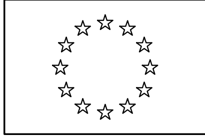

EUROPEAN COMMISSION

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IMPACT ASSESSMENT

Accompanying the document

Proposal for a Regulation of the European Parliament and of the Council

on improving securities settlement in the European Union and on Central Securities Depositories (CSDs) and amending Directive 98/26/EC

{COM(2012) 73 final}
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TABLE OF CONTENT

1. Introduction and procedural issues ... 4
1.1. Introduction ... 4
1.2. Impact assessment and opinion of the Impact Assessment Board ... 5
1.3. External expertise and consultation of interested parties ... 5
2. Background and context ... 6
2.1. Post trading services ... 6
2.2. What are CSDs? ... 6
2.3. Current CSD landscape in the EU ... 8
2.4. Other intermediaries in the post trading area ... 8
2.5. Size of market ... 9
2.6. Costs for CSD services ... 10
2.7. Target2 Securities ... 10
2.8. Overview of legislative framework ... 11
2.9. Relationship with other legislative initiatives ... 11
3. Problem definition ... 12
3.1. Key driver 1: Different market practices on the organisation of settlement ... 13
3.2. Key driver 2: Different rules for CSDs ... 15
3.3. Key driver 3: Barriers of access to/from CSDs ... 17
3.4. How would the problems evolve without EU action ... 19
3.5. The EU's right to act and justification ... 20
4. Objectives ... 21
4.1. General, specific and operational objectives ... 21
4.2. Consistency with other EU policies ... 22
5. Policy Options, Analysis and Comparison ... 23
5.1. Options for objective 1 – Enhance framework for settlement in the EU ... 23
5.2. Options for objective 2 - Introduce consistent rules for CSDs ... 28
5.3. Options for objective 3 – remove barriers of access to/from CSDs ... 35
6. Preferred Policy Options and Instruments ... 39
6.1. Preferred policy options ... 39
6.2. The cumulative impacts of the preferred policy options ... 40

6.3. The preferred policy instrument 44
6.4. Timing of the initiative 44
6.5. Impacts of the detailed technical rules 45
7. Monitoring and evaluation 45
7.1. Objective 1 – Enhance framework for settlement 45
7.2. Objective 2 – Consistent rules for CSDs 46
7.3. Objective 3 - Access 46
8. Annexes 47
8.1. Annex 1 – Political mandate and basis of the work programme 47
8.2. Annex 2 – External expertise 49
8.3. Annex 3 – Data on CSDs in the EU 51
8.4. Annex 4 – Additional data on CSD and custodian costs 58
8.5. Annex 5 – Market discipline measures and implementation plans 60
8.6. Annex 6 – Overview of settlement periods and efficiency in Europe 62
8.7. Annex 7 – Overview of legislative framework 63
8.8. Annex 8– Authorisation requirements for CSDs in EU and non EU countries 65
8.9. Annex 9 – Lehman and Bear Stern case studies 69
8.10. Annex 10 – Overview of restrictions on the choice of CSD by issuers 70
8.11. Annex 11 – Possible principles to be proposed in legislation 74
8.12. Annex 12 – Options in respect of banking type of services 77
8.13. Annex 13 – Summary of the responses to the public consultation 88
8.14. Annex 14 – Glossary of terms 99

1. INTRODUCTION AND PROCEDURAL ISSUES

1.1. Introduction

Central Securities Depositories (CSDs) [1] are systemically important market infrastructures. Firstly, they intervene throughout the life span of securities, from issuance to reimbursement. Secondly, they perform, sometimes after prior netting by Central Counterparties (CCPs), most of the processes that lead to the settlement of a transaction, i.e. the delivery of securities against cash.

Over 330 million securities transactions were settled in the EU in 2010 by CSDs, for a total value of approximately €920 trillion. EU CSDs held almost €39 trillion of securities at the end of 2010 (please see section 2.5).

The ECOFIN Council of 2 December 2008[2] emphasised the need to strengthen the safety and soundness of securities settlement systems ("SSS" or "settlement systems") operated by CSDs. More recently, on 20 October 2010, the Financial Stability Board (FSB) called for more robust core market infrastructures and asked for the revision and enhancement of existing standards. The Committee on Payments and Settlement Systems (CPSS) of the Bank of International Settlements (BIS) and the International Organisation of Securities Commissions (IOSCO) are in the process of finalising draft global standards [3] . These will replace the CPSS-IOSCO recommendations from 2001, which were adapted at European level in 2009 by the European System of Central Banks (ESCB) and the Committee of European Securities Regulators (CESR[4]).

Securities transactions in Europe are becoming increasingly cross-border and this should increase once the Target2 Securities (T2S)[5] pan-European common settlement platform will start in 2015. Despite this, cross-border securities settlement in Europe remains complex due to different national market practices regarding settlement as well as to persisting barriers of access. This has implications for the safety and efficiency of cross-border securities transactions. Various studies and regulatory initiatives have been carried out for the last decade, spearheaded by the Lamfalussy report on financial services regulation in 2001.

Political support has been demonstrated at the EU level, for instance by France and Germany, who invited President Barroso to consider the possibility of harmonisation of settlement periods, and by the ECOFIN Council, who agreed that EU legislation is needed to tackle barriers of access. The preparation of a legislative proposal on CSDs and settlement was included in the Commission's work programme for 2011. Further detail on the *political mandate and basis of the work programme* is provided in Annex 1 and on the timing of the proposal in section 6.4.

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1 Any reference to CSDs in this document also covers the two International Central Securities Depositories (ICSDs), Clearstream Banking Luxembourg and Euroclear Bank, when applicable. The ICSDs are a sub-category of CSDs specialised in the issuance of international bonds, commonly known as "Eurobonds"

2 http://register.consilium.europa.eu/pdf/en/08/st16/st16212.en08.pdf

3 These standards are available on http://www.bis.org/publ/cpss94.pdf and should be finalised early 2012

4 Since 1 January 2011 CESR has become the European Securities Market Authority (ESMA)

5 Please refer to T2S website for more details http://www.ecb.int/paym/t2s/html/index.en.html

This report analyses the various options aiming at addressing both topics introduced above: (a) the safety and efficiency of cross-border settlement in Europe and (b) the safety and soundness of CSDs, as systemically important market infrastructures. In addition, the report looks at level playing field issues, since CSDs have developed as natural monopolies in their domestic markets.

1.2. Impact assessment and opinion of the Impact Assessment Board

The Directorate General (DG) for Internal Market and Services is the lead DG.

Work on the Impact Assessment started in October 2010 with three meetings of the Steering Group held from 10 November 2010 to 8 March 2011. The following DGs and Commission services participated in the meetings: Competition, Economic and Monetary Affairs, Industry and Entrepreneurship, Legal Service, Secretariat General, Justice, Taxation and Customs Union, Energy and Climate Action.

The report was sent to the Impact Assessment Board on 16 March 2011. The Board discussed the report in its hearing on 13 April 2011. The report was then resubmitted on 8 August 2011. Following the Board's comments, the following elements have been added and strengthened:

- A reflection of stakeholder views throughout the document
- More evidence of the problems, including more data on costs and safety issues in sections 2.6, 2.7, 3.2.3 and Annex 4
- More detail on each option in the description boxes, with a detailed description in Annex 11
- More analysis of the content of licence, particularly with respect to banking-type of ancillary services, in section 5.2.2 and Annex 12
- An estimation of order of magnitude of overall benefits and an overview of impacts on different groups of stakeholders in section 6.2
- A clearer and more robust monitoring and evaluation framework in section 7

1.3. External expertise and consultation of interested parties

1.3.1. External expertise

The Commission services have consulted the great majority of stakeholders, including regulators, CSDs and CSD participants, as described in Annex 2.

1.3.2. Public consultation

A public consultation was held from 13.01.2011 to 1.03.2011, containing 56 questions concerning scope and definition, authorisation and supervision, access and interoperability, prudential and organizational requirements, settlement discipline, settlement cycles and sanctions. It received 101 answers consisting of 33 banks, 20 public authorities, 16 CSDs, 10 other market infrastructures, 11 investors and issuers, and 11 other. The summary can be consulted under Annex 13.

The initiative was welcomed by almost all respondents, who shared the view of the consultation paper that settlement processes and CSDs play a systemically important role for financial markets and should be subject to proper regulation.

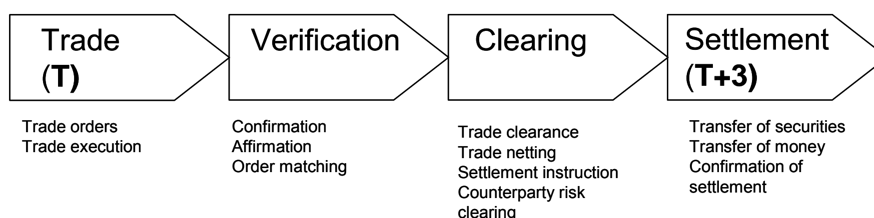
2. BACKGROUND AND CONTEXT

2.1. Post trading services

Central Securities Depositaries (CSDs) play a key role in the processes that take place between the conclusion of a securities transaction (i.e. an initial issuance of securities[6] or a sale or purchase of securities on or off a trading venues[7]) and the settlement of that transaction (i.e. the transfer of securities against cash). These processes are typically referred to as "post trading services" rendered by "post trading infrastructures". A settlement flow could look as in Figure 1, with the caveat that the way these processes are set up depends on a number of factors, such as whether the transaction is done on or off a trading venue, market convention, type of securities traded, domestic versus cross border investment, legal framework and whether the trade is cleared by a Central Counterparty (CCP)[8] prior to settlement. These processes are also subject to dynamic change as markets evolve.

Figure 1 describes the possible processes between the trade date (T) and the moment when settlement occurs in the CSD - in this example after 3 days ("T+3").

Figure 1: Example of a settlement flow



Source: based on the Oxera report, "Methodology for monitoring prices, costs and volumes of trading and post-trading activities", July 2007

Around these processes, a number of services rendered either by CSDs and CCPs or by intermediaries (custodian banks) have evolved over time, with a view to improve the settlement or to optimize the use of a client's assets (see section 2.2).

2.2. What are CSDs?

CSDs are essential in the post trading area, in that they ensure the initial recording as well as the safekeeping and settlement of securities. While there is no commonly

6 Initial issuance of securities is regulated by the Directive 2003/71/EC of the European Parliament and of the Council of 4 November 2003 on the prospectus to be published when securities are offered to the public or admitted to trading

7 Trading venues are regulated by the Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments (MiFID)

8 In many markets and for many transactions CCPs interpose themselves between market participants (buyers and sellers). Netting substantially reduces the number and value of deliveries and payments needed to settle a given set of trades at the level of the CSD. CCPs are the subject to the proposed Regulation of 15 September 2010 concerning OTC derivatives, Central Counterparties and Trade Repositories

accepted definition of a CSD or of the functions they perform, there is nevertheless a range of functions that are performed by many CSDs. These functions can be broadly divided into "core" functions and "ancillary" functions, which are mostly supporting the core functions.

2.2.1. *Core functions*

- The "notary" function means the entering of securities into book-entry. It generally occurs at the same time as the issuance by the issuer. It ascertains the existence of the securities when they are brought for reimbursement upon maturity

- The "settlement" function means the operation of a securities settlement system, through which securities are initially delivered to investors or are subsequently exchanged between buyers and sellers (via participants to the SSS)

- The "central safekeeping" function means the maintenance of "top tier" accounts in a book entry system.

These three core functions are offered by almost all CSDs in Europe, but variations exist. In "direct holding" countries (Nordic countries, Cyprus, Estonia, Greece, Malta, Romania, Slovakia and Slovenia), CSDs are designated by law as direct account providers for all investors, including the ultimate investors. In "indirect holding" countries, CSDs hold only top tier accounts for their participants, who maintain accounts for investors further down the holding chain. Variations may exist of these models.

2.2.2. *Ancillary functions*

Ancillary services vary considerably from one country to another, and can be broadly divided into two categories:

- Ancillary functions where the CSD does not take principal risk, including:

  – Organising a securities lending mechanism enabling participants to borrow securities for the purpose of fulfilling a delivery obligation

  – Managing collateral

  – Processing corporate actions (taxes, dividends, proxy voting)

  – Maintaining the shareholder register

  – Opening "lower tier" securities accounts, either in direct holding systems or when the CSD acts as "investor CSD" by maintaining for its customers securities issued in "issuer CSDs"

- Banking/securities-type of functions where the CSD takes principal risk:
  - Opening cash accounts and providing credit for settlement
  - Pre-financing dividends and other corporate actions

2.3. Current CSD landscape in the EU

The European CSD market is *very fragmented*, with over 30 CSDs at the end of 2010 (including the two ICSDs), as well as 9 central bank-operated settlement systems, the latter dealing primarily in government debt. This is due to the initial creation of domestic CSDs to serve national markets, as well as to persisting cross-border barriers of entry for CSDs (for certain types of securities, notably shares) – please see section 3.3 for more details. An overview of ownership structure, asset coverage and size of the different settlement systems in the EU is provided in Annex 3. By comparison, the US market is very concentrated, with only two CSDs, one for government securities, and the other for all other securities (see Annex 8).

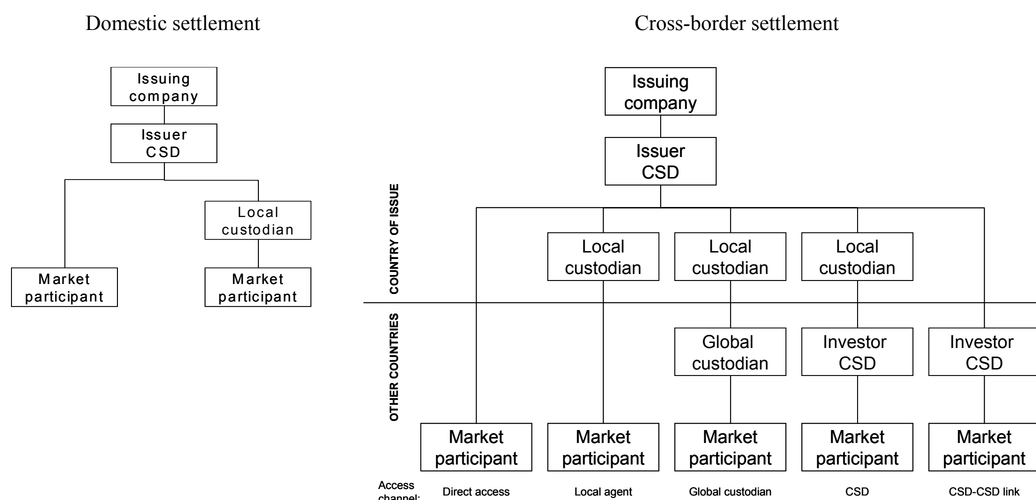
However, a first consolidation process started at the end of the 20th century with the creation of two cross border groups, each composed of at least a CSD and of an ICSD. These two cross-border groups are described in Annex 3.

2.4. Other intermediaries in the post trading area

Banks acting as "custodian banks" perform, albeit at different levels, some of the ancillary functions performed by CSDs. For instance, they act as lower tier account provider, by simply opening securities accounts for their customers. Furthermore, they perform lower tier settlement, especially when two customers have securities accounts with the same custodian bank (so-called "internalisation").

CSDs and custodian banks often compete for ancillary functions. For cross-border transactions investors can access securities in an issuer CSD by using either a custodian bank or an investor CSD that has a link with the issuer CSD. In the most basic form a link means that the investor CSD participates directly to the settlement system of the issuer CSD, which essentially puts the investor CSD in an intermediary position, similarly to a custodian. A simple representation of different options for cross-border settlement is on the right side of Figure 2 below. Figure 5 in Annex 3 provides a complete picture of the types of links between CSDs.

Figure 2: Examples of domestic and cross-border settlement



Source: BIS, "Cross-border securities settlement", March 2005 http://www.bis.org/publ/cpss12.pdf

2.5. Size of market

The European securities market is by any measure very significant; according to ECB statistics[9], there were over 690 million trades executed on securities exchanges in the EU in 2010, representing a total value of over €33 trillion. The EU capital market is the second in size after the US one and represents around 30% of the global market (the US represents around 35% of the total[10]).

According to ECB statistics, there were almost €39 trillion worth of securities in EU securities settlement systems at the end of 2010; over 330 million securities transactions[11] were settled in the EU in 2010, for a total turnover of approximately €920 trillion[12] – please refer to Annex 3, Tables 13, 14 and 15.

Cross-border activity is generally increasing in Europe, as documented by the recent Oxera report[13], which finds that an increasing proportion of members on trading platforms, CCPs and, to a much lesser extent CSDs originate from outside the domicile of these infrastructures in 2009 compared to 2006 (see Table 16 in Annex 4). However, for reasons explained in section 3.3 cross-border activity remains limited for CSDs; on average in 2009 the proportion of cross-border members of

[9] http://sdw.ecb.europa.eu/reports.do?node=1000001584

[10] According to the McKinsey "Global Capital Markets: Entering a New Era" September 2009 http://www.mckinsey.com/mgi/reports/pdfs/gcm_sixth_annual_report/gcm_sixth_annual_report_full_report.pdf

[11] The number of transactions settled by settlement systems is substantially lower than the number of trades, as trades are often netted (e.g. by Central Counterparties) and sometimes settled without involvement of the CSD (e.g. by custodian banks that "internalise" settlement)

[12] In contrast to the number of transactions, settlement volumes are much higher than trading volumes because settlement data includes OTC transactions as well as non trading transactions, e.g. movements of collateral and movements within CCPs' accounts or between individual accounts and omnibus accounts

[13] Oxera carried out a study for the Commission on prices, costs and volumes of trading and post-trading services. The study covered 18 financial centres classified as *major* (France, Germany, Italy, Spain, Switzerland and the UK), *secondary* (Belgium, Luxembourg, the Netherlands, Norway, Poland and Sweden) and *other* (Austria, Czech Republic, Denmark, Greece, Ireland and Portugal) http://ec.europa.eu/internal_market/financial-markets/clearing/communication_en.htm#monitoring

CSDs was only 3% (although the same proportion by value of securities held was 15%, up from 12% in 2006).

2.6. Costs for CSD services

CSD costs typically represent a very small proportion of the costs associated with a trade. For instance, the Oxera report shows that the CSD costs incurred by funds are 1.5% of their total costs of holding and transacting, excluding fund management. The rest of the costs are represented by CCPs (1%), custodians (22%), trading venues (4.5%), and brokers (71%). According to the Oxera report, CSDs in Europe charge on average 46 cents per transaction for settlement and 0.0016% per value of securities held for safekeeping.

However, these costs are much higher for cross-border transactions. Some of this difference may be justified by economies of scale since cross-border volumes are lower than domestic volumes. However, it is mostly due to the complexity of settlement for cross-border transactions, which involves sometimes long holding chains of intermediaries and CSDs, as described further in section 3. The gap has declined since 2006 but remains significant (see Table 17 in Annex 4).

More detailed information on CSD and custodian costs is provided in Annex 4.

2.7. Target2 Securities

The post trading landscape in Europe is expected to change considerably with the planned start of TARGET2-Securities (T2S) in 2015. T2S is a project launched by the Eurosystem that is intended to create a technical platform for pan-European securities settlement. Participating CSDs[14] will (at least over time) outsource the IT platform for settlement to T2S, while nevertheless maintaining the legal relationship of settlement with their customers (in the form of securities accounts) and continuing to perform their notary, safekeeping and ancillary functions. T2S will provide important benefits including[15]:

- Reduce settlement costs, especially for cross-border settlement in Europe. T2S will equalise basic costs for settlement of domestic and cross-border securities (the current base price estimated by T2S is 15 cents per transaction[16])
- Increase settlement volumes and encourage increased cross-border transactions in Europe since it will provide for customised solutions for cross-border links
- Stimulate competition for settlement services between CSDs as well as between custodian banks since their wholesale customers are likely to wish to reduce their number of suppliers by seeking partners with pan-European or at least regional services

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[14] So far, 30 CSDs from across Europe have signed a Memorandum of Understanding (MoU) with T2S, including almost all of the CSDs in the EU as well as three from outside the EU

[15] For a full description, please refer to the "T2S: Half-Way to Delivery" brochure from Oct 2010 (http://www.ecb.int/paym/t2s/pdf/T2S_2010_brochure.pdf)

[16] Cost efficiency of T2S will depend on the volumes of transactions transferred to T2S, i.e. on the number of participating CSDs in T2S. CSDs are likely to add on certain costs to the T2S base price, such as costs for monitoring settlement in T2S, amortisation of investment costs and helpdesk functions. A survey undertaken by T2S has shown such costs to be 7 to 24 cents per transaction

The T2S Programme Office and the ECB Services have expressed their strong support to the EU Commission's initiative for a legislative proposal to strengthen the CSDs' legal framework and harmonise the rules underpinning the holding and transfer of securities in the Union.

2.8. Overview of legislative framework

The term CSD already exists in the current legislative "acquis communautaire", but it is not defined. Among the CSD core functions only the settlement function is addressed at EU level by the Settlement Finality Directive (SFD)[17]. A detailed overview of current EU legislation relating to CSD functions is provided in Annex 7.

Certain elements of CSDs are also addressed by soft law:

- CPSS-IOSCO recommendations at global level and ESCB-CESR recommendations at European level. These are non-binding recommendations for public authorities (market regulators, banking supervisors) to use in their assessment of the safety, soundness and efficiency of CSDs and of the SSS these operate. In a more constraining manner, the ECB imposes similar technical standards to CSDs of the Eurozone as a precondition for their participation to collateralisation of monitory policy operations (remittance of securities against credit)

- The Code of Conduct of 2006 defined by the Industry (the European CSD association, ECSDA, the European exchanges federation, FESE, and the European CCP association, EACH) under the auspices of the Services of the European Commission. It provides for a certain number of non discriminatory rules for access and interoperability arrangements between market infrastructures (for equities) on a non-binding basis

2.9. Relationship with other legislative initiatives

There is currently another legislative initiative as well as a potential legal initiative on which the Commission services have been publicly consulting, that are related to the issues and the proposals described in this report in respect of CSDs and settlement:

- The *draft regulation on short selling*[18] is related to settlement discipline; Article 13 installs penalising measures for sellers that do not deliver certain securities for settlement within a specific time period (buy-in, cash compensation, daily penalty payments for late settlement, trade prohibition). This would be extended with a wider scope in the settlement discipline section of the CSD legislation

[17] The SFD (Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems, as amended by Directive 2009/44/EC) exempts orders entered in a SSS from any retroactive cancellation by courts in case of insolvency of a participant. This legal "safe-harbour" avoids domino effects resulting from the blocking or cancellation of payments by the Judge of Insolvency. The SFD can of course not prevent blocking or delays that result from an operational failure. The SFD applies to SSS that are notified as such by Member States and notified to ESMA (but for instance it does not impose an obligation of notification)

[18] The Commission adopted on 15 September 2010 a Proposal for a Regulation on short selling and certain aspects of credit default swaps http://ec.europa.eu/internal_market/securities/docs/short_selling/20100915_proposal_en.pdf

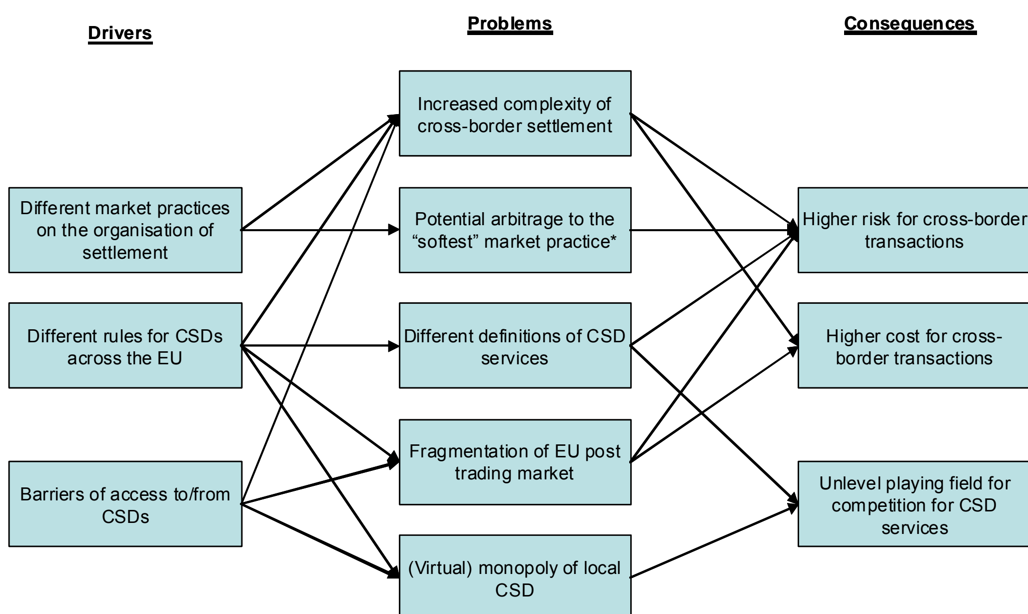
- The *possible Securities Law Directive* (SLD) is intended to impose certain requirements on account providers at all levels of the holding chain (e.g. reconciliation of accounts, rights of account holders etc.). Most CSDs should be covered by the SLD at least for their ancillary account provider function and will therefore be subject to the corresponding requirements (in addition to the requirements in the CSD legislation)

3. PROBLEM DEFINITION

There are three fundamental issues in respect of post-trading activities in the EU which this report is addressing: higher risk for cross-border (compared to domestic) settlement, higher cost for cross-border settlement and unlevel playing field for CSD services. These issues are the consequences of ultimately three main drivers: (1) different market practices on the organisation of settlement, (2) different rules for CSDs across the EU, and (3) barriers of access to/from CSDs.

The diagram below provides an overview of these drivers, the problems they generate and the consequences of these problems.

Figure 3: Problem tree



Note: the arrows represent the key interrelationships. Most factors represented above are interlinked
* refers to a competitive environment

3.1. Key driver 1: Different market practices on the organisation of settlement

Different market practices in respect of settlement can broadly be split into two categories: (1) different settlement discipline practices, and (2) different settlement periods. These issues were identified as early as 2001 by the Giovannini report[19] as barriers to post-trading activities in Europe and have been discussed at length over the last decade by the various groups described in Annex 2. Both of these issues are also regarded as high priority harmonisation targets by T2S, where the T2S project will not achieve the desired harmonisation (see Table 10 in Annex 2).

3.1.1. Different settlement discipline practices

Market discipline refers to measures that prevent or address settlement fails[20], i.e. situations when settlement of a transaction does not take place on the Intended Settlement Date (ISD). Table 23 in Annex 5 gives an overview of such measures.

Practices differ in the EU markets as to whether or how these measures are used:

- Securities borrowing is mandatory in Hungary, Poland and Spain if the settlement of certain on-exchange transactions is likely to fail. The CSDs in these and other markets (Germany, Greece, Italy) have made centralised borrowing services available to their members

- Most CSDs charge penalties to participants who fail to settle on time, however these penalties differ considerably between markets as concerns the form (fee for recycling or separate penalty), the type of transactions/securities (generally on-exchange transactions), the amount (fixed per instruction or percentage of the transaction value), the type of fails (fails due to lack of securities vs. fails due to lack of cash), and who pays the fee (direct participant of the CSD or other parties further down the chain)[21]

- In addition, certain markets have obligations for participants to buy-in the securities they have failed to deliver on ISD. Buy-in procedures differ widely between markets in terms of timing of the buy-in obligation, which varies from ISD+3 (Austria) to ISD+7 (Belgium, France, Nordic markets) or later (UK), and buy-in penalties, which vary from 20% of the countervalue or closing price (Belgium, France) to 100% (Germany). Please see Annex 5, Table 24 for an overview. The buy-in may be automatic/mandatory or optional, upon the request of the buyer. Last, while CSDs generally monitor settlement fails, the buy-ins are usually executed by CCPs (for CCP-cleared transactions) or could be triggered by exchanges (for other on-exchange transactions), with the ultimate responsibility borne by the defaulting market participant.

