

**Euroclear's Response to the European Central Bank's
Consultation on the
Target2-Securities User Requirements Document**

2 April 2008



1	INTRODUCTION.....	3
2	EXECUTIVE SUMMARY.....	4
3	OBJECTIVES OF T2S.....	7
4	‘LEAN’ T2S.....	9
5	DIRECT CONNECTIVITY.....	12
6	CROSS BORDER SERVICES.....	16
7	DECOMMISSIONING OF CSD SYSTEMS.....	20
8	LIQUIDITY MANAGEMENT.....	22
9	HARMONISATION.....	24
10	ECONOMIC CONSIDERATIONS.....	26
11	GOVERNANCE AND LIABILITY ISSUES.....	28
	ANNEX 1 NON-FUNCTIONAL CHARACTERISTICS OF T2S.....	31

1 INTRODUCTION

Euroclear welcomes the opportunity of being able to comment on the substantial Target-2 Securities ('T2S') User Requirements Document ('URD') published by the European Central Bank ('ECB') in December 2007.

Euroclear supports the ECB's vision of creating a more efficient and integrated European settlement infrastructure and has participated actively in the Advisory Group and in the Technical Groups established by the ECB to provide constructive input to the compilation of the URD on specific topics. As a user-owned service provider with obligations to a wide variety of stakeholders, Euroclear continues to adopt a pragmatic approach to T2S and we are evaluating its potential impact on the business of our clients, our CSDs and the Euroclear group as a whole, as well as on the ability of T2S to deliver on its promise of lower cross-border costs and improved efficiency.

The URD itself is a detailed technical document including business, and some functional, specifications of the proposed T2S system. As such, it describes the functionality provided "within the perimeter" of T2S. Euroclear's responses to the specific consultation on these technical details are set out in a separate Appendix to this paper. In summary, we consider that the functionality within this T2S perimeter is coherent and logical for the purposes of a core settlement engine. Our responses to the specific consultation proposals are therefore, generally ones of clarification.

However, we believe that it is critical to consider the proposal in its full context and to look at the end-to-end impact of T2S on the post-trade process, the split of asset servicing from settlement and other critical features that will have real and quantifiable impacts on the way in which our clients conduct business in the future. It is in these areas where we continue to have concerns and where we continue to believe that there needs to be a wider market debate on the overall market consequences of the design and structure of T2S and how it might affect the European financial markets.

Any comments in this paper do not prejudice any future decision(s) regarding participation in T2S that might be taken by the Euroclear Boards.

Comments on this document can be addressed to Euroclear's representatives on the T2S Advisory Group:

Joel Merere (joel.merere@euroclear.com)
Mark Kirby (mark.kirby@euroclear.com)
Guy Schuermans (guy.schuermans@euroclear.com)
Paul Symons (paul.symons@euroclear.com)

2 EXECUTIVE SUMMARY

The introduction of T2S would have significant implications for the structure of existing clearing and settlement services across Europe whether they are provided by banks, CSDs, ICSDs or CCPs. T2S therefore, would also have profound effects on the end users of these services, such as investors and issuers. The separation of asset servicing (remaining with the CSDs) from settlement (controlled by the operator of T2S) requiring the significant reshaping of existing infrastructures; the potential commoditisation of eurozone settlement activity in a single platform; the ECB's expectation that CSDs would move up the value chain to become full service pan-european custodians; and the ability of users to connect directly to the T2S platform for settlement related activity only, all mark a significant restructuring of the financial infrastructure in Europe. We believe that it is vital for the industry to understand the potential consequences of such issues before deciding whether T2S can provide the markets with a more efficient, low risk and low cost settlement services than the current environment.

This paper analyses some of the key issues that arise from the publication of the URD and in summary concludes that:

- (i) The binary decision expected by the ECB from each eurozone CSD to either outsource to T2S the entirety of euro settlement activity or not could have significant and potentially detrimental effects on those markets which already operate on a single settlement platform (i.e., where local settlement systems have already been decommissioned as a result of such consolidation on to a single platform). For instance, each of the three Euronext markets must agree to settle in T2S in order to ensure that the existing efficiencies of domestic settlement between such markets through the Euroclear Single Platform are preserved. In addition, Irish securities have settled in a fully integrated and multicurrency manner on the same platform as UK securities since 1996.
- (ii) The market for settlement services is competitive. This is exemplified in the European Code of Conduct for Clearing and Settlement of November 2006 which aims to inject further competition into the settlement industry in order to reduce costs, and by the competition that already exists between CSDs, ICSDs and agent banks. This is in contrast with the ECB's T2S proposal that settlement is a commodotised service. Euroclear continues to believe that users should have a choice of trading, clearing and/or settlement provider and believes that not all users of Eurozone CSDs will necessarily want to participate solely in T2S.
- (iii) Settlement systems which operate an integrated settlement platform for commercial bank money, euro central bank money and non-euro central bank money would be unable to decommission their settlement platforms to any material extent to take advantage of T2S.

