty. In these circumstances, the process of consolidation would be likely to accelerate.

*A clear and credible strategy for removing the barriers is likely to accelerate the process of consolidation among EU clearing and settlement providers.*

The choice of architecture for delivering pan-EU clearing and settlement services is a matter primarily for the private actors involved. However, the clearing and settlement of securities is fundamental to the efficiency and soundness of the financial system as a whole. To that extent, there are aspects of any consolidation among clearing and settlement providers, which are of legitimate interest to public policymakers. In

*The report examines the public policy aspects of consolidation, based on a set of stylised models.*

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<sup>4</sup> "Clearing and Settlement in the European Union, Main Policy Issues and Future Challenges": COM (2002) 257 of 28 May 2002.

<sup>5</sup> European Parliament, Report No. A5 0431/2002 of 4 December 2002, prepared by Generoso Andria.

<sup>6</sup> See CESR-ESCB press release of October 2001.

<sup>7</sup> "Global Clearing and Settlement – A Plan of Action" (January 2003): the G30 Group, Washington DC.

<sup>8</sup> See Commission press release IP/03/462 of 31 March 2003



Section 3, the public policy aspects of consolidation are explored in the context of the objective of cost-effective, competitive and systemically sound EU clearing and settlement arrangements. Finally, some of the possible consolidation models are examined in terms of achieving this objective.

## Section 2: A strategy for removing the barriers

### 2.1 The need for a strategic approach

The conclusions of the 2001 report were widely publicised and were generally accepted by market participants and public policymakers. In particular, the list of 15 barriers identified as sources of inefficiency in EU cross-border clearing and settlement arrangements was accepted as comprehensive. On the other hand, reactions to the report suggested that many believed – or perhaps hoped – that the difficult task of removing these barriers could be avoided by appropriate changes in the clearing and settlement architecture. This was never the view of the Giovannini Group. While changes in the clearing and settlement architecture would be expected to deliver efficiency gains due either to improved inter-linkages or scale economies, the Group is convinced that such gains would be limited by the need to operate in an environment of multiple regulatory, fiscal and legal regimes. This view has been confirmed subsequently by submissions to the Group from those directly involved in initiatives to consolidate the provision of clearing and settlement services. Accordingly, this second report begins from the central thesis of the 2001 report - that the removal of the 15 barriers is the essential prerequisite for fully integrated and efficient EU clearing and settlement arrangements.

*Removal of the 15 barriers, as identified in the 2001 report, is a prerequisite for efficient, integrated EU clearing and settlement arrangements*

The Group believes that immediate action is now required to remove all of the 15 barriers identified in the 2001 report. However, if the barriers are to be removed in a manner that improves efficiency (i.e. lowers cost, enhances competition while safeguarding stability), there is a need for a clear and consistent strategy. Such a strategy to remove the barriers would comprise two main strands. The first strand would be the identification of the action necessary to remove each barrier and the allocation of responsibility for that action to the appropriate actor(s). The second strand would be an appropriate sequencing in the removal of the barriers, reflecting a timetable of aggressive but achievable deadlines. The elements of a strategy to remove the barriers are outlined in more detail in the remainder of this section.

*There is a need to develop a clear and consistent strategy for removing the barriers.*

The 2001 report categorised the 15 barriers by type and on the basis of private sector or government responsibility for their removal. Three types of barriers were identified, i.e. relating to technical requirements/market practices (10), relating to taxation (2) and relating to legal certainty (3). Responsibility for removing barriers relating to technical requirements/market practice was seen as either falling exclusively on the private sector or as shared between the private sector and the public sector.<sup>9</sup> The removal of barriers related to taxation was identified as the exclusive responsibility of government. Government was also attributed exclusive responsibility for removing barriers relating to legal certainty. However, the complexity of government intervention

*The barriers have been categorised by type and on the basis of responsibility for their removal.*

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<sup>9</sup> A possibly more activist role for government in removing barriers relating to technical requirements/market practices was acknowledged, if it proved necessary to overcome national sensitivities and/or the perverse incentives that exist for entities that profit by arbitraging inefficiencies in cross-border clearing and settlement.

in issues of legal certainty was acknowledged because of the fundamental aspects of national law to be addressed and the need to involve many different arms of government (i.e. co-ordination within government would be required as several ministries could be concerned).

The ordering of barriers in the 2001 report reflected the relative priority afforded each barrier by the respondents to the questionnaire that was circulated as the basis for that report.<sup>10</sup> While this ordering may reflect the concerns of market participants, it cannot provide an appropriate basis for removing the barriers. The basis for removing the barriers will reflect several considerations. First, some barriers are more important than others to the Group's objective and so there is a need to establish priorities. Second, some barriers are inter-dependent so that there is merit in establishing a sequence for their removal that minimises the logistical effort and risk that may be involved. Third, it is necessary to identify the specific action that is needed to remove each barrier and to identify who should be responsible for that action. Fourth, the need for co-ordinated action in removing the barriers requires that a co-ordinator be identified in each case. Fifth, there is a need to provide the necessary momentum and sense of urgency by establishing aggressive but achievable deadlines. In light of these five considerations, it is possible to determine an optimal sequencing in removing the barriers.

*Removal of the barriers must be achieved in an appropriate sequence.*

In terms of the central objective of the Group's work (i.e. to identify how to create integrated clearing and settlement arrangements consistent with the principles underlying the Internal Market) the priority barriers are those relating to restrictions on the location of clearing and settlement and the location of securities (Barriers 2, 5, 9 and 10). Removing these barriers is a pre-condition for delivering the widest possible access to clearing and settlement services, extending investor choice and fostering a market-led integration of EU clearing and settlement arrangements. Undoubtedly, the opportunity to locate securities and securities clearing and settlement without national restrictions would help to stimulate an increase in cross-border securities trading. However, the Group believes that an increased volume of cross-border transactions in the presence of the remaining barriers (i.e. relating to the absence of inter-operability and national differences in legal certainty, in particular) would result in a corresponding increase in operational and legal risk. The significance of any increase in operational and legal risk could rise if consolidation in the clearing and settlement infrastructure resulted in a concentration of that risk in a smaller number of large service providers. For this reason, the Group has devised a sequence for removing the fifteen barriers, which ends rather than begins with the priority barriers that restrict location of securities and securities settlement.

*The Group has devised a sequence, which ends rather than begins with removing the priority barriers that restrict location of clearing and settlement and the location of securities.*

## 2.2 The strategy for removing the barriers

The strategy for removing the barriers comprises a logical sequence of actions to remove each barrier, a clear allocation of responsibility for

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<sup>10</sup> See Annexes V and VI of the 2001 report for details of the questionnaire and the responses received

each action and specified deadlines. These elements can then be brought together in a timeline, which reflects the interdependencies that exist in the removal of the various barriers. In this context, it should be noted that sequencing applies only to the removal of the barriers. The preparatory work for removing all of the barriers will need to begin simultaneously in light of the fact that the strategy implies that all of the barriers must be removed within a three-year period. The remainder of this sub-section presents the sequence for removing the barriers, together with a brief explanatory text.<sup>11</sup> For convenience, the sequence of necessary actions, responsible actors and deadlines in removing the barriers is presented in the chart in Annex 2a.

*The strategy for removing the barriers comprises a logical sequence of necessary actions, clear allocation of responsibility and aggressive deadlines.*

The sequence for removing the 15 barriers to integrated and efficient EU clearing and settlement arrangements is as follows:

**Removing Barrier 7**

**Operating hours and settlement deadlines should be harmonised, using TARGET hours as the benchmark. ECSDA should take the lead in this initiative, in close co-ordination with the ESCB. This barrier should be removed within a period of two years from the initiation of this project.**

Barrier 7 relates to differences in the operating hours of national systems, which can result in the incompatibility of deadlines for matching and delivery in the different systems. EU settlement systems are required to conform to the operating hours of TARGET for those assets eligible for use in ESCB credit operations, but sufficient differences remain in the opening days,<sup>12</sup> hours and deadlines to impede efficient cross-border clearing and settlement. The Group believes that opening days, hours and settlement deadlines should be harmonised for the EU as a whole. As a minimum, there should be a common window of hours during the day when all systems are open in order to facilitate cross-border transfers. In addition, where systems operate on the basis of batch processes, the number and frequency of batches should be sufficient to guarantee that securities can be transferred between systems intra-day.

First steps towards harmonisation of opening hours have already been taken. The ECB Users Standards (laid down in 1999) require that all SSSs that are used by the Eurosystem for its monetary policy and intra-day operations (in practice, all of them with very few exceptions) should

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<sup>11</sup> A clearer understanding of the rationale underlying these actions can be obtained from Section 5 of the 2001 report.

<sup>12</sup> There is a harmonised calendar of opening days for TARGET, but this has not led to a complete harmonisation of opening days for the securities settlement systems. In fact, since the ECB standards apply only to monetary policy or intra-day credit operations, SSSs are allowed to be closed during TARGET operating hours if the securities necessary to settle these operations have been pre-deposited with the local central bank – which will ensure settlement of the securities. This arrangement does not, however, cover the settlement of interbank operations.

have operating days and hours consistent with those of TARGET.<sup>13</sup> Recent work by central banks, system operators and banks to improve the working of the Correspondent Central Banking Model (CCBM) has confirmed opening hours as a factor, which reduces the efficiency of these cross-border transfers. Operators have already agreed that settlement systems could remain open until 18.00 CET for settlement of treasury transactions. However, harmonisation of the closing hours of the systems cannot be sufficient to meet the needs of the market. In particular, there is a need to harmonise the time at which the last transaction to be settled on a given day can be entered into the system.

Any initiative to fully harmonise opening hours is the responsibility of the private sector. The European Central Securities Depository Association (ECSDA) should take the lead in this project, but there will be a need for co-ordination with central banks, stock exchanges and users of systems. The project should begin as soon as possible and have established harmonised opening hours for all EU clearing and settlement providers within a period of two years from the initiation of this project.

### Removing Barrier 1

**National differences in the information technology and interfaces used by clearing and settlement providers should be eliminated via an EU-wide protocol. SWIFT should ensure the definition of this protocol through the Securities Market Practice Group (SMPG). Once defined, the protocol should be immediately adopted by the ESCB in respect of its operations. This barrier should be removed within a period of two years from the initiation of this project.**

Barrier 1 relates to national differences in information technology and interfaces used by clearing and settlement providers. These differences impose substantial (back-office) costs on investors by requiring investment in multiple technologies and often a higher level of manual input in transactions. Investors or intermediaries that are members of multiple systems face a particular problem in this regard. There is a clear need to standardise protocols for communication with national clearing and settlement systems and between the systems themselves, implying harmonised connection and messaging protocols. The definition of these formats and protocols should build on the work already accomplished by SWIFT<sup>14</sup> and the Securities Market Practice Group with the aim of removing the difficulties caused by proprietary systems and free data fields. Standardised interfaces, and in particular, the removal

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<sup>6</sup> TARGET standards require that “the operating timetable of SSSs must enable ESCB counterparties and the NCBs to use the eligible securities on the tier one and tier two lists transferable through SSSs, on a domestic and cross-border basis. In the case of linked arrangements, system operators must ensure the synchronization of operating hours for particular processes.”

<sup>14</sup> The reference to SWIFT is to the standards-setting side of the co-operative’s work and does not imply any requirement to use SWIFT as the communication provider.

of purely proprietary or paper interfaces, will not only boost cost-effectiveness but also will promote competition by facilitating remote access and improve stability by reducing operational risk.

A major difficulty in standardising interfaces is the investment costs to the clearing and settlement providers. Many providers have invested substantially in developing their own IT platforms and will be unwilling to invest further in adapting that platform to accommodate a common standard alongside any existing format. Nonetheless, significant progress is being made towards the adoption of ISO 15022. Given the likely benefits from standardisation and the difficulties involved, a co-ordinated response by market participants is essential. The G30 have also identified the need for common protocols. The Group believes that the Securities Market Practice Group (SMPG) is best placed to lead this co-ordinated effort and should begin this project as soon as possible. Despite the technical challenges involved, a period of two years for the removal of this barrier seems adequate. As an incentive to wide market acceptance, the ESCB should immediately implement the protocol in respect of its operations.

#### **Removing Barrier 4**

**Intra-day settlement finality in all links between settlement systems within the EU should be guaranteed. ECSDA should co-ordinate necessary measures. These measures should be drawn up in close consultation with the ESCB/CESR Joint Working Group. This barrier should be removed within a period of three months of removing Barriers 7 and 1.**

Barrier 4 relates to the absence within the EU of intra-day final irrevocable delivery of some assets across borders, with the ability for their re-use. This has implications both for efficiency and for systemic risk. Settlement systems are already required to have intra-day finality for ECB operations, but it is desirable for all links between settlement systems to provide intra-day settlement finality within a fixed (short) period. Provision of intra-day settlement finality is primarily a responsibility of the private sector, although central banks will need to be involved, and the systemic aspects of this barrier should be of interest to them, to regulators and to competition authorities.

Removal of this barrier will be greatly facilitated by the prior removal of Barriers 7 and 1 above. Systems that operate on a real-time or multi-batch basis to the same timetables, open on the same days, and operating on compatible or harmonised IT protocols, can readily communicate and transfer information. This, in turn, facilitates intra-day finality of transfers between systems. Problems of delays in communication, of missing deadlines in foreign systems or even of having to wait until the other system reopens would disappear. Accordingly, this barrier should be removed within a period of three months of removing Barriers 7 and 1.

### Removing Barrier 6

**Settlement periods for all equity markets within the EU should be harmonised. However, the choice of the appropriate settlement period remains open and the alternative of managing the costs and risks associated with different settlement periods requires further study. Removal of this barrier should be achieved within a period three months of removing Barriers 7 and 1.**

Barrier 6 relates to national differences in settlement periods for EU equity markets. Resultant mismatches in the settlement of obligations can require funding arrangements with other market participants at additional cost to the investor. This barrier would be removed if settlement periods for all EU equity markets were harmonised.