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[19] An industry group chaired by Alberto Giovannini was asked by the Commission to identify and propose solutions for cross-border barriers to clearing and settlement. It produced two reports, in 2001 and 2003

[20] Settlement fails can occur for a variety of reasons, including miscommunication, operational problems, failure to receive securities which are due to be delivered from another trade (in so-called "back to back" transactions) or failure of a seller that has sold a security "short" (i.e. without owning it) to borrow it to ensure delivery

[21] See the 2011 ECSDA "Survey on matching and settlement failures discipline measures" http://www.ecsda.eu/site/uploads/tx_doclibrary/2011_07_07_ECSDA_Fails_Report.pdf

These differences between market practices for settlement discipline have important consequences for the *safety* and *efficiency* of cross-border transactions in Europe:

- Cross-border settlement experiences an increased number of settlement fails. An ICMA study from 2010[22] shows that the Italian CSD rate of fails for transactions cleared through an international CCP during 2009-2010 was much higher (sometimes reaching almost 11%) than that for domestic trades (c. 1%), Settlement fails increase counterparty risk, market risk and liquidity risk for market participants. Furthermore, they create disruptions for corporate actions, for instance if a dividend payment occurs in the period of delayed settlement – see section 3.1.2 for a more detailed discussion of corporate actions

- In a competitive situation where market participants can choose their settlement location (for example in the context of T2S or if access barriers are removed – see section 3.3), these differences could favour *regulatory arbitrage* strategies looking for the CSD with the "softest" approach

- Since there is no common cross-border practice for the definition, monitoring and reporting of fails, this affects the ability of a market participant, a CSD or a regulator to understand areas of risk, identify areas for mitigating measures and act accordingly in a cross-border environment

3.1.2. *Different settlement periods*

The time between a trade and the intended settlement date (settlement period) differs in European markets. The standard settlement period for exchanged traded shares is T+3 (i.e. three days after trade date) in all markets except Germany, Slovenia and Bulgaria, where it is T+2 (French Parliament has also announced plans to move to T+2 with the other European markets). Markets where shares still exist in paper form, for instance the UK, allow longer settlement periods for transactions in such shares, of up to T+10.

For government bonds/bills, corporate bonds and OTC transactions there is a broad diversity by market and by asset class, including some instruments that settle on T+0, i.e. on trade date, and others (although very few) that have a much longer settlement period. For this reason, the overall proportion of transactions that settle on less than T+3 is relatively substantial in Europe.[23] Please refer to Table 26 in Annex 6 for an extensive list of settlement periods for different European markets.

If markets are not connected, these differences do not create problems. However, with the increase of cross-border investments, these differences have a number of consequences again in terms of *safety* and *efficiency*:

- Differences in settlement periods increase the complexity of cross-border transactions and create additional *operational risks* and *back office costs* as a standard settlement period in a national market is transferred into a non-standard

[22] "A white paper on the operation of the European repo market, the role of short-selling, the problem of settlement failures and the need for reform of the market infrastructure" by ICMA, 13 July 2010 http://www.icmagroup.org/ICMAGroup/files/ac/ac9739eb-6c8b-4d0f-9f5c-d0f13e89bd8e.pdf

[23] Data from a few of the major European CSDs that operate in T+3 markets shows that 45% to 65% of the transactions they settle are settled in T+3, followed by quite a large proportion of transactions (20 to 50%) at less than T+3 and a very small proportion that have a longer settlement period

period for a cross-border transaction. This can lead to increased *settlement fails*, with all the consequences discussed in the section above

- *Funding costs* are increased for investors buying securities in a T+2 market and selling them in a T+3 market

- Another problem relates to the processing of *corporate actions*, e.g. payment of dividends. A buyer acquires the share either cum dividend (at a higher price) or ex dividend (at a lower price). Post trade processes in each market ensure that the actual payment of the dividend arrives at the right place (the "cum" buyer or the "ex" seller). This does not work cross-border between national markets with different settlement periods and as a consequence, a dividend can be paid out to the wrong person. Corresponding compensation payments (so called "market claims") amount to billions of euro per year, with associated costs in the tens of millions of euro[24]

- More generally, longer settlement periods increase *counterparty risk*, i.e. the risk that the counterparty to a trade will default between trade and settlement

3.2. Key driver 2: Different rules for CSDs

CSDs are subject to different authorisation and supervision regimes across the EU. An overview of such regimes in selected countries is provided in Annex 8. Differences can be broadly divided into three categories: (1) different definitions of CSD services, (2) different authorisation and supervision regimes, and (3) lack of a common prudential framework.

3.2.1. Different definitions of CSD services

Definitions of CSDs and of the CSDs' services vary considerably, for instance in the direct holding systems, the three core functions are not distinguished between each other nor with the ancillary functions. In the indirect holding systems the central safekeeping function is incorporated either into the notary function (France) or into the settlement function (the UK). Ancillary services are not uniformly defined or recognised, especially the banking services which cannot be offered by CSDs in most Member States, while they form an integral part of the CSD functions in other Member States (Germany, Belgium).

These differences have consequences in terms of *safety* and *level playing field:*

- The lack of a common (and precise) definition of core CSD services and of who can/cannot provide such services can lead to some of the core services, particularly settlement, being provided by institutions not authorised as CSDs (see section 2.4). The so called "internalisation" of settlement increases counterparty risk since the corresponding settlements are not protected by the SFD (see section 2.8), and liquidity risk since lower tier intermediaries cannot organise large scale securities lending facilities to cover for a shortfall[25]

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24 Reported by HSC (Harmonisation of Settlement Cycles working group) an industry group http://ec.europa.eu/internal_market/financial-markets/docs/cesame2/subgroup/20100921_hsc_role_en.pdf

25 With respect to internalisation, the Committee of European Banking Supervisors (CEBS) concluded in their 2009 report following a "call for evidence" on custodian banks' internalisation of settlement that

- More important risk concerns, this time for the soundness of CSDs, arise from the ability of some CSDs to engage in activities with higher risk, such as banking-type of activities. This risk is mitigated to some extent by the limitation in scope of these activities (essentially to deposit taking and credit granting related to the CSD's core activities) and by strict CPSS-IOSCO requirements, including full collateralisation of credit. CSDs have been resilient, including during the 2008 financial crisis, however the risk inherent in banking-type of activities increases the risk profile of CSDs that undertake these activities

- The lack of a common definition also affects the *level playing field* between CSDs, for instance between those who are allowed to provide banking-type of services and those who are not

3.2.2. *Different authorisation and supervision regimes*

CSDs in the EU are regulated at national level. In some countries there is no specific authorisation regime for CSDs but their functions are regulated by various national regulations (Italy); in most direct holding countries CSDs are designated by law to perform some core and ancillary functions such as registrar and account providing (safekeeping) functions and the other functions are derived from these (Denmark, Finland, Sweden); in other countries CSDs are deemed to have a banking status (Germany). A detailed overview is provided in Annex 8

These differences, coupled with the access barriers discussed in the next section, lead to the *fragmentation* of the EU post trading market described in introduction section. This fragmentation results in the cross-border settlement of transactions relying on a "spaghetti" model of links between CSDs and/or a chain of intermediaries. This has obvious consequences for the *safety* and *efficiency* of cross-border transactions:

- Cross-border transactions face a higher degree of *risk* inherent in cross-system links (see section 3.3 below)

- *Costs* for cross-border settlement (as well as for safekeeping) are higher (sometimes much higher) than for the same services at national level, as illustrated in Annex 3 or for the same services rendered by the US DTCC[26]. More generally for efficiency, the necessity to use multiple settlement locations in Europe does not allow cross-border market participants to place their assets in a single "liquidity" pool and have quick and continuous access to this pool in order to lower their *operational costs* and *funding costs*[27]

This fragmentation of the market could theoretically be reduced through mergers of CSDs. A consolidation of the CSD landscape has been observed during the last 10

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the practice of internalisation is not widespread. Nevertheless, there was great variety of responses on the materiality of internalisation of settlement from the point of view of the institution. Please refer to http://www.eba.europa.eu/getdoc/cdc06b31-83ac-4fac-9969-a6eb265b659d/Report-on-the-outcome-of-the-call-for-evidence-on-.aspx

[26] In the Commission services 2004 communication, this cost gap was found to be up to 800%; this may have diminished since then, but is likely to remain high. Volumes play a role for the differences as well

[27] This problem is partially addressed by common settlement platforms, as it is the case for instance of ESES the common settlement platform for the Belgian, French and Dutch CSDs of the Euroclear group and as it will be the case of T2S.

years, with the emergence of two major groups around the two ICSDs (see Annex 3). However, this consolidation has not led to the reduction of the number of CSDs.

3.2.3. Lack of common prudential rules

European CSDs lack a common prudential framework. As described in section 2.8 they are subject to technical standards by ECB and to recommendations by CPSS-IOSCO and ESCB-CESR. However, due to their soft law nature, these standards and recommendations are implemented in different ways. This raises several problems:

- While there is no history of CSDs or settlement systems failing, a failure due to non regulated operational or financial risks would have tremendous *consequences for a national market* as it would essentially block the securities market, with severe implications for the ability of market participants to honour their obligations

- As the markets are becoming more integrated, link arrangements between CSDs are expected to increase, especially in the post-T2S environment. Depending on their complexity and degree of integration, link arrangements can create additional *legal risks* arising from differences between the laws of the linked CSDs concerning netting, finality of transfers, ownership and collateral. Links also present additional *operational risks* owing to inefficiencies associated with the operation of the link, especially because of variations in the settlement cycles and settlement discipline of the linked systems. Last, links may create significant *credit and liquidity risks* between CSDs, particularly if one CSD permits provisional transfers of funds or securities that may be unwound

- Prudential requirements are also about ensuring the CSDs have reconciliation rules of their records in order to prevent the unauthorised creation or deletion of securities. There are also rules that prohibit artificial creation of securities, provisional transfers of securities across CSD links and re-use of securities without client consent, or rules that require CSDs to segregate participants' securities from their own assets and to support the segregation of securities belonging to a participant's customers on the participant's books. These are important principles that could help manage failures of participants (such as that of Lehman in 2008) or of issuers (such as that of Parmalat in 2004 or of Bear Sterns in 2008). These examples are described in more detail in Annex 9. While these problems are related more to other account providers in the holding chain rather than CSDs (the possible SLD intends to address this), they are an illustration of the importance of the CPSS-IOSCO principles outlined above

- Similarly to the argument made in section 3.1.1, in a competitive environment situation (for example post-T2S or if access barriers are removed) the lack of a common prudential framework may lead to *regulatory arbitrage* favouring the CSD with the "softest" approach

3.3. Key driver 3: Barriers of access to/from CSDs

Access to or from CSDs in the European context is not always free or clearly defined. This is particularly important in the cross-border environment, where certain barriers of access exist. These barriers concern the access of issuers to CSDs, the

access between CSDs themselves, and the access between CSDs and other market infrastructures (e.g. trading venues and CCPs)

3.3.1. *Access of issuers to CSDs*

This is one of the barriers to cross-border post-trading activities in the EU identified by the Giovannini reports of 2001-2003 and acknowledged by the Commission Communication on clearing and settlement of 2004. The so called "barrier 9" was initially described in the Giovannini reports in relation to two types of restrictions, that securities listed in some Member States are (a) deposited in a local settlement system and (b) registered with a local registrar. From this starting point, the Legal Certainty Group[28] identified restrictions regarding the possibility for an issuer to issue via a CSD in another Member State as well as restrictions for CSDs to accept issuances from foreign issuers. More detail on this, including examples from each category, is provided in Annex 10.

It is worth noting that these restrictions apply mainly to equities and government bonds which are tributary to corporate law or public law, whereas international corporate debt securities (the so called "Eurobonds") can generally be issued and settled relatively freely in the EU. These restrictions give rise to two main problems:

- CSDs in most Member States have a pure *monopoly* for the notary function of certain securities (such as equities) as they are the only available provider to issuers for the first registration of such securities

- It encourages the *fragmentation* of the post trading market in the EU, with all the consequences for safety and efficiency described in the section above

3.3.2. *Access between the CSDs themselves*

As explained in section 2.4, market participants can access a foreign (issuer) CSD (directly or indirectly) through a link between the local (investor) CSD and the issuer CSD. Such link arrangements vary depending on the degree of customisation of service offering, from "standard" links, which are no more than the participation of a CSD to another CSD through a regular account, to "interoperable" links, which are advanced forms of relationships between two (or more) CSDs with impact on all standard participants of the linked organisations[29]. Most links in the EU are standard links, with the bridge between Clearstream and Euroclear being the biggest example of an interoperable link arrangement (more details on links in Figure 5 in Annex 3).

Inter CSD access is becoming crucial for two reasons:

- The inter-linking between CSDs will significantly increase with the start of T2S

- In addition to the prudential problems analysed in section 3.2.3 above there is also no legal framework regulating access between CSDs - for instance to define under what conditions a CSD can refuse a link request from another CSD or to set non-discrimination principles. The Code of Conduct sets some general principles in

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[28] A group chaired by the Commission set up in 2005 to analyse issues of legal uncertainty relating to securities holding

[29] Please refer to the Code of Conduct signed in 2006 by FESE, EACH and ECSDA for these definitions (https://www.ecsda.com/portal/code_of_conduct_for_c_s/)

this respect, but on a voluntary self-imposed basis and only for certain categories of securities, i.e. for equities. This situation contributes to the effective lack of competition between CSDs identified in the section above.

3.3.3. Access between CSDs and other market infrastructures

The smooth functioning of post trading services requires clear and defined access between the CSDs and other market infrastructures, for instance:

- *Access by CSDs to transaction feeds*: CSDs should be able to attract settlement volume or provide other CSD services by having access to transaction feeds, either directly from trading venues or from CCPs

- *Access to CSDs by other market infrastructures*: Similarly, in order to be able to provide services for securities that are centrally deposited with CSDs, other market infrastructures such as trading venues and CCPs need access to CSDs, including to the relevant data of CSDs, such as settlement data[30]

The rights of access referred to above are not guaranteed by EU or national legislation, particularly in a cross-border context. The Code of Conduct sets some general principles in this respect, but on a voluntary self-imposed basis.

3.4. How would the problems evolve without EU action

Without EU action, market competition would not adequately address the problems identified above. This is discussed below, following the same structure of the problem definition along the three drivers.

3.4.1. Different market practices for settlement

3.4.1.1. Different settlement discipline practices

There are various industry initiatives in place but with limited effects:

- *Limited scope.* The initiatives do not cover the full range of areas and measures that could be envisaged to improve settlement efficiency – the ECSDA survey of 2009 included in Annex 5 provides a good overview of the gaps

- *Implementation plans often not available.* As illustrated by Table 25 in Annex 5, most ESCB-CESR recommendations of 2009 lack concrete implementation plans

- *When available, implementation plans are often delayed by national interests.* For example, the ESSF[31]-ECSDA matching standards adopted in 2006[32] regarding the harmonisation of pre-settlement matching processes throughout Europe were scheduled to be implemented by the end of 2009 but this has been delayed to the end of 2011 (or at least by the time T2S is operational)

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[30] Article 35 and 46 of MiFID grant investment firms and market operators operating an MTF the right to choose a settlement system of another Member State to settle some or all of their trades subject to certain conditions. Similar rights do not apply to regulated markets

[31] European Securities Services Forum

[32] "Proposals to harmonise and standardise pre-settlement date matching processes throughout Europe" by ESSF-ECSDA, October 2006 https://www.ecsda.com/portal/news_and_events/?id=27

- *Non-binding nature of the commitments.* There is nothing that compels a CSD to honour the commitment in full

As explained in the problem definition section, the ensuing problems are likely to be increased due to T2S becoming operational in 2015, which is expected to increase cross-border transactions and will introduce a risk of regulatory arbitrage to the softest market practice.

3.4.1.2. Different settlement periods

The Harmonisation of Settlement Cycles (HSC) industry group has worked on these issues for the last two years and has come to a recommendation to harmonise settlement periods (for certain financial instruments/markets) at T+2, but there are no concrete implementation plans in place. Cost arguments by market participants may delay action for many years to come, therefore with no change to the resulting problems and consequences.

3.4.2. Different rules for CSDs

In the absence of EU action, the CSD services would continue to be defined and addressed by divergent national legislations, with the consequences for market fragmentation and lack of competition described in section 3.2.

The absence of EU action would have implications also for the powers of regulators. The intensification of cross-border securities settlement expected from T2S would not be addressed by a regulatory framework based on cooperation and information sharing between the market authorities[33].

Regarding the prudential and organisational rules for CSDs, the only common framework would be the one provided by the non-binding ESCB-CESR recommendations[34].

3.4.3. Barriers of access

In the absence of EU action, the current fragmentation and the national monopolies would remain, with all the consequences described in section 3.3. Furthermore, it could be interpreted as a "silent" confirmation of the integrated model approach whereby the country of issuance will determine the trading venue, which will determine the choice of CCP for clearing and of CSD for final settlement.

3.5. The EU's right to act and justification

3.5.1. Treaty base, competence

The legal base for the competence of the EU may derive from Article 114 of the TFEU[35] (ex Article 95 - harmonisation) and/or Article 53 of the TFEU (ex Article 47(2) – professional services). The final selection of the Treaty base will be determined depending on where the main focus of the legislation will lie.

[33] Consistently with the Treaty, central banks will focus their oversight on the operation of settlement systems only, with a particular focus on financial stability

[34] The possible SLD, if adopted, would also introduce certain requirements in relation to the account providing function of CSDs, but not to their other functions (settlement, etc.)

[35] Treaty on the Functioning of the European Union

3.5.2. *Subsidiarity*

According to the principle of subsidiarity (Article 5.3 of the TFEU), action on EU level should be taken only when the aims envisaged cannot be achieved sufficiently by Member States alone and can, by reason of the scale or effects of the proposed action, be better achieved by the EU. The preceding analysis has shown that:

- The problems defined above relate essentially to the cross-border European market, which is expected to increase significantly post-T2S
- The systemic nature of CSDs and their increasing interconnection in Europe (particularly post-T2S) calls for coordinated action
- Certain problems are already covered by the acquis communautaire: the Settlement Finality Directive (SFD), the Market in Financial Instruments Directive (MIFID), and the possible future Securities Law Directive (SLD). Any proposal should tie in with these EU texts

Against this background EU action appears appropriate in terms of the principle of subsidiarity.

4. OBJECTIVES

4.1. General, specific and operational objectives

The strategic objectives of this policy exercise are to tackle the three key consequences of the problems identified in the previous section by:

(1) Increasing safety of cross-border transactions

(2) Increasing efficiency of cross-border transactions

(3) Ensuring level playing field for CSD services

These strategic objectives translate into a number of specific objectives, as follows:

- Reduce complexity of cross-border settlement – this should increase both safety and efficiency of cross-border settlement
- Reduce risk of arbitrage to the "softest" market practice (in terms of settlement discipline) – this should increase the safety of settlement in general
- Ensure consistent definition of CSD services across the EU – this should improve level playing field between CSDs, as well as increase safety
- Reduce fragmentation of post trading market – this should increase both safety and efficiency of cross-border settlement
- Reduce scope for national monopolies – this should improve the level playing field for CSD services and increase competition between CSDs and between CSDs and intermediaries

These specific objectives can be achieved by a number of concrete operational objectives, which are grouped in the following three categories:

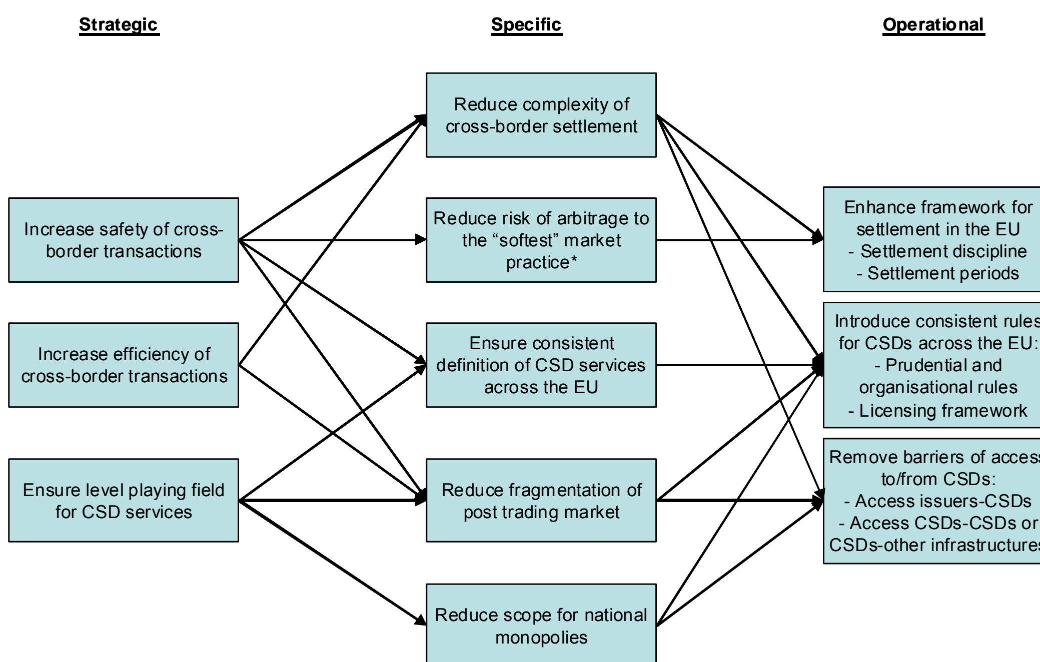
(1) Enhance framework for settlement in the EU – by improving cross-border settlement discipline and harmonizing settlement periods

(2) Introduce consistent rules for CSDs across Europe – such rules refer to both prudential and organisational rules to ensure the safety, efficiency and level playing field of CSDs and the licensing framework, to ensure the level playing field and competition among CSDs

(3) Remove barriers of access to/from CSDs – this refers to both access between issuers and CSDs as well as between the CSDs themselves and between CSDs and other market infrastructures such as trading venues and CCPs

An overview of the various objectives and their interrelations is depicted below.

Figure 4: Overview of objectives



Note: the arrows represent the key interrelationships. Most factors represented above are in fact interlinked. * refers to a competitive environment

4.2. Consistency with other EU policies

The identified objectives are coherent with the EU fundamental goals to promote a harmonious and sustainable development of economic activities, a high degree of competitiveness, and a high level of consumer protection, which includes safety and economic interests of citizens (Article 169 TFEU).

These objectives are also consistent with the reform programme proposed by the European Commission to drive the EU out of the financial crisis. As an essential element contributing to a stable financial sector, they are a prerequisite for building a

sustainable recovery.[36] They are also consistent with the policies announced in the various Communications mentioned in the introduction of this report.

Last, these objectives have been scrutinised through the two recent European Commission proposals concerning "OTC derivatives, Central Counterparties and Trade Repositories" (addressing CCPs) and "Short selling" (addressing elements of settlement discipline). These objectives range themselves in the longer term objectives identified by the Settlement Finality Directive in 1998 and in the impact assessment of a possible Security Law Directive.

5. POLICY OPTIONS, ANALYSIS AND COMPARISON

The description of each option is provided below in a box, followed by the analysis of the option. A table at the end of each section compares the options, assessing the magnitude of the impact as compared with the baseline with the following symbols: ≈ neutral, - negative, -- strongly negative, + positive, ++ strongly positive. The preferred option is highlighted.

5.1. Options for objective 1 – Enhance framework for settlement in the EU

The options below address the two key objectives identified in respect of this issue, namely improving cross-border settlement discipline and harmonizing settlement periods.

5.1.1. Options for objective 1.1 – Improve cross-border settlement discipline

Option 1.1.1 (status quo): Rely on existing industry initiatives

Section 3.5 described the shortcomings of the industry initiatives, in terms of their (1) limited scope, (2) lack of implementation plans, and (3) non-binding nature.

Option 1.1.2: Obtain additional commitments from industry

Additional commitments could be obtained from industry, for instance to set detailed standards and implementation plans based on ESCB-CESR recommendations or to develop additional standards, such as on a common definition and reporting of settlement fails.

This option would address shortcomings 1 (limited scope) and 2 (lack of implementation plans) above, but not 3 (non-binding nature). Since new standards could involve implementation costs for certain CSDs, there is likely to be certain resistance, which could lead to not all CSDs buying into the proposals, or proposals being sub-optimal in order to accommodate the "smallest common denominators", or to delays in setting or implementing proposals.

The large majority of respondents to the public consultation have endorsed the response of the HSC working group, which sees a role for legislation in this respect. Furthermore, an enhanced settlement discipline regime should accompany a transition to T+2 as fails may increase in the short run (see section 5.1.2).

[36] Communication for the spring European Council, Driving European recovery - COM(2009) 114

Option 1.1.3: Introduce common EU principles for settlement discipline

These common principles could include a common definition and reporting of settlement fails, *ex ante* measures to incentivise settlement on the intended settlement date and *ex post* measures to penalise failed settlement. Ex ante measures could include obligations on CSDs and their participants to execute transactions as soon as funds are available and on trading venues to enable the confirmation of transactions on a same day basis. Under ex post measures, defaulting participants would be subject to, on the one hand, CSD penalties and, on the other hand, an obligation to buy in the missing securities within a certain timeframe and subject to certain penalties. Such a buy-in obligation could be implemented by a CCP, for transactions cleared by a CCP, or by a trading venue, for non-cleared transactions. More detail on such measures is provided in Annex 11, section 8.11.1. These measures would be relatively general, with detailed technical standards to be set in secondary legislation. The buy-in measures would be closely articulated with the proposed Short Selling Regulation.

This approach would promote standardisation and safety, yet would allow innovation and flexibility in a changing market environment. It would result in implementation costs of the technical measures for certain CSDs and other market infrastructures, but such measures should be more aligned to market circumstances. This option would therefore be more proportionate to the objectives set. Certain measures, such as penalties and buy-in obligations may also have costs for those market participants who systematically fail to settle (e.g. certain short sellers), but overall investors would benefit from the increase in settlement efficiency.

This is the option favoured by the HSC working group (and endorsed by the large majority of respondents), who see a role for legislation setting out certain high level rules and requirements rather than prescriptive measures requiring market participants to carry out certain specific processes.

Option 1.1.4: Prescribe the use of certain standard processes to improve settlement efficiency

This option could address all the processes pre- and post-settlement and prescribe the way each process should be done, for instance pre-settlement matching to be done in a certain way or by a certain date.

This option would lead to similar benefits as option 1.1.3. However, it is quite likely that these benefits would come at a higher cost for several reasons:

- Prescribing a common way of organising settlement processes across the 30+ CSDs in Europe would be a very lengthy and likely impossible task, as the detailed processes differ in every country according to market practices, corporate law, securities law, etc.

- Any measures that were too prescriptive could become obsolete very quickly in the rapidly changing market environment

- Prescribing how the processes should be organised would not allow CSDs the flexibility they would enjoy under option 1.1.3

Option 1.1.5: As options 1.1.3 or 1.1.4 but for both trading and settlement

This option would aim at having a comprehensive framework for market discipline, including all the steps from trading to settlement. Any rules in this respect would apply to CSDs as well as to other players, such as trading venues, other infrastructures and market participants.

This option would have the advantage of tackling the entire trade value chain. However, it would be a very complex exercise that would increase significantly the cost on all stakeholders (market infrastructures, market participants and intermediaries) and the timeframe for design and implementation. It seems also too early to adopt such a "big bang" approach, as many of the issues have not crystallised in the public debate. It is preferable to restrict the framework to settlement discipline and reassess matters in a few years with the industry.

On the basis of the analysis above, option 1.1.3 (common principles, with detailed technical measures to be set by secondary legislation) is favoured as the most proportionate to the objectives set.