- (iv) Low cost cross-border settlement within T2S is predicated on the assumption that CSDs can service a wide variety of European securities and that cross-border settlement services shift from the agent banks that provide such services today, to the CSDs. For this to be a realistic assumption, it would require that each T2S-connected CSD in effect must become a custodian, with all the consequences for providing asset servicing across a wide range of securities. But, if CSDs do not deliver this pan European capacity, it is likely that clients would still need to utilise the services of a pan European custodian to provide single point of access which the design of T2S, and the needs of the European market, demand. As a consequence, T2S could actually increase, or at least maintain, the current levels of intermediation in European securities markets.
- (v) The introduction of a so-called 'Lean' T2S providing settlement and matching services would require CSDs to reshape significantly their existing integrated custody and settlement services. This would have adverse effects on the service level that is provided to their clients, particularly in relation to CSD collateral management services (where the limited functionality within T2S could lead to market inefficiencies), and on the processing of corporate actions by CSDs (where real-time interaction between CSD and T2S is imperative).
- (vi) Direct Connectivity introduces additional fragmentation into the European securities markets as users would continue to have to maintain connectivity to local settlements systems for asset servicing and for settlement related functions not included within the so-called 'Lean' T2S. All directly input instructions would have to be reflected in the CSD that holds the relevant securities accounts of the Directly Connected participant. As a consequence, Direct Connectivity would not lead to customers being able to disintermediate their local CSDs, but rather would require them to connect both to the local CSD services and to T2S. In addition, Directly Connected participants would be contracted with the relevant local CSD which is likely only to accept liability for instructions input directly into the T2S system to the extent that the T2S Operator accepts liability.
- (vii) Tariffs would be charged by the operator of T2S to participating CSDs only. Those participating CSDs would pass those tariffs on to their clients. In addition CSDs would have to charge for those settlement related services which are not included in the scope of 'lean' T2S.
- (viii) In order to gain the hoped for benefits of T2S, market practices must be harmonised across the Eurozone, not just between T2S and participating CSDs, but also between Directly Connected participants and indirect participants, and between CSDs and their clients.

In addition, greater clarity is required on a range of outstanding legal, governance and regulatory issues before CSDs, and their users, can properly assess whether or not to participate in T2S. The fact that the ECB has requested that CSDs express an interest in participating in T2S by 4 July 2008 (when the service is not expected to be live until around 2013) means that a wide range of legal and regulatory issues need to be resolved (or at least clarified) by the ECB now. In particular, clarity is required on:

- (ix) How the future governance of T2S would be able to deliver the same ability to meet changing client needs that has been shown by existing market players that must respond to competitive pressures and strong client representation at the highest decision making levels.
- (x) How the operator of T2S would take responsibility for T2S failures that result in client losses.
- (xi) How the operator of T2S would decide on future development priorities and how costs would be allocated between initiatives that impact clients in different markets in different ways.
- (xii) How the operator of T2S intended to follow the principles of European competition law, in particular in relation to setting prices and recovering investment costs.
- (xiii) How the ECB would manage the potential conflict of interests between its position as a central bank/market regulator and its position as a provider of commercial and voluntary outsourcing services to eurozone CSDs.

3 OBJECTIVES OF T2S

The ECB has established a series of objectives for T2S against which any analysis of the potential market impact of the system must be judged. The main objectives of T2S, *as we understand them*, are to:

- (i) Reduce the cost of cross-border euro securities settlement to the cost of a local market settlement;
- (ii) Foster competition in custody services between CSDs through pooling all eligible securities on one settlement platform;
- (iii) Allow investors and their intermediaries to centralise their assets in a single domestic CSD account;
- (iv) Allow issuers to access directly a wider investor base from their current Issuer CSD;
- (v) Provide a single pool of collateral for eurozone securities;
- (vi) Ensure that users should have, at the very minimum, no degradation in the operational risk profile of settlement or in any process associated with settlement.