With the exception of Germany, which has a settlement period of T+2, EU equity markets have a settlement period of T+3. Harmonisation on a settlement period of T+2 would have the benefit of bringing the equity markets into line with the foreign exchange spot market, a consideration highlighted by the G30 Recommendations. However, the global environment should also be taken into account and, in particular, the decision in the US not to pursue T+1 settlement and to remain at T+3. In creating harmonisation across the EU at T+2, there would then be a lack of harmonisation with the US. A move to T+2 may also require complementary improvements in institutional trade matching services and the removal of paper (as highlighted in the Group of Thirty report). Hence, the possibility of harmonising settlement periods within the EU on T+3 should also be considered.

Further study should be undertaken to consider whether it is better to pursue a harmonised settlement period across the EU, or to identify adequate mechanisms to manage the resulting costs and risk arising from lack of harmonisation, pending further clarity of the global trend of settlement cycles. This study should also involve a full cost-benefit analysis of the recommendation, including any negative impact on settlement fail rates.

### Removing Barrier 3

**National rules relating to corporate actions processing should be harmonised. The local agent banks acting through the European Credit Sector Associations<sup>15</sup> and together with ECSDA should co-ordinate private-sector proposals. National governments should co-ordinate their response via the relevant EU Council. This barrier should be removed within three months of removing Barriers 7 and 1.**

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<sup>15</sup> European Banking Federation, European Savings Bank Group and the European Association of Cooperative Banks

Barrier 3 relates to national differences in the rules governing corporate actions and the timing of transfer of ownership. This barrier therefore covers a broad range of topics, with an impact beyond pure settlement problems. The first aspect of the problem is the variety of rules, information requirements and deadlines for corporate actions. These differences may require specialised local knowledge or the lodgement of physical documents locally, and so inhibit the centralisation of securities settlement. The Group believes that the private sector should take the lead in removing this barrier and should present a set of agreed proposals on harmonised rules to national governments. The G30 report proposes the establishment of templates for electronic dissemination of information, based on ISO 15022 guidelines. ECSDA has done a significant amount of work on this through their Working Group 5.<sup>16</sup> The local agent banks, via the ECSA, and ECSDA should be responsible for co-ordinating the private sector proposals. Removal of this barrier should be achieved within a period of three months of removing Barriers 7 and 1.

A second aspect of this barrier relates to rules or laws governing securities markets. Differences exist as to the moment when a purchaser is treated as having become the owner of a security for the purposes of corporate actions (e.g. on trade date, intended settlement date, or actual settlement date). The removal of these differences may be possible through the co-ordinated private sector initiative identified above. To the extent that these differences are embodied in law, their removal will require a co-ordinated response by national governments. They could be addressed in the context of the Securities Account Certainty law reform dealt with under legal barriers 13, 14 and 15 below.

### Removing Barrier 8

**National differences in securities issuance practice, in particular in relation to allocation of ISINS, should be eliminated. The International Primary Market Association (IPMA) and the Association of National Numbering Agencies (ANNA) should draw up proposals to this end. This barrier should be removed within three months of removing Barriers 7 and 1.**

Barrier 8 relates to national differences in issuance practice that arise due to the lack of an efficient same-day distribution mechanism, particularly an uneven capability to allocate ISIN numbers to securities issues in real-time. The Group believes that, in combination with removal of other barriers such as messaging standards and intra-day finality, electronic links between issuing agents, dealers and settlement systems should be standardised so as to enable the speedy exchange of issuance information and ISIN codes.<sup>17</sup> This is a responsibility of the

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<sup>16</sup> Working Group 5 on Cross Border Corporate Actions and Events Processing

<sup>17</sup> This issue is being considered in the context of the STEP report, which is currently the subject of a consultation process managed by the ESCB.



private sector and the International Primary Market Association (IPMA), together with the Association of National Numbering Agencies (ANNA) should take the lead. Work will also be needed on the part of ECSDA members, which can draw on the European Pre-Issuance Messaging service as a model for standardised links. Removal of this barrier should be achieved within three months of removing Barriers 7 and 1.

The next set of barriers consists of those for which national governments are solely responsible. These relate to taxation (Barriers 11 and 12) and legal certainty (Barriers 13, 14 and 15).

#### **Removing Barrier 11**

**All financial intermediaries established within the EU should be allowed to offer withholding agent services in all of the Member States so as to ensure a level playing field between local and foreign intermediaries. Removing this barrier is the responsibility of national governments and could be co-ordinated via the relevant EU Council. This barrier should be removed within a period of three months of removing Barriers 7 and 1.**

Barrier 11 relates to domestic withholding tax regulations. The majority of Member States restricts withholding responsibilities to entities established within their own jurisdiction. In consequence, foreign intermediaries are disadvantaged in their capacity to offer at-source relief from withholding tax by the significant extra cost of using a local agent or local representative in the discharge of their withholding obligations. The Group recommends that national governments should take immediate steps to allow foreign intermediaries to act as withholding agents in all of the EU Member States. National governments should co-operate closely with the private sector in implementing this recommendation. Such co-operation would seem particularly appropriate in light of the G30 proposal to establish an international group on taxation issues, which would also comprise representatives of the public and private sectors. Removal of this barrier should be achieved within three months of removing Barriers 7 and 1.

#### **Removing Barrier 12**

**Any provisions requiring that taxes on securities transactions be collected via local systems should be removed to ensure a level playing field between domestic and foreign investors. This is clearly a responsibility of national governments and their actions should be co-ordinated via the relevant EU Council. This barrier is to be removed within a period of three months of removing Barriers 7 and 1.**

Barrier 12 relates to the collection of transaction taxes through a functionality that is integrated into a local settlement system. In these circumstances, the foreign investor's choice of provider for securities settlement is reduced because it is necessary to link up with the local settlement system that operates the tax collection functionality. To ensure a level playing field between domestic and foreign investors, the Group recommends that any provisions requiring that taxes on securities transactions be collected via local systems should be removed. This is clearly a responsibility of national governments and consistency in the removal of these restrictions could best be guaranteed by co-ordinated action via the relevant EU Council. As with Barrier 11, national governments should co-operate closely with the private sector in implementing this recommendation. Removal of this barrier should be achieved within three months of removing Barriers 7 and 1.

### Removing Barriers 13, 14 and 15

The EU Collateral Directive will remove much of the legal uncertainty relating to netting and the uneven application of conflict of laws. Member States should ensure the full implementation of this Directive by the scheduled date of 27 December 2003. While this should be enough to allow the lifting of the restrictions on holdings of securities and securities settlement, there remains a need for a legal framework across the EU under which, whenever securities are held using an intermediary, it is the accounts of that intermediary that establish ownership of those securities.

To this end, an EU Securities Account Certainty project should be agreed upon by national governments. The objective of this project should be to draft the target reform and adequate resources should be made available to meet this objective. This task should be completed within a period of three years.

Three legal barriers were identified in the first report. They were (i) the absence of an EU-wide framework for the treatment of ownership of securities (in this section *ownership* of securities is intended to imply something more than a mere contractual right to call for the delivery of securities); (ii) national differences in the legal treatment of netting; and (iii) national differences about how to resolve conflicts of laws. The discussion in this sub-section of the report deals mostly with the first of these barriers (Barrier 13), the second and third (Barriers 14 and 15) being well on their way to resolution.

### **Barriers 14 and 15**

Barrier 14 (differences in the legal treatment of netting) and to an extent Barrier 15 (differences about conflicts of laws) will be removed for most purposes by the implementation of the EC Directive on financial collateral arrangements (2002/47/EC), adopted on 6 June 2002, which establishes an effective and simple regime for providing financial

instruments or cash as collateral. The Directive, which must be implemented by EU Member States by 27 December 2003, protects collateral from certain insolvency effects by recognising substitution, top-up collateral and close-out netting (Barrier 14). It also creates legal certainty on the law applicable to book-entry securities when used as collateral (Barrier 15) by applying the law of the location of the relevant account. After the Directive was adopted, the Hague Conference has developed a wider measure, not limited to collateral transactions, in its Convention on the law applicable to certain rights related to securities held with an intermediary. It is a different rule, requiring that property rights in relation to securities held using an intermediary are to be treated as being subject to the legal system chosen by agreement between the account holder and the intermediary. It is clearly in the interests of all that inconsistencies between the collateral directive (which is part of EU law) and the Hague Convention (which as yet is not) be resolved.

### **Barrier 13**

Barrier 13 is the absence of an EU-wide framework for the treatment of ownership of securities. In modern securities markets, securities are held for others by intermediaries, for which purpose they maintain accounts. These accounts are treated commercially and economically as being the focus of ownership. However, legally their status differs across the EU. There is a lack of clarity about who has what rights and of what kind when securities are held for investors by means of an intermediary's accounting records ('book-entries'). Are they the owners because securities have been entered in the accounts, or are they already the owners and the accounts simply record the fact?

The approach to overcoming this barrier should be based on giving legal significance to accounts maintained for others by intermediaries. If there is to be a choice about the status of a securities account maintained by an intermediary - constitutive of ownership or merely a record of it - it should be constitutive. It is convenient to call this approach Securities Account Certainty. In some Member States, this is already the law for all securities held through accounts, or for certain types of securities. The problem is not that there are 15 different approaches (broadly all EU legal systems fall within one of a few approaches), but that they all get there in vastly different ways.

The question has been raised whether the forthcoming resolution of Barriers 14 and 15 diminishes the need to address Barrier 13. Some have said that it would be enough to ensure that the conflicts of laws problem alone is solved, arguing that this would allow the market certainty about which legal system applies, without altering the (differing) contents of the range of legal systems from which the market may choose. Others have said that it is enough to legislate certainty for transactions between financial market participants (as is achieved by the collateral directive), without altering the status quo for investors, issuers and others.

The issue is not whether these views are right or wrong but how resilient and long-lasting the solution needs to be. The Group has taken the view that the EU should both reap the rewards of the legal initiatives that

these views are based on, and take the steps necessary to remove Barrier 13. Even with solutions clearly in view for Barriers 14 and 15, there remains a need for something more - a modernisation of the substantive law. For even when it is known which law applies, issues of legal uncertainty remain. There will still be a number of different legal systems that inter-connect in relation to the same securities as a result of the use of intermediaries. These problems of inter-connection will persist as long as national legal systems are based on fundamentally different concepts. The focus points of these problems are what rights an account holder has, in particular when challenged by insolvency (of itself, its counterparty, or of the intermediary) or by a third party asserting claims to the securities at a different point in the chain of accounts between the account holder and the issuer (so-called upper-tier attachment).

Examples of these issues of legal uncertainty include:

- that some jurisdictions allow the attachment of securities at the tier of holding where securities are physically held. This implies that an investor's holding with an intermediary may be worthless, if a higher-tier intermediary is vulnerable to freezing orders made in favour of lower-tier holders and their creditors;
- certification of securities is an essential requirement in some countries but prohibited in others;
- in some countries instruments, issued in a country where they are treated as securities, are not recognised as securities; and
- in any cross-border environment, a holder of securities (most typically, a collateral taker) may have to deal with so many issues of legal diversity that the complexity of itself amounts to an unacceptable level of legal uncertainty.

Modernisation of the substantive law about securities is the way to resolve these issues - to create an EU-wide framework for the treatment of ownership of securities.

Removal of Barrier 13 seems to be both the most important and the most radical step required in the legal arena. This assertion is based on the Group's view about what level of efficiency for cross-border clearing and settlement the EU needs. This is partly subjective. That removal of Barrier 13 will solve cross-border legal problems is certain. However, it cannot be denied that the work needed to draft a specific proposal will be large, and that such a proposal when made into law will require quite considerable alterations to some business practices. One danger, which must be avoided, is any impression that the task ahead diminishes the value of what has been achieved already in respect of Barriers 14 and 15.

Accordingly, the objective is that the legal nature of ownership of securities would be the same across the EU, under each and every legal system. This would be so both for domestic situations and those involving a cross-border element. It would be so both for sales and purchases of securities and for transactions in which securities are used

as collateral. In conformity with the assumption that a change in the law should reflect the realities of modern securities markets, this implies a legal framework across the EU under which, whenever securities are held using an intermediary, it is the accounts of that intermediary that establish ownership of those securities. In the same vein, if these securities are used as collateral, a transfer of legal title or pledge can be evidenced by book-entry in the respective accounts or through other appropriate measures such as earmarking procedures on the intermediaries' accounts. A number of EU Member States have adjusted their legal framework to aim at this target, although in ways that differ significantly.

This is already the basis of special laws relating to securities held in accounts with securities settlement systems (SSSs) in some EU Member States, most notably Belgium and Luxembourg, where specific legislation was adopted to facilitate the operations of the SSSs.

### **What EU Securities Account Certainty will cover and what it need not cover**

A plain rule that, whenever securities are held indirectly using an intermediary, it is the accounts of that intermediary that determine ownership of those securities will not suffice on its own. The consequences must also be catered for. The rule would establish a legal nexus between ownership and the record of ownership. As stated, it would apply only to ownership of securities held on electronic accounts (i.e. those where there is a record of ownership). It would not apply to securities that are held in physical form (i.e. those where there is no record).

It may be supposed that the target reform would cover the following main points:

- *Investors' ownership rights*: the extent and exact nature of rights of investors whose securities are held on an account with an intermediary must be clear and transparent;
- *protection from insolvency of the intermediary*: that investors' assets are not available to the creditors of the intermediary nor to the intermediary itself;
- *tradability*: that dealings take place by debits and credits to the relevant account, and the bona fide acquirer can rely on such credits;
- *protection for acquirers*: that priorities between competing interests are determined by the order in which they are recorded to the relevant account; and
- *investor protection*: that those maintaining securities accounts must have adequate protection mechanisms in place (including as arise from being supervised) to avoid shortfalls and to deal with shortfalls should they occur.