Table 1: Summary of the impact analysis for operational objective 1.1

	Effectiveness	**Efficiency**	**Impact on stakeholders**
Option 1.1.1 (status quo)	**n.a.**	**n.a.**	**n.a.**
Option 1.1.2 (additional industry commitments)	*(≈/+) potentially broader scope than today and more concrete implementation plans but still non-binding measures (only CSDs/market participants with positive net benefits would join)*	*(≈) investment costs for CSDs/market participants that choose to implement measures, but only CSDs/market participants with positive net benefits would join*	*(≈/+) market participants gains from increased settlement efficiency should outweigh implementation costs*
Option 1.1.3 (common principles for settlement discipline)	*(+) broader scope, concrete implementation plans, binding measures*	*(≈/-) investment costs mitigated by flexibility*	*(+) gains for market participants from increased settlement efficiency should outweigh costs* *(-) cost implications for CSDs/other market infrastructures*
Option 1.1.4 (prescribe processes to increase settlement discipline)	*(+) broader scope, concrete implementation plans, binding measures (but likely not more than option 1.1.3)*	*(-) significant investment costs, no flexibility, measures could become obsolete quickly*	*(+) gains for market participants from increased settlement efficiency should outweigh costs* *(--) significant cost implications for CSDs/other market infrastructures*
Option 1.1.5 (wider market discipline)	*(++) broader scope than options 1.1.3 or 1.1.4*	*(--) significant investment costs for broader categories of market players*	*(++) higher gains for market participants from increased settlement efficiency should outweigh costs* *(-/--) cost implications for CSDs and other market players*

5.1.2. Options for objective 1.2 – Harmonise settlement periods

Option 1.2.1 (status quo): Rely on industry initiatives

As explained in section 3.5, industry initiatives in this respect may not materialise for many years to come.

Option 1.2.2: Obtain additional commitments from industry

Since this is an objective with a binary outcome (change or no change), an intermediary solution could be to ask the industry to monitor developments in this area to assess if the problems identified are declining or increasing.

There are not likely to be any developments until T2S becomes operational in 2015, therefore there is not likely to be any action before then.

Option 1.2.3: Require the use of the same settlement period for certain instruments and markets in the EU

The alternative is therefore to introduce the requirement that the same settlement period is used for most financial instruments in the EU.[37] The timing of such a requirement should allow market infrastructures and market participants to adapt. The implementation of a common settlement period should ideally be done before T2S becomes operational (i.e. before mid-2015).

As described in section 3.1, a majority of transactions in Europe settle on T+3, with a large proportion on less than T+3. The HSC industry group has therefore considered three options, T+1, T+2 or T+3 and has done extensive work in analysing these options. The analysis below is largely based on this work. Their recommendation, as expressed in their response to the public consultation and endorsed by the large majority of respondents is for T+2.

Sub-option 1.2.3.1: Harmonisation at T+1

The T+1 option was discarded by the HSC group as not feasible, because in many CSDs in Europe the business day starts at around 7:00 pm the preceding evening, which would imply that a T+1 settlement process would start on the evening of the trade day, putting too much pressure on the back offices of market infrastructures. Furthermore, it would create significant problems for investors who use a different currency since foreign exchange spot transactions settle at T+2. Last, it would be difficult for investors in other time zones to comply with a T+1 cycle.

Sub-options 1.2.3.2 and 1.2.3.3: Harmonisation at T+2 or T+3

The T+2 and T+3 options are analysed together. As discussed in section 3.1.2, the harmonisation of settlement cycles would have a number of benefits in terms of reduced risk and cost for cross-border settlement and reduced costs associated with market claims for cross-border corporate actions. In addition, each option would have particular benefits, which are analysed in the table below, together with the costs of adopting the option.

Table 2: Benefits and costs associated with harmonisation of settlement periods

	T+2	**T+3**

[37] The requirement would apply to certain instruments (for instance standard cash trading instruments), which represent the bulk of the market. Shorter settlement periods would nevertheless be allowed to cater for the diversity of financial instruments.

	T+2	T+3
Benefits	• Reduced counterparty risk (and associated market and liquidity risks) by one day for T+3 markets • Greater automation of back-office processes • Reduced annual collateral requirements by around €700million*	• Less one-off operational risk from the move since fewer markets would need to move and the settlement period would be extended • In line with major non-EU markets (see below)
Costs	• Investment (one-off) costs for more market participants than in the T+3 option, although mostly for the smaller players (see below) • A move to T+2 may increase settlement failures in the short term as back offices are adapting • No major regulatory costs, as in most countries a change in settlement cycles would not require changes in national law, but only in national securities market regulations (and the approval of the national securities regulator) • Any costs to global players from a misalignment with major non-EU markets would be marginal, as these markets may follow a T+2 move in Europe (see below) and global players have to deal with multiple settlement cycles anyway	• Increased counterparty risk (and associated market and liquidity risks) by one day for T+2 markets • Increased annual collateral requirements by around €200million* • Investment (one-off) costs for less market participants than in the T+2 option, although again mostly for the smaller players (see below) • No major regulatory costs, as for T+2 option • An important technological step back for the T+2 markets

* Based on aggregated data from several CCPs – estimated increase and, respectively, reduction in collateral that needs to be posted by participants for on-exchange transactions. The actual economic impact is only in respect of the funding cost of this collateral, therefore relatively small

As presented above, a move to T+2 would create misalignment with major non-EU markets, which settle mostly on T+3; exceptions include Hong Kong, India and Taiwan. However, this is likely to be short lived, as a move to T+2 in Europe is likely to trigger a global alignment, as acknowledged by the CEO of the US CSD in 2010[38]. Japan already announced in 2010 plans to shorten the settlement cycle for government securities to T+2.

Investment costs to market participants from any harmonisation, whether at T+2 or T+3 will likely affect only the smaller, more local players; the bigger players, who have to deal currently with multiple settlement cycles, should benefit from savings in back office costs. Between the two options, arguably more market participants would be affected by a move to T+2. However, this is marginal since, as described in section 3.1, the proportion of T+2 settlement in Europe is already significant. Both the European Fund and Asset Management Association (EFAMA) and the European Banking Federation (EBF), which represent asset managers and respectively banks, were in favour of T+2 in their responses to the public consultation.

[38] In his speech to the International Securities Services Association symposium of June 2010, Donald F. Donahue, the Chairman and CEO of DTCC stated that he "anticipates that Europe's consideration of moving equities to T+2 will spark renewed debate on this issue in the US and elsewhere. Because a reduced settlement cycle clearly reduces risk exposure, I expect the US industry will want to give it serious consideration, particularly in view of the volume of equity trading in the US markets."

Based on the above analysis, the T+2 option appears to have more merit as it has significant ongoing benefits for investors by reducing counterparty risk and collateral requirements, and encouraging greater automation. More generally, the harmonisation should increase the safety of cross-border settlement, reduce back-office costs for investors and intermediaries and reduce the market claims for corporate actions, which amount currently to billions of euro per year.

The main costs associated with the T+2 option are one-off - a potential increase in settlement fails in the short term and investment costs for the smaller market participants, which are only marginally higher than for a harmonisation at T+3. The first can be mitigated by improving the settlement discipline regime (section 5.1.1), while the second by allowing sufficient time for the markets to adapt to the change.

Table 3: Summary of the impact analysis for operational objective 1.2

	Effectiveness	Efficiency	Impact on stakeholders
Option 1.2.1 (status quo)	**n.a.**	**n.a.**	**n.a.**
Option 1.2.2 (additional industry commitments)	*(≈) no likely action soon*	*(≈) no likely action soon*	*(≈) no impact, existing problems remain*
Sub-option 1.2.3.1 (harmonise at T+1) – DISCARDED			
Sub-option 1.2.3.2 (harmonise at T+2)	*(+) harmonisation of settlement periods* *(+) reduced running costs by reducing counterparty risk and collateral requirements*	*(-) one-off investment costs for some market participants (the more local players)* *(-) potential one-off operational risk from transfer*	*(+) benefits for market participants from reduced risk* *(-) investment costs for some market participants* *(≈) no regulatory cost for Member States*
Sub-option 1.2.3.3 (harmonise at T+3)	*(+) harmonisation of settlement periods* *(-) increased running costs by increasing counterparty risk and collateral requirements*	*(-) one-off investment costs for marginally less market participants than in T+2 option* *(≈/-) less one-off operational risk from the transfer*	*(-) cost to market participants from increased risk and collateral* *(-) investment costs for some market participants* *(≈) no regulatory cost for Member States*

5.2. Options for objective 2 - Introduce consistent rules for CSDs

As discussed in section 3, consistent rules for CSDs can refer to both the licensing regime and prudential and organisational rules. The options below consider:

- The licensing framework, i.e. whether CSDs can provide services in other Member States and under what legal form
- The prudential, conduct of business and organisation rules applicable to CSDs
- The authorisation and supervision framework, i.e. competent authorities responsible for the authorisation (licensing) of a CSD and its ongoing supervision

5.2.1. Options for objective 2.1 – Harmonise licensing framework

Option 2.1.1 (status quo): National licences

The analysis of this option is provided in section 3.5.

Option 2.1.2: Mutual recognition of CSD services

In this option a CSD would have the freedom to provide its services abroad (in a "host" country) without the need to open an establishment there or to be otherwise regulated in the host country. As described in the problem definition, this is already the case for settlement (due to MiFID, although under certain conditions), but not for the notary function.

This option would impose no additional regulatory cost on CSDs. In theory, it could introduce more competition in the CSD market (although it would have to be accompanied by the removal of access barriers discussed in section 5.3) and therefore reduce fragmentation. However, for reasons related to national corporate law, CSDs may need to open (or maintain, in the case of groups) local subsidiaries or branches in the host countries where they offer notary and related services. Without a harmonisation of the licensing framework, the current situation of the duplication of authorisation (and supervision) procedures would be maintained. The level playing field between CSDs would therefore not increase significantly, since the services these can provide will be conditioned by the constraints of their domestic licences and any ensuing benefits, in terms of reduced costs for issuers or investors and increased safety, would therefore be limited.

In addition, without common prudential and organisational rules, this option could create a "race to the bottom", i.e. an advantage for CSDs located in a jurisdiction with the most lenient requirements.

Option 2.1.3: EU licence (and passport) for CSD services

In this option CSDs would be granted an EU licence, which would allow them to "passport" their services freely to other Member States (via an establishment in those Member States or not), without a need for duplication of authorisation and supervision.

A common EU licence and passport for CSD services would accompany cross-border establishment of CSDs and, together with a removal of barriers of access (see section 5.3) it should increase competition, with positive consequences for costs and quality of service to issuers and investors. It should also foster consolidation among CSDs since authorisation and supervision do not need duplication and should therefore reduce fragmentation in the medium to long term, with positive consequences for safety and costs. In the short term, however, it may increase fragmentation if CSDs wishing to take advantage of the opening of the market set up businesses in other Member States. This issue has been highlighted by stakeholders, particularly the regional/global intermediaries that need to access several CSDs.

This option would impose a regulatory cost on CSDs, who would need to apply for a licence (at least after a temporary grandfathering period). Increased competition may also cause some CSDs to lose market share and revenues. Intermediaries may face additional costs in the short term if fragmentation is increased, but in the long term consolidation should decrease their back office costs.

Based on the analysis above, an EU licence and passport are preferred as the best way to achieve level playing field and competition between CSDs. An order of magnitude of the potential benefits of a reduction of cross-border post trading costs in Europe is provided in section 6.2.

Table 4: Summary of the impact analysis for operational objective 2.1 (harmonise licensing framework)

	Effectiveness	Efficiency	Impact on stakeholders
Option 2.1.1 (status quo)	**n.a.**	**n.a.**	**n.a.**
Option 2.1.2 (mutual recognition of services)	*(≈/+) provision of services recognised cross-border but CSDs conditioned by domestic licences* *(≈/+) reduced costs for market participants from slightly more competition* *(-) increased risk (hence cost) from race to bottom*	*(+) no additional regulatory cost on CSDs*	*(≈/+) slightly more competition, potentially less cost for investors* *(-) increased risk (hence costs) for investors from race to bottom*
Option 2.1.3 (EU licence)	*(+) common licensing rules for CSDs* *(+) reduced ongoing cost for market participants from increased competition and reduced fragmentation in medium/long term* *(-) potentially increased ongoing costs for market participants from more short term fragmentation*	*(-) regulatory one-off cost on CSDs from applying for a licence*	*(+) reduced costs for market participants from increased competition and reduced fragmentation in the medium/short term should outweigh increased costs from more fragmentation in the short term* *(-) regulatory one-off cost on CSDs from applying for licence* *(-) possible loss of revenues for certain CSDs (from competition)*

Sub-options of Option 2.1.3: Treatment of banking-type of ancillary services

An important question relates to the scope of ancillary services included in the licence, particularly with respect to banking/securities-type of services where the CSDs incur credit and liquidity risk. Stakeholder views diverge widely on this topic, from those who advocate a leaner regulatory structure allowing CSDs to undertake these services under one licence, to those who argue for a segregation of banking type of services in separate legal entity. A detailed analysis of different options is included in Annex 12, with a summary below.

Based on the stakeholders' views, the following options have been considered:

- One legal entity with one licence (Option A); under this option, CSDs providing banking services would not be subject to the CRD, but to a customised prudential framework in the CSD legislation
- One legal entity with two licences, for CSD activities and for banking-type of activities – the latter under the CRD (Option B); this corresponds to the status quo in Member States where CSDs are allowed to provide banking services
- One legal entity with two licences (as above), plus additional prudential requirements to mitigate the risk spill over from the banking activities to the CSD activities (Option C)
- Two legal entities, with two separate licences (Option D), whereby the banking entity could be a general credit institution, but subject to specific prudential requirements for each securities settlement system it acts as settlement agent for

Option A would create the leanest regime for CSDs – for this reason it was supported by some CSDs and some regulators; however, it would mean creating a separate prudential framework for the same type of risks as those covered by the CRD. Option B would allow current business models to exist, while enshrining in legislation the current practice of limiting the scope of banking activities and applying stricter prudential requirements than the CRD; however, CSDs would continue to be subject to credit and liquidity risk. This option was supported mostly by the CSDs who currently have this model and their regulators. Option C is an "enhanced" Option B, whereby the spillover risk is addressed by applying stricter prudential requirements to the banking services. Finally, Option D reduces considerably the risk profile of the CSDs, but has the biggest impact on the current integrated models, mainly in terms of legal/transaction costs. This option was favoured by many CSDs' clients, mainly the custodian banks and some regulators.

Based on the analysis in Annex 12, option D is preferred.

5.2.2. *Options for objective 2.2 – Harmonise prudential and organisational rules*

Option 2.2.1: rely only on CPSS-IOSCO/ESCB-CESR recommendations (status quo)

The analysis of this option is provided in section 3.5. Importantly, the status quo option is not compatible with the preferred policy option in the section 5.2.1, i.e. EU licence, since a license makes no sense without common prudential and organisational rules.

Option 2.2.2: Introduce common EU prudential and organisational rules

In this option, CSDs across the EU would be subject to common prudential and organisational rules that reflect their systemic role for the market. Importantly, these rules would also address the way CSDs conduct their business and carry out their functions, links between CSDs and would seek to harmonise the enforcement of administrative sanctions[39].

For instance, CSDs would be required to have robust governance arrangements, experienced and suitable senior management, board and shareholders and to set up user committees for each securities settlement system that represent issuers and participants. They should mitigate operational risk in order to ensure the continuity of operations, including of settlement, at all times. A related requirement to increase the safety of settlement would be that only CSDs or central banks could operate securities settlement systems.

CSDs should conduct their business in a non-discriminatory and transparent way with respect to prices and participation. They should play an important role in ensuring the integrity of a securities issue and should provide segregated accounts in order to protect participants' assets. As CSDs are becoming increasingly interconnected and this process should accelerate with the advent of T2S, strict prudential requirements should be introduced for linked CSDs, such as the setting up of identical settlement finality rules. A more detailed overview of possible rules is provided in Annex 11, section 8.11.2.

[39] The harmonisation of sanctions principles would draw from the December 2010 Commission Communication on "Reinforcing sanctioning regimes in the financial services sector" (http://ec.europa.eu/internal_market/consultations/docs/2010/sanctions/COM_2010_0716_en.pdf)

An EU licence would automatically require a common set of regulatory requirements. The harmonisation of rules has, nevertheless, merits in its own right, since it would increase level playing field (in a competitive environment such as post-T2S or with opening of access – see option 3.1.3) and increase the safety of CSDs and of their functions. Such rules would therefore complement the settlement discipline principles discussed under option 1.1.3. This option may, however, also imply costs for certain CSDs in adapting their systems. It would also have indirect effects on any custodian banks that are considering operating a securities settlement system, as they would need to set up a CSD in order to do so.

Achieving common rules can be done in different ways. Two sub-options have been considered:

- Sub-option 2.2.2.1: Introduce common prudential and organisational principles, with detailed measures to be set by secondary legislation

As with the discussion on the options on settlement discipline, this option would be beneficial in several ways: (a) it would allow flexibility in adapting detailed measures to market circumstances, (b) it would allow better alignment with international standards – the CPSS-IOSCO standards are currently under review, and (c) it would allow better involvement of ESCB in setting such measures – this is important in managing regulatory burden for CSDs, since the settlement systems they operate are overseen by central banks.

- Sub-option 2.2.2.2: Prescribe detailed common EU prudential and organisational rules

While this may allow more standardisation across the EU, it would not have all the benefits described above and thus may come at the cost of reduced innovation, increased regulatory burden on CSDs and potentially reduced competitiveness compared to third country operators.

Option 2.2.2.1 (common principles) is therefore preferred as it is more proportionate to the objectives sought.

Table 5: Summary of the impact analysis for operational objective 2.2 (harmonise prudential and organisational)

	Effectiveness	Efficiency	Impact on stakeholders
Option 2.2.1 (status quo)	**n.a.**	**n.a.**	**n.a.**
Option 2.2.2.1 (common principles, standards detailed by secondary legislation)	*(+) ensures consistency of rules* *(+) increased level playing field, reduced fragmentation*	*(-) regulatory burden for (some) CSDs to comply* *(+) compensated by better flexibility and alignment with central banks and global efforts*	*(+) less cost for investors from competition and less risk from reduced fragmentation* *(-) regulatory cost for CSDs*
Option 2.2.2.2 (prescribe common rules)	*(+) ensures standardisation of rules* *(+) increased level playing field, reduced fragmentation*	*(-) regulatory burden for (some) CSDs to comply* *(-) aggravated by no flexibility, alignment etc.*	*(+) less cost for investors from competition and less risk from reduced fragmentation* *(--) potentially more regulatory cost for CSDs*

5.2.3. *Options for objective 2.3 – Harmonise authorisation and supervision framework*

Option 2.3.1: National authorisation and supervision (status quo)

In this option, CSDs would continue to be authorised and supervised at national level, with case-by-case cooperation between authorities in different Member States. Current examples of this include the cooperation between central banks for the authorisation and oversight of links between settlement systems and the Memorandum of Understanding for the supervisory college of the Euroclear settlement platform ESES.

In theory, authorisation and supervision could remain solely at national level even with an EU licence and passport. The main argument for this is that since fiscal responsibility in case of the failure of a CSD lies within that CSD's home Member State, authorisation and supervision should also be located there. This argument should be, however, further nuanced for CSDs. Most CSDs, unlike CCPs, have limited capital, and hence a CSD failure would cause more disruption for the CSD's participants rather than for its shareholders. But then the financial and potentially fiscal impact would be where the head offices of the CSD's participants are located, which is not necessarily the same as the head office of the CSD. Furthermore, in a cross-border context, where a CSD may serve issuers from multiple Member States or may have links with CSDs from other Member States, the failure of a CSD may spill over across borders. This option does not cater for cross-border considerations.

Option 2.3.2: National authorisation and supervision with involvement of other Member States authorities (where applicable)

Involvement of other Member States authorities should therefore be considered if the "externality" of a CSD's business justifies it. Externalities occur in particular when a CSD operates a securities settlement system subject to the law of another Member State or settles on cash accounts with a central bank established in another Member State. In this case, the oversight authority of the respective securities settlement system and the respective central bank of settlement should be consulted by the CSD's "home" competent authority. Similarly, the CSD's competent authority should consult and cooperate with the authorities of subsidiaries or branches of the CSD in other Member States.

As discussed under Option 2.3.1, an authorisation and supervision framework that includes tight cooperation between authorities across borders would have important benefits for safety, particularly in crisis situations. The larger cross-border CSDs and the authorities themselves may incur costs in setting up such a cooperation framework, however these costs are not likely to be significant as cooperation already exists in practice today in many cases.

Option 2.3.3: National authorisation and supervision with involvement of ESMA

An alternative to having authorities from other Member States directly involved would be to channel the cooperation or information exchange between authorities through ESMA. For instance, ESMA would be consulted on the different elements of externality, and would pass the information on to the relevant authorities in a standardised way. To achieve the same benefits highlighted above, ESMA would need efficient channels of communication with the different authorities.

This could be a more efficient option, since information would be transmitted to and centralised in one point. However, it may be more burdensome for national regulators as it would interpose another institution between them.

Option 2.3.4: National authorisation and supervision with involvement of other Member States authorities and of ESMA (where applicable)

This option would combine Options 2.3.2 and 2.3.3 in the following way:

- The home Member State authority would consult and cooperate with authorities in other Member States as described under Option 2.3.2

- ESMA would develop standard forms, templates and procedures to streamline the information sharing and cooperation between authorities

- ESMA would hold the "register" of CSDs, including a number of details for each CSD such as services provided, securities settlement systems operated, central banks and/or other settlement agents used for settlement and authorities involved in authorisation and supervision

This option would allow other Member States authorities to be directly involved in a flexible way that does not put unnecessary regulatory burden on the smaller CSDs, while ensuring a certain standardisation of this cooperation for the larger CSDs. It would therefore strike the right balance between a coordinated authorisation and supervision framework and the regulatory impact on CSDs.

Most respondents to the public consultation (including public authorities and CSDs) were generally in favour of combining national authorisation and supervision with involvement of other Member States authorities, subject to such involvement being properly differentiated according to the level of externality a CSD engages in. There was also broad agreement for the maintenance of a CSD register by ESMA.

Option 2.3.5: Authorisation and supervision by ESMA

This option is diametrically opposed to option 2.3.1 since it gives authorisation and supervision powers over CSDs to ESMA.

Central authorisation and supervision would immediately ensure a coherent application of rules (hence efficiency) and would address cross-border safety issues, particularly at times of crisis. ESMA would ensure that Member States' interests and concerns are balanced. However, this option would not align fiscal and supervisory responsibility; indeed the fiscal responsibility (for the failure of a CSD or of its participants) would be left with the Member States.

Table 6: Summary of the impact analysis for operational objective 2.3 (harmonise authorisation and supervision framework)

	Effectiveness	**Efficiency**	**Impact on stakeholders**
Option 2.3.1 (status quo, but EU licence)	**n.a.**	**n.a.**	**n.a.**
Option 2.3.2 (national authorisation and supervision, involvement of other Member States authorities)	*(+) involvement of other concerned authorities strengthens passport effect* *(+) supervisory and fiscal responsibilities aligned* *(-) potential divergences in application of requirements*	*(-) regulatory cost for some large CSDs from involvement of other authorities*	*(+) country with fiscal responsibility maintains authorisation and supervision power* *(-) regulatory cost for some CSDs*
Option 2.3.3 (national authorisation and supervision, involvement of ESMA)	*(+) supervisory and fiscal responsibilities aligned* *(+) coordination at EU level through ESMA*	*(≈/-) regulatory cost for some large CSD, but potentially less than in option 2.3.2*	*(+) country with fiscal responsibility maintains authorisation and supervision power* *(≈/-) regulatory cost for some CSD*
Option 2.3.4 (involvement of other Member States authorities and ESMA)	*(+) involvement of other concerned authorities strengthens passport effect* *(+) supervisory and fiscal responsibilities aligned* *(+) coordination at EU level through ESMA*	*(-) regulatory cost for some large CSD, but potentially less than in option 2.3.2 due to coordination/ standardisation by ESMA*	*(+) country with fiscal responsibility maintains authorisation and supervision power* *(-) regulatory cost for some CSDs*
Option 2.2.2.2 (ESMA authorisation and supervision)	*(++) coherent application of rules and supervision, no uncertainty about cross-border provision of services* *(-) supervisory and fiscal responsibilities misaligned*	-	*(-) country with fiscal responsibility loses authorisation and supervision power*

5.3. Options for objective 3 – Remove barriers of access to/from CSDs

The options below follow the structure of the chapter on the problems associated with barriers of access, namely it addresses (1) access between issuers and CSDs, and (2) access between CSDs and between CSDs and other market infrastructures.

5.3.1. Options for objective 3.1 – remove barriers of access between issuers and CSDs

Option 3.1.1 (status quo): Issuers required to use local CSD in many EU countries

The analysis of this option is provided in section 3.5.

Option 3.1.2: Introduce the right for issuers to issue securities into the CSD of their choice

This option would aim to grant issuers the freedom to issue securities into the CSD of their choice, which may be located in a different jurisdiction. This is already the case for the so-called Eurobonds, but not always for shares. There is relatively wide agreement among all stakeholders that this freedom of issuers should not prejudice the law under which the securities are constituted. This is more relevant for shares, where the national law of the issuer may impose certain requirements on the issuer CSD. CSDs should therefore not be obliged to accept any requesting issuer.

Some regulators who have responded to the public consultation have also expressed a view that this right of issuers should be without prejudice to national procedures regarding tax. In particular, CSDs often provide services in respect of withholding tax relief procedures (i.e. procedures aimed at granting withholding tax relief at source on securities income, as provided under double tax treaties or domestic law). The Commission Recommendation on withholding tax relief procedures [40] encourages Member States to allow foreign financial intermediaries that have obtained prior authorisation or approval to act as an "information agent" (reporting pooled withholding tax rate information) or "withholding agents" (authorised to assume withholding responsibilities). It is important to note that, according to the Recommendation, the authorisation/approval should be given by the source Member States (i.e. the Member State where the issuer of the securities generating income is tax resident).

This freedom of issuers to choose their CSD would increase competition among CSDs (with potential benefits for investors and issuers) and improve efficiency for cross-border issuance by shortening the holding chain that separates the issuer from the investor. It would also create economies of scale gains for CSDs (which should again translate into reduced prices for issuers and investors). However, some custodian banks have argued that this option may increase fragmentation if CSDs, in the absence of the harmonisation of corporate laws, open foreign branches in order to compete with domestic CSDs. Fragmentation would result in increased operational complexity, with negative consequences for risks and costs. This is, nevertheless, likely to be a short-term effect, as the natural long-term result in this sector driven by economies of scale should be more consolidation.

In terms of costs, CSDs may need to incur certain costs to take advantage of the new business opportunities, such as operational changes to cater for foreign corporate laws and new legal arrangements with foreign issuers. However they would obviously only do so if the benefits warranted the costs. A similar logic applies to issuers.

For the reasons above the benefits of introducing this freedom for issuers are likely to materialise quite slowly. But it is an important measure to open up the market and accompany the preferred option of an EU licence analysed in section 5.2.

[40] C(2009)7924 final of 19.10.2009

Option 3.1.3: As 3.1.2 and a requirement for certain classes of securities to be represented in book-entry form

Option 3.1.2 could be rendered more effective by harmonising the form of representation of securities upon issuance, which could be done by requiring that certain classes of securities in the EU (e.g. shares and bonds admitted to trading) are represented in book-entry form. This can be done in different ways, for instance through prior immobilization of securities (such as in Germany) or through direct dematerialization (such as in France). Such securities would need to be entered in a CSD when they are traded or given as collateral. A grandfathering clause would allow sufficient time to those markets that still use paper-based securities to adapt.