However, delivery against these objectives is based on six key assumptions, which Euroclear's experience in delivering a harmonised settlement and custody processing solution across five European markets lead us to believe are questionable. These assumptions are:

First, that the ECB's proposal to develop a 'Lean' T2S, leaving only asset servicing responsibilities to the participating CSDs, will actually deliver the objectives described above (see Chapter 4).

Secondly, that the introduction of Direct Connectivity is able to deliver lower settlement costs for users of the service by streamlining back-office processes and ultimately reducing the number of interfaces (see Chapter 5).

Thirdly, that all CSDs that connect to T2S would be able to offer their local clients access to the securities held in all other CSDs that connect to T2S; that this access would be through their domestic CSD account; and that these CSDs would be able to allow their clients to settle against any counterparty on T2S (regardless of where the counterparty is located and the nature of the transaction between both counterparties – see Chapter 6).

Fourthly, that the delivery of T2S, which would require the significant decommissioning or reshaping of CSD's settlement infrastructure, does not have a materially adverse effect on those markets which are already integrated through existing single settlement platforms (see Chapter 7).

Fifthly, that T2S would indeed be able to create a single pool of euro liquidity (see Chapter 8).

Sixthly, that market practices are harmonised across the eurozone, not just between T2S and the participating CSDs, but also between CSDs and their clients (see Chapter 9).

The following chapters look at these six key assumptions and their effects on the potential success of T2S. In addition, this paper also looks at economic considerations (Chapter 10); governance and liability issues (Chapter 11), and (in an Annex) the so-called 'non-functional' issues.

4 'LEAN' T2S

T2S is designed as a 'Lean' system, providing only those functions which are required for core settlement purposes and which can operate in a harmonised/standardised way¹. The concept of a 'Lean' T2S is designed to maximise the likelihood of the system being built and launched on time, although the design of T2S already includes additional functions such as matching and Direct Connectivity. The 'Lean' T2S concept is at the heart of our concerns about the artificial and unique split between previously integrated services across two separate platforms owned and governed by different entities.

We believe that the focus of the ECB would lead to considerable inefficiencies for the participating CSDs and their clients. In particular, we have identified four broad concerns of the 'Lean' T2S concept in relation to:

- Collateral management;
- Corporate actions;
- Cross-border settlement; and
- The impact on Direct Connectivity (which is described separately in Chapter 5 below).

In order to be able to adapt to a lean T2S, CSDs would need to reshape their existing integrated custody and settlement services radically, which could have adverse effects on the service level that is provided to their clients.

There are four main areas where this would lead to inefficiencies for clients of CSDs.

(i) Collateral management

Collateral management services offered by some CSDs often automatically reallocate collateral whenever a position that is intended to be reserved for collateral processing has been reserved or debited for other purposes. Within Euroclear, the settlement system identifies a collateral position (a single line of stock or a basket) based on the available balances, then sends an instruction for the debit of the selected collateral. If upon receipt of the related settlement instruction in the settlement system, it appears that the position is no longer available (e.g. it has been used for auto-collateralisation, settlement or corporate action processing purposes) the system will automatically look for additional sources of collateral in the concerned account. 'Lean' T2S does not foresee providing this facility; the (limited) functionality it offers is only available for Eurosystem-eligible collateral in the context of CCBM2. The consequences of this are that the process of collateral reallocation becomes more complex, and that system users would be unable to optimise their collateral pool unless there is an additional collateral management function in their offices or within their CSD(s).

¹ We assume that the functionality described in the URD is now effectively frozen

When the settlement of part of the collateral position fails (due to lack of stock) the Euroclear system will automatically identify an alternative collateral position that can fill the uncovered position. However, in T2S, there would be no automatic reallocation. As a result, failure to book a given position would need to be reported back to Euroclear by T2S. Based upon this message, Euroclear would need to identify another eligible position and re-attempt settlement of this new position. In order to identify an eligible position, it would need to ensure that its own record of its available positions are kept fully up to date, in order to minimise the chance of additional settlement failures.

In addition, the value-added repo services that Euroclear offers its clients cover more services (Pension Livrée, Pensions en Vrac and DBVs) than are currently foreseen for T2S repo processing in the URD. All of these services require matching and specific validation within the CSD. Euroclear also offers its clients the ability to have (optional) collateral processing on repo transactions, including adjustments, and provides market claim processing services on these repo transactions. Euroclear would need to develop a new additional T2S repo instruction on top of these existing services to process repo transactions. Traditional repo instructions (like Pension Livrée) would only be available between Euroclear Group Members (since Euroclear needs a Power of Attorney over members' accounts for coupon and collateral processing).