The terms of securities - meaning the rights and obligations of issuers and the way securities are issued - would mostly (but not completely) be untouched. Securities issued under terms that specify the manner in which they may be owned would be subject to the new regime at which the target reform is aimed.

Other aspects of the relationship between investors and intermediaries would be untouched. The regulatory framework, especially such as flows from EU legislation, is in any event under review. Laws of tax and of competition are entirely outside the scope of what is being suggested here, as are all laws concerning the formulation of relationships by contract. Naturally all these areas will need to be carefully considered, and will no doubt inform the details of the resulting text. The point is that they do not need in themselves to be changed so as to achieve the target result.

#### **Summary of the legal argument**

1. The EU needs all countries to treat securities in the same way (what they are, how you own them, how you trade them). At the moment they are treated differently. In particular, in some countries account entries establish ownership; in others they do not.
2. Without this common framework, cross-border usage of securities, both in trading and in settlement, cannot consolidate.
3. In a modern market, securities are held through intermediaries: they are recorded in electronic accounts. There needs to be a legal framework across the EU under which, whenever securities have been entered into a book-entry system, it is the accounts that establish ownership of those securities. There would then be a legal identity between ownership and the record of ownership.
4. The recent conflicts of laws measures (EC Directive on Financial Collateral Arrangements and Hague Convention on the law applicable to certain rights relating to securities held with an intermediary) are a huge step towards this, but they do not go all the way.

#### **How to set about the task**

The Group proposes that an EU Securities Account Certainty project be agreed upon by national governments, with a mandate to draft detailed proposals for the target reform and to explore and progress options for the work once concluded to be implemented into the laws of EU member states. This project will need to have, and be seen to have, both the political backing of the national governments and the necessary resources, including funding, to see the project through.

The need for reform is an EU problem, which implies an EU law solution. However, an EU Securities Account Certainty project is rather different from the kind of directive canvassed in the Commission's Communiqué and recommended by the Parliament. This is a substantive law reform,

something to which the Treaty does not easily lend itself. Nonetheless, it can and should happen. Securities Account Certainty is logical, not revolutionary. It is not an invasion of national legal systems; there is no need to revolutionise property laws in general, only those dealing with securities. In its recent Communiqué, the EU Commission talks of a kind of "Uniform Securities Code" for the EU. Assuming that to mean a comprehensive statement of the law relating to securities, codifying and modernising law, which already exists, it is a far larger task than the EU Securities Account Certainty project – which is not a proposal for any European securities code.

The essence of the EU Securities Account Certainty project is to draw together expertise from academia, public authorities, practising lawyers and those working in the commercial sector (such as the European Financial Markets Lawyers Group), with such expertise to be drawn upon not merely in the process of consulting on the proposal, but also in formulating the detail of it and in drafting the legal text. That is why the project will need a core secretariat to drive it through.

There is another reason why an unusually wide collection of skills should be harnessed from the outset. EU Securities Account Certainty represents for some EU legal systems a significant change to the laws on ownership of securities. Other legal initiatives in this area, e.g. the EC Settlement Finality Directive, the EC Collateral Directive, and the Hague Convention, have to an extent been promoted on the basis that they are of importance and interest only to those participating in or providing the facilities for financial markets. They have been treated as 'technical' and the debates have been dominated by those already expert in the issues, usually through commercial or professional experience. The interests of normal unsophisticated investors - the underlying owners of securities - have not been fully ventilated in the debates. The EU Securities Account Certainty project must proceed in a wider dialogue. Cross-border clearing and settlement is a specialism even within the community of lawyers familiar with financial markets transactions. However, to alter property laws, albeit only as they relate to investment securities, will require that specialist lawyers converse sensibly with generalists and that groupings representing the interests of investors that use the securities markets but do not participate in them are not only given a chance to be heard but also are properly educated about what is being proposed. This implies a need for a greater level of co-ordination and prompting of others than can be achieved by 'passive' methods of consultation.

A period of three years is recommended for the EU Securities Account Certainty project. During that time, and as part of the project, it will become clear by what method and thus in what timeframe the work should be passed into law across the EU.

### **EU Securities Account Certainty project**

National governments should give **political backing** to the **EU Securities Account Certainty** project; grant **funding** sufficient to staff a core secretariat to see the project through; and **mandate** the project to

- draft detailed proposals for the target reform;
- ensure that the work benefits from the views of both specialists and non-specialists in industry, public sector and academia;
- explore and progress options for the work once concluded to be implemented into the laws of EU member states;
- explain and promote the project in the EU nationally and internationally.

So far, recommendations have been made for the removal of eleven barriers relating to technical requirements, taxation and legal certainty. Removal of these barriers will involve co-ordination between the private sector, national governments and public-sector bodies such as the ESCB and CESR. When these barriers have been removed to the satisfaction of the various actors concerned, the remaining four barriers - relating to restrictions on the location of clearing and settlement and of securities - can be lifted safely, i.e. without an increase in operational and legal risk. Responsibility for lifting these barriers lies primarily with national governments, although in some cases the actual restriction on locating securities settlement or securities may derive from market rules rather than national law. In either case, the decision to lift the restriction will need the endorsement of national governments and could be most efficiently achieved by co-ordinated action via the relevant EU Council. Preparatory work for removing these restriction barriers should begin as soon as possible, so that removal can occur as quickly as possible after the other eleven barriers.

#### **Removing Barriers 2 and 9**

**National restrictions on the location of clearing and settlement and on the location of securities should be removed as an essential pre-condition for a market-led integration of EU clearing and settlement arrangements. Removal of these barriers is the responsibility of national governments and could be achieved in the context of adopting the new Investment Services Directive. These barriers should be removed within a period of three years from the initiation of this project.**

Barriers 2 and 9 relate to national restrictions on the location of clearing and settlement and on the location of securities respectively. These two



barriers are linked insofar as the logic in restricting the location of clearing and settlement derives from restrictions on the location of securities. Restrictions on the location of clearing and settlement typically require investors to use the national system, by creating exclusive links between the different elements of a national securities market infrastructure. Such restrictions limit investor choice and are contrary to the principles underlying the internal market for financial services. Similarly, restrictions on the location of securities limit choice for issuers and investors. Restrictions take the form of market rules (typically a requirement to use a local settlement system) or national law (typically a connection between listing on a regulated market and registration with a local registrar). The Group believes that this type of formal restriction is contrary to the principles of an internal market for financial services and must be removed as a pre-condition for market led integration of the EU clearing and settlement environment (and be accompanied by the enforcement of rules ensuring fair competition and protection against systemic risk).

Responsibility for removing restrictions on the location of clearing and settlement and the location of securities lies primarily with national governments, even if the source of the restriction is in some cases to be found in stock exchange rules. The Commission proposal for a revised Investment Services Directive (ISD)<sup>18</sup> provides the possibility for firms to designate the settlement venue of their choice, rather than being forced to use the 'default' system used by the market on which the trade is made. If the relevant elements of the ISD were to be adopted as proposed, national restrictions on the location of settlement<sup>19</sup> would be removed and the logic of retaining restrictions on location of securities would no longer apply. Therefore, the Group recommends that national governments should adopt the ISD as soon as possible to allow sufficient time for transposition into national law. In any event, restrictions on the location of clearing and settlement and on the location of securities should be removed within a period of three years from the initiation of this project.

#### Removing Barrier 5

**Practical impediments to remote access to national clearing and settlement systems should be removed in order to ensure a level playing field. National governments should draw up a set of conditions upon which access can be guaranteed across the EU. These conditions should be compliant with any requirements set out by ESCB/CESR. This barrier should be removed within a period of three years from the initiation of this project.**

Barrier 5 relates to practical impediments to remote access to national clearing and settlement systems. Such impediments result in a

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<sup>18</sup> COM (2002) 625(01) Article 32.

<sup>19</sup> The nature of the function performed by a CCP, especially in a market with anonymous trading, implies that the model of user choice may not be appropriate for the clearing function. It is therefore not contemplated in the revised ISD.

duplication of costs for investors, particularly when it is necessary to establish a presence in the country where a relevant system is located. The Group believes that access to EU clearing and settlement systems should be on the basis of strictly non-discriminatory criteria. National governments should draw up a set of conditions under which access to clearing and settlement systems can be guaranteed throughout the EU – so as to ensure that access criteria would be the same for local and for remote members.<sup>20</sup> In light of possible regulatory and prudential considerations, these conditions should be consistent with the standards being developed by ESCB/CESR. This barrier should be removed within a period of three years from the initiation of this project.

### Removing Barrier 10

**Restrictions on the activity of primary dealers and market makers should be removed. National governments should co-ordinate their actions via the relevant EU Council. This barrier is to be removed within a period of three years from the initiation of this project.**

Barrier 10 relates to national restrictions on the activity of primary dealers and market makers, often requiring the establishment of local operations and the use of local settlement systems. While member states should be able to set criteria for qualification for primary dealer status, these should not relate to location or to use of particular infrastructure. Such restrictions inhibit the centralisation of settlements and raise the cost to investors. As with the other restrictions linked to location, these restrictions on primary dealers and market makers limit choice and are inconsistent with the principles underlying the internal market in financial services. National governments should take steps to remove them and co-ordinate their action via the relevant EU Council. Work on this project should begin simultaneously with work on the other barriers so that the barrier can be fully removed within a period of three years from the initiation of this project.

## 2.3 Conclusion

Removal of the 15 barriers is essential to deliver efficient and integrated EU clearing and settlement arrangements. Some of the barriers are more important than others, but the existence of inter-dependencies in their removal requires a strategic approach. The strategy proposed by Group for removing the barriers comprises a sequence of actions, the allocation of responsibility for each action and **specified** deadlines. A summary of necessary actions, responsible actors and deadlines is provided in Annex 2b. Responsibility for removing barriers is shared between the private sector, national governments and public-sector bodies such as ESCB and CESR. Accordingly, a high degree of co-ordination will be required between all of the relevant actors. A period of

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<sup>20</sup> These conditions would need to be drawn up in co-operation with the ESCB because of the need for access to central bank money.

three years from the initiation of the project has been recommended for removal of all 15 barriers. The implicit deadline conforms as closely as feasible to the deadline set by the Lisbon European Council for full implementation of the Financial Services Action Plan (FSAP). The deadline for removing the barriers reflects the conviction of the Group that integrated and efficient cross-border clearing and settlement arrangements is a pre-condition for delivering the Lisbon Council's objective of financial integration in the EU.

*The implicit deadline for removing the barriers conforms as closely as feasible to the deadline set by the Lisbon European Council for full implementation of the Financial Services Action Plan (FSAP).*

## Section 3: Consolidation among EU clearing and settlement providers

The previous section focused on removing the barriers to integrated and efficient EU clearing and settlement arrangements. Integration implies access for all users to the same services on the same conditions, regardless of the location of the user or provider.<sup>21</sup> The enhanced interoperability and competition implied by integration should result in a (downward) convergence between cross-border and domestic clearing and settlement costs. In such circumstances, cross-border securities transactions would be encouraged and financial-market efficiency would rise within the EU. It is more difficult to predict how integration would impact on the EU clearing and settlement infrastructure, but consolidation seems quite likely. Indeed, it is well known that, in an industry characterized by substantial economies of scale, the removal of national barriers, by increasing the size of the market, triggers a process of consolidation which in theory stops only when economies of scale are exploited to the maximum.<sup>22</sup> It is also known that, if the service offered by the industry in question is homogenous, the shape of consolidation is indeterminate. The process of consolidation has so far been slow and sporadic, reflecting uncertainty about the future regulatory, fiscal and legal environment. However, the existence of a credible strategy for removing the barriers would remove this uncertainty and so could be expected to accelerate the consolidation process. For this reason, analysis of the implications of consolidation among EU clearing and settlement providers were included in the Solbes/Bolkestein mandate to the Group.

Consolidation implies a greater concentration among clearing and settlement providers and can be achieved not only through structural changes (e.g. mergers and acquisitions) but also through strategic measures (e.g. outsourcing, alliances, joint ventures, and reorganisations within financial institutions). Consolidation facilitates integration in the provision of clearing and settlement services and helps to reduce service costs via scale economies and network externalities. However, consolidation implies considerations of public policy additional to those implied by integration alone. This section of the report examines these public-policy considerations in detail, having first considered the motivations for consolidation among providers/users and highlighted some recent examples of the consolidation process.

*The implications of consolidation among EU clearing and settlement providers were the focus of the latter elements of the Solbes/Bolkestein mandate.*

*The existence of a credible strategy for removing the barriers could be expected to accelerate any process of consolidation.*

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<sup>21</sup> In other words, a domestic (final) investor should be indifferent between a trade in a domestic security and a trade in a foreign security in terms of the clearing and settlement costs/risks associated with the respective trades. As long as settlement remains fragmented and requires delivery between separate systems operating under different legal and regulatory regimes, inter-system transfers will remain more complex and, therefore, more expensive than domestic transfers.

<sup>22</sup> See, for example, Paul R. Krugman, Rethinking International Trade, Cambridge, MA, MIT Press 1994.

### 3.1 Motives for consolidation among clearing and settlement providers and users

As suggested in the 2001 report, the motivation for consolidation among EU clearing and settlement providers is mainly to reduce costs. Consolidation reduces costs for providers:

- in investment terms, by avoiding unnecessary expenditure involved in improving and maintaining several systems and developing links between them;
- in operational terms, by facilitating a reduction in transaction costs (scale and scope economies); and
- in terms of "friction", by reducing the frequency of failed trades in cross-systems transactions (i.e. reducing technical risks that come with the involvement of more than one system in the settlement process).

*The main motive for consolidation among EU clearing and settlement providers is to reduce costs, reflecting increased competition.*

The search for lower costs for providers reflects increased competition. The introduction of the euro has stimulated investor and issuer demand for cross-border services, thereby increasing competition in the hitherto protected home markets of local service providers as well as increasing competition among the various providers of cross-border clearing and settlement.