This option would make the competition between CSDs more effective and therefore increase the benefits to issuers, investors and CSDs identified under option 3.1.2. The recourse to book entry is also recommended by ESCB-CESR as it would have wider benefits for settlement; it would notably reduce settlement risk since book entry securities are much easier to deliver than paper based securities and it would facilitate the reduction of the settlement period. For these reasons, most respondents to the public consultation were in favour of such a measure, with some notable exceptions in the UK market.

The market that would be most affected by this measure would indeed be the UK, where paper securities coexist with book entry securities[41]. The UK regulators, issuers and registrars have therefore advocated against this. The registrars were particularly against introducing an obligation for investors to hold securities in book entry form in a CSD if they do not wish/need to trade their securities; this may be the case of investors who may have acquired securities through an IPO or an employee share scheme. A key argument was that such investors would incur an unnecessary ongoing cost of account maintenance. In order to address this, the requirement is not for securities to be held in a CSD, but to be held in book entry form (for instance by the issuer or its registrar), which would facilitate settlement through a CSD once the security is eventually traded.

This may still result in an additional cost for issuers and registrars – on the one hand, the initial investment cost of implementing this system; on the other hand, an ongoing cost of sending regular account statements to investors (this cost would probably be picked up by the issuers). The overall cost of managing book entry securities should nevertheless be less than that of managing paper securities. No data has been available to quantify these costs. This option is favoured in order to render issuers' access to CSDs more meaningful and for the link to settlement efficiency. It would allow a reduction of settlement periods – it currently can take up to 10 days to settle trades in paper securities in the UK. It would also decrease the opportunities for fraud and the risk of losing paper certificates and it would allow a better reconciliation between the securities issued and the ones circulating. The impact on the UK market could be mitigated by setting an implementation date that allows the market to adapt.

[41] According to the responses to the first public consultation on the SLD from 2009 (see pages 6-7 of the document below), in most EU countries the proportion of securities in non-book entry form is zero to negligible. The notable exception is the UK. http://ec.europa.eu/internal_market/financial-markets/docs/securities-law/first_consultation_summary_en.pdf

Table 7: Summary of the impact analysis for operational objective 3.1 (remove barriers of access between issuers and CSDs)

	Effectiveness	**Efficiency**	**Impact on stakeholders**
Option 3.1.1 (status quo, but EU licence)	**n.a.**	**n.a.**	**n.a.**
Option 3.1.2 (right to issue into CSD of choice)	*(≈/+) removes barriers for new issuance but less effective if operational barriers of access persist* *(≈/+) more competition for notary services, less complexity for cross-border settlement*	*(+) issuers and CSDs may incur adaptation costs, but they would not do so unless there were net benefits to be gained*	*(≈/+) reduced cost to issuers and investors from increased competition and reduced fragmentation* *(-) possible loss of revenues for certain CSDs*
Option 3.1.3 (as 3.1.2 and book entry form)	*(+) removes also operational barriers of access and allows more economies of scale efficiencies at CSDs* *(≈/+) increased settlement efficiency*	*(≈/-) implementation costs for markets with certificated securities (UK market)*	*(+) reduced cost to issuers and investors from increased competition and reduced fragmentation* *(+) reduced settlement risk* *(-) potential implementation and ongoing costs for issuers and registrars* *(-) possible loss of revenues for certain CSDs (from competition)*

5.3.2. *Options for objective 3.2 – remove barriers of access between CSDs and between CSDs and other market infrastructures*

Option 3.2.1 (status quo): Rely on Code of Conduct

The analysis of this option is provided in section 3.5.

Option 3.2.2: Introduce access rights between CSDs and between CSDs and other market infrastructures

This option would impose uniform requirements on CSDs and other market infrastructures regarding access. These would include general principles of access (non-discrimination and transparency), conditions when access may be refused (based on risk only), the procedure for requesting access and responding to access requests and a dispute resolution mechanism between authorities (by ESMA). The requirements would address access by CSDs to other CSDs and to transaction feeds from CCPs and trading venues.

Regarding CSD to CSD access, while all stakeholders are generally in favour of introducing access rights in legislation, many (especially CSDs and regulators) have responded that a CSD should not have the right to an "interoperability" access to another CSD. CSDs, unlike CCPs, can enable their participants to settle cross-border transactions by becoming participants in other CSDs, i.e. by setting up a "standard" link. A variation of this is a "customised" link, where a CSD develops specific features for another CSD (in line with the Code, this should be charged on a cost-plus basis). These types of links have one disadvantage compared to an "interoperability" access, in that they cannot generally ensure DVP settlement for participants. However, this problem will be solved by T2S.

The benefits of introducing access rights would be effective competition between CSDs and more fair access to business opportunities, which should potentially translate into further reduction of costs for issuers and investors, in addition to those

generated by an EU licence (option 2.1.3) and by opening up the access of issuers to CSDs (option 3.1.3). The facilitation of link arrangements between CSDs may also generalise settlement in securities settlement systems and reduce the internalisation of settlement by intermediaries; as explained in section 3.2.1 this would have positive consequences for safety since securities settlement systems benefit from the SFD protection against a participant's default.

As for costs, there should be no "unwanted" costs for CSDs since any customised component of an access should be paid for. However, the increased competition could imply loss of revenue for certain CSDs.

The obligation for other market infrastructures (trading venues, CCPs) to provide transaction feeds to all requesting CSDs should not imply significant costs for these infrastructures. However it will call into question certain business models, mainly the integrated model of trading venue/CCP/CSD.

Table 8: Summary of the impact analysis for operational objective 3.1 (remove barriers of access between issuers and CSDs)

	Effectiveness	**Efficiency**	**Impact on stakeholders**
Option 3.2.1 (status quo)	**n.a.**	**n.a.**	**n.a.**
Option 3.2.2 (introduce access rights)	*(+) effective market opening, fairer access to business opportunities, increased competition*	*(≈) no unwanted costs for CSDs or other market infrastructures*	*(+) potentially reduced cost for investors* *(-) possible loss of revenues for certain CSDs*

6. Preferred Policy Options and Instruments

6.1. Preferred policy options

The preceding analysis has identified the following policy options:

Table 9: Summary of preferred policy options

Objective	**Sub-objective**	**Preferred option**
1. Enhance framework for settlement	1.1 Improve cross-border settlement discipline	Option 1.1.3 Introduce common principles for settlement discipline, detailed standards to be set by secondary legislation
	1.2 Align settlement periods	Option 1.2.3.2 Harmonise settlement periods at T+2
2. Introduce consistent rules for CSDs	2.1 Introduce consistent licensing framework	Sub-option 2.1.3 EU licence and passport for CSD services (with separation of banking-type of services in a different legal entity)
	2.2 Introduce consistent prudential and organisational requirements	Sub-option 2.2.2.2 Introduce common prudential and organisational principles, detailed standards to be set by secondary legislation
	2.3 Introduce consistent authorisation and supervision framework	Option 2.3.4 National authorisation and supervision, with involvement of other Member States authorities and ESMA (depending on element of externality of a CSD's business)
3. Remove barriers of access to/from CSDs	3.1 Remove barriers of access between issuers and CSDs	Option 3.1.3 Introduce the right of issuers to issue securities into any CSD and the obligation to have securities represented in book entry form
	3.2 Remove barriers of access between CSDs and between CSDs and other market infrastructures	Option 3.2.2 Introduce access rights between CSDs and between CSDs and other market infrastructures

6.2. The cumulative impacts of the preferred policy options

As illustrated in chapter 4, many of the proposed policy solutions are interconnected and the spill-over effects between them are considerable. The best way to summarise this is to refer back to the strategic objectives set out, which can only be achieved effectively by using a combination of policy options:

- Increase safety of cross-border transactions. The harmonisation of settlement discipline (option 1.1.3) addresses this directly, but this would be more effective if settlement periods were harmonised as well (option 1.2.3.2). For instance, buy in procedures in the case of a failed trade are typically set with reference to the intended settlement date. Common prudential and organisational rules for CSDs (option 2.2.2.3) address settlement safety as well such as a DvP requirement. A harmonised authorisation and supervision framework (option 2.3.4) would increase cooperation between national authorities and therefore hopefully mitigate to a certain degree the cross-border spill-over of risk

- Increase efficiency of cross-border transactions. This is achieved by reducing the fragmentation of the market, which would require a harmonised licensing and authorisation and supervision framework for CSDs (options 2.1.3 and 2.3.4) as well as the removal of barriers of access (options 3.1.4 and 3.2.1). Increased efficiency requires also less complexity of cross-border settlement through measures such as the harmonisation of settlement periods (option 1.2.3.2)

- Ensure level playing field for CSD services. This requires a harmonised licensing and authorisation and supervision framework for CSDs (options 2.1.3 and 2.3.4), consistent prudential and organisational rules (option 2.2.2.3) as well as the removal of barriers of access (options 3.1.4 and 3.2.2)

In concrete terms, these combined policy options should result in:

- In the short term, more competition between CSDs, with expected benefits for cross-border service quality and fees; this should translate into immediate benefits for issuers, but the translation of CSD fees into lower costs for investors may be undermined by more fragmentation in the short run

- In the medium to long term, more consolidation of the market and less fragmentation (shorter cross-border holding chains), with benefits in terms of more safety and lower CSD costs for cross-border settlement; this should translate into lower costs along the whole post trading chain to investors

- Overall, the proposed policies should facilitate issuers' ability to raise capital and investors' ability to place their funds more safely and cost effectively, with wider benefits for the economy

It is not obvious to quantify these benefits. The Commission services draft working document on post-trading from 2006 estimated between €2 billion and €5 billion of aggregate excess cost of post-trading for investors. Furthermore, €700 million of cost reductions could be achieved through market consolidation.

These numbers give an indication of orders of magnitude but are probably overstated due to the fact that the gap between CSD cross-border and domestic costs has already

started to decrease since 2006 (see Annex 3). Furthermore, T2S is expected to further reduce both domestic and cross-border costs (see section 2.7). The T2S economic impact assessment of 2008 estimates cost savings from T2S of €145 million to €584 million.

6.2.1. *Impact on Member States administrations*

Impacts on Member States competent authorities would be more of a regulatory nature and would include changes in securities markets rules to accommodate the new settlement periods and the new settlement discipline measures and any adaptations required to apply the cooperation mechanisms foreseen for settlement discipline and for authorisation and supervision.

6.2.2. *Impact on CSDs and other market infrastructures*

The increased competition for CSD services may cause, on the one hand, a "redistribution" of revenues between CSDs and, on the other hand, more consolidation in the sector (at least in the long-term). The opening of access and the harmonisation of the authorisation and supervision framework may also facilitate the further consolidation of the existing groups.

All CSDs would probably need to incur some compliance costs to put in place the new regulatory measures - obtaining a licence, increased prudential and organisational rules and new/additional procedures related to settlement discipline. While the first two areas are very difficult to quantify, the impacts of the last two aspects could be assessed at the time when technical rules need to be adopted. Please refer to section 6.4 for this.

The most affected would be those CSDs that currently provide banking services, especially the two ICSDs, who would need to segregate these services into separate legal entities. As described in Annex 12, the cost of this segregation would be mainly in terms of capital and staff for the new entity and legal costs for the setting up of the legal relationship between the CSD and the banking entity. The banking entity could still use the infrastructure of the CSD, thus there should not be significant system costs. On the other hand, the groups to which these ICSDs belong could take the opportunity of the new passport to transform most of their current subsidiaries into branches, thus reducing capital and overhead costs at the group level.

Other market infrastructures (CCPs and trading venues) would also incur certain costs to adapt their processes to new settlement periods and discipline regimes. The obligation to provide transaction feeds to all requesting CSDs should not imply significant costs for these infrastructures. However it will call into question certain business models, mainly the integrated model of trading venue/CCP/CSD.

6.2.3. *Impact on intermediaries (custodian banks)*

The harmonisation of settlement periods and the consolidation of CSDs should allow intermediaries to reduce their back office costs, at least in the long term. In the short-term, a possible increase in the fragmentation of the CSD market may lead to higher back office costs for the intermediaries. Some of the smaller, local intermediaries in markets that settle on a T+3 basis would incur investment costs to adapt their processes and systems to a T+2 settlement cycle; the more regional,

global intermediaries should not be affected as they already have the systems to deal with different settlement cycles.

The obligation to pass all transferable securities negotiated on trading venues through a CSD and the obligation to obtain a CSD licence to operate a securities settlement system will increase the costs expected by those custodian banks which would be interested in performing a similar function without benefiting from a CSD status. The development of link agreements between CSDs as well as the expected consolidation of CSDs should generalise the settlement through SSSs as the principal way of settlement even for cross-border transactions. Hence, it should make it less possible for custodian banks to internalise settlements, which, as described in section 3.2.1 will be a benefit in terms of systemic risk.

6.2.4. Impact on investors

Investors may incur adaptation costs too from a change of settlement to T+2. However, the change would bring them benefits too by reducing counterparty risk and reducing the period during which they need to post collateral with CCPs. Tougher settlement discipline measures would increase penalties for investors that systematically cause settlement fails, particularly the short sellers, while the likely overall reduction in settlement fails would benefit the other investors.

Investors should also overall benefit from a potential reduction in CSD and intermediaries prices following more harmonisation and consolidation in the market; they would also derive benefits from an increased centralisation of collateral. Any increase in prices by other market infrastructures due to adaptation costs should be marginal.

6.2.5. Impact on retail investors and SMEs

Retail investors who are active in the securities market are typically not direct participants of CSDs, and often not even direct clients of the CSDs' participants. Therefore any impact on them is likely to be very indirect and it will depend on to what extent the net benefits highlighted above (for instance price reductions by CSDs) will be passed down the holding chain. As illustrated above, any net impacts are likely to be positive. There is nothing to suggest that SMEs face any particular disproportionate impact from the proposals set out above.

6.2.6. Impact on issuers

Issuers should benefit also from potential price reductions by CSDs. More importantly, the freedom to choose a CSD should allow them to access their investors more cheaply by issuing capital closer to where their investor base is, thus reducing the holding chain between issuers and investors; this impact would be, however, marginal since CSD and intermediaries costs represent a small proportion of the trading and post-trading costs.

The obligation of dematerialisation in certain countries where the use of paper securities is still widespread, such as the UK may increase costs for issuers if, for instance, issuers (or their registrars) have to post regular account statements to shareholders.

6.2.7. Social impact

On the one hand, the increased competition among CSDs may have direct employment effects if, as described in section 6.2.2, some CSDs lose revenues and have to downsize their operations or if CSD groups consolidate their operations and reduce headcounts. The impact is not likely to be significant as CSDs in the EU employ only around 6,000 staff. There may also be indirect employment effects for intermediaries (e.g. custodian banks) if the increased harmonisation and consolidation of CSD services allows them to reduce their back offices.

However, on the other hand, the actions described above should make the prices of CSDs and of intermediaries more competitive, with positive effects for market participants and, eventually, end investors. Furthermore, the overall increased safety of cross-border settlement and of CSDs has important social benefits, if for instance spill over effects in a crisis are contained.

6.2.8. Environmental impact

There is nothing to suggest that there is a direct or indirect connection between the present subject and environmental issues. There is therefore no likelihood of impact on the environment.

6.2.9. Impact on third countries / impact on EU competitiveness

Since the securities market is a global market it is important to monitor actions taken globally in the areas described in this report, for instance the adoption of the revised CPSS-IOSCO standards for market infrastructures and the plans of the major non-EU markets in respect of adopting a T+2 settlement period. This was discussed in section 5.1.

Any policy regarding third countries must be mindful of the various types of interaction that can take place with a CSD outside the EU, including an EU issuer issuing securities in a third country CSD and links between CSDs. The Commission will therefore need to develop procedures for recognising third-country CSDs that wish to offer their services to entities located in the EU. These procedures should be based on at least the principles of equivalence of rules and supervision in the third countries and of reciprocity of rights by these third countries.

Global competition for CSD services is limited mostly to Eurobonds, where the two EU ICSDs compete mainly with the US and Swiss CSDs. The two ICSDs would be impacted negatively by the obligation to separate their banking activities, but they would benefit from the other positive impacts for CSDs analysed in section 6.2.3. No data is available to assess the net impact; however any non-EU CSDs wanting to compete for business in the EU would need to have equivalent rules.

6.2.10. Fundamental rights impacts

Most of the issues described herein do not have a bearing on fundamental rights, as laid out in the Charter of Fundamental Rights of the EU ("Charter") and in the Communication from the Commission from October 2010 regarding the Strategy for the effective implementation of the Charter. The principles of freedom to conduct a business (Article 16) and of right to property (Article 17) have a connection with the issues covered by the legislation, but there does not appear to be an impact as such.

6.2.11. Impact on EU budget

There is not likely to be any impact on the EU budget.

6.3. The preferred policy instrument

6.3.1. Available policy instruments

- Communication, Recommendation, Directive, Regulation
- Encourage the private sector to pursue self-regulation
- Do nothing ("status quo" option)

6.3.2. The preferred policy instrument

The objectives consist in (a) harmonising aspects of settlement, (b) introducing consistent rules for CSDs, and (c) removing access barriers. A Communication or Recommendation would not have sufficient effect; they would suffer from the same drawbacks as relying simply on the current ESCB-CESR recommendations, as it has been analysed above.

This means that the policy choice for achieving these objectives is through a harmonising legal instrument at the EU level, for which there are essentially two options, a Directive or a Regulation.

The three objectives described in this report require absolute clarity and uniformity as to the scope and conditions of application throughout the EU, without exceptions or diverging implementations by national authorities and jurisdictions. A regulation appears the most preferred policy instrument to achieve the desired objectives:

- Directly applicable without any delay in the whole Union after its adoption by the legislator
- Regulations reduce legal uncertainty: they are the only way to have effectively uniform rules throughout the EU as they eliminate divergences in applicable law between Member States
- The numerous infringement cases against Member States for late, non- or incorrect transposition of directives are evidence that the transposition of EU law is ineffective in many instances
- Regulations can be directly invoked by the parties concerned before national administrations and courts, whereas this applies only in very limited circumstances for directives

6.4. Timing of the initiative

The timing of the initiative for 2011 is justified by several factors. Firstly, CSDs are systemically important institutions and introducing strict prudential requirements at EU level should be a priority. This in line with the timetable for the revision of the CPSS-IOSCO international standards, where draft principles were issued for public consultation in March 2011, with final standards expected in Q1 2012. The CSD

proposal will be in line with the general CPSS-IOSCO principles from the public consultation document, while detailed technical measures will be introduced in secondary legislation, after the international standards have been finalised.

Secondly, regulating CSDs is important in order to complete the regulatory framework of the trading and post-trading market infrastructures, following MiFID, which addresses trading venues and EMIR, which addresses CCPs and trade repositories. Thirdly, some of the measures proposed are important to accompany and facilitate the T2S project launched by the Eurosystem, which is due to start in 2015.

6.5. Impacts of the detailed technical rules

As already stated, in some instances the preferred policy options represent general principles. In order to make them operational, detailed rules will need to be set in secondary legislation. This is the case mainly for settlement discipline measures and CSD prudential rules, as described in Annex 11. Where regulatory or implementing technical standards are needed, these would be developed by ESMA[42] in close cooperation with ESCB within six months to one year from the adoption of the Regulation. According to its regulation (Articles 10 and 15 of Regulation 1095/2010), before submitting draft standards to the Commission, ESMA has to conduct open public consultations and analyse the potential related costs and benefits.

7. MONITORING AND EVALUATION

Ex-post monitoring and evaluation of all new legislative measures is a top priority for the Commission. Evaluations are generally planned three to five years after the implementation deadline of each measure and assess, among other things, how effective and efficient the measure has been in terms of achieving the objectives set out and whether new measures or amendments are needed. A possible monitoring and evaluation framework for this initiative, addressing each strategic objective, is described below.

7.1. Objective 1 – Enhance framework for settlement

Settlement measures should increase the efficiency of settlement and facilitate corporate actions, especially on a cross-border basis. The following tools could be used to monitor and evaluate this:

- A report assessing settlement efficiency for each EU market. Indicators could include number and volume of settlement fails (differentiated between domestic and cross-border transactions), volume of CSD penalties, number of buy-in procedures and number of cases of suspension of membership due to systematic failures to settle. This report could be produced annually by ESMA based on a standardised reporting by market players to the competent authorities

[42] Any reference in this document to ESMA is understood to take due account of limits to delegation of powers to regulatory agencies (like ESMA) identified by the case law of the European Court of Justice (Case 9/56 Meroni (1958) ECR 133)

- A report measuring the volume of market claims. This could be done by an industry group, and should be done before the implementation date of a harmonised settlement period as well as three years afterwards in order to allow comparison

- A report measuring internalisation of settlement by custodians outside of securities settlement systems operated by CSDs. This information is important in terms of systemic risk and to help assess whether EU intervention may be necessary in this respect. This report could be produced annually by ESMA in cooperation with EBA based on a standardised reporting by market players to the competent authorities

7.2. Objective 2 – Consistent rules for CSDs

The new common licensing and authorisation and supervision framework should increase level playing field and competition among CSDs, leading to a reduction in prices, particularly for cross-border settlement. The following monitoring and evaluation tools could be used:

- A report assessing whether cross-border activity is increasing. Indicators could include number of CSD links, number of foreign participants to CSDs, volume of transactions for foreign participants and numbers of issuers accessing foreign CSDs. This could be produced by ESMA annually based on a standardised reporting by CSDs.

- A report analysing prices in the EU for the key CSD services, such as settlement and safekeeping for cross-border and domestic transactions. This could be done by an external consultant three years after the entry into force of the Regulation, and the price gap could be compared with the 2009 data from the Oxera report

The second report could also feed into the monitoring and evaluation of a possible Securities Law Directive, whose objective is also, among others, to reduce prices for cross-border safekeeping.

7.3. Objective 3 - Access

Besides the report on cross-border activity described in section 7.2, another tool for evaluating the improvement of access could be a survey of CSDs, issuers and other market infrastructures to assess to what extent the measures taken have eliminated barriers of access or whether obstacles (of practical or legal nature) still remain. This could be undertaken by the relevant European associations three years after the entry into force of the Regulation.

8. ANNEXES

8.1. Annex 1 – Political mandate and basis of the work programme

8.1.1. EU level

The EU Commission services have worked on the post trading issues for more than 10 years. This work was endorsed by a Resolution of the European Parliament from 2003 on a consultation by the Commission on clearing and settlement, and outlined by a Communication from the Commission to the Council and the European Parliament from 2004 on clearing and settlement in the EU. A list of these and other relating documents is provided below.

- The Consultation of 28 May 2002 of the Commission services, “Clearing and Settlement in the European Union: Main policy issues and future challenges"

- The European Parliament Resolution of January 2003 on the consultation entitled "Clearing and settlement in the European Union: main policy issues and future challenges"

- The Communication of 28 April 2004 from the Commission to the Council and the European Parliament – "Clearing and Settlement in the European Union - The way forward"

- The draft working document of 23 May 2006 from the Commission services on post-trading activities

- The draft working document of 24 May 2006 from the Commission services on "Competition in EU securities trading and post-trading. Issues Paper"

- Reports to ECOFIN:

  – 27.02.2007 Commission Staff Working Document “Monitoring Implementation of the Code of Conduct on Clearing and Settlement”

  – 25.07.2007 Commission Staff Working Document “Improving the Efficiency, Integration and Safety and Soundness of Cross-border Post-trading Arrangements in Europe”

  – 11.03.2008 Commission Staff Working Document “Improving the Efficiency, Integration and Safety and Soundness of Cross-border Post-Trading Arrangements in Europe” (progress report)

  – 03.11.2008 Commission Staff Working Document “Improving the Efficiency, Integration and Safety and Soundness of Cross-border Post-Trading Arrangements in Europe” (progress report)

  – 06.11.2009 Commission Staff Working Document "The Code of Conduct on Clearing and Settlement: Three Years of Experience"

More recently, *political support* has been demonstrated:

- In a joint letter of 8 June 2010, Chancellor Merkel and President Sarkozy invited President Barroso to consider the possibility of harmonisation of the time allowed for securities settlement and delivery related to trading on European markets

- The ECOFIN Council of 2 December 2008[43] emphasised the need to strengthen the safety and soundness of securities settlement systems ("SSS" or "settlement system"), encouraged further progress towards improving price transparency, stressed the need for further progress on access and interoperability requests and agreed with the August 2008 Legal Certainty Group's assessment that EU legislation is needed (the report tackled legal barriers relating to post-trading, including barriers of access to CSDs)

These objectives are consistent with the reform programme proposed by the European Commission to drive the EU out of the financial crisis. As an essential element contributing to a stable financial sector, attaining these objectives is a prerequisite for building a sustainable recovery (Communication for the spring European Council, "Driving European recovery").

8.1.2. *International level*

The need for appropriate standards for CSDs is also agreed internationally:

- Recommendations for settlement systems were adopted by global Central Banks and securities regulators (CPSS-IOSCO) as early as 2001[44]. These were adapted at European level in 2009[45]

- In its meeting of 20 October 2010, the Financial Stability Board re-iterated the call for updated standards for more robust core market infrastructures and asked for the revision and enhancement of existing standards for financial market infrastructures[46]. The CPSS-IOSCO standards are therefore under review

43 http://register.consilium.europa.eu/pdf/en/08/st16/st16212.en08.pdf

44 Cf. the CPSS/IOSCO Recommendations for Securities Settlement Systems of November 2001, currently under review

45 Cf. the ESCB/CESR Recommendations for Securities Settlement Systems in the European Union of May 2009

46 http://www.financialstabilityboard.org/press/pr_101020.pdf

8.2. Annex 2 – External expertise

The Commission services have been engaged in extensive consultations with representatives from the great majority of stakeholders, including regulators, CSDs and CSD participants. The interaction has taken the form of bilateral and multilateral meetings, for instance with the European Central Securities Depositaries Association (ECSDA), which represents more than 40 CSDs offering their services in Europe.

Several working groups were created and met regularly:

- A Member States Working Group constituted from experts on post trading matters representing Member States (and including the European Central Bank (ECB), the European Banking Authority (EBA) and the European Securities Market Authority (ESMA)) had several meetings in 2010 – 2011 to discuss a possible legislative initiative on CSDs and settlement

- A wider stakeholders group, EGMI (Expert Group in Market Infrastructures) was created in 2010 to advise the Commission services on all post trading issues. The group had a broad representation of the post trading market, and included experts from CSDs, CCPs, trading venues and custodian banks. Industry associations as well as public authorities attended the meetings as observers

Prior to that, the Commission services had worked with several expert groups to address different issues in the post trading area:

- An industry group chaired by Alberto Giovannini was asked by the Commission in 2001 to identify and propose solutions for cross-border barriers to clearing and settlement. The group produced two reports, in 2001 and 2003

- A Clearing and Settlement Advisory and Monitoring Expert group (CESAME and CESAME2)[47], specialised in advising on monitoring of the Giovannini barriers met regularly between 2005 and 2010 and provided two reports dealing in particular with certain aspects examined under driver 1 in the problem definition. A working group on the Harmonisation of Settlement Cycles (HSC) continued CESAME's work on settlement periods in 2010 and 2011

- A Monitoring Group (MOG) focused on the monitoring of the implementation of the Code of Conduct met regularly between 2004 and 2010

- The Legal Certainty Group referred to above[48] met regularly between 2005 and 2009 and provided two reports contributing to the draft Security Law Directive but also dealing with certain aspects examined under driver 3 in the problem definition.

The Commission services have also had extensive discussions with the ECB and the T2S Programme Office, who are fully supportive of this initiative. T2S also prioritises harmonisation of the post trading industry in Europe and recognises that the European Commission has an important role to play in areas that the T2S project would not address. As an illustration, below is a table from T2S showing the

[47] http://ec.europa.eu/internal_market/financial-markets/clearing/cesame2_en.htm

[48] LCG reports : http://ec.europa.eu/internal_market/financial-markets/clearing/certainty_en.htm

Giovannini post-trading barriers T2S will address. The T2S Harmonisation Steering Group's rolling list shows that there are important harmonisation areas where the European Commission would need to act[49].