However, the concept of a 'Lean T2S', implies that matching of the non-T2S held data would occur at the level of the CSD, while in T2S matching is only foreseen for the T2S-eligible data. This could lead to a situation in which two counterparties instruct repo instructions that match in respect of the fields that are validated and matched in T2S, yet do not match for the fields that are related to the value-added services that are only covered by Euroclear. In this particular case, the repo instruction would be reported unmatched by Euroclear, while from a T2S viewpoint, the repo would appear to the client as being matched. This would require the Members to cancel the matched instructions in T2S (and also in the CSD) and inform the clients that re-instruction is required.

In some cases, typically where repo transactions are high value and highly time-critical, this creates the risk that a matching problem may be identified too late, and that settlement could already have occurred in T2S even though from a CSD perspective the instruction was unmatched.

As a consequence of these issues, the T2S collateral management process might, especially in the batch process, lead to a degradation in settlement efficiency at least at the start of the day.

(ii) Corporate Actions

The vast majority of corporate events that occur during the life of a security are simple distributions, either of securities or, more commonly, cash (dividends and interest payments). These simple events can indeed be operated in the manner envisaged in the URD by taking a 'snapshot' of positions at the close of record date and having the proceeds credited on payment

date by the CSD (or the issuer's agent, depending on the market). Such events do not require the securities positions to be blocked, a process currently envisaged in the URD.

Where processing becomes much more complicated however, is in the area of more complex, voluntary events, where the requirement is for real-time processing right up to the market deadline. The requirement for real-time processing is of significant economic benefit to market players, who will often wish to wait until the last minute before deciding which option to take. Such corporate events include takeovers, which are often extremely high profile, and any inefficiencies that are introduced as a result of T2S could lead to major financial losses for users and could have a wider impact on the corporate world.

(iii) Cross-border settlement

As described below (in Chapter 6 on Cross-Border Services) the success of T2S is largely predicated on the vision of CSDs competing on the provision of asset servicing for European securities. As explained below, we believe that it is unlikely that CSDs would be able to move up the value chain in this fashion. But for those that do seek to compete in this way, the separation of asset servicing and settlement activity between the CSDs and T2S respectively, creates complexities for Investor CSDs.

We believe that there would be a significant impact on such Investor CSDs handling securities where they are not the Issuer CSD. In this case, for those services not covered by T2S processing, such as asset-servicing, the Investor CSD would need to connect to the Issuer CSD directly (or via an agent). Settlement across such links would be across the accounts of the Investor CSD at the Issuer CSD (not against the account of the underlying Investor CSD's client). As a consequence, the Investor CSD would need to have arrangements in place to settle the cash leg of the transaction and be able to reflect the updates of the cash and securities positions in T2S separately from the settlement across the link.

(iv) Direct Connectivity

As described in detail in Chapter 5 below, the separation of processing between T2S and the CSDs makes the operation of Direct Connectivity complex and potentially uneconomic for many users.

5 DIRECT CONNECTIVITY

T2S intends to offer, to CCPs and to CSD clients, Direct Connectivity to the T2S platform. The aim is that such clients would input instructions directly to the T2S platform and receive information on the results (rather than sending and receiving information via an interface with their CSD), where the relevant CSD allows this connection.

We continue to believe that there remains significant confusion in the market about the operation and merits of Direct Connectivity to T2S. This chapter highlights the different technical and economic issues posed by the introduction of Direct Connectivity. “Direct Connectivity” and “Lean T2S” (which was covered in the previous Chapter) are two closely related topics in the T2S proposal since the very fact that T2S is a ‘Lean’ system reduces the functionality available to those who decide to connect directly.

(i) The need to maintain multiple interfaces

Direct Connectivity has been represented as enabling market participants to move from multiple interfaces to one interface and as enabling CSDs to decommission their interfaces. The proposition that market participants could use a single point of connectivity for the whole of the eurozone rather than multiple points of connectivity would indeed have obvious attractions in terms of greater efficiency and lower cost. However, the Direct Connectivity proposal would not deliver this but would instead create one additional connection on top of existing connections. This is because T2S Direct Connectivity only covers the subset of DVP/FOP features envisaged in T2S in line with the ECB’s obligation to deliver a ‘Lean’ T2S that focuses on core settlement functionality alone.