The motivations for consolidation among clearing and settlement users are diverse and relate to both costs and non-cost related factors. Many of these factors would be effectively addressed by removal of the 15 barriers. However, consolidation has the potential to further reduce user costs:

- in investment terms, to the extent that users may also be shareholders of the CSDs/CCPs;
- in operational terms, by facilitating a reduction in transaction and custody costs (via scale and scope economies) and back office costs (via a reduced need for parallel post-trading operations for different securities); and
- in liquidity and risk management terms, by facilitating centralised liquidity and collateral management, resulting in more efficient capital usage, reduced collateral requirements, the possibility of cross margining etc.

*The motives behind demands for consolidation among users of clearing and settlement services are diverse, but also relate mainly to cost.*

As the net benefits of consolidation are not shared evenly, users and providers of clearing and settlement services can have different strategic interests. Even among the potential beneficiaries, the trade-off between short-term costs and long-term gains can be a major disincentive to consolidation. On the other hand, a focus on short-term gains could cloud longer-term and systemic considerations such as the concentration of risk. Differences in strategic interest arise not only between the various institutions involved in clearing and settlement but even within individual institutions because of the multiple roles that a single entity can play in the finalisation of transactions. A single institution could, for example, be a user of clearing and settlement services, an owner of the

*As the net benefits of consolidation are not shared evenly, users and providers of clearing and settlement services can have different strategic interests.*

relevant service providers, and also have the capability to offer 'in-house' clearing and settlement services to its own customers. The resulting complexity in the interaction between a system and its members and the various vested and competing interests can impact on the consolidation process. Perpetuating fragmentation can prevent migration of business to a competitor system and offer business opportunities for users to provide clients with integrated access to multiple systems.<sup>23</sup> In such circumstances, a market consensus on the appropriate model of consolidation cannot be achieved easily.

### 3.2 Examples of consolidation among EU clearing and settlement providers

A degree of consolidation in the clearing and settlement infrastructure has been achieved within the European Union - both at national (i.e. local) and international level – with a relatively high degree of consolidation in settlement. Consolidation has involved mergers of institutions providing similar services (i.e. so-called horizontal consolidation) and mergers of institutions providing different but integrated services (i.e. so-called vertical consolidation).

- Examples of horizontal consolidation at local level are to be found (i) in Spain, where a new settlement system, Iberclear, has been created by the merger of the previously public (CADE) and the private (SCLV) settlement systems; and (ii) in Italy and the United Kingdom, where the private CSDs, Monte Titoli and CREST respectively, have taken over the settlement functions of some public systems (CAT in Italy, and CMO and CGO in UK).
- Examples of horizontal consolidation at EU level<sup>24</sup> are (i) the creation of Clearstream International (from the merger of Deutsche Boerse Clearing and Cedel); (ii) the merger of Euroclear and Sicovam (France), CIK (Belgium), NEGICEF (the Netherlands), and CREST (United Kingdom). Euroclear has also taken over the functions of CBISSO (the Irish settlement system for bonds); and (iii) the creation of Clearnet, taking over the functions of the French, Belgian and Dutch clearing systems.

*A degree of consolidation has already been achieved.*

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<sup>23</sup> Strategic interests also vary depending on whether players operate on a local or regional/global basis. Regional/global players will prefer an integrated clearing and settlement environment, while local players are more reluctant to incur any costs of integration/consolidation if their intention is to remain as local operators. However, once the barriers to efficient clearing and settlement have been removed, the location of the users is less relevant. All local players would, therefore, have an incentive to increase their cross-border business and would support consolidation in the clearing and settlement infrastructure to the extent that it reduces the cost for them to access foreign markets.

<sup>24</sup> The merger between CSDs and ICSDs can be considered as an example of horizontal integration only with respect to the settlement function.

- Examples of local vertical consolidation are to be found in Germany and Italy, where the stock exchanges have become the main (or exclusive) shareholder of the respective clearing and the settlement systems; in Spain, both the stock exchange and the clearing and settlement system are owned by the same holding company.
- An example of EU-level vertical consolidation is the continued majority shareholding of Euronext in Clearent.

Alongside this consolidation at the level of the market infrastructure, there has been a trend towards in-house clearing and settlement activities by custodian banks. This allows them to clear, settle and deposit a portion of customer transactions internally rather than to forward them directly to the local CSDs.<sup>25</sup> Some are also setting up separate legal entities to “in-source” the middle office and back office activities of other financial intermediaries such as fund managers, broker-dealers and smaller-sized banks. Another development in this regard is that many groups of banks such as saving banks and co-operative banks are setting up common entities, which offer securities processing facilities to all banks that are members of the relevant group.

*Alongside consolidation, there has been a trend towards in-house clearing and settlement activities by custodian banks.*

### 3.3 Public policy interest in the consolidation of the clearing and settlement infrastructure

#### 3.3.1. The meaning of efficiency in an integrated clearing and settlement environment

Once a strategy for removing the barriers to integrated and efficient EU clearing and settlement arrangements is known and accepted by market participants, the process of consolidation is likely to accelerate. In these circumstances, attention will increasingly focus on the public policy aspects of consolidation. As indicated in the 2001 report, the Group believes that the choice of architecture for delivering pan-EU clearing and settlement services is a matter primarily for market participants. However, there are aspects of any consolidation process, which are in the domain of public policy. It is important to identify these aspects in advance and to examine how the public interest is affected by some of the current proposals for consolidation.

*Consolidation among clearing and settlement providers raises issues of legitimate interest to public policy-makers.*

The Group endorses the overall objective in creating an efficient EU clearing and settlement environment as defined in the Commission Communication of May 2002. The Communication defined the objective in terms of three sub-objectives, i.e. cost-effectiveness, effective competition and minimised risk. Each of these sub-objectives is of interest to public policymakers because they are the channels through which efficiency gains in clearing and settlement services are translated into a lower cost of capital, increased wealth creation and a higher potential for economic growth. Each of these sub-objectives in achieving an efficient infrastructure is considered below.

*Public policy should focus on cost-effectiveness, competition and risk.*

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<sup>25</sup> In-house settlement is only possible when customer securities are held in an omnibus account at the CSD, and when both counterparties to a trade are customers of the relevant custodian bank.

### 3.3.2 Cost-effectiveness

Cost effectiveness is a concept that applies to many dimensions of clearing and settlement provision. According to a narrow technical definition, a clearing or settlement service is cost-effective if it minimises costs for a given quantity of output. Chapter 4 of the 2001 report identified three types of additional costs to the pan-EU investor resulting from fragmentation in the settlement environment. First, there are direct costs, which take the form of higher fees for the cross-border services provided. Second, there are indirect costs, which arise from the extra back-office facilities that must be maintained. Third, there are opportunity costs, which arise from the inefficient use of collateral and trades that are simply foregone because of the complexities involved. As the opportunity costs are largely unobservable and the Group did not have access to data on indirect costs, the analysis in the 2001 report was confined to the additional direct costs.<sup>26</sup> The analysis revealed a substantial differential between direct settlement costs for domestic and cross-border securities transactions within the European Union (as measured by the income per transaction settled by national CSDs relative to transactions settled by the ICSDs).

*Analysis in the 2001 report suggested that settlement costs for cross-border securities transactions were many times higher than for domestic transactions.*

The sources of additional cost – direct, indirect and opportunity – relating to cross-border clearing and settlement will be addressed largely by removing the 15 barriers. From a public policy perspective, it is essential that these cost savings should be enjoyed by the end-investor. Only in these circumstances will the efficiency gains from integrated and efficient clearing and settlement arrangements be fully reflected in higher levels of securities transactions with consequent benefits to the liquidity and depth of securities markets and the economy as a whole. As already indicated, consolidation can facilitate integration of EU clearing and settlement arrangements and deliver additional cost savings. However, it is essential that any consolidation should help rather than hinder the delivery of cost savings to the end-investor.

*Removing the barriers will eliminate the cost differential between domestic and cross-border settlement, but the savings must be delivered to the end-investor.*

### 3.3.3 Competition

Competition between clearing and settlement providers means that users are free to access the service of their choice and that prices are determined in freely contestable markets and remain close to costs. To the extent that consolidation increases market concentration, the choice of systems available to users will be reduced and competition between the remaining providers could become less effective.<sup>27</sup> However, financial institutions that are members of SSSs could provide such services internally. Thus, a consolidation of clearing and settlement infrastructure does not necessarily imply a reduction in competition. In

*Consolidation will reduce the choice of providers available to users and could result in less effective competition between the remaining providers.*

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<sup>26</sup>This analysis was based on data used in a study by the Centre for Economic Policy Studies: "The Securities Settlement Industry in the EU: Costs and the Way Forward", by Karel Lannoo and Mattias Levin.

<sup>27</sup> The final effect on competition would depend on the behaviour of the remaining providers and on the conditions for market entry. Oligopolistic behaviour among the remaining providers could intensify, while market entry could be restricted, for example, by regulation.



any case, the inevitable pressure to consolidate raises the question of what safeguards will prevent market abuse by dominant players.

The Group considered two main dimensions of competition in the context of consolidation among clearing and settlement providers. These were (i) the need for fair and open access to clearing and settlement infrastructures (including the need to prevent restrictive practices among clearing and settlement providers); and (ii) the need to ensure sufficient pressure for innovation. The issues of access and restrictive practices suggest responses on the part of policymakers, while pressure for innovation relates more to the governance in clearing and settlement providers.

Fair and open access can be defined as access on the same terms by all markets, infrastructure providers and market participants to all clearing and settlement systems in the EU. It is a basic condition for competition in the provision of these services. The first and foremost step in providing generalised access would be the removal of the barriers, and notably the barriers relating to restrictions on the location of settlement and the location of securities. However, the Group accepts the argument - as presented in the Commission Communication – that removal of the barriers is unlikely to be sufficient. Even after removal of the barriers, generalised access could be constrained by different regulatory treatment of entities, which are nominally distinct but effectively perform the same functions.<sup>28</sup> In this respect, the proposal for a revised Investment Services Directive (ISD)<sup>29</sup>, by allowing users freedom in their choice of settlement location, is a welcome further step in allowing market-led integration of the EU settlement environment.<sup>30</sup>

Even the revised ISD does not go far enough, as experience suggests that the positive effects of removing the barriers and of a revised ISD could be frustrated by inconsistent implementation by national regulators. National regulators are typically concerned about the implications of external access for the smooth functioning of domestic markets and/or about the applicable supervisory regime for external participants. While these concerns may be legitimate, national regulators cannot be allowed to frustrate the objectives of legislative provisions in integrating the EU financial system on this basis. If a level playing field is to be assured among EU clearing and settlement providers, it must be the case that central counterparties and central securities depositories can be members of other clearing and settlement systems and on equivalent terms of access. Accordingly, the Group supports the arguments in the Commission Communication that there

*The Group considered two main dimensions of competition - the need for fair and open access and the need to ensure sufficient pressure for innovation.*

*Fair and open access can be defined as access on the same terms by all markets, infrastructure providers and market participants to all clearing and settlement systems in the EU.*

*If a level playing field is to be assured among EU clearing and settlement providers, it must be the case that CCPs and CSDs can be members of other clearing and settlement systems.*

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<sup>28</sup> An example of unequal treatment, highlighted by the Commission, is the fact that only clearing and settlement providers that are licensed as banks or investment firms are covered by EU legislation (except for the provisions of the Settlement Finality Directive) and enjoy the EU passport. Similarly, the absence of common definitions of post-trading activities at the EU level can result in difference in the treatment of capital (e.g. own capital requirements, exposure limits etc.) among clearing and settlement providers.

<sup>29</sup> See footnote 19.

<sup>30</sup> The nature of the function performed by a CCP, especially in a market with anonymous trading, implies that the model of user choice may not be appropriate for the clearing function. The model of user choice is, therefore, not contemplated in the revised ISD.

should be objective criteria for regulators to assess the risks posed by different systems and that there should be clarity on the applicable supervisory regime. In this regard, the Group welcomes the process underway through the ECB/CESR Joint Working Group to develop a common set of standards to ensure the efficiency and soundness of EU clearing and settlement systems. Indeed, the Group would go a step further, and suggest that such set of common standards could be most effectively enforced by a structure capable of operating on a pan-EU basis.

The issue of pressure to innovate arises to the extent that the consolidation process leads towards monopoly-like situations in the provision of clearing and settlement services. In an unregulated monopoly, there is a serious risk that a single provider would abuse its dominant position to the detriment of its members/participants. In a monopoly, the incentive for investing in innovation would depend on three main factors. First, the contestability of the market which, in turn, depends on the dominant technology. Second, the existence of appropriate governance mechanisms to ensure that owners and management of systems take into account the need of the users of the systems. Third, effective regulatory mechanisms that put fair constraints on pricing policy and profit maximisation.

*Consolidation should not reduce the incentives for the providers to continue to supply the market with innovative and cost-efficient solutions.*

#### **3.3.4. Systemic Risk**

A major public interest in the design and operation of clearing and settlement infrastructure relates to implications for financial stability. Systemic risk arises in the context of clearing and settlement arrangements when the failure of one system or participant in a system to meet its required obligations threatens the capacity of other participants or financial institutions to meet their obligations. Such contagion could cause significant liquidity or credit problems and, as a result, might threaten the stability of the financial system as a whole. In respect of banking functions, the service provider becomes principal in a financial relationship so that consolidation has different and more critical risk implications than consolidation in core functions.

*A major public interest in the design and operations of the clearing and settlement infrastructure relates to implications for stability in the financial system.*

In an ideal competitive environment, only the most efficient and innovative clearing and settlement providers would be expected to survive. However, there may be circumstances in which competition has a negative impact on the robustness - and hence stability - of the clearing and settlement system. Such circumstances arise when providers seek to reduce the strength of their risk management practices in order to increase profitability or lower fees. The role of consolidation in altering the balance between competition and stability is ambiguous. Mergers among large SSSs and CCPs may create institutions whose failure is potentially more threatening to financial stability. However, regulation of fewer service providers may be easier and if these providers are managed more efficiently and/or benefit from economies of scale, there should be benefits for the users (to the extent that the improvements are passed on) and there is no particularly negative effect on financial stability.