Table 10: Which Giovannini barriers T2S will contribute to

Giovannini barrier	**Will T2S contribute in removing it?**
1. National differences in information technology and interfaces	Yes
2. National clearing and settlement restrictions that require the use of multiple systems	Yes
3. Differences in national rules relating to corporate actions, beneficial ownership and custody	Yes
4. Absence of intra-day settlement finality	Yes
5. Practical impediments to remote access to national clearing and settlement systems	Yes
6. National differences in settlement periods	**No**
7. National differences in operating hours/settlement deadlines	Yes
8. National differences in securities issuance practice	**No**
9. National restrictions on the location of securities	**No**
10. National restrictions on the activity of primary dealers and market makers	**No**
11. Domestic withholding tax regulations serving to disadvantage foreign intermediaries	**No**
12. Transaction taxes collected through a functionality integrated into a local settlement system	**No**
13. The absence of an EU-wide framework for the treatment of interests in securities	**No**
14. National differences in the legal treatment of bilateral netting for financial transactions	**No**
15. Uneven application of national conflict of law rules	**No**

49 Please see: http://www.ecb.int/paym/t2s/progress/pdf/hsg/2011-t2s-harmonisation-list-rolling-version-1-0.pdf?6caaef6c294b58485a62a8a4263ed0aa

8.3. Annex 3 – Data on CSDs in the EU

8.3.1. Overview of CSDs in the EU

Table 11: Non-Central Bank CSDs in the EU

Name	MS	Category	Ownership	Asset coverage
CDAD (Central Depository AD)	BG	CSD	User-owned	All financial instruments
CDCP (Centrálnídepozitářcennýchpapírů)	CZ	CSD	Exchange-owned	Equities, bonds
CDCP SR (Centrálnydepozitárcennýchpapierov)	SK	CSD	Gov/Exchange-owned	All financial instruments
CDCR (Central Depository and Central Registry)	CY	CSD	Gov/Exchange-owned	Equities, bonds, money market
Clearstream Banking Frankfurt	DE	CSD	Exchange-owned	All financial instruments
Clearstream Banking Luxembourg	LU	ICSD	Exchange-owned	All financial instruments
CSDL (Central Securities Depository Lithuania)	LT	CSD	Gov/Exchange-owned	All financial instruments
Depozitarul Central	RO	CSD	Exchange-owned	Equities, bonds, funds
ECSD	EE	CSD	Exchange-owned	All financial instruments
Euroclear Bank	BE	ICSD	User-owned	All financial instruments
Euroclear Belgium	BE	CSD	User-owned	Equities, bonds, funds
Euroclear Finland	FI	CSD	User-owned	Equities, bonds, money market, ETFs
Euroclear France	FR	CSD	User-owned	All financial instruments
Euroclear Nederland	NL	CSD	User-owned	All financial instruments
Euroclear Sweden	SE	CSD	User-owned	Equities, bonds, money market, ETFs
Euroclear UK and Ireland[50]	UK	CSD	User-owned	All financial instruments
Helex Central Securities Depository	GR	CSD	Exchange-owned	Equities, bonds, ETFs
Iberclear	ES	CSD	Exchange-owned	All financial instruments
INTERBOLSA	PT	CSD	Exchange-	All financial instruments
KDD (KlirinškoDepotneDružbe)	SI	CSD	User-owned	Equities, bonds, money market, ETFs
KDPW	PL	CSD	Gov/Exchange-owned	Equities, bonds, funds
KELER	HU	CSD	Gov/Exchange-owned	All financial instruments
LCD-DENOS	LV	CSD	Exchange-owned	All financial instruments
Malta Stock Exchange / MaltaClear	MT	CSD	Gov/Exchange-owned	All financial instruments
Monte Titoli	IT	CSD	Exchange-owned	All financial instruments
OeKB (OesterreichischeKontrollbank)	AT	CSD	User-owned	Equities, bonds, funds
RM-System	CZ	CSD	Exchange-owned	Equities, bonds, funds
SCL Barcelona, SCL Bilbao and SCL Valencia[51]	ES	CSDs of regional exchanges	Exchange-owned	Equities, bonds, money market
VP	DK	CSD	User-owned	All financial instruments
VP Lux	LU	CSD	User-owned	Bonds

Below are some comments on table 11 regarding the ICSDs and the cross-border groups to which they are part.

[50] Euroclear UK & Ireland is incorporated in the UK but acts as the CSD for both UK and Irish equities

[51] The three regional CSDs in Spain are operated by the regional exchanges, which are themselves part of the BME Group, owner of Iberclear

ICSDs

The two ICSDs are specialised in the issuance of international bonds, commonly known as "Eurobonds", i.e. issued under a standard framework (primarily aimed at attracting international investors) governed by a law and expressed in a currency which are generally different from the law and the currency of the constituency of the issuer[52] [53]. Eurobonds are issued through the two European ICSDs that created the market during the 60's/70's, but are entered in a book entry system through a common account provider called a "common depository", typically a custodian bank, which acts also as issuance agent. Some tasks related to the notary function are therefore outsourced by the ICSDs to these common depositaries[54]. The ICSDs are also active outside the Eurobond market, for other securities such as equity. While for Eurobonds they act as "issuer CSD" (albeit with the particularity of a common depository structure), for other securities they act as traditional account providers, or so called "investor CSD", and they facilitate their members' transactions in securities through links with issuer CSDs.

Cross-border groups

Two (main) cross-border groups exist in Europe, which have developed around the ICSDs:

(1) The Clearstream group, which is the result of the merger of Cedel International (an ICSD established in Luxembourg in 1970 by a group of global financial institutions) and Deutsche Börse Clearing (the German national CSD). The group consists of an ICSD – Clearstream Banking Luxembourg, which also operates LuxClear, the national CSD of Luxembourg, and a CSD – Clearstream Banking Frankfurt, which facilitates settlement for the German securities market. Since 2001 both use a common IT platform, Creation, to settle international securities. Clearstream Banking Frankfurt is also part of a joint venture with nine other CSDs in Europe and beyond (Austria, Cyprus, Greece, Denmark, Norway, Spain, Switzerland, Egypt and South Africa), Link-Up Markets, which have streamlined communication between them, offering customers a single point of access to these markets

(2) The Euroclear group, which is the result of the acquisition by Euroclear of the domestic CSDs of France, Netherlands, Belgium, UK and Ireland (one CSD for UK and Ireland operating a settlement system known as CREST), Sweden and Finland. The group consists of an ICSD – Euroclear Bank, and the six national CSDs. Since 2007 all (I)CSDs of the Euroclear Group operate through a single settlement engine, owned by Euroclear SA/NV (a holding company for all (I)CSDs). More recently, in 2009, a single settlement platform, ESES, was launched for the Belgian, Dutch and French CSDs

[52] Typically a few jurisdictions are "preferred" for the issuance of Eurobonds, e.g. England & Wales, Netherlands, US, Germany

[53] Shares can be listed on different markets as well, but they are generally issued in the law of the constituency of the issuer and subject only to secondary listings on other markets. The Eurobonds described above should not be confused with the "Eurobond", which is the term also used for the fixed income security to be potentially issued by the Euro zone

[54] However, in most cases, as for example in the recently adopted framework for the "new look global note", the ICSDs remain fully liable for the safekeeping of the securities subcontracted to the common depository

Table 12: Central Bank Securities Settlement Systems in the EU

Name	MS	Category	Ownership	Asset coverage
BOGS (Bank of Greece)	GR	NCB SSS	NCB	Government debt
GSD (Government Securities Depository)	BG	NCB SSS	NCB	Government debt
National Bank of Belgium	BE	NCB SSS	NCB	Debt instruments
NBS-CR (Central Register of the National Bank of Slovakia)	SK	NCB SSS	NCB	Short-term public debt
RPW (National Bank of Poland)	PL	NCB SSS	NCB	Government debt
SaFIR - NBR (National Bank of Romania)	RO	NCB SSS	NCB	Government debt
SITEME (Banco de Portugal)	PT	NCB SSS	NCB	Short-term public debt
SKD	CZ	NCB SSS	NCB	Short-term debt
VNS (Bank of Latvia)	LV	NCB SSS	NCB	Debt instruments

Note (for both tables): "MS" stands for Member State of incorporation. "NCB" stands for national central bank. "SSS" stands for Securities Settlement System. "Gov/Exchange-owned" means the CSD is either (i) owned by an exchange which is itself owned by the government or (ii) owned jointly by the exchange and governmental entities (i.e. there is no user ownership).

Source (for both tables): EGMI

8.3.2. Key data for EU securities settlement systems

Table 13: Value of securities held on accounts with EU settlement systems (end of period)

		Value of securities held on accounts with CSDs (EURm)				
		2006	**2007**	**2008**	**2009**	**2010**
Belgium	NBB SSS	301,487	335,359	400,998	462,052	482,990
	Euroclear Belgium	265,686	213,981	135,734	141,362	162,028
	Euroclear Bank	8,031,733	9,114,930	8,841,368	9,610,898	10,355,961
Bulgaria	CDA	3,483	30,030	30,629	31,425	31,628
	GSD	1,511	1,636	1,571	1,539	2,011
Czech Republic	SKD	29,819	30,876	31,953	31,813	34,848
	RM-System					0
	SCP	54,040	59,841	59,771	62,914	
	CDCP (formerly Univyc)	2,226	3,088	2,621	1,715	1,821
Denmark	VP	665,884	709,129	622,866	721,142	827,079
Germany	Clearsteam Banking F'furt	6,185,646	6,152,298	2,923,196	3,132,166	3,375,489
Estonia	ECSD	9,183	9,379	6,160	7,210	7,406
Greece	BOGS	184,872	200,957	216,573	259,845	264,424
	HELEX	158,075	196,432	69,287	84,717	54,922
Spain	Iberclear	1,763,658	2,035,590	1,822,324	2,137,625	2,065,911
	Regional SSSs	64,072	69,077	66,203	67,050	66,872
France	Euroclear France	5,018,335	5,312,125	4,517,284	5,033,696	5,139,765
Italy	Monte Titoli	2,694,506	2,772,118	2,732,496	2,824,788	2,971,422
Cyprus	CDCR	17,036	25,313	10,321	14,173	13,063
Latvia	VNS	390	335	1,518	705	474
	LCD-DENOS	2,486	2,530	3,140	2,407	2,550
Lithuania	CSDL	12,138	12,895	9,589	10,466	11,554
Luxembourg	Clearstream Banking Lux.	3,811,890	4,151,521	4,488,782	4,713,043	5,130,339
	VP Lux				36,863	25,300
Hungary	KELER	106,568	120,901	94,230	105,616	114,572
Malta	MSE	6,678	7,610	6,702	7,435	8,363
Netherlands	Euroclear Netherlands	953,849	944,604	818,967	879,590	924,499
Austria	OEKB (WSB SYSTEM)	486,979	473,137	424,869	463,172	503,340
Poland	KDPW_stream	193,503	236,507	151,489	202,589	260,426
	RPW	11,537	8,447	14,594	21,569	25,813
Portugal	SITEME	12,409	12,935	13,150	18,288	24,897
	INTERBOLSA	388,340	419,841	408,086	471,759	508,763
Romania	Depozitarul Central	-	31,443	14,412	17,564	18,072
	NBR	1,437	2,380	4,368	11,202	15,952
	Depozitarul Sibex					26
Slovenia	KDD	20,743	28,645	17,880	22,822	22,517
Slovakia	NBS-CR	15,617	32,906	17,600	-	
	CDCP SR	18,069	19,426	45,881	25,808	31,634
Finland	Euroclear Finland	313,472	372,087	218,446	239,981	286,266
Sweden	Euroclear Sweden AB	852,095	726,029	664,773	794,353	1,251,618
UK	Euroclear UK and Ireland	3,782,994	3,278,043	2,134,114	3,274,787	3,876,268
Total		**36,444,452**	**38,156,388**	**32,045,953**	**35,948,158**	**38,900,883**

Source: ECB statistics

Table 14: Transactions processed by EU settlement systems; Number of transactions

		Number of delivery instructions (thousands)				
		2006	2007	2008	2009	2010
Belgium	NBB SSS	280	302	328	337	408
	Euroclear Belgium	1,203	1,352	1,261	1,801	1,716
	Euroclear Bank	33,949	40,666	36,993	38,376	48,218
Bulgaria	CDA	689	853	1,285	609	355
	GSD	6	7	16	9	15
Czech Republic	SKD	14	13	12	12	11
	RM-System	33	58	58	77	34
	SCP	130	49	65	61	
	CDCP (formerly Univyc)	675	791	1,254	1,013	12,474
Denmark	VP	12,099	16,045	16,898	15,976	11,947
Germany	Clearsteam Banking F'furt	59,139	67,237	56,014	55,853	58,404
Estonia	ECSD	117	228	147	146	173
Greece	BOGS	370	442	378	400	369
	HELEX	11,441	11,935	9,602	10,294	8,054
Spain	Iberclear	13,992	17,752	17,097	14,907	19,714
	Regional SSSs	152	117	84	53	49
France	Euroclear France	32,756	34,491	30,384	26,639	26,122
Italy	Monte Titoli	28,619	30,338	26,032	28,589	25,906
Cyprus	CDCR	594	743	442	379	218
Latvia	VNS	1	1	1	1	0
	LCD-DENOS	64	81	81	90	73
Lithuania	CSDL	161	281	268	266	262
Luxembourg	Clearstream Banking Lux.	10,948	12,781	15,183	16,068	19,809
	VP Lux				11	13
Hungary	KELER	1,887	2,256	2,567	4,062	3,445
Malta	MSE	40	22	24	17	24
Netherlands	Euroclear Netherlands	3,845	4,597	4,399	4,886	4,879
Austria	OEKB (WSB SYSTEM)	2,462	2,136	1,433	1,349	1,460
Poland	KDPW_stream	11,983	16,157	10,637	13,974	14,762
	RPW	29	14	14	17	15
Portugal	SITEME	1	1	1	1	2
	INTERBOLSA	653	922	949	905	960
Romania	Depozitarul Central		2,384	1,896	1,574	1,195
	NBR	3	4	5	8	11
	Depozitarul Sibex					1
Slovenia	KDD	538	533	444	251	267
Slovakia	NBS-CR	3	3	2		
	CDCP SR	51	32	20	55	113
Finland	Euroclear Finland	9,660	16,088	18,428	14,258	5,079
Sweden	Euroclear Sweden AB	20,414	28,085	32,272	28,643	12,238
UK	Euroclear UK and Ireland	62,325	66,342	59,045	56,359	52,084
Total		**323,332**	**378,146**	**348,027**	**340,335**	**330,878**

Source: ECB statistics

Table 15: Transactions processed by EU settlement systems; Value of delivery instructions

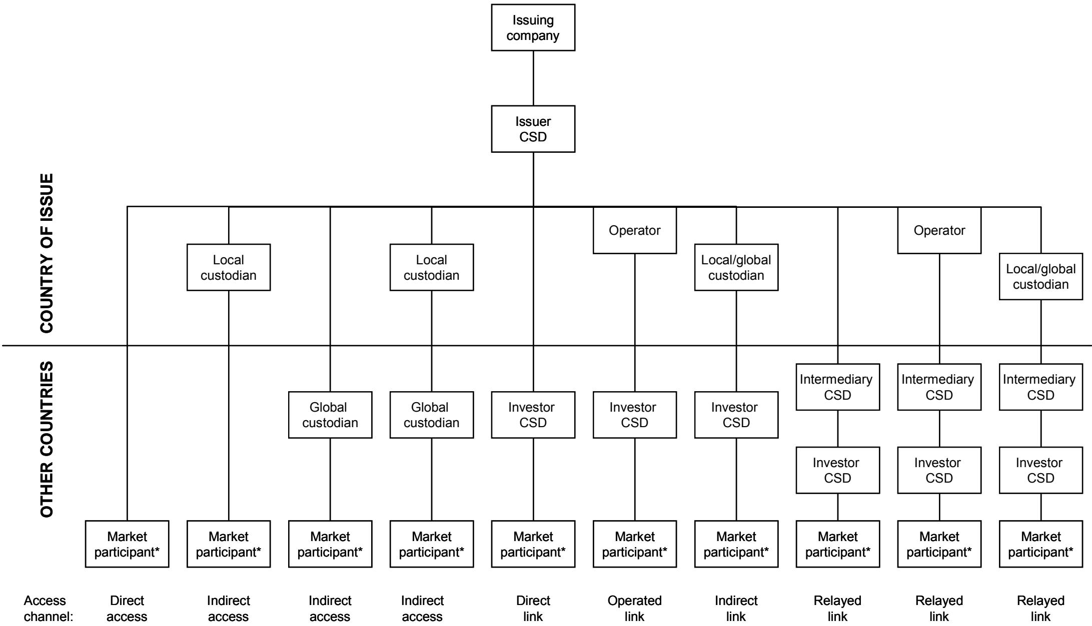
		Value of delivery instructions (EURbn)				
		2006	**2007**	**2008**	**2009**	**2010**
Belgium	NBB SSS	5,993	6,592	8,300	7,408	9,050
	Euroclear Belgium	435	902	310	399	464
	Euroclear Bank	218,551	285,465	248,791	215,687	277,207
Bulgaria	CDA	2	4	2	1	0
	GSD	6	10	39	20	39
Czech Republic	SKD	1,701	1,712	1,615	1,369	1,404
	RM-System	0	1	1	1	0
	SCP	124	5	2	3	
	CDCP (formerly Univyc)	155	170	208	110	108
Denmark	VP	4,414	4,348	5,003	5,369	5,821
Germany	Clearsteam Banking F'furt	41,618	58,024	62,473	66,722	68,193
Estonia	ECSD	3	8	5	3	1
Greece	BOGS	5,621	7,631	8,368	6,485	3,538
	HELEX	85	121	92	64	45
Spain	Iberclear	81,426	91,894	75,462	90,814	88,259
	Regional SSSs					64
France	Euroclear France	123,967	153,253	134,266	117,465	136,974
Italy	Monte Titoli	65,549	69,423	67,195	72,032	77,357
Cyprus	CDCR	4	9	2	2	1
Latvia	VNS	5	15	37	6	0
	LCD-DENOS	2	4	4	7	4
Lithuania	CSDL	6	4	5	4	4
Luxembourg	Clearstream Banking Lux.	32,766	51,971	54,993	53,795	62,815
	VP Lux				116	191
Hungary	KELER	577	1,168	968	1,105	1,641
Malta	MSE	1	1	2	1	1
Netherlands	Euroclear Netherlands				2,584	4,522
Austria	OEKB (WSB SYSTEM)	266	361	313	204	221
Poland	KDPW_stream	3,429	4,153	4,411	3,045	4,503
	RPW	155	72	169	266	234
Portugal	SITEME	85	110	92	88	197
	INTERBOLSA	128	203	149	121	151
Romania	Depozitarul Central	128	203	149	121	4
	NBR	3	16	9	110	48
	Depozitarul Sibex					0
Slovenia	KDD	14	23	20	23	24
Slovakia	NBS-CR	512	476	528	-	
	CDCP SR	32	13	35	26	32
Finland	Euroclear Finland	735	1,011	845	510	479
Sweden	Euroclear Sweden AB	12,963	13,971	12,437	6,798	9,077
UK	Euroclear UK and Ireland	144,548	163,168	143,687	200,083	168,065
Total		**748,015**	**918,522**	**832,995**	**854,976**	**920,738**

Source: ECB statistics

8.3.3. Overview of CSD links

The figure below provides an overview of the types of links between CSDs in cross-border settlement. "Direct links" are direct CSD to CSD links, "operated direct links" are where a third party opens an account at the issuer CSD on behalf of the investor CSD, "relayed links" involve at least three CSDs and "indirect links" go through a local agent or global custodian[55].

Figure 5: How to execute cross-border settlement



Source: National Bank of Belgium Financial Stability Review, 2006
* The market participant may be a broker dealer, an investment firm or similar institutions
Note: The global custodian, investor CSD or intermediary CSD could also be located in the country of issue

55 Eurosystem definitions, at http://www.ecb.int/paym/coll/coll/ssslinks/html/index.en.html (the definitions refer to Securities Settlement Systems, but the SSSs are assimilated with the CSDs that operate them)

8.4. Annex 4 – Additional data on CSD and custodian costs

Table 16: Provision of trading platform and CSD services for domestic and cross-border members (% by number of members)

	CSDs		Trading platforms	
	Domestic	Cross-border	Domestic	Cross-border
2006	98	2	65	35
2008	97	3	61	39
2009	97	3	61	39

Source: Oxera report, May 2011

Table 17: Relative cross-border vs. domestic CSD costs

	Clearing and settlement costs (€ per transaction)			Account provision and asset servicing costs (bp per value of securities held)		
	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)
2006	0.57	2.34	410	0.18	0.76	430
2008	0.46	1.34	290	0.16	0.60	390
2009	0.36	0.96	260	0.16	0.61	380

Source: Oxera, based on CSD questionnaires

Table 18: Relative cross-border vs. domestic CSDs costs for equities

	Clearing and settlement costs (€ per transaction)			Account provision and asset servicing costs (bp per value of securities held)		
	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)
2006	0.39	1.83	480	0.22	0.74	340
2008	0.31	1.01	330	0.21	0.55	260
2009	0.27	0.90	330	0.21	0.67	310

Source: Oxera, based on CSD questionnaires

Table 19: Relative cross-border vs. domestic CSDs costs for fixed income securities

	Clearing and settlement costs (€ per transaction)			Account provision and asset servicing costs (bp per value of securities held)		
	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)
2006	0.42	4.00	950	0.13	0.64	500
2008	0.30	2.66	900	0.12	0.57	470
2009	0.30	1.68	560	0.12	0.57	470

Source: Oxera, based on CSD questionnaires

Table 20: Relative cross-border vs. domestic custodian fees charged to brokers

	Clearing and settlement costs (indices)			Safekeeping fees (indices)		
	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)
2006	100	227	227	100	157	157
2009	69	292	423	86	186	216

Source: Oxera, based on CSD questionnaires

Table 21: Relative cross-border vs. domestic custodian fees charged to fund managers

	Clearing and settlement costs (indices)			Safekeeping fees (indices)		
	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)
2006	100	176	176	100	272	272
2009	82	165	201	161	211	131

Source: Oxera, based on custodian questionnaires

Table 22: Relative cross-border vs. domestic custodian fees charged to custodians

	Clearing and settlement costs (indices)			Safekeeping fees (indices)		
	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)	Domestic	Cross-border	Ratio of cross-border/domestic costs (%)
2006	100	219	219	100	139	139
2009	38	131	345	67	170	254

Source: Oxera, based on custodian questionnaires

8.5. Annex 5 – Market discipline measures and implementation plans

Table 23: Areas and measures of market discipline

Area	Measures
Early matching of instructions	Efficient trade confirmation processes Efficient matching processes
Early settlement on intended settlement date	Continuous settlement throughout the day Promotion of early settlement through appropriate measures
Prevention of failed settlements	Monitoring of fails, admonitions Securities lending Buy-in at the end of the settlement date
Settlement of failed transactions as soon as possible after ISD	Penalties for late settlement Buy-in procedures post-ISD Suspension from market activities

Source: ECSDA paper on "Market Discipline Regimes in Europe", September 2009

Table 24: Summary of major European markets' buy-in and penalty regimes

Market	Buy-in deadline	Buy-in penalties	Fail penalties
Austria	ISD+3	Up to 20% of the countervalue or closing price	30bps per ISIN per day for ISD+1 & ISD+2, minimum €250 per fail
Belgium	ISD+7 (or early buy-in*)	Up to 20% of the countervalue or closing price	€15 + EONIA/360 (max €500) per ISIN per day from ISD
France	ISD+7 (or early buy-in*)	Up to 20% of the countervalue or closing price	€15 + EONIA/360 (max €500) per ISIN per day from ISD
Germany	ISD+5	Up to 100% of the countervalue	None currently imposed
Holland	ISD+7 (or early buy-in*)	Up to 20% of the countervalue or closing price	€15 + EONIA/360 (max €500) per ISIN per day from ISD
Italy	ISD+7	€1000 plus a variable fee of 0.1% of cash countervalue	€50, €150 or €200 per ISIN per day from ISD depending on countervalue
Portugal	ISD+7 (or early buy-in*)	Up to 20% of the countervalue or closing price	€15 + EONIA/360 (max €500) per ISIN per day from ISD
Sweden	ISD+7**	Up to 50% of the countervalue or closing price	€15 + (STIBOR + 1%)/360 per ISIN per day from ISD
Finland	ISD+7**	Up to 50% of the countervalue or closing price	€15 + (EONIA + 1%)/360 per ISIN per day from ISD
Denmark	ISD+7**	Up to 50% of the countervalue or closing price	€15 + (DK Interbank Rate + 1%)/360 per ISIN per day from ISD
Norway	Broker-initiated ISD+8 (minimum guideline)***	Based on closing price + admin fee	€15 + (NIBOR + 1%)/360 per ISIN per day from ISD (EMCF only, currently no fines for OSE)***

(*) Early buy-in can occur at the discretion of LCH.Clearnet, with official 24 hour notice
(**) Broker-initiated S+8 buy-ins can still occur for on-exchange non-CCP eligible ISINs
(***) Oslo Clearing proposal is S+14 buy-ins with fines set at 200 NOK + (NIBOR + 2%)/360
Source: AFME response to CSD public consultation

Table 25: overview of market discipline measures and implementation plans

Goal	Measure	Standards / recommendations	Status	Benchmarks
Early matching	Efficient trade confirmation processes	ESCB/CESR (Recommendation 2)	No implementation plan available	Confirmation on T+0, at the latest T+1
	Efficient matching processes	ESSF/ECSDA Oct 2006	In implementation	Matching as soon as possible
		ESCB/CESR (Recommendation 2)	No implementation plan available	Matching at the latest on ISD-1 (for non-T+0 settlements)
Early settlement	Continuous settlement throughout the day	ECSDA April 2004	In implementation	At least one settlement run every hour
	Promotion of early settlement	ECSDA April 2004 (Standard 6: "participants should be encouraged to settle as early as possible in the morning")	In implementation	
		ESCB/CESR (Recommendations 3 and 8: "create incentives for early settlement", "promote early settlement through appropriate measures")	No implementation plan available	
Prevention of fails	Monitoring of fails	ESCB/CESR (Recommendation 3: "The frequency, duration and value of failures should be monitored"	No implementation plan available	
	Securities lending	ESCB/CESR (Recommendation 5: "Securities lending and borrowing should be encouraged", "centralised … if justified from a cost/benefit perspective")	No implementation plan available	
	Buy-in on ISD			
Fast settlement of fails	Penalties			
	Buy-in procedures	ESSF June 2009	In market consultation	Buy-in on ISD+8
	Suspension from market activities			

Source: ECSDA survey of 2009; ISD = Intended Settlement Date

8.6. Annex 6 – Overview of settlement periods and efficiency in Europe

The table below provides an overview of settlement periods and settlement efficiency for selected European markets, according to the CSD Statistical Exercise undertaken by ECSDA in February 2010 and submitted together with the HSC working group's response to the public consultation.