Participants would need to continue to operate interfaces to the CSDs for all the functions which T2S does not perform (e.g. corporate actions and collateral management). This means that the cost of maintaining multiple interfaces would remain, together with the infrastructure and architectural costs that result from CSDs’ data centres and in participants’ back offices.

Moreover, participants would also need to continue to use the CSD interface for other “settlement-related” messaging such as information required for regulatory reporting, tax considerations and data required for registration purposes. Examples where this would arise in the Euroclear eurozone markets include:

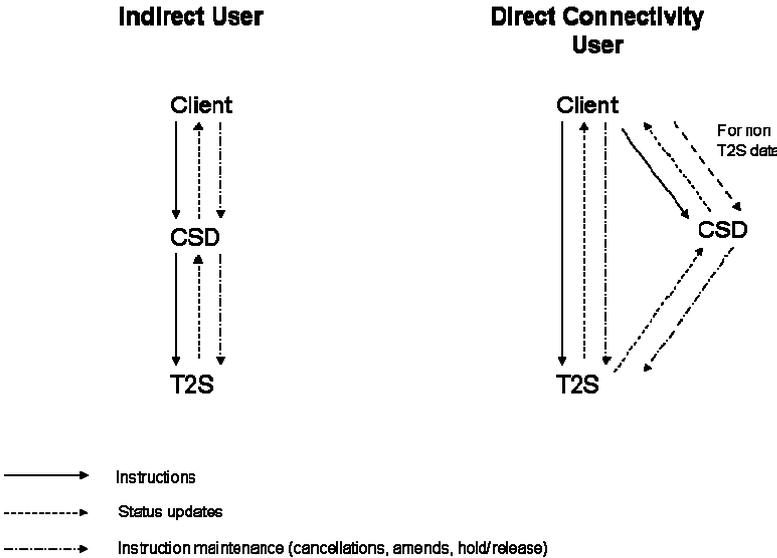
- Irish stamp duty, which requires a declaration of the stampable value of the transaction and indication of eligibility for certain exemptions;
- French Bordereau Reference Nominatif arrangements, which require the disclosure of the beneficial owners’ identity, which may differ from the identity of the buying settlement counterparty in the books of the CSD; and
- Regulatory reporting, where it is offered by the CSD.

Consequently, whereas today participants send one message to one destination which contains all the settlement and settlement-related information, the Direct Connectivity model would require that two separate and different messages would need to be sent for each transaction to separate destinations, one to T2S for the “lean T2S” content and the other to the CSD for all the other features and requirements content not included in T2S².

(ii) The cost of Direct Connectivity

The requirement that participants send two separate and different messages to different systems for a business event is undesirable in itself by reason of the duplication of message flows and the increasing of the costs of message transmission.

In addition, however, any instruction input directly into T2S by a participant or by a CCP would need to be reflected back into the CSD that has authorised the connection (see Diagram below). Indeed, the information flows between T2S and the CSD would be the same regardless of whether the settlement instruction is sent via a CSD or direct.



This is to ensure that, for regulatory and risk control reasons, the CSD has a full audit and reconciliation trail of all instructions in relation to the securities accounts that the CSD has outsourced to T2S. CSDs need to be aware of all settlement instructions that are settling on the accounts that the CSD has outsourced and need to be aware of whether instructions relating to those accounts have been:

- Validated: in order to start the audit process in its systems, to perform any specific validation not performed by T2S, and to identify the need for specific corporate

² Clients can decide not to send two messages by opting only to use T2S whenever T2S is able to deal with all of the relevant settlement and non-settlement information required for processing an instruction.

action related processes (e.g., the need to transform the transaction as a result of a corporate action, or to generate a claim);

- Matched: in order for the CSD to know what interventions/amendments it can still perform on the instruction and also to identify the moment at which a transaction becomes irrevocable for Settlement Finality Directive purposes;
- Cancelled: in order for the CSD to stop any further processing (e.g. for market claims and automatic transformations, which are functions which remain with the CSDs) and for audit purposes;
- Settled: in order for the CSD to complete or trigger relevant corporate action related processes and for audit purposes.

As there is a cost associated with the number of interfaces maintained and the number of messages exchanged, the cost of direct input would be the sum of both the direct input costs and the costs of the additional messages and processing incurred by the CSD.