*The role of consolidation in altering the balance between competition and stability is ambiguous.*

From the perspective of efficiency, there is a much stronger case for consolidation of entities performing essential core functions, like the

maintenance of the integrity of the issue<sup>31</sup> and functions with large scale economies, like netting, clearing and settlement. These functions do not involve the provision of credit facilities. In contrast, it can be argued that value-added banking functions are not essential to the basic clearing and settlement process, and concentration risk is reduced if these functions are provided by multiple banks in a competitive environment. Public policy makers will have an interest in ensuring that whatever the business model of any consolidated entity, it respects the balance of risk, efficiency and fair competition.<sup>32</sup>

*There is a much stronger case for consolidation of entities performing essential core functions.*

A strict distinction should be made between SSSs and CCPs in the levels of risk that they assume. A CCP must, by definition, take on credit risk from all of its members in order to perform its functions. However, an SSS does not need to provide credit in the course of executing transfers. In order to avoid spillover effects, any entity providing the services both of a CCP and an SSS would need to have adequate capital arrangements in relation to both activities. Moreover, the regulation of CCPs and SSSs could adopt a functional rather than institutional approach in order to ensure a level playing field with adequate safeguards against systemic risk.

*In order to avoid spillover effects, any entity providing the services both of a CCP and an SSS would need to have adequate capital arrangements in relation to both activities.*

Clearing and settlement systems – as with financial market participants in general - may not prepare themselves against potential cross-border risk in the absence of appropriate regulation and oversight. In particular, experience suggests that financial institutions often fail to manage adequately very low probability risks of catastrophic events, which have the nature of externalities. In addition, market participants may not be able to assess the increasingly complex risk exposures in the clearing of derivatives transactions. Finally, and perhaps most importantly, market participants tend not to take into account the system-wide consequences of a default even if they are fully informed about the relevant risk exposures they face. As a result, central banks and financial markets regulators must be sure that the regulatory framework for clearing and settlement creates appropriate incentives for providers to handle potential problems and supports the liquidity of the markets.

*The regulatory framework for clearing and settlement must create appropriate incentives for providers to address risks to stability.*

Consolidation may create additional risk management and regulatory burdens. For example, multi-product clearing requires increased risk controls and more demanding and costly risk management techniques. In addition, cross-border consolidation can make co-ordination between regulatory authorities more difficult and can give rise to gaps or inconsistent application of regulation. Another closely related issue is that consolidated entities, once they have become systemically important, may be perceived as being “too big to fail.” Consolidation may, therefore, create moral hazard problems for regulators and central banks. However, any risks or challenges associated with consolidation

*However, any risks to stability from consolidation must be seen in light of the risks that exist in the existing clearing and settlement arrangements.*

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<sup>31</sup> Sometimes referred to as the ‘notary’ function, this involves ensuring that the total amount of securities in the accounts of the investors is equal to the amount in the account of the issuer.

<sup>32</sup> Two basic business models can be distinguished. The first type is that of the traditional CSDs whose main activities focus on services related to issuance, custody, and settlement and sometimes netting of securities in their national market. They do not extend credit. The second is that of the ICSDs, which offer a broader range of value added and multi-market services than CSDs, in the context of settlement-related services.

must be evaluated in light of the risks existing in the current post-trading environment. While consolidation may present numerous risks and challenges to regulators, it may represent an improvement over, and diminution of the risks inherent in, existing clearing and settlement arrangements.

### 3.4 Assessing some current models of consolidation

A clear momentum towards the removal of barriers will lead to further consolidation among EU clearing and settlement providers. However, a distinction must be drawn between short-term and longer-term aspects of any consolidation process. In the short term, the existence of complex vested interests among the various clearing and settlement providers makes radical change unlikely, not least because the existence of a domestic market infrastructure is still widely perceived as a matter of strategic national interest. These factors suggest that consolidation among EU clearing and settlement providers will not be achievable by means of a “big bang” solution. Instead, an infrastructure composed of national systems for domestic transactions and an intelligent concept for connecting and interlinking the national systems for cross-border transactions could be an appropriate interim solution. However, it goes without saying that such an interim solution must not prevent the emergence of a more efficient, sustainable pan-EU securities infrastructure in the longer term.

*Consolidation among EU clearing and settlement providers will not be achievable by means of a “big bang” solution.*

As indicated in the previous sub-section, there are legitimate public policy interests in any process of consolidation in the EU clearing and settlement infrastructure. However, different models of a consolidated infrastructure would raise different public policy issues. It is not possible to cover all possible models of consolidation in this report, but three stylised models - implying a progressively higher degree of consolidation – can be identified. The first model assumes a limited degree of consolidation, with multiple central counterparties (CCPs) and settlement systems (SSSs) remaining in operation. The second model assumes that consolidation results in a single CCP but multiple SSSs. The third model assumes that scale economies and network externalities result in consolidation to a single CCP and a single SSS. In the remainder of this sub-section, each of these models will be assessed on the basis of their specific advantages and disadvantages in terms of the public policy objectives identified in subsection 3.2, i.e. cost effectiveness, competition, and systemic risks. For the purpose of this assessment, it is assumed that the users and providers of clearing and settlement services are operating in an already integrated, i.e. barrier-free, environment.

*Different models of consolidation would raise different public policy issues and three stylised models - implying a progressively higher degree of consolidation – have been selected.*

#### Model 1: Limited consolidation of clearing and settlement

This model assumes that the degree of consolidation among both clearing and settlement providers will remain limited. The number of service providers both at the level of clearing and at the level of settlement may be reduced, but at least a few CCPs and SSSs will continue to operate.

### ***(i) Cost-effectiveness***

Since consolidation is a complex process requiring significant financial resources and time, the model with limited consolidation would imply lower one-off costs resulting from the consolidation process itself.<sup>33</sup> However, the longer-term cost-effectiveness of a model with limited consolidation would be clearly inferior to that of a model with full consolidation. This is because the extent to which potential scale economies and network externalities could be exploited depends crucially on the degree of consolidation achieved. In a model with several clearing and settlement providers, the individual components of the infrastructure would need to be linked in order to enable participants in different systems to interact efficiently. The cost of clearing and settling increases significantly with the number of providers, which need to be linked to each other. A network with a limited number of links would be clearly more cost effective than a network in which each system would be linked to every other system. An interoperable, harmonised network might be seen as an opportunity to combine the efficiency gains of a more consolidated architecture with those of competition between different systems.

*The longer-term cost-effectiveness of a model with limited consolidation is inferior to that of a model with full consolidation.*

### ***(ii) Competition***

In terms of competition, the model with limited consolidation would be superior to the more consolidated models. Competition among multiple CCPs and CSDs would mitigate some problems, which typically arise in more concentrated arrangements, e.g. in helping to ensure fair prices for the users. Governance arrangements and issues relating to business models tend to be less crucial in a competitive environment because users have a choice of providers and the CCPs and CSDs have strong incentives to meet the needs of their customers. In this context also, it should be borne in mind that competition would also encourage innovation in the provision of clearing and settlement services. Of course, the potential benefits from competition in a network model can only be exploited if market participants are free to access all providers within the network. Indeed, a network model without competition would be the worst solution possible, since it would combine the disadvantages in terms of cost-effectiveness with a lack of competition. On the other hand, a network structure that truly supports a competitive environment will not be a stable one, in the sense that those providers that are able to achieve progressively larger market shares will in turn be able to charge progressively lower prices, thereby eliminating the competition of smaller, inefficient, providers.

*In terms of competition, the model with limited consolidation is superior to the more consolidated models.*

### ***(iii) Systemic risk***

A network model for clearing and settlement implies less concentrated risk than a more consolidated model, so that decentralisation could offer some protection from systemic risk to the extent that the maximum

*Decentralisation could offer some protection from systemic risk.*

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<sup>33</sup> It is important to note that a model with multiple competing service providers does not preclude that further consolidation will follow at a later stage. On the contrary, since market forces tend to push for the most efficient solution, a network model with limited consolidation may be regarded as a first step on the way to a more permanent post-trading landscape for Europe.

exposure in an individual element of the network is less than the sum of the whole. The events of 11 September 2001, for instance, have highlighted the risk to the smooth functioning of a securities market where intermediaries with very high market shares have inadequate business continuity arrangements. This is not to say that a competing service provider could easily be used as a back up in the event of a default, but at least the impact of a default is limited to the market segment, which is covered by the defaulting provider.

The protection from systemic risk offered by a network model declines with the degree of inter-linkage between the various providers, because the probability of contagion effects increases accordingly. Moreover, linking systems with one another creates a number of technical and legal risks that do not exist in a consolidated structure. For example, an operational difficulty in a link between two systems in a network can itself create contagion effects by resulting in failures to complete a settlement across the link. Accordingly, the links in a network model must be efficient, safe and robust<sup>34</sup> and there would be a need to harmonise risk control measures in terms of delivery versus payment procedures, intra-day finality rules, settlement cycles etc. across the network. The risks of linking systems and the cost of achieving harmonisation in order to ensure smooth links do not exist in a fully consolidated structure.

*The protection from systemic risk offered by decentralisation declines with the degree of inter-linkage between the various providers.*

In the particular case of CCPs, competition may encourage attempts to improve market share by applying more lenient risk management standards than their competitors (e.g. by taking less margin or by reducing the transparency of risk allocation). In order to avoid such a “race to the bottom” effect, it would be vital for regulators to ensure that CCPs continue to employ adequate risk management procedures. In this context also, it should be noted that the continued existence of multiple CCPs and SSS implies the involvement of a multiplicity of national-based regulators and overseers. Owing to their respective interests and responsibilities, all of them would need to be involved in the regulatory framework for the network of clearing and settlement providers. Effective co-ordination between the relevant authorities would be necessary and could increase the regulatory burden for providers. Moreover, if the relevant regulations are not equally and consistently enforced, there could be competitive distortions with adverse effects on the allocation of resources and social welfare.

*Effective co-ordination between the relevant authorities would be necessary and could increase the regulatory burden for providers.*

## **Model 2: Full consolidation of clearing, but limited consolidation of settlement.**

This model starts from the fact that the scope for scale economies and network externalities are more significant at the level of central

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<sup>34</sup> For example, systems have to exchange information on whether two counterparties have the necessary securities or funds and a DvP mechanism is required to eliminate principal risk. Indeed, if an SSS makes provisional securities transfers, these securities could be redelivered before money settlement is complete. In case of an unwind of the provisional transfer, losses will occur also in the system receiving the provisional transfer. Such risks would not exist in a fully consolidated structure.

counterparty clearing than at the level of settlement. Against this background, the consolidation process is assumed to result in a single CCP with the settlement industry less concentrated in a limited number of SSSs.

***(i) Cost-effectiveness***

The internationalisation of securities trading has widened the range of potential trading counterparties and has made it increasingly difficult for the individual broker-dealer to manage credit risk. In such an environment - and taking into account the large scale effects and network externalities inherent in central counterparty clearing – a single CCP can offer important cost savings. A single CCP allows users to reduce back-office costs, particularly in the case of global players who would no longer be required to maintain back-office facilities for a multiplicity of central counterparties. Cost savings can be increased if the single CCP can be accessed using existing links, protocols and relationships to the greatest extent possible. Also, larger players will make cost savings through increased netting possibilities and their ability to centralise their risk and collateral management in a single CCP. For small local players, however, a single CCP brings little extra value-added and may impose extra cost in terms of obtaining direct or indirect access to the new CCP.

*A single CCP would reduce back-office costs, particularly in the case of global players.*

***(ii) Competition***

If the market for central counterparty clearing services is sufficiently contestable, a single CCP will be less able to use its monopoly power to reap excessive profits without encouraging new entrants. Ideally, any organisation wishing to compete should be able to enter the clearing market easily. However, a range of factors including, legal and regulatory requirements and technology makes entry costs rather high. Accordingly, it would probably be difficult for a new CCP to compete successfully against an existing monopoly provider - unless that monopoly had lost the confidence of a very significant number of its users. To the extent that there are barriers to entry in the clearing market, appropriate regulation and supervision of the single CCP would be required. Such regulation should cover pricing policy and policy on access to the CCP's services. In this context, there would be a particular need to ensure an open two-tier structure so as to allow smaller players to operate through larger players who are direct members of the CCP. In this two-tier arrangement, direct members act as intermediaries in their provision of clearing services to their clients, which may include non-clearing members, individuals, or firms that are not members of any exchange for which the single CCP provides services. While membership requirements would be a basic means for the single CCP to control its counterparty credit and liquidity risk, such requirements should be transparent, objective and fairly applied. Moreover, since the single CCP would be in a strong position to monitor its participants' overall trading books, there is a risk of that information being abused without proper safeguards. This, in turn, could affect competition between market players and is a further argument in favour of regulation and supervision of the single CCP.

*If the market is sufficiently contestable, a single CCP will be less able to use its monopoly power to reap excessive profits.*

In the specific case of cross-border clearing, which would be unavoidable in a model with a single CCP, there is a need for ensuring open remote

access of clearing members. In turn, the single CCP needs to have open remote access to the SSSs acting as depositories for the securities which the central counterparty clears. In the case of settlement in central bank money, the CCP would also require access to all of the central banks of the EU. Clearly, such complex structures are more difficult to operate than the typical national structure, where the CCP is connected to a single SSS for the settlement of the securities leg and a single central bank for the settlement of the cash leg.