Table 26: Settlement periods and efficiency (November 2009 data)

Country	Settlement period				Settlement efficiency	
	Equities	Bonds	Funds	Other	% settlement on ISD by volume	% settlement on ISD by value
Austria	T+3	T+3	T+3		95.07	92.84
Denmark	T+3	T+3	T+3	T+2	97.67	98.91
France (ESES)	T+3	T+3	T+3	T+3	97.92	99.36
Belgium (ESES)	T+3	T+3	T+3	T+3	97.43	96.88
Netherlands (ESES)	T+3	T+3	T+3	T+3	97.06	96.43
Finland	T+3	T+3	T+3		98.82	94.60
Germany	T+2	T+2	T+2	T+2	92.66	98.45
Greece	T+3	T+3	T+3	T+3	100.00	99.98
Hungary	T+3	T+2	T+3	T+3	90.00	93.00
Italy	T+3	T+2	T+3	T+3	99.60	99.06
Norway	T+3	T+3	T+3	T+2	99.07	98.67
Poland	T+3	T+2	n/a	T+0	99.82	99.93
Portugal	T+3	T+3	T+3	T+3	94.4	92.26
Romania	T+3	T+3 (T+2 for T-bills)	T+3	T+3	100.00	100.00
Spain (CADE)		T+3			99.99	99.99
Spain (SCLV)	T+3	T+3			99.75	99.67
Switzerland	T+3	T+3	Other	n/a	92.73	91.24
Slovenia	T+2	T+2	T+2	T+2	100.00	100.00
UK and Ireland	T+3	T+1	T+4	T+0	92.60	98.70

Source: CSD Statistical Exercise, ECSDA, February 2010
ESES = Euroclear's single settlement platform for Belgium, France and the Netherlands
SCLV and CADE represent the two platforms operated by the Spanish CSD, Iberclear, for equities and respectively for central and regional government debt
"Other" includes securities not listed as Equities, Bonds or Funds by the CSDs and may include Treasury-bills, other money market instruments, equity-linked products or other types of securities

8.7. Annex 7 – Overview of legislative framework

8.7.1. *The term CSD is already mentioned in EU legislation but not defined*

- The *Settlement Finality Directive* of 19 May 1998 (SFD) refers to "centralised deposit systems" as one of the possible places of location of securities (together with securities accounts and registrars) that determines the law applicable to the rights relating to the securities maintained in that place. The legislator at the time probably wanted to cover through this term part or all of the CSD functions identified in this report. The Settlement Finality Directive remains an essential step in the regulation of CSDs, since it has created as from 1998 a legal "safe harbour", whereby all settlement orders conveyed through a settlement system that is notified to the EU Commission are deemed irrevocable and final, even in case of bankruptcy of a participant who has placed an order

- The term CSD was mentioned for the first time by the *European Parliament Resolution* of January 2003 addressing certain issues concerning the distinction between core functions and ancillary functions and in the *Communication of the Commission* of 2004 (both listed in Annex 1 also), which included a first attempt to define CSDs

- More recently, the term CSD was mentioned in the *Working Party Recommendation concerning withholding tax procedures* of 19 October 2009 (WPR). However it is not defined and CSDs are only mentioned among the financial intermediaries that should be subject to functions concerning the collection of withholding tax on securities held by non residents and the application of tax relieves[56]

8.7.2. *Some core functions are already partially covered by EU legislation*

- The "notary" and the "central safekeeping" functions of CSDs are not defined or mentioned under EU law. However both functions are complementary to the possible *future SLD*, since they are linked to the definitions of both (1) "account held securities", which are created through the "notary" function, and (2) "securities accounts" which constitute the lower tiers of the "central safekeeping" function

- The settlement function is recognised by the *SFD*. Although the settlement function will be based on "securities accounts", as they may be defined by the possible future SLD, in most cases these securities accounts are part of a "settlement system" as defined by Article 2(a) of the SFD. Furthermore, the SFD review of 2009 recognised a status of settlement system operator. However, the review of 2009 has not created any authorization or supervision schemes for such settlement operators, nor provided any prudential and organisational rules, except when two settlement operators enter into interoperability arrangements

- Thirdly, all three core functions are potentially encompassed by *MiFID*: (1) article 34.2 requests "regulated markets" to let their members chose another

[56] Since CSDs are at the top of the holding chain and in direct contact with the issuer, they play an important role in the transfer of proceeds on securities and may themselves act as custodian banks and collect withholding taxes when they participate to another issuer CSD through a link agreement

settlement system, if an appropriate link exists with the local system and if the national authority says it does not affect the safe and smooth functioning of the markets
(2) article 46 provides for the right for "regulated markets" to enter into appropriate agreements with settlement systems as well as with CCPs, except if the competent authorities object on grounds of safe and smooth functioning of the market or if such agreements threaten the orderly functioning of the market

8.7.3. *Ancillary functions are already widely covered by EU legislation*

- The registrar function is addressed indirectly by the *Shareholders Rights Directive* (SRD), which imposes specific duties to issuers that use a register of shareholders. In practice such register can be maintained by a third party, also known as the registrar. In several countries, especially in Spain and in the direct holding systems the registrar is at the same time the CSD. In the UK the registrars work closely with the CSD

- The credit and the cash management functions are potentially covered by the *Capital Requirements Directive* (CRD). Depending on the way the CRD has been transposed by member States, the performance of credit services (without taking deposits) may be subject to a banking licence and the CSD may therefore be subject to a banking licence if it provides such services

- The account providing function will be covered by the *future Securities Law Directive*, which envisages submitting the provision of "securities accounts" to an authorization and supervision scheme that will be fully integrated into the current MiFID framework. Account providing will therefore become an "investment service" which will be opened to a limited list of regulated entities, including credit institutions, investment firms and CSDs.

- The securities lending function is already partially addressed by different legislation. In a narrow perspective, from the market participants' point of view the function of securities lending is addressed by Article 12 of the *draft regulation on short selling* which requests short sellers to have appropriate arrangements in place to borrow securities. Furthermore, from a legal point of view, securities lending is covered by the *Financial Collateral Directive* of 6 June 2002 (FCD), which provides for a simplified constitution of financial collateral and for protection in case of default of the collateral provider.

8.8. Annex 8– Authorisation requirements for CSDs in EU and non EU countries[57]

- **In Belgium,** a CSD must be properly licensed:
  - For the notary function under the rules provided by "Royal Decree 62 of 10 November 1967 on the facilitation of securities movement"
  - For the settlement function under the rules provided by "Royal Decree of 26 September 2005 on the status of settlement institutions and equivalent institutions". The latter function is opened equally to credit institutions (covered by the Law of 2nd August 2002) and to notary institutions

- **In France,** CSDs are subject to a specific authorization procedure conferred to the AMF. The "Règlement géneral de l'AMF" defines a list of principles according to which a CSD should be governed and entrusts AMF with the task to further define the rules applicable to "central securities depositories and operators of securities settlement systems" (Article L621-9 of the RG). Furthermore, the law provides since 1981 for a compulsory dematerialization of all securities (enshrined into Articles 211s of the Monetary and Financial Code), which implies that specific actors such as CSDs are vested with the function to enter securities in a book entry form. The list of functions attributed to CSDs covers all core functions (notary, central safekeeping and settlement) as well as a possible registrar function. It is not a limitative list. Hence, theoretically a CSD may also provide other ancillary services, such as credit or cash accounts.

- **The German** system lies between France and Belgium. As in France, there is no specific authorization regime for CSDs. The Depotgesetz[58] of 1937 grants to the Länder financial authorities the power to "recognise" a CSD (Wertpapiersammelbanken or Zentralverhafter). However, there is no specific definition of the CSD activity, nor particular conditions for such recognition. The supervisory tasks are upheld at the national level by the Bafin, but it does not publish any common rulebook for such supervision. However, CSDs are at the same time considered as credit institutions. Therefore their authorization follows the classical procedure followed by applicants for a banking status.

- **In Italy,** similarly, there is no proper authorization scheme for CSDs, but their functions are clearly regulated by two sets of legislations. The CSD’s activities in general (notary and settlement) are governed by a regulation issued by Consob and Banca d’Italia (see Consob Regulation No 11768/98) which sets out the CSD’s members, instruments and instrumental activities. However, the settlement function when it takes the form of a SSS is governed by a general regulation issued by Banca d’Italia, with the agreement of Consob (see the legal provision of 8 September 2000 on the clearing and settlement of transactions involving non-derivative financial instruments under Article 69 of the CLFI. This regulation lays down the general framework and establishes the conditions in which SSS activities can be managed by a private company.

[57] Information in this Annex is based mostly on the ECB Blue Book of 2007

[58] Gesetz über die Verwahrung und Anschaffung von Wertpapieren (last modified on 11 January 1995)

- **In Luxembourg** CSDs are not addressed by legislation and the competences of the CSSF (the Luxembourg market authority) concerning the corresponding functions are not detailed. The CSD activity is therefore rather tributary to corporate law concerning issuance of shares, banks initiatives concerning the issuance of Eurobonds and their settlement (which has led to the constitution of an ICSD in Luxembourg), existing European legislation, such as the SFD and the statutory role of the central bank.

- **In the Netherlands** the local CSD has been directly appointed by law and there is no provision providing for the possibility to authorise other CSDs, although there is no provision prohibiting other entities to perform the same services. Thus, the Securities Giro Transfer Act of 1977, which was amended to include registered rights (dematerialised securities) in the book-entry system, provides for the establishment of a body responsible for the safekeeping, administration and general control of the book-entry securities transfer system. This body known as Necigef has been purchased by Euroclear and is now known as Euroclear Nederland. As part of the notary function, the law provides that "it sets up collective deposits in which the owners of securities are entitled to their proportionate share". Euroclear Nederland determines which securities may be entered in its book-entry transfer system. Almost all securities listed on the Euronext Amsterdam stock market have been declared book-entry securities and are kept in safe custody by Euroclear Nederland. It seems that there is no such monopoly as concerns the settlement which can be undertaken by anybody, although in practice the de jure monopoly for the notary function has implied a de facto monopoly of the settlement function. However, no proper authorization scheme is reported as concerns the settlement function.

- **In Spain** CSDs are subject to a specific authorization procedure. The Securities Market Law[59] establishes the general principles to be observed by SSSs and provides that the government, on the basis of a report from the CNMV (the Spanish market authority) and Banco de España, may authorise financial institutions to carry out all or any of the following activities:

  – notary and central safekeeping functions are addressed by the objective "to keep the accounting records for book entry securities listed on stock exchanges or on the Public Debt Book-Entry Market, as well as the securities listed on other secondary markets, when their governing bodies so request"

  – settlement function is addressed by the obligation to manage the settlement and, where applicable, the clearing of securities and cash arising from ordinary transactions carried out on those secondary markets;

  – other functions such as providing technical and operating services directly related to those functions, and any other functions that may be necessary for the SSS to coordinate its activities and cooperate with other securities recording, clearing and settlement areas and systems and to be able to participate in the latter; as well as such other functions

[59] The securities market law 41/1999 of 24/1988 of 28 July, as amended by several laws, in particular Law 37/1998 of 16 November and Law 44/2002 of 22 November (see Section 1.1.2)

as may be assigned to it by the government on the basis of a report from the CNMV and, where applicable, from the Banco de España. However the same law appoints Iberclear, a state owned company resulting from the merger of CADE (government securities) and SCLV (private sector securities) as the provider of these functions[60]. In theory there is no obligation for issuers to issue through Iberclear, nor through another Spanish CSD, provided that such issuance is performed under Spanish law[61]. However, the fact that Iberclear is vested in parallel with a registrar function designates it as the natural recipient of any notary function. Another specificity of the Spanish system is the legal obligation for any Spanish SSS to settle the cash leg of securities transactions in central bank money through cash accounts held by participants with the Banco de España.

- **In Scandinavian countries and other countries having a direct holding system (Slovenia and Greece),** specific CSDs are designated by virtue of law to perform the registrar function for shares and the function of account providing (VP in Denmark, Euroclear Finland APK in Finland, Euroclear Sweden VPC). Although there is no clear monopoly for the core notary, central safekeeping or settlement functions, any applying CSD has to become account provider of all securities issued under the law of these countries, which implies specific investments.

- **In the UK** the law does not specifically address CSDs. Instead the legislation is focused on certain ancillary functions such as the registrar function, which is governed by the Companies Act of 1985 for certificated securities and by the Companies Act of 1989 for uncertificated securities. In application of the act of 1989, the Uncertificated Securities Regulation of 2001 (USR 2001) enables CREST (or systems such as CREST) to enter securities in book entry form and eventually to allow the transfer of ownership through book entries made within the CREST system. As a consequence the part of the UK system served by CREST resembles the Scandinavian countries: the core notary and settlement functions are a consequence of the ancillary function of ownership registrar. Since the registrar function is not subject to specific licensing, this is the case also for the subsequent notary and settlement functions. However, the condition for performing such notary and settlement functions is to be able to perform them in a dematerialised and electronic manner as provided by USR 2001 and further FSA regulations (i.e. USR 2003 regulating notary and settlement functions for money market instruments). CREST maintains the register of dematerialised securities that together with the register of certificated securities (maintained by the issuer itself or by another registrar on its behalf) forms part of the ***single*** issuer register.

[60] Among these functions is the function of registrar of the ownership of shares puts
[61] According to the Legal Certainty Group first report

- **In the US,** the CSD functions are ensured by two entities:

  - The Fedwire Securities Service is a securities settlement system provided by the Federal Reserve Banks for securities issued by the US Treasury, other federal agencies, government-sponsored enterprises and certain international organisations, such as the World Bank.

  - The DTC (Deposit Trust Company) is a CSD that offers a mix of notary, central safekeeping and settlement functions for all other book-entry securities issued in the US. The DTC is a 100% subsidiary of the DTCC (Depository Trust & Clearing Corporation), which also owns NSCC (National Securities Clearing Corporation), the US CCP. DTCC is owned by its users, i.e. banks, broker/dealers, mutual funds and other financial institutions. It operates on an at-cost basis, returning excess revenues from transaction fees to its member firms. DTCC's companies grew out of Wall Street's paperwork crisis in the late 1960s and early 1970s. They were initially formed to handle clearing and settlement solely for the New York Stock Exchange and American Stock Exchanges, and later on, NASDAQ. Clearing and settlement in the US was highly fragmented at the time, with regional markets such as those in Boston, Philadelphia and Chicago maintaining separate clearing and depository businesses. Between 1977 and 1995 five regional exchanges exited the business of clearance, settlement and custody and customers consolidated this activity at NSCC and DTC. The DTC benefits thus from a de facto monopoly, which was reinforced in 1994 by the revision of Chapter 8 of the Uniform Commercial Code, which works practically as a rule book of the DTC.

8.9. Annex 9 – Lehman and Bear Stern case studies

Lehman

The wind-down of Lehman Brothers is proving more complicated than expected by the administrators. More than two years after the firm was declared bankrupt the total fees for administrators, lawyers and other parties are estimated to top €1.4bn worldwide (c.€350 for the European administrators only[62]) and it is estimated that it could be 20 years before the administration is concluded.

There are several relevant issues why this is the case:

- Due to the unclear methods under which some arrangements were made, the insolvency administrator in the UK is facing significant difficulties in determining "who owns what". To establish this, one needs to trace back the legal effectiveness of several acquisitions and dispositions between the different entities of the Lehman group. Under the current legal regimes, this is difficult and assets worth several billions are still blocked in the insolvency estate

- A second major difficulty in the Lehman insolvency was the multiple creation of security interests (pledge or otherwise), lending or repurchase agreements over securities that were under Lehman's custody and the consequences of "re-hypothecation" of clients' securities to third parties under unclear arrangements. Some of the problems observed in the Lehman case were directly connected to the re-use of securities by Lehman, acting as a collateral taker. The Olivant affair, where the latter investor was deprived from his voting rights on shares that it had pledged with Lehman, triggered questions regarding re-using collateralised securities

Bear Stearns

During the critical winding up of Bear Stearns on 14 March 2008, an excess of 28% of shares in the company compared to the total actually issued was encountered. This obliged the Securities Investment Protection Corporation (SIPC) to reimburse all the investors at the nominal value of the securities.

The causes of this excess are not clear. It may have been either: the result of naked short selling positions; multiple re-use of securities; or a fault of the US system of ownership that provides for a "beneficial ownership" right and a "securities entitlement" at every level in the holding chain. Some confusion is often reported in this context.

Fortunately, Bear Stearns was rescued through a takeover by JP Morgan which bailed out the excess of securities.

62 From Joint Administrators' progress report on the administration process for Lehman Brothers http://www.pwc.co.uk/eng/issues/lehmans_joint_administrators_progress_report_140409.html

8.10. Annex 10 – Overview of restrictions on the choice of CSD by issuers

8.10.1. "Exportability" and "importability"

There is an important dichotomy described by the shorthand of “exportability” and “importability”; restrictions to the free choice of the location of securities can originate from two sides, because:

- On the one hand, the law under which securities are constituted might require that the initial entry of securities into the structure for holding and settlement be effected by a local CSD, or allow for non-legal rules to aim at such a restriction (restriction on exportability), or
- On the other hand, the law of a Member State might restrict the ability of a local CSD to make an initial entry into the holding and settlement structures with respect to securities which are constituted under the law of another Member State, or allow for non-legal rules to aim at such a restriction (restriction on importability).

As regards the existence of restrictions relevant in the context of Barrier 9, the present paper draws mostly on the comparative survey undertaken in 2006, by the Legal Certainty Group, under the rubric of Question 38[63].

8.10.2. Restrictions regarding exportability

Restrictions on exportability hinder an issuer's free choice of CSD. Provisions of the law under which the securities are constituted (or other measures under that law), make it impossible, cumbersome or more expensive to arrange for the securities to be initially entered into a holding and settlement structure which is governed by the law of another Member State. The Comparative Survey revealed the existence of at least the following categories of restrictions:

8.10.2.1. Listing tied to local CSD

There are many examples where the listing on the local stock exchange requires the securities issue to be entered into the holding and settlement structure of the local CSD. This phenomenon applies to both certificated securities issues and – mainly – to dematerialised securities issues.

- *In Poland, securities which are admitted to public trading have to be registered in a Polish CSD.*
- *In Finland, companies which are incorporated under Finnish law and which are listed on a Finnish regulated market are required to dematerialise their shares and arrange for them to be held in the book-entry system maintained by the Finnish CSD.*
- *Latvian Government bonds must be initially entered into the Latvian CSD.*

8.10.2.2. Settlement tied to local SSS or local registrar

A second type of restriction of exportability is the requirement to settle acquisitions and dispositions exclusively through accounts which form part of the local securities settlement system. Similarly, in other Member States, the settlement of securities is tied to a local registrar.

[63] Cf. Comparative Survey/Questionnaire, 24.04.2006, Question 38, pp. 424-438

- *Belgian Government bonds which are issued in dematerialised form have to be kept on accounts with authorised account holders in the Belgian CSD that has been designated by law as a settlement organisation for these securities.*
- *In the United Kingdom, shares are constituted by a register, which must be kept within the United Kingdom.*

8.10.2.3. Dematerialisation tied to the local CSD

In some Member States, dematerialisation of securities is mandatory; in other Member States it is an option for the issuer, or for example linked to listing at the local stock exchange. In both cases, the initial entry of the securities into the holding and settlement structures is often tied to the local CSD.

- *German dematerialised Government bonds are to be issued into a "Wertpapiersammelbank" (CSD) in the meaning of the German Securities Deposit Act. At present, only Clearstream Banking Frankfurt and the ECB fulfil the requirements to be designated as Wertpapiersammelbank.*
- *Slovenian dematerialised securities can only be issued via registration in the domestic register, operated by the domestic CSD.*
- *The recent proposal (2009) for law reform submitted by the French Association of Securities Professionals reads "toute émission de valeurs mobilières doit être enregistrée (...) par un conservateur central établi en France".*

8.10.3. Restrictions regarding importability

Restrictions on importability equally limit the issuer's choice of the CSD which makes the initial entry. But unlike the case of exportability, it is the law governing the CSD which hampers free choice by setting entry requirements which cannot be met, are cumbersome or more expensive to meet by foreign securities issues.

8.10.3.1. Certification - dematerialisation

Some Member States' law might either require dematerialisation of all types of securities or rely on the issuance of a paper certificate for some or all types. Others might give issuers a choice, or impose certification for some types of assets whilst making dematerialisation mandatory for others. Both debt instruments and shares are equally subject to these differences regarding dematerialisation and certification. Consequently, when issuing cross-border, the variety of solutions might lead to incompatibilities in the sense of Barrier 9. In the first possible scenario, both the law under which the securities are constituted, as well as the law governing the CSD where it is envisaged making the initial entry, are based on the understanding that securities are dematerialised; consequently, the aspect of certification/dematerialisation is not problematic. In the second possible scenario, the law under which the securities are constituted requires the issuance of dematerialised securities irrespective of the place where the initial entry is made. The law governing the CSD does not recognise securities in dematerialised form; consequently, there is a clear Barrier 9 restriction.

- *If a Spanish issuer decides to issue shares in a foreign country, the foreign CSD might require compliance with national regulations, often entailing the issuance of a "certificate" embodying the number of securities issued, and following a certain format required by national rules; however, this type of certificate is not foreseen under Spanish law.*
- *Under Czech law, there is the exceptional case of compulsory dematerialisation of shares in banking institutions; a substitute certificate for issuing abroad is not available.*

The third scenario is the inverse case: the law under which the securities are constituted requires issuance of securities certificates (at least in the case where the issue is to be initially entered into holding and settlement structures abroad, as for example under Czech law). The law governing the CSD only provides for a holding and settlement system based on the existence of dematerialised securities.

Admittedly, both the second and third scenarios are cases of restrictions regarding exportability and importability at the same time, as both jurisdictions require one form and do not accept the other.

8.10.3.2. Risk of discrimination

Another restriction of importability arises where the law governing the CSD treats securities which are constituted under a different law less favourably than domestic securities, or there is a risk of this happening.

– *Because it is unclear on this specific point, Polish law on trading in financial instruments might be interpreted in such a way that only those firms which keep securities accounts as defined under the Polish law are entitled to issue valid certificates to their customers.*

8.10.4. Justification of certain restrictions?

There are recurring arguments aiming at justifying the imposing or maintaining of restrictions in relation to the place of initial entry into holding and settlement structures.

- First, there is the argument that compulsory delivery into or compulsory registration with the national CSD would guarantee coherence of the issue. In particular, the risk of inflation of the number of securities or the loss of securities would be avoided more successfully than would be possible in a holding pattern which involved entities spread cross-border. This argument is also used in referring to specific assets (like for example parts in mandatory pension funds), the safeguarding of which is a very sensitive issue. However, an EU integrated post-trading environment can only exist on the basis of a common high standard of operational and legal certainty in post-trading operations. The risk of loss of securities, or of similar incidents, is no more likely in some Member States than in others. Not least, the proposed Securities Law Directive, if adopted, should remove operational and legal inconsistencies relating to cross-border holding and settlement

- With respect to Government bonds, there is the argument that it was not opportune to classify measures restricting their export as restrictions in the sense of Barrier 9. This was because the issuer itself (the Government) chose to bind a securities issue to a local CSD. However, it is not said that in all cases the authority imposing such restriction (ex: federal legislation) is the same authority that issues the securities (ex: municipality in case of municipal bonds).

- Lastly, regarding tax procedures, reference is often made to the crucial role of CSDs in the collection of taxes, especially withholding tax; the close interaction between fiscal authorities and the CSD could only be guaranteed if the CSD was the local one. Again, the second advice of the Legal Certainty Group advocates that, against the background of the principles of the internal market for financial services other measures (as, for example, reporting mechanisms) could be used to

achieve an identical result. Restricting the choice of issuers and competition between CSDs is unnecessary to ensure proper functioning of tax procedures

Consequently, in former times, there might have been justified motivations behind the restrictions. However, the standard of operational and legal certainty is such that, in the modern pan-European post-trading landscape, restrictions like the ones described above are unjustified and contrary to the principles of the internal market.

8.11. Annex 11 – Possible principles to be proposed in legislation

8.11.1. Settlement discipline

The principles in respect of settlement disciplines could refer to obligations on:

- CSDs and their participants to execute transactions without undue delay as soon as securities and funds are available
- CSDs to ensure they have the procedures in place to facilitate settlement on the intended settlement date for their participants
- CSDs to promote early settlement on the intended settlement date
- CSDs to ensure they have procedures in place that encourage settlement of transactions that are not settled on the intended settlement date. Such procedures should foresee a sufficiently deterrent penalty mechanism
- Harmonised buy-in and cash compensation obligations to be introduced for participants who fail to settle on the intended settlement date
- CSDs to put in place a system that monitors settlement fails of their participants
- CSDs to provide regular reports to the competent authority on settlement fails

Detailed technical standards in respect of these measures would be set by secondary legislation, with involvement of ESMA and the ESCB.

8.11.2. Requirements for CSDs

The principles in legislation would include mitigation measures for the risks incurred by the CSDs themselves as well as measures to ensure CSDs conduct their business and carry out their functions in a safe and efficient manner. They would address a broad spectrum of risks, including (according to the CPSS-IOSCO framework) systemic risk, legal risk, general business risk, investment risk and operational risk. The principles would draw to a very large extent from the CPSS-IOSCO draft recommendations; technical standards would be set later (by which time the CPSS-IOSCO recommendations will have been finalised) by secondary legislation, with involvement of ESMA and the ESCB. Some principles, for instance regarding transparency and service unbundling, would also draw from the Code of Conduct.

The following broad categories could be included:

Organisational requirements

These could include:

- General provisions regarding the CSDs' obligation to have robust governance arrangements and effective policies and procedures
- Requirements regarding suitability and roles and responsibilities of senior management and board

- A requirement for CSDs to have user committees in place

- Important provisions regarding the conditions and authorisation of outsourcing of services or activities

Conduct of business rules

These could include principles about:

- Participation requirements: CSDs should have publicly disclosed criteria for participation which permit fair and open access

- Transparency: CSDs should disclose publicly their prices and fees, separately for each service and account separately for costs and revenues of the services provided

Requirements regarding CSDs' functions

These important provisions would mainly request CSDs to have appropriate rules and procedures to help ensure the integrity of securities issues and minimise and manage risks associated with the safekeeping and transfer of securities. They could include requirements for CSDs to:

- Ensure the integrity of the issue by conducting intraday reconciliations and not allowing artificial creation of securities

- Protect participants' access by not using customers' securities for any purpose without the customers' express consent and by segregating the assets of their customers from the CSDs' own assets (and facilitating the same, upon request, at the level of their customers)

- Ensure settlement finality on the intended settlement date

- Operate only designated and notified settlement systems (in the sense of the SFD) and have procedures in place that maximise the safety of such systems

- Ensure settlement on a DVP basis

- Settle cash payments in central bank money whenever practical and available (for transactions denominated in the currency of the country where the settlement takes place). Otherwise use credit institutions that fulfil certain criteria

- Set up effective rules and procedures to manage a participant default

Prudential requirements

These principles would require CSDs to put in place a sound risk management framework for comprehensively managing their legal, business, operational and other risks. They could include:

- Legal risk: CSDs (and the settlement systems they operate) should have rules, procedures and contracts that are legally enforceable at all times

- General business risk: CSDs should have sufficient equity or equity capital to cover potential general business losses
- Operational risk: reliability of systems, business continuity plans
- Investment risk: CSDs should invest their resources only in cash or highly liquid financial instruments

Requirements for CSD links

CPSS-IOSCO dedicates special attention to CSD links and general principles in this respect could include requirements for CSDs to:

- Assess sources of risks from links
- Ensure links have a well founded legal basis that provides adequate protection to the CSDs and their participants
- Not engage in provisional transfer of securities

8.12. Annex 12 – Options in respect of banking type of services

A number of CSDs provide, in order to facilitate settlement or other services, a limited range of banking type of services to their participants, such as providing cash credit or securities credit as principal and opening cash settlement accounts in their own books (in which case settlement is said to be done in "commercial bank money" and the CSD is said to act as "settlement agent"[64]). These CSDs are the two ICSDs – Euroclear Bank and Clearstream Banking Luxembourg, which represent around 37% of settlement transactions in the EU, and three "national" CSDs – Clearstream Banking Frankfurt of Germany, OEKB of Austria and Keler of Hungary, which represent another 8%[65]. All of them have (limited scope) banking licences for such services and perform both CSD and banking services through a single entity.