*The single CCP will require open remote access to SSSs and, in some circumstances, to EU central banks.*

There has been a recent trend away from the not-for-profit model of CCPs, which has resulted in part from the need to raise funds for investment purposes. This trend could intensify conflicts of interest for intermediaries in their dual role as owners and users of the single CCP, underlining the need for appropriate governance arrangements. In general, a CCP can be organised as an affiliate of a stock exchange, as a shareholder-driven company, as a user-driven organisation or as a quasi-governmental agency with each structure having advantages and disadvantages. In the absence of competition, the governance structure within the single CCP becomes even more important and should aim at ensuring that the interests of all users are adequately taken into account.<sup>35</sup>

*De-mutualisation could intensify conflicts of interest for intermediaries in their dual role as owners and users of the single CCP.*

Competition in the provision of settlement services within a model with a single CCP and multiple SSSs depends critically on the routing policy of the CCP. The single CCP should aim at being “settlement neutral” and should facilitate choice of settlement location for its members. Even if the single CCP favours rationalisation of settlement procedures, it should not abuse its monopoly position with regard to the choice of the settlement entity.

*Competition in the provision of settlement within this model depends critically on the routing policy of the single CCP.*

### ***(iii) Systemic Risk***

In the absence of a CCP, each participant contracting in the market manages his/her own counterparty credit risk. In contrast, a CCP becomes the buyer to every seller and the seller to every buyer on cleared contracts in the market so that counterparty credit risk is managed on a more centralised basis. This centralised management can lead to better risk monitoring and the CCP will require that exposures are collateralised, which would not necessarily be the case in the bilateral market. However, the systemic implications of an inappropriately designed clearing or risk management system, or of a management failure are much larger for a market operating with the services of a single CCP. Systemic risk increases with the size of the CCP, as the concentration of risk increases correspondingly. Apart from size aspects, a single CCP would imply higher systemic risk to the extent that it were to:

*Centralised risk management implied by a single CCP can bring benefits but the systemic implications of an inappropriately designed clearing or risk management system, or of a management failure is increased.*

- facilitate cross-product clearing and net margining of equities, cash market debt instruments and derivatives contracts. Under net margining, clearing members are permitted to net together the long and short positions of different clients and post margin with the CCP for aggregate net positions. The legal environment in which any

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<sup>35</sup> As control tends to be vested in the largest users, these large users may not be sympathetic to the needs of smaller users.



single CCP operates would need to provide for this netting to be recognised in the event of a default, and clearing members should also seek adequate margin from their clients in order to ensure that there is adequate collateral supporting positions held within the wider financial system.

- amplify spillover or contagion effects in the case of cross-product or cross-currency clearing. Clearing systems determine to an important extent the exposures among and linkages between financial institutions. Therefore, clearing systems are channels through which contagion effects can be transferred through the financial system. For instance, disturbances in the equity market may result in similar, corresponding disturbances in the derivatives market and vice versa. As a result, consolidation among central counterparty clearing houses may have serious systemic implications.

Furthermore, a single CCP for the EU would need to operate in more than one currency, which raises particular concerns for authorities about the arrangements for the injection of any necessary liquidity in the event of a failure of the CCP's risk control measures.

### **Model 3: Full consolidation of clearing and settlement**

The third model assumes full consolidation of the post-trading industry, reflecting significant scale economies and network externalities in both clearing and settlement and the absence of restrictions on cross-border mergers or acquisitions. Against this background, the consolidation process is assumed to result in a single CCP and SSS for the EU.

#### ***(i) Cost-effectiveness***

In terms of cost-effectiveness, a model with full consolidation has two main advantages over models comprising more decentralised structures. First, a single CCP and single SSS can reduce unit costs by fully capturing economies of scale and network externalities. Second, the single service provider typically has the financial strength to invest in new – and sometimes costly – technologies, which may increase efficiency and reduce risk in the clearing and settlement business. The existence of only one provider of clearing and settlement services respectively will ensure that there is a single set of technical standards and market conventions for the markets covered. Finally, in addition to achieving technical standardisation, legal standardisation can be achieved more easily if a single provider operates under the laws of only one jurisdiction. However, there can be no guarantee that this jurisdiction would be the most appropriate for effecting efficient clearing and settlement.

*In terms of cost-effectiveness, a model with full consolidation has advantages over models comprising more decentralised structures.*

#### ***(ii) Competition***

The efficiency gains from having a single CCP and a single SSS would come at the expense of competition. The absence of competition might impact negatively on service prices and might reduce incentives for innovation, depending on the contestability of the markets for clearing and settlement services. In the absence of contestability, there would be a need for appropriate regulation and governance arrangements of both

the single CCP and the single SSS. If a tiered structure (i.e. a structure in which services are provided at both the central level and through intermediaries) were to be created as a result of a single CCP and a single SSS, the definition of the relevant market becomes important. It would be inappropriate to focus on competition at the level of the CCP or at the level of the SSS in isolation and ignore competition among intermediaries. In order to assess the market power of a particular service provider, the entire market for clearing and settlement would need to be taken into account.

*The efficiency gains from having a single CCP and a single SSS would come at the expense of competition.*

In the case of a single SSS, the degree of competition at the level of direct participants (i.e. the first tier and in particular custodian banks) gains in importance. Indeed, the roles of SSSs and (global) custodians are different yet increasingly blurred by a trend towards disintermediation. This blurring in respective roles can be illustrated by the fact that more and more institutional investors access SSSs directly by bypassing local custodians. Thus, SSSs are seen as a threat to custodians at least in the short term. In the long run, however, the mergers of banks may lead to increasing internalisation of the custody business, i.e. where the customer base and CSD account structure allows it, banks would aim at settling trades in their own books rather than forwarding the transactions to the SSSs. The picture becomes even more complex when taking into account the impact on SSSs of central counterparties. Indeed, by reducing the number of settlements through novation, CCPs more than custodian banks may become the real threat to SSSs.

*In the case of a single SSS, the degree of competition at the level of direct participants gains in importance.*

Consolidation to a single SSS would also increase the importance of the governance structure of that SSS. For example, if the governance structure acts to restrict access, to limit the introduction of innovative services by the system, or to implement anti-competitive pricing schemes, then overall efficiency is adversely affected. If appropriate safeguards could not be found, a more drastic solution could be to separate the clearing and settlement business into areas of monopoly where competition is less important (e.g. the notary function focusing on the registration of ownership) and areas where competition might be more favourable (e.g. transfer of ownership).<sup>36</sup>

*Consolidation to a single SSS would also increase the importance of the governance structure of that SSS.*

### ***(iii) Systemic risk***

Since clearing and settlement systems provide the technical infrastructure through which market transactions are settled, they also to a large extent form linkages between financial institutions. As such, they are important channels through which shocks can be transferred through the financial system. In particularly severe cases, contagion effects could threaten the stability of the financial system as a whole. This is more likely to happen in the highly concentrated structure implied by a single CCP and a single SSS because a problem in the system will have direct adverse effects on a larger number of

*The highly concentrated structure implied by a single CCP and a single SSS could imply a greater systemic risk.*

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<sup>36</sup> Structural separation is not necessary to the extent that the same results can be achieved by other means, e.g. by means of regulation. Moreover, there could be a trade-off between risk and efficiency considerations to the extent that technically and operationally a structural separation could imply a significant impairment in the level of services provided to users and hence a decrease in market efficiency.

participants. Furthermore, moral hazard problems are more relevant in a fully consolidated structure because a single clearing and a single settlement provider would become “too big to fail”.

The overall impact of consolidation to a single CCP and a single SSS on systemic risk is difficult to assess. For example, a single large service provider may be better at performing effective risk management because it has the financial resources to invest in costly risk control systems and has a better overview of exposures across multiple markets. Moreover, it could be easier for public authorities to regulate and oversee a single provider than a large number of providers. A decentralised regulatory framework may even be seen as a risk in itself if the relevant authorities fail to co-operate effectively. In this context, it is worth considering whether the establishment of a single regulator for clearing and settlement in the EU would be useful.

*Although, the overall impact on systemic risk is difficult to assess.*

#### 4. Conclusion

The efficiency of EU clearing and settlement arrangements will be greatly enhanced in an integrated, i.e. barrier-free, environment. The large economies of scale in the industry that provides post-trading services indicates that, whatever the institutional setting, there will always be strong pressures to consolidate. Such pressures will be particularly strong in a barrier-free environment, since the removal of barriers will increase the size of the market. In addition, the economics of clearing and settlement is such that the removal of barriers can produce several different types of industry structures that deliver the benefits of consolidation. Thus, the removal of barriers will, in parallel, present a challenge to policymakers to design a regulatory and supervisory system that minimizes or eliminates the undesirable by-products of an otherwise desirable situation: that is, policymakers will need to ensure that a consolidated post-trading system in Europe:

- a) ensures fair and low cost access without discriminating across users (meeting the appropriate standards), on the basis of either function or country residence;
- b) responds flexibly to changes in the operating environment, by adequately investing in technological innovations;
- c) charges prices that are close to costs, and minimizes costs; and
- d) contains the appropriate set of legal and operational safeguards which provides adequate risk management and allows it to withstand and function efficiently in a situation of financial market crisis or strain.

*The removal of barriers will present a challenge to policymakers to design a regulatory and supervisory system that minimises or eliminates the undesirable by-products of an otherwise desirable situation.*

The analysis in this section shows clearly that alternative structures could emerge in the consolidation process, and that an ex-ante assessment of these structures does not lead to a preferred solution, without much more clarity on the type of regulatory environment that will be needed to support integration and consolidation. Yet, we have supplied detailed analysis of each structure, with the aim of providing practical guidance on the kind of issues that such a regulatory environment will have to face.

The Group believes that to build arrangements for clearing and settlement that constitute a strong pillar of a truly integrated and liquid

European financial market, a clear drive towards the elimination of barriers will have to be accompanied by a regulatory/supervisory structure which can carry out the functions a) to d) listed above on a pan-EU basis. With this set of conditions in place, the convergence towards the most efficient model of consolidation will occur rapidly and without disruptions.

*Without the barriers and with an appropriate regulatory/supervisory structure, the most efficient model of consolidation will emerge rapidly and without disruptions.*

## Section 4: A need for political and strategic direction

Clearing and settlement are basic operations in a modern securities market and are fundamental to an efficiently functioning financial system. Although the processes involved in clearing and settlement can be complex, the underlying concept is remarkably simple, i.e. the exchange of securities for cash. As with any market, the willingness of participants to trade in securities depends directly on the cost-effectiveness and reliability of the exchange process. For this reason, problems with clearing and settlement must be treated seriously. The 2001 report highlighted the problems that exist in EU clearing and settlement arrangements. Additional costs and risks associated with a highly fragmented system of clearing and settlement are a major disincentive to securities transactions among the Member States. Without integrated clearing and settlement, a single European securities market will never exist. Without an integrated European securities market the outcome of the entire process of financial market integration is certain to disappoint.<sup>37</sup>

*Without action to address fragmentation in EU clearing and settlement arrangements, the outcome of the entire process of securities-market integration is certain to disappoint.*

Fragmentation in EU clearing and settlement arrangements is the result of problems that have arisen in combining many national-based systems into a coherent whole. The national systems have evolved efficiently but differently within largely protected boundaries. Removing these boundaries implies significant change for market participants, and the wide range of possible outcomes from the integration process has pitted different vested interests against each other. The interaction of these vested interests has created uncertainty about the pace and direction of integration and lies behind the rather sporadic progress achieved to date. The current situation is highly unsatisfactory, both from the viewpoint of private market participants (including those who provide clearing and settlement services) and from the viewpoint of the public interest. It is likely to remain so without decisive action to move matters forward. To this end, this report provides a coherent strategy for integrating EU clearing and settlement arrangements, which will remove uncertainty and promote more consistent behaviour on the part of the market participants concerned.

*This report provides a coherent strategy for integrating EU clearing and settlement arrangements, which will remove uncertainty and promote more consistent behaviour on the part of the market participants concerned.*

In discussing EU clearing and settlement arrangements, the Lamfalussy report<sup>38</sup> concluded that any integration process should be largely in the hands of the private sector. However, the Lamfalussy report also recognised the existence of a legitimate public interest. Moreover, the

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<sup>37</sup> Recent studies estimating very significant economic benefits from securities market integration. Two studies on the economic effects of EU financial integration were undertaken on behalf of the European Commission in 2002 and indicate just how much could be at stake. One study prepared by London Economics with PriceWaterhouseCoopers provided a conservative estimate of a 1.1% increase in the baseline level of EU GDP over 10 years. The second study, prepared by the Centre for Economic Policy Research found that the growth rate in the value-added in EU manufacturing would increase by 0.7%. See European Commission website.

<sup>38</sup> Final Report of the Committee of Wise Men on the Regulation of European Securities Markets (February 2001).

Lamfalussy report warned that any failure of the private sector to make sufficient progress in integration would justify public-sector intervention. The Group would add to these observations, which we share, the basic notion that the financial industry is the quintessential regulated industry, and therefore it is difficult to conceive of reforms that affect the very architecture of financial services which do not involve public authorities. Thus, it would be naïve to assume that the integration of the EU clearing and settlement environment could be left to private market participants alone. On the contrary, the public sector can be expected to play a major role – both in co-ordinating private sector actions and re-regulating clearing and settlement on a pan-EU basis.

*The integration process should be largely in the hands of the private sector but the public sector can be expected to play a major role.*

The concept of joint responsibility between private and public sectors for delivering an integrated EU clearing and settlement environment permeates the strategy outlined in the previous sections of this report. Specific organisations have been identified to co-ordinate private sector actions in removing several of the barriers. Actions required on the part of national governments to remove the remaining barriers should be co-ordinated through the usual EU mechanisms. We have identified that there are strong synergies between the actions required of the public and the private sectors.

*The concept of joint responsibility between private and public sectors permeates the strategy in this report.*

What is necessary to ensure that these actions are taken forward is clear political and strategic direction from the ECOFIN Council. Below this, there needs to be a powerful monitoring and co-ordination mechanism, able to provide an efficient interface between private sector and public sector initiatives, to monitor the progress and the consistency of the overall project, reporting critical issues to the ECOFIN Council, and the overall progress to the public. This body should have the capacity to galvanise action and ensure parallel progress across both the public and private spheres. In addition, it would be responsible for explaining to policymakers - and to the public - the state of the reform, and advise on any significant developments in the project.

*A vital element in the strategy outlined would be the creation of a body with responsibility for overall management of the various private sector and public sector actions.*

The strategy outlined in this report cannot be implemented without intensive co-operation between the private and public-sector actors concerned. The Group is confident of the private-sector commitment to the integration of EU clearing and settlement arrangements, but there is need for a clear signal of commitment from the public-sector side. Such a signal would be provided by the endorsement of this report by the ECOFIN Council.

*The ECOFIN Council can signal public sector commitment by endorsing this report.*

**EXECUTIVE SUMMARY OF 2001 REPORT**  
*Cross-Border Clearing and Settlement Arrangements  
in the European Union*

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This report is the first of two dealing with the clearing and settlement of cross-border – or more accurately cross-system - securities transactions in the EU. The objectives of the report are to assess the current arrangements for cross-border clearing and settlement and to identify the main sources of inefficiency relative to the corresponding arrangements for domestic transactions. A second report, which will be published in mid-2002, will examine the prospects for the EU clearing and settlement infrastructure, with particular emphasis on public-policy aspects.

The clearing and settlement process is an essential feature of a smoothly functioning securities market, providing for the efficient and safe transfer of ownership from the seller to the buyer. The process involves four main steps, which are *confirmation* of the terms of the securities trade, *clearance* of the trade by which the respective obligations of the buyer and seller are established, *delivery* of the securities from the seller to the buyer and the reciprocal *payment* of funds. When both delivery and payment are finalised, settlement of the securities transaction has been achieved. Clearing and settlement of a securities transaction can involve intermediaries in addition to the buyer and seller and the complexity of the process is directly related to the number of actors involved. Accordingly, the greater role of intermediaries makes the clearing and settlement of a cross-border transaction inherently more complicated than the corresponding process for a domestic transaction

Cross-border clearing and settlement requires access to systems in different countries and/or the interaction of different settlement systems. Investors rarely access a foreign system directly and typically need to use intermediaries to this end. Three main intermediaries are available, i.e. a local agent (which is typically a member of the foreign CSD concerned), an international CSD or a global custodian (both of which provide the international investor with a single access point to national CSDs in various countries via direct membership of the relevant CSD or via a network of sub-custodians in the countries concerned). Less often, investors use links between their local CSD and the foreign CSD. The use of intermediaries in interacting with different systems increases the risk and cost for the cross-border investor and this cost rises with the number of different clearing and settlement systems that must be accessed.

Investor demand for foreign securities has increased sharply within the EU since the introduction of the euro. However, the EU infrastructure for clearing and settling cross-border transactions remains highly fragmented. Although the infrastructure is consolidating, there remain across the Union a very large number of entities (e.g. 19 CSDs and 2 ICSDs) whose primary business is to play a role in clearing and settlement. In consequence, the pan-EU investor is required to access many national systems that provide very different types of services, have different technical requirements/market practices, and operate within different tax and legal frameworks. The additional cost that is associated with this fragmented infrastructure represents a major limitation on the scope for cross-border securities trading in the Union.

Three types of additional cost can be identified in cross-border clearing and settlement. These are *direct costs* in the form of higher fees for the services provided, *indirect costs* in the form of extra back-office facilities that must be maintained or bought in from an intermediary and *opportunity costs* in the form of inefficient use of collateral, a higher incidence of failed trades and trades that are simply foregone because of the difficulties involved in post-trade processing across borders. For reasons of feasibility, the analysis in this report has been confined to the direct costs, although there is evidence to suggest that these constitute a relatively minor share of total.

A valid comparison of the clearing and settlement fees for cross-border and domestic securities transactions is precluded by the fact that the nature of the service provided varies from one provider to another. An alternative approach used in this report focuses on the per-transaction income of providers as a proxy for fees. The analysis reveals that the per-transaction income of the ICSDs, which process predominantly cross-border trades, is very much higher (about 11 times) than the per-transaction income of national CSDs, which process mainly domestic transactions. The extent of fragmentation in the EU clearing and settlement infrastructure means that the ICSDs (and presumably global custodians which similarly focus on cross-border transactions) must operate in a complex environment of multiple markets. While allowance must be made for issues of data comparability, it is difficult to avoid the conclusion that the cost differential between ICSDs and the national CSDs reflects the existence of barriers to efficient cross-border clearing and settlement within a fragmented EU infrastructure.

The Group has identified and listed 15 barriers to efficient cross-border clearing and settlement. The barriers have been categorised under the three headings of national differences in technical requirements/market practice (10), national differences in tax procedures (2), and issues relating to legal certainty (3). 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. In this context, there is a consensus within the Group that the EU clearing and settlement landscape could be significantly improved by market-led convergence in technical requirements/market practice across national systems. This would provide for inter-operability between national systems and could deliver considerable benefits within a significantly shorter timeframe than that required for full system mergers. On the other hand, the removal of barriers related to taxation and legal certainty is clearly the responsibility of the public sector. Although many tax-related barriers would lose relevance if investors were free to hold their securities within their chosen taxation regime, there remains a convincing argument in favour of harmonising the procedures for securities taxation as a further means to facilitate the integration of EU financial markets. Barriers related to legal certainty reflect more fundamental differences in the concepts of underlying national laws and would appear more difficult to remove than barriers in the other categories. Nevertheless, a partial solution seems to be available in the proposed EU Directive on collateral management, which is reflected by work currently underway at the Hague conference on private international law.

In conclusion, it is clear that fragmentation in the EU clearing and settlement infrastructure complicates significantly the post-trade processing of cross-border securities transactions relative to domestic transactions. Complications arise because of the need to access many national systems, whereby differences in technical requirements/market practices, tax regimes and legal systems act as effective barriers to the efficient delivery of clearing and settlement services. The



extent of the inefficiency that is created by these barriers is reflected in higher costs to pan-EU investors and is inconsistent with the objective of creating a truly integrated EU financial system. A list of such barriers is provided in this report and urgent action is now required to remove them.

## List of Participants

## List of Participants in Giovannini Group Discussions on Report

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Mr. Martin Thomas	Financial Markets Law Committee
Mr. Bernie Till	DTCC
Mr. Konstantinos Tomaras	European Commission
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Mr. Christoph Walkner	European Commission
Mr. Paul Watkins	Clearnet
Ms. Elizabeth Wrigley	European Commission

## **Mandate for Working Groups on EU Cross-Border Clearing and Settlement**

It is proposed to establish three working groups on EU cross-border clearing and settlement in the markets for equities, bonds and derivatives. There will be a common mandate for each of the working groups, which will have three parts:

- i. to analyse the current situation (including institutional set-up) for cross-border clearing and settlement in the market concerned.**

For this part of the mandate, it will be necessary to differentiate between the various functionalities involved (i.e. clearing, settlement, depository) while explaining clearly the linkage between them. These functionalities are market services, provided in an environment that is characterised by rules (of a regulatory, legal and fiscal nature), contracts and technology. The objective of the analysis will be to clarify how these services are provided across borders and how provision is affected by differences in the rules applied, in the contractual relations involved and in the available technology. In this context, the analysis should be supplemented by canonical examples that would highlight the main difficulties in cross-border transactions.

More specifically, the analysis would describe in detail: (i) the existing infrastructure (legal, technical and market structure) for cross-border clearing, settlement and depository functionalities in the market concerned and its historical evolution; (ii) the governance of those institutions that form this infrastructure; (iii) any regulatory/legal/taxation obstacles that exist to cross-border clearing and settlement; and (iv) the current and prospective role of technology in providing clearing, settlement and depository functions. In describing current arrangements, it would be useful to highlight aspects that may be unique to the market concerned. (A questionnaire will be provided to assist the working groups in their analysis.)

- ii. to consider the requirements against which the efficiency of possible alternative arrangements for clearing, settlement and depository services can be assessed**

The efficiency of possible alternative arrangements for each of the functionalities will need to be assessed on a consistent and objective basis. This can be achieved most effectively by establishing a set of requirements for an efficient arrangement for each functionality in each market. As the purpose of the Giovannini Group is to inform the policymaking of the Commission, these requirements would reflect a definition of efficiency that goes beyond the narrower interests of owners and users to include wider public-policy interests also. Many such requirements can be identified from recommendations made in the report of the CPSS-IOSCO Joint Task Force on Securities Settlement Systems (January 2001). The CPSS-IOSCO recommendations focus on the settlement of intra-country trades and there is no specific consideration of cross-border aspects. Nevertheless, on the basis of the CPSS-IOSCO recommendations, a set of requirements for efficiency in cross-border clearing, settlement and depository arrangements can be established

These requirements would include:

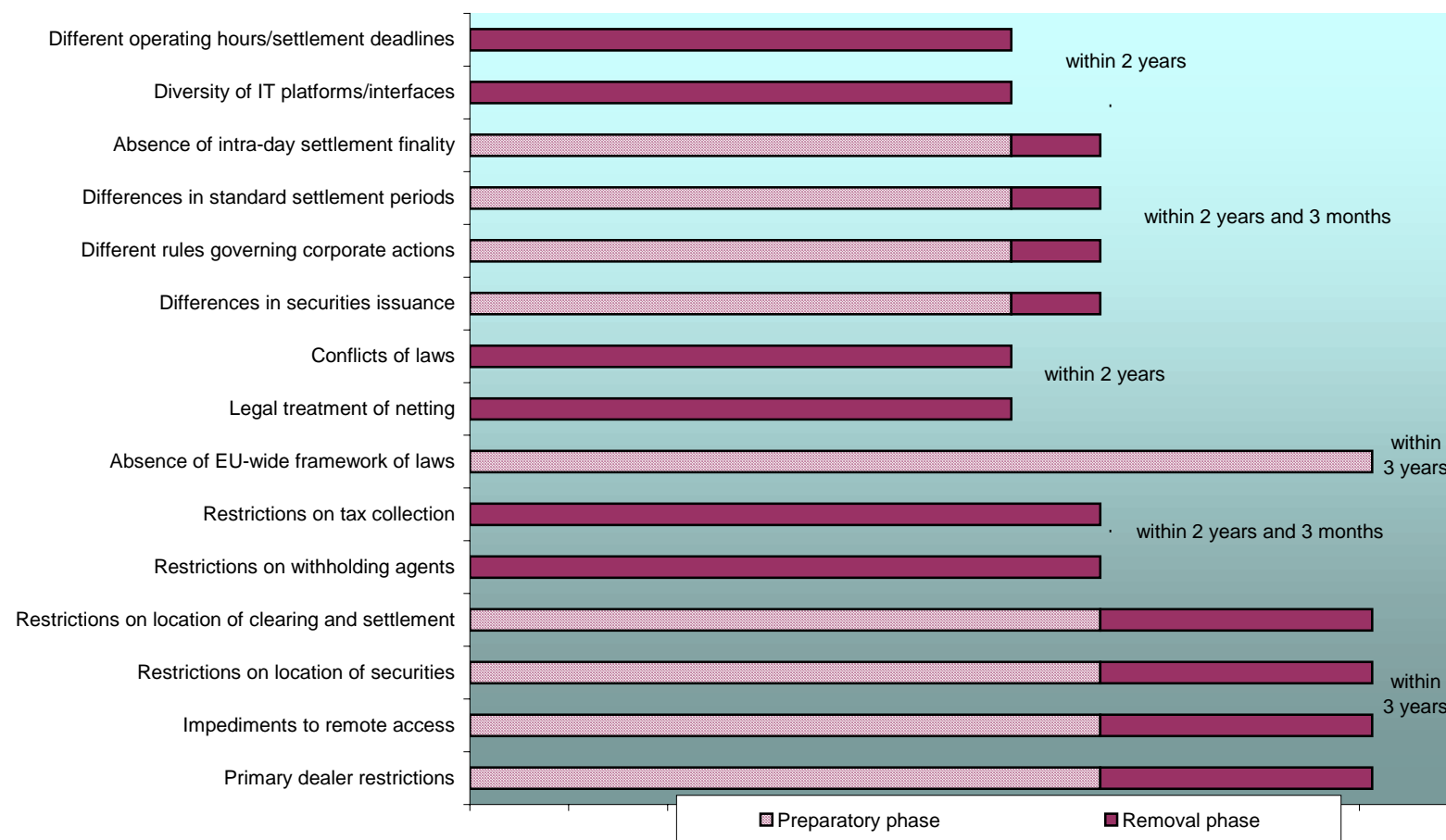
- lower costs/better quality of service to users;
- adequate investor protection (e.g. the new arrangement would provide clear legal framework for transactions, minimise investor risks at various stages of transaction, ensure full transparency of investor risks);
- effective competition (i.e. the new arrangement would assure fair and open access to potential users and ensure sufficient incentive to innovate);
- acceptable level of systemic risk (e.g. the new arrangement should offer maximum opportunity for netting, should provide for adequate supervision and oversight)
- governance arrangements (i.e. the new arrangement should be able to reconcile interests of owners, users and public policy).