In the other markets these services are offered by central banks – cash accounts for settlement (in which case settlement is said to be done in "central bank money") and intraday credit, although not necessarily securities lending[66]. This offers more safety to the system since central banks do not go bankrupt. There is, however, a demand for the corresponding CSDs to offer such services in order to enable a more efficient execution of settlement and use of securities in certain cases, for instance:

- Central bank money settlement is not always possible, for example when settlement happens in many different currencies (such as for Eurobonds) or when not all CSD participants have access to central bank intraday liquidity or credit[67]. In these instances participants use cash accounts directly opened in the books of the CSD that executes the settlement, and the respective CSD generally also provides credit to facilitate settlement in an integrated, automated way. CSDs generally offer this service under the same conditions as the central banks

- Cash credit facilities offered by CSDs are sometimes supplemented with securities lending facilities, which are not necessarily offered by central banks and which contribute to a reduced number of settlement fails, thus increasing settlement efficiency

For this reason, commercial bank money systems often co-exist with central bank money systems and this is widely recognised and accepted. For instance, the CPSS report of 2003[68] on "The role of central bank money in payment systems" states that "neither system has proved sufficiently stable or efficient to survive". The CPSS-IOSCO standards also accept this by imposing an obligation of settlement in central bank money only when "practical and available".

However, a number of respondents to the public consultation, mainly custodian banks and some regulators, have argued that CSDs should not be allowed to provide

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64 Settlement is also said to be done in commercial bank money when the cash accounts for settlement are opened in a commercial bank rather than the CSD itself

65 The two ICSDs also represent 40% of the total value of securities held on accounts in the EU at the end of 2010, while the other three CSDs represent another 10%. Please see Annex 3 for more details

66 In some markets, such as the UK, the central bank outsources these services to a number of commercial banks. In others, a CSD may do both central bank money and commercial bank money settlement, e.g. Clearstream Banking Frankfurt

67 In the Eurozone, Central Banks offer intraday credit only to credit institutions and to investment firms

68 http://www.bis.org/publ/cpss55.pdf

directly neither cash accounts nor credit services, and that such services should be segregated in a separate legal entity. These arguments are mainly based on risk – since CSDs are systemically important market infrastructures, they should maintain a low risk profile. Some of these respondents are, nevertheless, in favour of allowing the two ICSDs to continue to operate an integrated model, on the ground that cash accounts and cash credit are an integral part of the settlement activity.

8.12.1. *Type of banking services*

There is relatively wide agreement among those who support an integrated model that a CSD's banking type of services should be strictly related to its core or (some) ancillary functions. These services are typically limited to:

Box 1: Banking type of services undertaken by a CSD

Banking type of services for the participants of a securities settlement system related to the settlement service, including:

- Providing cash accounts
- Accepting cash deposits
- Providing cash credit
- Lending securities

Banking type of services for the holders of securities accounts with the CSD related to other core and ancillary services, including:

- Providing cash accounts and accepting cash deposits
- Lending securities

Banking type of services facilitating the processing of corporate actions, including:

- Pre-financing income and redemption proceeds
- Pre-financing tax reclaims

8.12.2. *Risks derived from banking services*

The table below outlines the additional key risks incurred by a CSD due to these banking type of services, the particularity of such risks derived from the limited nature of these services and the recommendations made by CPSS-IOSCO for CSDs to mitigate these risks. These recommendations are on top of the normal banking prudential framework.

Table 27: Overview of risks incurred by CSDs providing banking type of services

Risk	**Particularity of risk for CSDs**	**CPSS-IOSCO recommendations for market infrastructures**[69]
Credit risk resulting from granting cash credit to participants	Credit facilities are limited to the facilitation of settlement and are provided on a very short term basis – mostly intra-day, but can extend to overnight or marginally longer periods in case of settlement over different time zones[70]	Full coverage of current and future exposures using collateral and other equivalent financial resources (e.g. Euroclear Bank as well as the Clearstream entities have 99% collateralisation) Use only collateral with low credit risk, liquidity risk and market risk Conservative haircuts and concentration limits on collateral values Limits on credit exposures
Credit risk resulting from securities lending	Securities lending to facilitate the delivery of securities and/or avoid settlement fails is also very short term The CSD may interpose itself as guarantor or principal between securities lenders and borrowers	As above
Liquidity risk resulting from credit exposures and investments	Mostly risk of spillover of an intra-day credit into an overnight credit, as described above	Monitor on a daily basis the level of liquid assets and determine the value of available liquid assets taking into account appropriate haircuts Identify, measure and monitor liquidity risk from the liquidity providers of any pre-funding arrangements Ensure sufficient liquidity in the event of the inability of the [one/two] participant[s] with the largest payment obligation[s] to the CSD to settle these obligations[71]
Custody, and investment risk	Custody risk on securities assets owned by CSDs, for instance for securities lending Investment risk on the investment of its own resources	Hold assets at supervised and regulated entities Ensure prompt access to assets Invest only in cash or in highly liquid financial instruments with minimal market and credit risk, which can be liquidated rapidly with minimal adverse price effect Concentration limits for overall credit risk exposures

The key risks incurred by a CSD with banking activities are therefore (1) credit risk and (2) liquidity risk. Credit risk is to a certain extent mitigated by the limited nature of credit – essentially intraday, and by prudential measures that are stricter than for

[69] Based on draft CPSS-IOSCO recommendations, currently subject to public consultation

[70] The CSDs that provide these services generally discourage spill over of credit into overnight or longer term credit by applying very high interest rates on such credit. The same policy is applied by central banks but CSDs' interest rates tend to be even more penalising. The following data gives an indication of the size of credit activities of an ICSD: Euroclear Bank settles transactions amounting to some €850 billion each day (2009 average) but due to its netting processes it only extends around €80 billion in intra-day credit to its clients. This balance is substantially reduced by the end of the day

[71] Current CPSS-IOSCO and ESCB-CESR principles refer to one participant, whereas the draft revised CPSS-IOSCO principles envisage the possibility of increasing this to two participants

general banks – mainly full collateralisation of credit. For liquidity risk, CSDs are required to have adequate liquidity monitoring and contingency plans, like any other bank, with the additional feature that such plans should cater for the situation when the participant with the largest payment obligation towards the CSD may not be able to honour this obligation.

However, the question remains as to what extent these risks are mitigated.

(1) Credit risk

While the collateral required by the banking CSDs has to be low risk collateral, subject to prudent haircuts (i.e. valuation) and concentration limits, this mitigation measure has its limitations:

- The range of eligible collateral is generally more extensive than that required by central banks

- A default by a major participant can have a significant impact on the value of the collateral submitted by that participant to the CSD. Although the collateral should normally be without close link to the participant, one can imagine a situation of severe market crisis when the participant's default leads to an overall drop in the whole market, and hence in the value of the collateral.

- Realising collateral in the case of a participant default (or in any case doing so quickly) may be subject to legal complexities, especially since the collateral remitted to CSDs is often a re-hypotecated collateral

- A severe crisis may also lead to an intraday meltdown of the value of the collateral. Such a meltdown has already occurred several times in the past, such as during the crash of October 1987 (minus 25% in one day) or of October 2008 (minus 19%) or more recently during the mini crash of May 2010 (minus 9%). Haircuts may not be sufficient to cater for these extremes and calling on participants to post more collateral may not solve the problem in the case of an intraday crash. The risk position of a CSD that offers intraday banking services is close to the risk position of a CCP, which interposes itself between its customers, since both types of infrastructures take counterparty risks

(2) Liquidity risk

CPSS-IOSCO and ESCB-CESR standards recommend that banking CSDs have contingency plans that cater for the possible inability to pay of the largest participant; this may be increased to two participants in the new standards. However, this does not tackle the risk of a generalisation of payment defaults due to a general liquidity shortage in the market in a severe crisis situation.

In particular, the CSDs that currently offer banking services rely heavily on intraday overdraft lines (or, in other words, promises to pay) from their cash correspondents, who are for the most also their participants. A participant's default affects therefore not only that participant's ability to pay its obligations to the CSD but also more generally the CSD's funding plans. Should a major participant default, the surviving

participants may be concerned about the viability of the CSD and may therefore be less willing to honour their promises to provide additional liquidity.

To conclude, the specific mitigants for the risks associated with the banking activities of a CSD do not eliminate these risks. While it is true that the banking CSDs were not affected by the 2008 crisis or by the Lehman bankruptcy, the amounts of funds they handle are enormous – as an example Euroclear Bank extends on average EUR 80 billion of credit at the beginning of each day. This balance is fully or substantially reduced by the end of the day, but major intraday disruptions in the financial markets can cause severe stress for the banking CSDs. A default of a CSD would have dramatic consequences as it would freeze the securities market as well as potentially the payments market (since collateral flows through CSDs). This justifies a revisiting of the various options regarding such banking services, which is done in the next section.

8.12.3. Licensing options regarding banking services

Considering the different views of stakeholders, there are several options:

- Allow CSDs to provide banking services in an integrated legal entity. This could be done via three sub-options:

  - One licence (Option A below). There have been responses to the public consultation, particularly from the smaller CSDs, that have called for a leaner regulatory structure for the CSDs that want to provide limited banking services by not subjecting them to the CRD framework but creating a customised set of requirements. In this option a CSD would have a single licence, which would integrate both its CSD and banking type of activities; this would effectively mean that the CSD legislation would include a "customised" set of prudential requirements for the banking activities of a CSD – this could be done on a self-standing basis, as it was done for payment institutions in the Payment Services Directive, or by reference to the CRD. In addition, the CPSS-IOSCO prudential requirements and the transparency and unbundling requirements from the Code of Conduct would be introduced in legislation

  - Two licences, one for CSD services, one for banking type of services (Option B below). This reflects the status quo, but with the CPSS-IOSCO prudential requirements and the transparency and unbundling requirements from the Code of Conduct introduced in legislation

  - Two licences, as above, but with additional requirements which go beyond and/or detail further CPSS-IOSCO requirements to mitigate risk spill over (Option C below). Such additional requirements could include a restriction on providing credit only to participants that have cash accounts with the CSD, the automatic reimbursement of intraday credit and discouragement of overnight credit through deterrent sanctioning rates and an obligation for end-of-day cash balances to be deposited with central banks when practical and available

- Request segregation of banking services into a different legal entity with a banking licence (Option D below). This entity would still have to comply with the additional requirements under Option C, in respect of its activities for each settlement system it acts as settlement agent for.

A brief overview of the different options is provided below.

Table 28: Options in respect of banking services

Option	**Integrated vs. segregated**	**One vs. two licences**	**Description**
A	Integrated model	One licence	One entity with one licence that integrates prudential requirements for banking services Limited scope of banking services CPSS-IOSCO prudential requirements introduced in legislation Transparency and unbundling principles introduced in legislation
B		Two licences, status quo	One entity, separate banking licence for banking activities Limited scope of banking services CPSS-IOSCO prudential requirements introduced in legislation Transparency and unbundling principles introduced in legislation
C		Two licences, additional requirements	One entity, banking activities subject to separate licence Limited scope of banking services CPSS-IOSCO prudential requirements introduced in legislation Transparency and unbundling principles introduced in legislation Additional requirements to mitigate risk spillover CSDs could opt for a segregated model (in any of the options above)
D	Segregated model	Two entities, two licences	Banking services segregated into separate legal entity, with banking licence Separate banking entity not subject to limited scope of services, but to the requirements under option C above (for each settlement system it acts as settlement agent for)

These options are analysed below with reference to their effectiveness (i.e. pro's and con's) as well as their efficiency (i.e. costs to stakeholders). The table below compares the integrated model with the segregated model.

Table 29: Integrated vs. segregated model

	Integrated model (Options A, B or C)	Segregated model (Option D)
Pro's	Banking activities have limited scope and must comply with additional prudential requirements (in CSD legislation) Reduced overhead costs Single capital requirements	Separation of risks between CSD core functions and credit functions reduces risk spill-over: in case of insolvency of the banking entity, operational CSD functions would be out of reach of the creditors Banking entity still compliant with additional prudential requirements for settlement agents (in CSD legislation) Separation of economics between CSD and banking entity – eliminates risk of cross-subsidisation (if competition problem)
Con's	Risk spill-over from banking services to CSD core services: in case of insolvency due to the banking activities, risk of (partial) freeze of the operational activities of the CSD Risk of cross-subsidisation between CSD business (often a monopoly) and banking business (although this can be mitigated by introducing transparency and service unbundling requirements)	Risk of gridlock to the securities settlement system remains if the banking entity that has the cash accounts for settlement goes bankrupt (however, compared to the integrated model, no freeze to the CSD activities) The risk of spill-over is not completely eliminated within a group with a common holding structure Increased overhead costs and capital requirements
Efficiency	No or some regulatory change for CSDs with current banking licences, depending on which sub-option is chosen	Costly business change for the CSDs currently providing banking services, particularly the ICSDs Deterring for other CSDs intending to start banking activities Potential legal costs for the CSD participants

The main arguments in the table above focus around (1) the risk of spill-over from the banking to the CSD activities, and (2) the additional costs associated with a segregated model. These are addressed in more detail below:

(1) Risk spill-over

The key disadvantage of the integrated model is that if the banking activities were to suffer severe stress, for instance due to one or several large participants defaulting (as described in the section above), this would disrupt the CSD's overall operations and could even cause the insolvency of the CSD. In this case the CSD's assets would be seized by the insolvency administrator and its activities would be frozen. This process is more or less automatic depending on the insolvency law of each Member State. It is nevertheless likely that Member States regulators would try to find a solution in order to continue at least the essential services of the CSD but their options would be limited as they may not find an immediate substitution – a firm that can take over both CSD and banking activities, or disentangle the activities quickly.

The separation of banking activities addresses this problem of risk spill-over. If the banking entity were to default, the activities of the CSD could continue. It would also be easier to develop back-up solutions that enable the quick substitution of the failing bank, to ensure the ongoing settlement of pending orders.

However, the spill-over risk is fully eliminated only if the CSD keeps the whole securities settlement system infrastructure. If the separate bank were to maintain the part of the infrastructure for the cash settlement, in a so called "interfaced model", the risk of having this infrastructure frozen pursuant to a bankruptcy would not be eliminated. For the time being, interfaced models are only used in the context of central bank money settlement and not in the situations where CSDs offer banking services.

When offering commercial bank money settlement within Option D the existing infrastructures for commercial bank money settlement are more likely to remain operationally "integrated", whereby only one entity (typically the CSD) has the settlement infrastructure that operates both the securities accounts held by the CSD and the cash accounts held by the bank through an outsourcing arrangement. This is the model currently used by the ICSDs (as well as by the domestic Euroclear CSDs in Belgium, France and the Netherlands). This model is generally recognised by the market as being more efficient than the interfaced model. A CSD wishing to start commercial bank money settlement via a settlement agent is therefore also more likely to choose an operationally integrated model.

In an operationally integrated model the settlement bank would only hold the cash accounts, not the infrastructure. In case of a fail of the bank, the regulators would have more options to find a solution (than in a fully integrated model under Options A. B or C), for instance by quickly transferring the cash accounts to another bank – a central bank or a commercial bank. Such a backup solution could already be identified in advance in the terms and conditions of the securities settlement system.

(2) Additional costs

One of the key disadvantages of the segregated model (Option D) is in respect of the cost of implementation. The table below provides an overview of possible costs for both CSDs with existing banking activities and CSDs wishing to develop such services.

Table 30: Potential additional costs of segregated model

	CSDs with existing banking services	**CSDs wishing to develop banking services**
Infrastructure expenses	No additional infrastructure costs as CSDs are likely to retain an operationally integrated model	No significant additional costs from segregation, they would need infrastructure adjustments anyway to develop banking services in an integrated model
Capital and own funds	Two sets of capital requirements, for the CSD and for the banking entity, but the CSDs with existing banking services are likely to have sufficient capital, so no need to raise additional funds Allocation of separate capital to the banking entity – minimum 5 million euro according to the CRD No impact on the own funds requirements of the banking entity according to the CRD since these are related to the risks incurred	Two sets of capital requirements, for the CSD and the banking entity, but the CSDs likely to develop banking services are the larger CSDs, with sufficient capital Allocation of separate capital to the banking entity – minimum 5 million euro according to the CRD No impact on the own funds requirements of the banking entity

	CSDs with existing banking services	CSDs wishing to develop banking services
Staff costs	No significant additional cost in an operationally integrated model – CRD requires a minimum of two directors. The rest of the staff could be seconded from the CSD (many specialised banks, especially intragroup banks, run only with two employees)	No significant additional costs compared to the cost that would need to be incurred anyway to develop banking services
Legal costs	Legal costs for CSDs to set up the new legal entity and to formalise the contractual arrangements between the CSD and the new entity, between participants and the new entity, and for CSD links Legal costs for the CSDs' participants to reconsider, renegotiate and execute contracts with the new entity	No significant additional costs compared to the cost that would need to be incurred anyway to develop banking services
Transaction costs	The setting up of new contracts between participants and the banking entity would require a renegotiation of settlement arrangements, which may put the CSDs in a weak position vis-à-vis their participants	No additional costs compared to the cost that would need to be incurred anyway to develop banking services

Based on the analysis above, the main costs associated with the segregated model are legal/transaction costs for the CSDs who currently have banking services; the CSDs who wish to develop such services would not incur significant incremental costs from setting up a segregated rather an integrated model.

On this basis Option D is preferred, as it mitigates risk spillover from the banking activities to the other CSD activities and thus ensures that CSDs have a low risk profile more suitable for such systemically important infrastructures. It reduces the probability of default of a CSD and gives the CSD and the regulators more room of manoever to find solutions should the banking activities suffer severe stress. These important benefits do not appear to be outweighed by the costs associated with this measure.

Furthermore, CSDs would have a lot to gain from the other measures proposed by the CSD legislation. They would benefit from new cross-border opportunities in Europe to:

- Passport their services across Europe, via providing services directly or via branches, without the need for further national authorisation. This would allow groups such as the Euroclear group to consolidate further operationally instead of having to maintain subsidiaries (subject to national authorisation and supervision under potentially different rules) in all the countries where they operate in, as they do currently
- Access issuers in other countries directly, as issuer CSD
- Access CSDs in other countries via links
- Receive transaction feeds from trading venues and CCPs in other countries

8.12.4. *Sub-options of a segregated model*

Two sets of sub-options have been considered for the segregated model:

- Whether to allow the settlement bank to be a general bank or to require it to limit its activities to services for the securities settlement system(s) of a CSD
- Whether to require a CSD that wishes to settle in commercial bank money to use at least two settlement banks

These are described in detail below.

(a) General vs. limited scope bank

As explained above, the CSDs currently offering banking services in the same legal entity provide only a limited range of such services. The question arises therefore whether the separate banking entity should also have a limited scope.

The key advantages of a general bank model are five-fold:

- A general bank model would offer more choice for the CSDs wishing to develop commercial bank money settlement. Indeed, in a limited scope bank model the CSDs wishing to develop commercial bank money settlement would need to either set up a limited scope bank or contract an existing limited scope bank serving another CSD – this would not be easily done if the existing settlement banks are operationally integrated with the CSDs they serve, which is the likely way the existing models would develop
- General banks are much more numerous and this offers more choice if the initial settlement bank fails: in this case a general bank can be quickly replaced with another existing general bank, without having to set up a new limited scope bank
- General banks have a more diversified resource base, for instance including bank deposits, than a limited scope bank. A limited scope bank would rely primarily on promises from the CSD participants or on expensive borrowings from the interbank market (as the current integrated banking CSDs do)
- A limited scope "settlement" bank is not a tested model and may not be viable
- A general bank model would make it easier to apply the CPSS-IOSCO principle of using two or more settlement banks for commercial bank money settlement (see point b below)

The key disadvantages of using a general bank for settlement are:

- A general bank may undertake a wider range of services, e.g. proprietary trading or significant maturity transformation services, and could therefore be potentially more risky than a limited scope bank, whose lending is largely intraday only. On the other hand, as illustrated above, the amounts of intraday lending by a limited scope settlement bank would be very significant, while its resources would be rather concentrated and undiversified

- A general bank, which acts as settlement bank for one or several CSDs, takes deposits and carries out other important activities would become very significant and therefore would raise "too big to fail" concerns. However, efforts are made internationally and at EU level to develop a crisis management framework for banks, particularly those which are systemically important

Based on the analysis above, a general bank seems more appropriate, particularly as it offers CSDs and regulators more choice to develop back-up solutions in case of a default.

(b) Several settlement banks vs. one settlement bank

The CPSS-IOSCO global principles for financial market infrastructure recommend that when such infrastructures (including CSDs) use commercial bank money settlement, they should limit their credit and liquidity exposures by using, where reasonable, multiple commercial settlement banks. The principles also recognise that in some jurisdictions there may only be one commercial settlement bank that meets appropriate criteria for creditworthiness and operational reliability.

The key advantages of using several settlement banks are therefore:

- Diversification of settlement risk across several banks

- Easier back-up alternatives in case one of the banks fails

The key disadvantages are:

- Additional technical complexity, since the infrastructure would need to accommodate transfers in more than one bank (but this is not likely to be very difficult) and legal/governance complexity if at least two banks outsource to the CSD the operation of the cash account for settlement and of their related activities (credit and collateral management)

- Less netting efficiency: when settlement is done via several settlement agents there will be many cases where the participants to a transaction do not have an account with the same bank. The amount of funds the banks would need to advance participants for settlement at the beginning of each day would therefore be higher than if there were only one settlement bank. The different banks would also have an exposure on each other intraday. On the other hand, this reduction in netting would bring more clarity and safety for the participants

A middle ground, which could be considered for the CSD legislation, would be to require that a CSD uses two or more settlement banks, but allow the regulators to permit the use of only one bank, if this satisfies certain criteria of risk concentration.

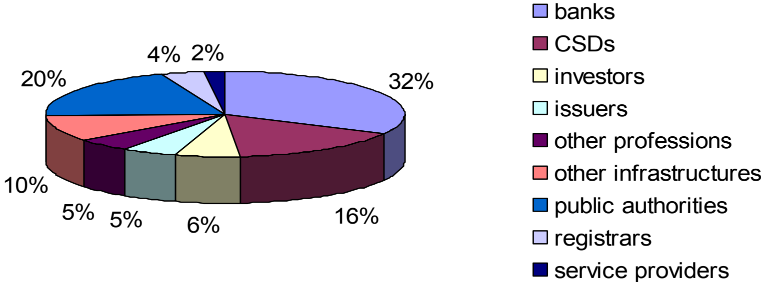
8.13. Annex 13 – Summary of the responses to the public consultation

8.13.1. Introduction

In response to the public consultation on the "Legislation on central securities depositories and on the harmonisation of certain aspects of securities settlement in the European Union" held from 13.01.2011 until 01.03.2011, the Commission received 101 contributions from stakeholders: 49 from registered organisations[72], 35 from individuals[73] and 17 from public authorities. All responses are published on the EU Commission's website[74].

The respondents[75] consist of 33 banks, 16 CSDs, 6 investors, 5 issuers, 5 other professions, 10 other infrastructures, 20 public authorities, 4 registrars and 2 service providers.

Figure 6: Overview of respondents by type



The geographical distribution of the respondents is based on their address provided on their response. This is why some of the respondents are labelled as coming from outside the EU, even though their activity is partly located within the EU. Associations with an obviously European-wide representation were included in the "EU" category.

As can be seen in the table below, the responses cover a wide section of the geographical scope of the EU.

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72 Registered on the Register of interest representatives: https://webgate.ec.europa.eu/transparency/regrin/welcome.do

73 "Individuals" referred here are private organisations who failed to register, whose answers are therefore assumed having been sent by the individual who signed it and not by their respective organization. They should therefore not be confounded with natural persons acting as investors or EU citizens

74 http://ec.europa.eu/internal_market/consultations/2010/securities_en.htm

75 Associations are counted depending on who they represent

Table 31: Overview of respondents by geography

Austria	5	Malta	2
Belgium	2	Netherlands	2
Bulgaria	1	Poland	1
Czech Republic	3	Portugal	1
Cyprus	1	Romania	1
Denmark	4	Slovenia	1
Estonia	2	Spain	5
Finland	2	Sweden	6
France	8	UK	17
Germany	7	Respondents covering EU	12
Greece	1	EEA (Norway)	5
Hungary	2	Switzerland	2
Italy	2	International Associations/Organisations	5
Luxemburg	1		

In the analysis below, each respondent is counted individually, although there are some similar responses or common identities evident. Some contributions addressed the questionnaire only partially or in general terms. In such cases their positions, when expressed, were reflected in the statistics, while blank answers were counted as "no answer".

8.13.2. *Short summary of findings*

The initiative to regulate CSDs was welcomed by almost all respondents, who shared the view of the consultation paper that CSDs play a systemically important role for financial markets and should be subject to proper regulation. The creation of a common regulatory framework for CSDs was widely seen as an important goal for European financial markets, as a European framework would promote the safety and soundness of CSDs and lead to a more competitive and robust environment for CSD activities. As to the scope and content of such a harmonisation, the responses provided a wide variety of viewpoints.

Regarding wider issues around the harmonisation of securities settlement, most respondents agreed that lack of harmonisation in key areas of post trade processes was harmful to cross-border investment. Concerning the tools to overcome lack of harmonisation in this area, different views were expressed as to the role of European legislation in this context.

8.13.3. *Part I: Appropriate regulatory framework for CSDs*

Scope and definitions (Questions 1-6)

Q1. Most respondents concurred with the approach suggested in the Consultation Paper to define CSDs by referring to the functions they have to perform. Some answers expressed concern that this approach may make it difficult to clearly distinguish between entities that should be treated as CSDs and others that, although

performing similar functions, had a different role, such as custodian banks, registrars and other depositories.

Q2. Regarding possible exemptions from the scope of legislation, many respondents agreed with the need to have at least partial exemptions for certain entities in future legislation, e.g. for central banks, government debt offices, registrars, common depositories, and admitted institutions. It was often stressed that these exemptions should be narrowly, clearly and objectively defined. A number of contributions expressed reservations against exemptions in general, particularly against exempting certain institutions from obligations but not from rights.

Q3. With regard to the definition of core CSD functions, the vast majority of respondents agreed with the three proposed definitions. Various answers suggested combining the "notary" function and the "central safekeeping" function and redefining this function more broadly. Other answers suggested combining in the core functions "central safekeeping" with "non-central safekeeping" (from ancillary services) on the basis that the related prudential and conduct of business rules (e.g. on protection of customer assets) should in principle be the same. Some submissions contained concrete suggestions for re-phrasing parts of the proposed definitions with a view to clarify them. A non-exhaustive overview of such suggestions is provided in Annex 1.

Q4. A number of views were expressed as to the question of how many core functions an entity would need to perform at a minimum in order to be qualified as a CSD. A great number of combinations were proposed by stakeholders, often reflecting domestic infrastructural setup. Some stakeholders considered that one function would suffice, with diverging views on which function should be performed (either notary function or settlement function). Others favoured the performance of two functions, with different views on the respective functions to be performed (a combination of central safekeeping and settlement, of central safekeeping and one of the two other functions, of notary and settlement or of notary and safekeeping). Others called for the performance of all three functions by a CSD. Another view suggesting adding credit functions among core functions.

Q5. The current definition of a 'securities settlement system' as laid down in the Settlement Finality Directive (SFD) was widely seen as being sufficient; some public authorities advocated a review of the definition of a securities settlement system along the new CPSS-IOSCO definition in order to avoid any confusion with CCPs. Among the private sector responses, some views favoured a "stand alone" definition, without reference to the SFD. A number of respondents expressed the view that while all CSDs should operate notified systems under the SFD, not all operators of notified systems should qualify as a CSD.

Q6. Regarding the exercise of ancillary functions by CSDs, there was practically unanimity among respondents that CSDs should follow a low-risk business model. For a number of respondents, mainly the custodian banks and some regulators, this principle was interpreted as limiting the type of ancillary functions a CSD may be able to perform: a CSD should not be allowed to perform ancillary functions that carried risks beyond purely operational risks (banking services, credit, securities lending). According to this group of respondents, those functions would have to be exercised by a separate legal entity. In this group of respondents, some made a distinction between CSDs and ICSDs and favoured allowing ICSDs to provide

banking services. Others stressed the need for CSDs to be able to continue viable business models that allowed also the pursuit of properly regulated activities beyond the provision of core services. On the private sector side, some respondents, mainly the CSDs, highlighted that the CSDs typically perform functions that take risk out of the market.