**iii. to identify some possible alternative arrangements for clearing, settlement and depository functionalities.**

In this part of the mandate, the objective would be to identify a small number (2 or 3) of possible alternative arrangements for clearing, settlement and depository functionalities. A possible set of alternative arrangements would be (i) a centralised pan-EU utility for clearing, settlement and depository functionalities; (ii) a centralised pan-EU clearing counterparty with multiple settlement systems and depositories; and (iii) multiple vertically integrated clearing, settlement (and depository) "silos" linked to ensure pan-EU coverage. Each of these alternative arrangements would then be examined so as to illustrate how the requirements in (ii) would apply.

within 2 years

Timeline for removing the barriers to an efficient EU clearing and settlement environment



**Summary table of actions, actors and deadlines for removing the barriers to an integrated EU clearing and settlement environment**

Barrier	Necessary Action	Responsible	Deadline
Barrier 7	Operating hours and settlement deadlines should be harmonised.	ECSDA should take the lead in this initiative, in close co-operation with ESCB-CESR.	Within 2 years
Barrier 1	National differences in the information technology and interfaces used by clearing and settlement providers should be eliminated via an EU-wide protocol.	Protocol should be defined by SWIFT and, once defined, should be immediately adopted by the Eurosystem in respect of its operations.	Within 2 years
Barrier 4	Intra-day settlement finality in all links between settlement systems within the EU should be guaranteed.	ECSDA should co-ordinate necessary measures. These measures should be drawn up in close consultation with ESCB-CESR.	Within 2 years and 3 months
Barrier 6	Settlement periods for all systems within the EU should be harmonised.	More study required on the costs of harmonisation versus the alternative of managing additional costs of this barrier.	Within 2 years and 3 months
Barrier 3	National rules relating to corporate actions, beneficial ownership and custody should be harmonised.	Local agent banks, via ECSA, and ECSDA should co-ordinate private-sector proposals. National governments should co-ordinate their response via the relevant EU Council.	within 2 years and 3 months
Barrier 8	National differences in securities issuance practice should be eliminated.	IPMA and ANNA should draw up proposals to this end.	within 2 years and 3 months

**Summary table of actions, actors and deadlines for removing the barriers to an integrated EU clearing and settlement environment**

<b>Barrier</b>	<b>Necessary Action</b>	<b>Responsible</b>	<b>Deadline</b>
Barrier 11	All financial intermediaries established within the EU should be allowed to offer withholding agent services in all of the Member States so as to ensure a level playing field between local and foreign intermediaries.	National governments should co-ordinate their actions via the relevant EU Council.	within 2 years and 3 months
Barrier 12	Any provisions requiring that taxes on securities transactions be collected via local systems should be removed to ensure a level playing field between domestic and foreign investors.	National governments should co-ordinate their actions via the relevant EU Council.	within 2 years and 3 months
Barriers 13, 14, 15	The EU Collateral Directive will remove much of the legal uncertainty relating to netting and the uneven application of conflict of laws. Member States should ensure the full implementation of this Directive by the scheduled date of 27 December 2003. While this should be enough to allow the lifting of the restrictions on holdings of securities and securities settlement, there remains a need for a legal framework across the EU under which, whenever securities are held using an intermediary, it is the accounts of that intermediary that establish ownership of those securities.	An EU Securities Account Certainty project should be agreed upon by national governments. The objective of this Project should be to draft the target reform and adequate resources should be made available to meet this objective. This task should be completed within a period of three years.	Within 3 years
Barriers 2,9	National restrictions on the location of clearing and settlement and on the location of securities should be removed, as an essential pre-condition for a market-led integration of the EU clearing and settlement environment.	National governments should adopt the relevant elements on the location of clearing and settlement in the new Investment Services Directive as proposed by the Commission. National governments should then co-ordinate to remove restrictions on location of securities.	within 3 years



**Summary table of actions, actors and deadlines for removing the barriers to an integrated EU clearing and settlement environment**

<b>Barrier</b>	<b>Necessary Action</b>	<b>Responsible</b>	<b>Deadline</b>
Barrier 5	Practical impediments to remote access to national clearing and settlement systems should be removed in order to ensure a level playing field.	National governments should draw up a set of conditions upon which remote access can be guaranteed across the EU. These conditions should be drawn up in conformity with the requirements of ESCB/CESR.	within 3 years
Barrier 10	Restrictions on the activity of primary dealers and market makers should be removed.	National governments should co-ordinate their actions via the relevant EU Council.	within 3 years

## Glossary <sup>39</sup>

**Access:** the right of or opportunity for an institution to use the services of a particular payment or securities settlement system to settle payments/transactions on its own account or for customers.

**Batch:** the transmission or processing of a group of payments and/or securities transfer instructions as a set at discrete intervals of time.

**Batch processing:** the transmission or processing of a group of payment orders and/or securities transfer instructions in batches at discrete intervals of time.

**Beneficial ownership/interest:** the entitlement to receive some or all of the benefits of ownership of a security or other financial instrument (e.g. income, voting rights, power to transfer). Beneficial ownership is usually distinguished from "legal ownership" of a security or financial instrument.

**Bilateral netting:** an arrangement between two parties to net their bilateral obligations. The obligations covered by the arrangement may arise from financial contracts, transfers, or both.

**Book-entry system:** an accounting system, which permits the transfer of claims without the physical movement of paper documents or certificates (e.g. electronic transfer of securities).

**Broker-dealer:** a person or firm sometimes acting as broker and sometimes as principal intermediary in securities transactions.

**Business continuity:** a payment system or securities settlement system arrangement which aims to ensure that it meets agreed service levels even if one or more components of the system fail or if it is affected by another abnormal event. This includes both preventative measures and arrangements to deal with these events.

**Central counterparty:** an entity, which interposes itself as the buyer to every seller and as seller to every buyer of a specified set of contracts.

**Central securities depository (CSD):** an entity, which holds and administers securities and enables securities transactions to be processed by book entry. Securities can be held in a physical but immobilised or dematerialised form (i.e. so that they exist only as electronic records). In addition to the safekeeping and administration of securities, a CSD may incorporate clearing and settlement functions.

**Clearing/clearance:** the process of transmitting, reconciling and, in some cases, confirming payment orders or security transfer instructions prior to settlement, possibly including the netting of instructions and the establishment of final positions for settlement. Sometimes the terms are used (imprecisely) to include settlement.

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<sup>39</sup> Definitions are taken mainly from ECB publication "Payments and Securities Settlement Systems in the European Union" (Blue Book), June 2001.

**Clearing house:** a department of an exchange or a separate legal entity which provides a range of services related to the clearing and settlement of transactions and payments, and the management of risks associated with the resulting contracts. In many cases, the clearinghouse acts as central counterparty.

**Close-out netting:** a special form of netting which occurs following some predefined events such as default. Close-out netting is intended to reduce exposures on open contracts if one party falls foul of certain conditions specified by the contract (e.g. becomes subject to insolvency procedures) before the settlement date. (This is also referred to as default netting, open contract netting or replacement contract netting).

**Collateral:** assets pledged as a guarantee for the repayment of the short-term liquidity loans, which credit institutions receive from the central banks, as well as the assets sold to central banks by credit institutions as part of repurchase operations.

**Confirmation:** a particular connotation of this widely used term is the process whereby a market participant notifies its counterparties or customers of the details of a trade and, typically, allows them time to affirm or question the trade.

**Correspondent central banking model (CCBM):** a model established by the European System of Central Banks (ESCB) with the aim of enabling counterparties to transfer eligible assets as collateral in a cross-border context. In the CCBM, NCBs act as custodians for one another. This means that each NCB has a securities account in its securities administration for each of the other NCBs (and for the European Central Bank (ECB)).

**Counterparty:** the opposite party in a financial transaction (e.g. the other party in any transaction with the central bank).

**Credit risk/exposure:** the risk that a counterparty will not settle an obligation in full, either when due or at any time thereafter. In exchange-for-value systems, the credit risk is generally defined to include replacement cost risk and principal risk.

**Cross-border settlement:** a settlement which takes place in a country other than the country or countries in which one or both of the parties to the trade are located.

**Cross-system settlement:** a settlement of a trade, which is, effected through a link between two separate securities transfer systems.

**Custodian:** an entity, often a bank, which safekeeps and administers securities and other financial assets on behalf of others and which may also provide various other services, including clearance and settlement, cash management, foreign exchange and securities lending.

**Custody:** the safekeeping and administration of securities and financial instruments on behalf of others.

**Custody risk:** the risk of loss of securities held in custody occasioned by the insolvency, negligence or fraudulent action of the entity safekeeping the securities.

**Default:** the failure to complete a funds or securities transfer according to its terms for reasons, which are not technical or temporary, usually as a result of bankruptcy. Default is usually distinguished from a "failed transaction".

**Dematerialisation:** the elimination of physical certificates or documents of title, which represent ownership of securities so that securities exist only as accounting records.

**Depository:** an agent with the primary role of recording securities either physically or electronically and keeping records of the ownership of these securities.

**Domestic settlement:** a settlement, which takes place in the country in which both parties to the trade are located.

**Fail:** a failure to settle a securities transaction on the contractual settlement date, usually because of technical or temporary difficulties. Fail is usually distinguished from "default". Also called failed transaction.

**Global custodian:** a custodian who provides its customers with custody services in respect of securities traded and settled not only in the country in which the custodian is located but also in numerous other countries throughout the world.

**Indirect participant/member:** refers to a type of participant in a funds or securities transfer system in which there is a tiering arrangement. Indirect participants are distinguished from direct participants by their inability to perform some of the system activities (e.g. inputting of transfer orders, settlement) performed by direct participants. Indirect participants thus require the services of direct participants to perform those activities on their behalf. In an EU context, the term refers more specifically to participants in a transfer system, which are responsible only to their direct participants for settling the payments input into the system.

**International central securities depository (ICSD):** a securities settlement system, which clears and settles international securities or cross-border transactions in domestic securities. At present, there are two ICSDs located in EU countries, Clearstream Luxembourg and Euroclear Bank.

**Interoperability:** a situation in which payment instruments belonging to a given scheme may be used in other countries and in systems installed by other schemes. Interoperability requires technical compatibility between systems, but can only take effect where commercial agreements have been concluded between the schemes concerned.

**Legal ownership:** recognition in law as the owner of a security or financial instrument.

**Legal risk:** the risk of loss because of the unexpected application of a law or regulation or because a contract cannot be enforced.

**Link between securities settlement systems:** a link consists of all the procedures and arrangements, which exist between two SSSs for the transfer of securities between the two SSSs concerned through a book-entry process.

**Liquidity risk:** the risk that a counterparty (or participant in a settlement system) will not settle an obligation for full value when due. Liquidity risk does not imply that a counterparty or participant is insolvent, since it may be able to settle the required debit obligations at some unspecified time thereafter.

**Margin:** a term generally referring to the collateral used to secure an obligation, either realised or potential.

**Matching:** the process used for comparing the trade or settlement details provided by parties in order to ensure that they agree on the terms of the transaction. Also called comparison checking.

**Multilateral netting:** an arrangement among three or more parties to net their obligations. The obligations covered by the arrangement may arise from financial contracts, transfers or both. The multilateral netting of payment obligations normally takes place in the context of a multilateral net settlement system. Such netting is conducted through a central counterparty. The multilateral net position is also the bilateral net position between each participant and the central counterparty.

**Netting:** an agreed offsetting of positions or obligations by trading partners or participants. The netting reduces a large number of individual positions or obligations to a smaller number of obligations or positions. Netting may take several forms, which have varying degrees of legal enforceability in the event of the default of one of the parties.

**Novation:** satisfaction and discharge of existing contractual obligations by means of their replacement by new obligations (whose effect, for example, is to replace gross with net payment obligations). The parties to the new obligations may be the same as to the existing obligations or, in the context of some clearinghouse arrangements, there may additionally be substitution of parties.

**Operating system:** that part of the software of a computer system (or chip) which is closely connected to the hardware on which it runs and performs basic input/output operations, computations, memory management, etc.

**Operational risk:** the risk of human error or a breakdown of some component of the hardware, software or communications systems, which is crucial to settlement.

**Pledge:** a delivery of property to secure the performance of an obligation owed by one party (the debtor/pledgor) to another (the secured party). A pledge creates a security interest (lien) in the property so delivered.

**Principal risk:** the risk that a party will lose the full value involved in a transaction (credit risk). In the settlement process, this term is typically associated with exchange-for-value transactions when there is a lag between the final settlement of the various legs of a transaction.

**Registration:** the listing of ownership of securities in the records of the issuer or its transfer agent/registrar.

**Remote access to an SSS:** the facility for an SSS in one country ("home country") to become a direct participant in an SSS established in another country ("host country") and, for that purpose, to have a securities account in its own name with the SSS in the host country.

**Securities settlement system (SSS):** a system which permits the holding and transfer of securities, either free of payment (FOP) (for example in the case of a pledge) or against payment (DVP). It comprises all the institutional arrangements required for the clearing and settlement of securities trades and the safekeeping of

securities. Settlement of securities occurs on securities deposit accounts held with the CSD, ICSD or institution in charge of operating the system. The final custodian is normally a CSD.

**Settlement:** an act which discharges obligations in respect of funds or securities transfers between two or more parties. A settlement may be final or provisional.

**Settlement finality:** irrevocable and unconditional settlement.

**Settlement risk:** general term used to designate the risk that settlement in a transfer system will not take place as expected. This risk may comprise both credit and liquidity risks.

**Settlement system:** a system used to facilitate the settlement of transfers of funds or financial instruments.

**Straight-through processing:** the automated end-to-end processing of trades/payment transfers including the automated completion of confirmation, generation, clearing and settlement of instructions.

**SWIFT:** the Society for Worldwide Interbank Financial Telecommunication (S.W.I.F.T. s.c.r.l.): a co-operative organisation created and owned by banks which operates a network to facilitate the exchange of payment and other financial messages between financial institutions (including broker-dealers and securities companies) throughout the world. A SWIFT payment message is an instruction to transfer funds; the exchange of funds (settlement) subsequently takes place via a payment system or through correspondent banking relationships.

**Systemic risk:** the risk that the failure of one participant in a transfer system, or in financial markets generally, to meet its required obligations will cause other participants or financial institutions to be unable to meet their obligations (including settlement obligations in a transfer system) when due. Such a failure may cause significant liquidity or credit problems and, as a result, might threaten the stability of financial markets.

**Tiering arrangement:** an arrangement, which may exist in a funds or securities transfer system, whereby participants in one category require the services of participants in another category to exchange and/or settle their transactions.