Concerns were expressed that a limited list of ancillary services may hinder CSDs to develop future business. These respondents favoured defining ancillary services by way of a principle, such as "harmonised, commoditised services improving market-wide safety, efficiency and transparency" (as provided by some CSDs), and providing a list of services only for illustration purposes. The same respondents also highlighted that not all ancillary services are linked to core functions, for instance collateral management can be generic and some banking-type of services are provided to facilitate ancillary rather than core services. Many respondents provided suggestions for redrafting of or including additional ancillary services – Annex 1 provides a non-exhaustive list of such suggestions.

Authorisation and supervision (Questions 7-15)

Q7, 13. A number of respondents concurred with the need for a supervisory process that was effective in identifying and resolving regulatory issues in an efficient manner. Some respondents questioned the significance of some of the "externality" cases listed in the consultation paper as justifying the involvement of authorities from other Member States and wanted a distinction to be made between such authorities' role in terms of authorisation or supervision, and between actual involvement or just information sharing. Most public authorities supported the competence of the home authority. They supported a sharing of competences between regulators notably for the following cases: a foreign or regional SSS, interoperability arrangements, foreign issuances, banking activities. Some regulators were opposed to any form of college or supported only a pure consultative involvement of the host authorities.

Q8-9. Most respondents favoured that a future CSD authorisation procedure should be linked to the procedure set out in the SFD; while some argued that the two procedures were to be seen as two distinct acts, others were against a dual application process. Regarding the organisation of the two processes, some suggested that both notification and authorization should be simultaneous. Of those who supported a single process, views differed as to where the competence for authorisation should move (to the CSD authority or the SSS authority).

Q10. Practically all respondents favoured the maintenance of a CSD register by ESMA. Some suggested that ESMA should also be the competent authority to which Member States' notifications under the SFD are addressed. Some public authorities questioned the practical benefit of such a register distinct from the SSS register while other suggested that added value could be created if such a register details the activities and the competent authorities for each CSD in order to allow ESMA to easily monitor a settlement crisis. There were also suggestions that ESMA ensures the consistency of definitions across the Member States.

Q11. Respondents expressed a variety of views on how to make the new rules applicable to existing CSDs. Some respondents argued that there should be no specific phasing-in of new legislation, but that all CSDs should be subject to

authorisation under the new rules as from the moment of entry into force of legislation. Others favoured giving CSDs a limited time-span to adapt to new legislation. Some respondents also favoured a solution that would make existing CSD not subject to a new authorisation process, but to have the application of the new rules phased in via the on-going supervision process.

Q12. Views on capital requirements for CSDs varied depending on the position that was taken vis-à-vis ancillary services: those respondents that favoured the limiting of functions to non banking types services noted that this approach should be reflected in an appropriate capital requirement regime. Other respondents identified a need to coordinate any capital requirement with existing capital requirements rules under banking regulation. Among public authorities, a majority favoured a dual regime inspired by CPSS-IOSCO based on a fixed method of calculation for core activities and a variable amount depending on risks incurred by ancillary activities. Some suggested that capital requirements based on CRD would not be appropriate to intraday credit while others suggested in the latter case alternatives to capital requirements such as guarantee funds. A smaller group favoured a single regime encompassing all core and ancillary activities together. Among the latter some suggested that the CRD serve as the unique basis for calculation if the CSD is authorised to provide banking services.

Q14-15. Similarly, views diverged as to the scope and the effects of a CSD license. Those respondents in favour of limiting a CSD's activity ruled out any possibility for a CSD to obtain a special purpose banking licence and favoured a partial passporting approach for core CSD services. Others expressed support for a limited purpose banking licence and a full passport solution. Essentially three options were proposed in respect of the (limited) banking services: (1) two separate licences, one for CSD functions and another one for banking type of services, (2) one licence for all services, integrating appropriate requirements for banking type of services and (3) two licenses attributed to two distinct entities. Regarding the first option, some suggested that the banking license should not be CRD based.

Access and interoperability (Questions 16-24)

Q16. A majority of respondents favoured granting market participants the right to access the CSD of their choice. A number of respondents called for open and non-discriminatory access to CSDs by market participants, subject to a thorough risk assessment of eligible participants and the existence of the necessary links between the CSD and other market infrastructures.

Q17. There was also widespread support for granting issuers the right to issue their securities in the CSD of their choice, but that this should not be an obligation for CSDs. Some respondents pointed out that for this right to be effective, further harmonisation of legal and technical rules needed to be accomplished. Others raised doubts that this right for issuers to access CSDs would have any practical effect without a portability regime allowing straight through processing. Indeed, there were comments that CSDs, market participants and investors should be required to recognise and facilitate compliance with issuer visibility rights, in accordance with the issuer's national law.

Q18. Regarding corporate law, many respondents argued that the issuance of a security in a foreign CSD should not affect the relation between an issuer and the

end-investor. Most public authorities also insisted that corporate law be the law of the issuer, and even proprietary law at the level of the CSD should align with issuer law, at least for equities. There were also comments that considerable cooperation and coordination was likely to be required from national regulators in respect of these issues.

Q19. Some respondents questioned the usefulness of split issues in terms of market efficiency. Others considered this to be a feasible option if accompanied by appropriate coordination provisions. Some CSDs expressed concern that split issues may not be economical and therefore they should not be obliged to accept them. Some respondents also highlighted that the issuer is the party ultimately responsible for the integrity of the issue, although this function can be delegated. Several public authority invoked drawbacks such as the fact that splits reduce fungibility or that any authorization of splits should be subject to a prior tax and corporate law assessment by each Member State. However, others considered that splits might be acceptable if strong reconciliation measures were implemented which would be possible only through interoperability

Q20. Access rights to CSDs – either by other CSDs or by other market infrastructures - were generally seen as a positive development by most respondents. Some considered that corresponding demands should be made subject to the business interests of the participants of the requesting infrastructure.

Regarding access between CSDs, most respondents favoured a right for a CSD to become a participant in another CSD under the same transparent and non discriminatory provisions as other participants (the so called "standard access"). A minority of respondents suggested that this right of access should also extend to "custom access" and to "interoperability".

A number of respondents cautioned against installing overly complex rules for granting access. Notably, they disagreed with some of the suggested requirements for access arrangements, such as harmonisation of account structures and DVP for links.

A number of respondents, mainly custodian banks, were not in favour of CSDs accessing other CSDs. They favoured the segregation of "investor CSD" activity in a separate legal entity from the "issuer CSD" activity. It was argued that investor CSDs would transform themselves into global custodians and add a new layer of intermediation.

As to the conditions for exercising this right, a number of respondents argued in favour of a right for the issuer CSD to refuse access for risk reasons. Other reasons for refusal cited were commercial reasons or T2S compliance.

There were also calls that this right of access should be made available to other types of institutions, such as issuer agents.

Q21-22. Similarly, most respondents favoured the right of CCPs and trading venues to access CSDs. Some respondents expressed the view that participants of trading venues should be able to decide on the place of settlement. As to the conditions for exercising this right, some respondents wanted to make it subject to risk assessment or ESMA control.

Q23. With respect to the right of CSDs to access transaction feeds from trading venues or CCPs, some respondents expressed concerns as to whether this right would be effective in legislation on CSDs without formally including corresponding provisions in MiFID and the proposed regulation on CCPs. One response noted that the right of access should be reversed, since it should be the trading platform or the CCP that feeds the CSD and not the contrary.

Some respondents argued that the issue is already sufficiently dealt by MiFID and EMIR, while others seemed to indicate that this right is not sufficiently granted for cross-border transactions.

Regarding the effective exercise of the right, some pointed to the need for a requesting CSD to be able to interlink with the incumbent CSD and highlighted confidentiality issues regarding the provision of information regarding all trades to the CSD. Some respondents wanted to make the exercise of the right subject to risk assessment or ESMA control.

Q24. On the question of additional conditions that should be fulfilled for CSDs to be able to compete with incumbent CSDs, respondents mentioned access to transaction feeds, basic reference data that support transaction feeds, including security and market participant identifier, and access to central bank money. Some CSDs also pointed out to access arrangements with entities potentially exempted from the CSD legislation.

Prudential rules and other requirements for CSDs (Questions 25-43)

As a general remark, many respondents expressed their preference for having only the principles of prudential rules spelled out in primary legislation, leaving the formulation of more detailed rules to implementing rules. Also, the point was raised that duplication with other initiatives, namely the Securities Law Directive (SLD) should be avoided.

Q25. Some respondents agreed with the need to strengthen the legal framework for operations performed by CSDs, mentioning the examples of the timing of entry of a transfer order into a securities settlement system and timing of the irrevocability of instructions. Several public authorities were in favour of the reinforcement of the legal framework. Some held the view that strengthening the legal framework should include detailed rules on links and on SSS notification, while others insisted on the contrary that pure legal aspects remain subject to conflict of laws. In this respect one authority suggested that conflict of laws concerning notary/safekeeping functions should be subject to "issuer law" and should therefore differ from conflict of laws solutions provided by the SLD. Some authorities argued against any reinforcing of the legal assessment of links on the basis that this falls in the remit of the central banks.

Q26. Practically all respondents considered that a settlement system operated by a CSD should be designated and notified under the SFD. This requirement was echoed by most public authorities. ECSDA pointed out that this is already the case for all its EEA members.

Q27. Regarding securities lending, a number of participants favoured an obligation for CSDs to install securities lending mechanisms among its participants; however,

many CSDs argued that there is not a business case for this in smaller markets. There was a general view that CSDs should not be forced to operate a securities lending mechanism acting as principal. A number of respondents, mainly custodian banks, pointed out that the provision of securities lending services as principal should be done by a separate legal entity under a banking licence. Among public authorities, several subjected securities lending by CSDs acting as principal to appropriate solvency and liquidity rules. For this reason several authorities considered that securities lending should only be optional or should only be granted by CSDs as facilitator.

Q28-29. Many respondents expressed support for introducing a general requirement to have securities available in book entry form; a notable exception was the UK, which had analysed this issue recently and decided not to impose compulsory dematerialisation. Regarding the scope of this requirement, some advocated to apply it to all securities listed on regulated markets. Others saw as possible scope all CSD eligible securities and/or actively traded securities. There was also a suggestion for a narrower rule requiring issuers to pass securities through a CSD in book entry form "as soon as the issue needs to circulate among financial intermediaries". Most respondents that favoured a general requirement for book-entry considered that securities already issued should be phased into a new regime within a certain period of time.

Q30-31. As concerns Delivery versus Payment (DVP) settlement mechanism, a considerable number of respondents argued that the use of these mechanisms was already common practice among CSDs in Europe. Some pointed out that in order to facilitate links between CSDs the number of available DVP mechanisms should be limited. Most respondents saw no need for a transitional period for this requirement or the introduction of a guarantee fund in the interim, as all CSDs were expected to have DVP in place already now. There were, however, views that Free of Payment and Free of Cash deliveries should be allowed as well, particularly in the case of corporate actions.

Q32-34. A number of respondents agreed that CSDs should use central bank money where practicable and feasible and that this preference should be applied equally to all types of securities. Some respondents, mainly custodian banks and some regulators argued that CSDs should in principle not be allowed to settle in commercial bank money and that commercial bank settlement should not occur on accounts opened with the CSDs. This should only be made possible via a settlement agent bank distinct from the CSD. These respondents also argued that any provision regarding settlement in commercial bank money should not form part of legislation on CSDs, but should be covered by banking legislation

Q35-36. There was widespread support regarding rules on reconciliation and segregation of customers' securities and the need to have an approach that would be synchronised with that chosen by a possible future Securities Law Directive. Some respondents stressed the primary responsibility of CSDs for this task which should be addressed by law and not contractually. Views differed as to the degree and level of detail of respective legislative provisions.

There were views, mainly from the CSDs, that segregation should be imposed at CSD level only and not at CSD participants' level since the CSD cannot monitor this. There were also suggestions that the CSD legislation should consolidate all the

requirements in this respect, including those from MiFID. Concerns were also raised regarding national laws, i.e. that the national law of the issuer should determine the particular arrangements for reconciliation between the parties.

Q37. As to operational risks, most respondents were in favour of the proposed items. Some stressed the need to have more safeguards in place, e.g. adequate insurance by CSDs to cover operational risks, availability of key systems, transparent information for customers about operational risks, an authorisation by the relevant authority if a CSD outsources its settlement function and an external audit of CSD's risk controls and existence of assets.

Q38. Regarding governance, most respondents agreed with the provisions as described in the consultation paper, some suggesting additional items to be included in the proposed list. On the other hand, some respondents questioned the need of specific measures, i.e. the suitability of a risk committee (except for those CSDs which perform net systems) and the need for independent directors. A general comment made by many respondents was that CSDs had a different risk profile from CCPs and therefore needed a different regime on governance. Some respondents who agreed with the principle of risk committees suggested that issuers should also be represented in such committees. Another general view related to the applicability of these provisions in the case of groups, e.g. that certain rules should apply only at group level, not at the level of each subsidiary.

Q39-40. Most respondents agreed that CSDs should be able to outsource their activities without affecting the proper functioning of the CSD and the full responsibility of the CSD at any given point in time. Some respondents called for the involvement of participants prior to any major outsourcing decision. A number of respondents saw no need for exemptions from these principles, while some saw an exemption in the context of T2S as being justified. Public authorities agreed on the two principles of outsourcing provided that the authorization by competent authorities be limited to core functions or systematically important functions.

Q41-42. With respect to financial risks directly incurred by CSDs, a number of respondents, mainly custodian banks, were critical of allowing CSDs to take on any of the risk described in the consultation paper. As these risks are related to banking activity, some respondents argue that they should be carried out in a distinct legal entity providing banking services. Those that favoured CSDs providing some limited banking services commented that the suggested liquidity and credit risk prudential requirements should not go beyond ESCB-CESR recommendations. Concerning the exercise of particular banking activities, some mentioned that requirements should be stronger for securities lending than for cash credit. It was also suggested that CSDs acting as principal should collect the cash on the accounts of their participants without preventing them from using such cash for making credit in their own name.

Concerning the case where credit risks are only borne by participants, most public authorities agreed with the proposed framework, with the reservation of two authorities which did not see any case for a CSD acting as a facilitator and two other authorities, which opposed the requirement for lending participants to fully collateralise credit.

Q43. Regarding price transparency, there was widespread agreement among respondents to include at least certain elements of the Code of Conduct in legislation. A number of participants pointed out that these elements should also be made applicable for other infrastructures (trading venues, CCPs) by the relevant legislation. On service unbundling, some respondents supported it under a principle of "non-discriminatory pricing". Concerning account separation, a number of respondents questioned the usefulness of this procedure and underlined that it would be disproportionate to introduce such a requirement across all asset classes.

8.13.4. Part II: Harmonisation of certain aspects of securities settlement in the European Union

Q44. In general, a majority of respondents welcomed the drive towards more harmonisation of key post trade processes in order to improve cross-border investment. A number of respondents suggested that legislation should provide a general framework and leave details of the harmonisation to level II legislation and market standardisation. Some respondents pointed out that the issue should be dealt through MiFID or through a text that would not take the form of a regulation.

Q45. Besides the measures discussed in the consultation paper, some respondents identified other areas where harmonisation may be beneficial, e.g. the use of standardised communication flows, common rules for middle office processes, and removal of tax and legal barriers. Some public authorities advocated in favour of addressing in this legislation other aspects (e.g. legal, tax, harmonisation of customer interface and communication protocols as well as sanctions if insufficiently addressed by short selling regulation).

Q46. A majority of respondents welcomed a common definition of settlement fails in the EU. Some respondents favoured a high level definition only. Others highlighted the need for properly identifying and addressing the root causes of settlement fails, which may be difficult especially in regard of property law aspects.

Q47-49. Most respondents agreed that markets should have in place mechanisms to prevent settlement fails as much as possible and to address settlement fails once they have occurred in a proper manner. The measures alluded to in the consultation paper were widely recognised as reflecting practice in a number of markets.

A number of responses cautioned against a "one size fits all" approach for all markets. Various submissions called for relevant rules to be formulated by appropriate experts working together with ESMA. Regarding penalty regimes, some respondents argued that any penalty regime should aim at penalising the person that is actually responsible for a fail; the CSDs are not always in a position to identify that. The point was also made that the feasibility of some measures may depend on the degree of liquidity in a given market. The point was also made that any regime should not be a source of revenue for CSDs, but that revenues be kicked backed to improve the system. A number of comments were made regarding detailed measures proposed.

Many respondents also favoured including such settlement discipline measures in this legislation rather than having some in the proposed Short Selling Regulation.

Q50-55. A large majority of respondents favoured the harmonisation of settlement periods in the EU. Most of them suggested moving to a period of two days after completion of a trade (T+2), while allowing shorter settlement periods and exceptions. A number of responses raised concerns as to operational disruptions that such a move may cause for some market participants, calling for a prior cost benefit analysis to be undertaken. A particular example was given for the UK and Ireland retail equity markets, where share certificates are still used and these can take up to 10 days to settle. As concerns the scope of such a move, many respondents saw a most urgent need for harmonisation for equities and equity-like products. Some submissions argued that there is a priori no reason to exclude any asset class from such a move. Regarding trading venues, it was highlighted by some respondents that all trading venues as defined by the upcoming MiFID review should be covered. A number of respondents stressed the need for OTC markets to be able to retain flexibility, while others favoured including OTC transactions in the scope. Regarding the date of entry into force of a harmonised settlement period, most respondents considered that it should occur in advance of the testing of the Target2-Securities project of the ECB in the second half of 2013

Q56. Most respondents agreed on the benefit of having a harmonised sanction regime. A number of responses pointed out that the issue of administrative sanctions should not be confused with penalty regimes for late settlement administered by a CSD (which are of a private nature). Many CSDs also highlighted that CSDs should have the right to pass on sanctions to a supplier that has generated the problem.

Some public authorities favoured applying sanctions at a local level or a mechanism of rapid transfer of securities to another CSD especially in case of insolvency of a CSD.

8.14. Annex 14 – Glossary of terms

Term	Definition
Account holder	The client of an account provider who holds securities on securities accounts maintained with the account provider. An account holder can act itself as an "account provider" for another account holder intervening at a lower tier of the "holding chain" (see *account provider* and *holding chain*).
Account provider	A service provider that maintains securities on securities accounts opened either in its own name (nominee account) or in the name of its account holders (see *account holder* and *holding chain*).
Book-entries	Designates the records on securities accounts made through book-entry methods.
Book-entry methods	Recent works (Legal Certainty Group, Geneva securities Convention) identify three main categories of book entry methods which are (1) "credit/debit" (2) "earmarking" and (3) "control agreement".
Book-entry system	A system that enables the transfer of securities and other financial assets that do not involve the physical movement of paper documents or certificates.
Central account provider	Account provider of top tier securities accounts for account holders.
Central bank money (or Central money, Central money settlement)	Designates the case where a system settles its cash leg on cash accounts that are opened in the books of a central bank. In most cases, central money systems are “interfaced model” because a technical interface must be created in order to synchronize both the securities leg and the cash leg. However, there are cases where the CSD receives directly a mandate from the central bank to manage the cash accounts opened with the central bank through a single interface, in which case the system works in central money, but through an "integrated model".
Central counterparty (CCP)	An entity that interposes itself, in one or more markets, between the counterparties to the contracts traded, becoming the buyer to every seller and the seller to every buyer and thereby guaranteeing the performance of open contracts.

Term	Definition
Central Securities Depository (CSD)	An entity that: 1) enables securities transactions to be processed and settled by book entry; 2) provides custodial services (e.g. the administration of corporate actions and redemptions); 3) plays an active role in ensuring the integrity of securities issues. Securities can be held in a physical (but immobilised) form or in a dematerialised form (whereby they exist only as electronic records).
Collateral	An asset or third-party commitment that is used by the collateral provider to secure an obligation to the collateral taker. Collateral arrangements may take different legal forms; collateral may be obtained using the method of title transfer or pledge.
Commercial bank money (or Commercial money, or Commercial money settlement)	Designates the case where a Securities Settlement System settles its cash leg on cash accounts that are not opened in the books of a central bank but on the books of a banking institution which can be either a classic bank or an (I)CSD when such an infrastructure is authorized to open cash accounts. In the latter case, the (I)CSD is called an “integrated CSD” because it handles both the securities leg and the cash leg.
Confirmation	A process whereby the terms of a trade are verified either by directly involved market participants or by a central entity.
Corporate action (or Corporate event)	An action or event decided by the issuer of a security which has an impact on the holders of that security. This may be optional, in which case those holders have a choice (for example, they may have the right to purchase more shares, subject to conditions specified by the issuer). Alternatively, it may be mandatory, whereby those holders have no choice (e.g. in the case of a dividend payment or stock split). Corporate actions can relate to cash payments (e.g. dividends or bonuses) or the registration of rights (subscription rights, partial rights, splits, mergers, etc.).
Counterparty credit risk	The risk that a counterparty will not settle an obligation for full value, either when due or at any time thereafter. Credit risk includes pre-settlement risk (replacement cost risk) and settlement risk (principal risk).
Custodian or custodian bank	An entity, often a credit institution, which acts as "account provider" and provides securities custody services to its customers, i.e. holding and administration of securities owned by a third party.

Default	An event stipulated in an agreement as constituting a default. Generally, such events relate to a failure to complete a transfer of funds or securities in accordance with the terms and rules of the system in question. A failure to pay or deliver on the due date (see *settlement fail*), a breach of agreement and the opening of insolvency proceedings all constitute such events.
Delivery versus payment (DVP)	A securities settlement mechanism that links a securities transfer and a cash transfer in such a way as to ensure that delivery occurs if and only if the corresponding payment occurs.
Dematerialisation	Technique of representation of securities in book entry form consisting in a one step creation of the securities through a credit on the top tier securities account. In contrast with the "immobilisation" technique, the liability of the issuer and/or of the CSD is not limited by a global note (*see Immobilisation*). In certain jurisdictions that have adopted the dematerialisation technique, an excess of securities presented for redemption will result into an obligation on either the issuer or the CSD to reimburse the excess securities at their own expense with no prorata sharing.
Eurobond	Originally the term Eurobond was reserved to bonds that were issued in currencies different from the currency of incorporation of the issuer. Currently, Eurobonds are issued in a limited number of jurisdictions (e.g. England and Wales, US), leading to numerous situations where the law of issuance is different from the law of the issuer.
Global note	See *Immobilisation*.
Gross settlement vs. Net settlement	*Gross settlement:* The delivery and/or settlement of transfer orders are processed one by one. *Net settlement:* The delivery and/or settlement of transfer orders are made on a net basis.
Holding chain	For each issued security a chain of accounts involving at least one securities account maintained by an account provider and held by an account holder.
(I)CSD	Means both CSDs and ICSDs.
Immobilisation of securities	Alternative technique of representation of securities in book entry form consisting of two steps: first the issuance of a paper or electronic global note representing the total financial liability of the issuer (generally the nominal value of the issuance), then the credit of the securities in a top tier securities account (see *Dematerialisation*).
Integrated system vs. interfaced system	See *Commercial bank money* and *Central bank money.*

Intended Settlement Date (ISD) vs. Actual Settlement Date(ASD)	Intended Settlement Date: the date on which a transaction is due to settle. Actual Settlement Date: the date on which the settlement effectively takes place.
International Central Securities Depository or ICSD,	A CSD that was originally set up to settle Eurobond trades and is now active also in the settlement of internationally traded securities from various domestic markets, typically across currency areas. At present, there are two ICSDs located in the EU countries: Clearstream Banking Luxembourg and Euroclear Bank. A further particularity of ICSDs is the settlement of the cash leg only in cash accounts opened in their books (see *Commercial money*).
Interoperability	A set of arrangements/procedures that allows participants in different systems to conduct and settle payment or securities transactions across systems while continuing to operate only in their own respective system. Interoperability generally works as an improvement of classical links.
Issue or Issuance of securities	Depending of the context, this term may cover either the decision of the issuer to issue securities and to start the relevant issuance procedure as imposed by corporate law (in particular registration) or the entering of securities in book entry form in a CSD.
Issuer	The issuer of a security including the agent mandated by the issuer for corporate actions purposes.
Issuer CSD vs. Investor CSD	Issuer CSD: a CSD in which securities are issued (for the first time). Investor CSD: a CSD participating to a Securities Settlement System operated by the issuer CSD and holding the securities credited on its settlement account by the issuer CSD for the account of its own customers/participants (see *Links*).
Links	*Direct link*: an account opened by an investor CSD in the books of an issuer CSD in order to facilitate the transfer of securities from participants in the issuer CSD to participants in the investor CSD (see also *Investor CSD*). *Indirect link*: a link between two CSDs through a non-CSD intermediary. *Operated direct link*: a direct link between two CSDs where a third party, typically a custodian bank, operates the account in the issuer CSD on behalf of the investor CSD. *Relayed link*: a contractual and technical arrangement that allows issuer and investor CSDs to hold and transfer securities through an account with a third CSD ("middle CSD"), which acts as an intermediary. *Standard link*: a link where the investor CSD is treated as a

	normal participant to the issuer CSD.
	Customised link: a link where the investor CSD benefits from a special access.
	Interoperable link: see *Interoperability.*
Matching	Process of comparing the two relevant settlement instructions as provided by the two counterparties to ensure that they match.
Record date	Date on which settled positions are struck in the books of the Issuer CSD at close of business to determine the entitlement to the proceeds of a corporate action.
Registrar or Registry	An entity that records the ownership of securities on behalf of the issuer, irrespective of the intermediary that actually maintains the security. In certain countries this function is performed by an agent of the issuer, in others by the CSD.
Registration	The documenting of the ownership of securities in the records of the issuer, in a registry or in a CSD performing such ancillary function (see *Registrar*).
Securities account	An account on which securities are maintained.
Securities Settlement System	A system which allows the transfer of securities, either free of payment (FOP) or against payment (delivery versus payment).
Segregated account	An account used for the segregation of a client's assets.
Segregation	A method of protecting a client's assets by holding them separately from those of the custodian (or other clients, as the case may be).
Settlement	The completion of a transaction or of processing with the aim of discharging participants' obligations through the transfer of funds and/or securities. A settlement may be final or provisional.
Settlement cycle (or Settlement period)	Number of business days from the trade date to the intended settlement date.
Settlement failure	The inability of a participant to a Securities Settlement System to meet its settlement obligations in the Securities Settlement System. This inability may be temporary or permanent.
Stock Split	A corporate action in which a company's existing shares are divided into multiple shares. Although the number of shares outstanding increases by a specific multiple, the total value of the shares remains the same compared to pre-split amounts, because no real value has been added as a result of the split. For example, in a 2 for 1 stock split every shareholder with one share is given an additional share.
Systemic risk	The risk that the inability of one participant to meet its obligations in a system will cause other participants to be unable to meet their obligations when they become due,

	potentially with spill over effects (e.g. significant liquidity or credit problems) threatening the stability of or confidence in the financial system. That inability to meet obligations can be caused by operational or financial problems.
Target2 Securities (T2S)	The Eurosystem's single technical platform enabling CSDs and national central banks to provide core, borderless and neutral securities settlement services in central bank money in Europe. T2S is schedule to go live in 2013.
Top tier securities account	The securities account which is placed at the top of the holding chain. It is the account into which the securities are put in book-entry form for the first time.
Trade date	Date on which a transaction is actually agreed by the involved parties or when the corresponding orders are executed, as opposed to the settlement or payment date on which funds are transferred from the buyer to the seller. The trade date occurs on the trading venues, whereas the settlement date occurs within CSDs.

Source: ECB – The Payment Systems 2009, Corporate Actions Joint Working Group Standards 2009, Commission Communication on Clearing and Settlement of 28 April 2004