Any T2S Directly Connected participant would have a contract, not with the T2S Operator, but with the CSD in which the accounts (on which the Directly Connected participant is instructing) are held. As a consequence the CSD would not take any liability for instructions input directly into T2S or the settlement consequences of these instructions, since they are outside of its control, unless the T2S Operator accepts liability to the CSD in the first instance and is adequately capitalised for such risks. Users would need to build this into their assessment of whether to directly connect to T2S or not.

As a result we do not believe that any meaningful cost reduction can be achieved for CSDs, or indeed for users, taking advantage of Direct Connectivity.

(iii) Operational and risk issues

The requirement that participants send two separate and different messages to different systems for the same business event is undesirable for operational reasons. For instance, it creates a need for a reconciliation process to ensure that the two messages can be linked together in order to establish an audit trail; this is particularly true in the case of stamp duty, where tax authorities would want to be able to tie-up the reports received from the CSD with the actual settlements occurring in T2S. This process is not required if all of the information was sent in a single message.

There is, of course, a close connection between the core settlement data included on the directly input message and the additional related information provided in a separate message to the CSD. As a consequence the processing of this information becomes fragmented and inefficient. For instance, in the case of Irish Stamp Duty referred to above, while the Euroclear Single Platform could create the required actions and report on the basis of the settlement related message it receives from the participants, it would need notification from T2S that settlement has occurred and to link that confirmation with the related beneficial ownership information and stamp duty details respectively.

Therefore, we continue to believe that the splitting of one existing message into two messages, and the required reconciliation required between the CSD and T2S, would create clear operational inefficiencies and increase risk as well as messaging costs. As a consequence we do not believe that Direct Connectivity would be attractive to many participants.

6 CROSS BORDER SERVICES

A key assertion of the benefits of T2S has been that it enables market participants to have a single point of access to a single account and a single pool of liquidity from which they are able to operate their settlement activity for all T2S-eligible securities. This would allow market participants to achieve fully automated, straight-through processing of DVP transactions with any counterparty in any other CSD which is connected to T2S.

The T2S proposition is therefore, that the centralisation of all securities and cash account processing in a single system (T2S itself) overcomes the fragmentation which currently exists between CSDs and which makes cross-border settlement slow, cumbersome and more expensive than domestic settlement. The same underlying objective exists in the Euroclear Single Platform; although the Euroclear mechanism for achieving it is different (by consolidating settlement and asset-servicing and eliminating, rather than redesigning, the need for cross-border settlement). Euroclear nonetheless shares the same basic objective as the ECB in this area.

However, in fact T2S only provide a technical platform that would support this type of cross-CSD settlement. Having the technical platform in place is only one aspect of putting in place an efficient cross-border settlement model. In mechanical and legal terms, after the introduction of T2S, the same chain of intermediation of holding and settlement would exist as in today's environment. The efficiency gain resulting from T2S would be that all the required processing would be automated, from the original input of instructions from the seller in Country A to his local CSD through to the corresponding input from the buyer in Country B to his local CSD, together with any relevant intermediary CSD realignments (e.g. of the security is deposited in CSD C).

To the extent that this process is limited to commoditised functions within T2S, suggests that T2S delivers some value (i.e., removing the need to develop technical links between CSDs). However, and crucially, the scope of functions and services required on a fully end-to-end basis goes considerably wider than the commoditised functions within T2S. These extend to settlement-related functions and non-settlement related functions such as corporate actions, collateral management, taxation services and reporting services. This would require all CSDs that link to T2S to set up additional non-technical structures with all other CSDs linked to T2S. They would need to enter into legal agreements, allocate liability, arrange cross-CSD corporate action support, etc. in order to establish the rights of clients of one CSD to hold securities in another CSD. The ECB leaves this structure (that works around the T2S technical platform) as something for the CSDs to design and implement.

This is at the core of our concerns about the functioning of cross-border settlement in a T2S environment.

(i) The role of the Issuer CSD

One of the ECB's objectives in designing T2S is to foster greater competition between CSDs. But Issuer CSDs today offer specific "value-added" services for their home securities that it is very difficult for another CSD to offer without incurring significant investment costs to replicate those services. T2S would not change this position, nor does T2S facilitate the access of investor CSDs to the value-added services of the different issuer CSDs in Europe.

Take the example of CSDs providing services to investors in Telefonica, a company that issues shares in Spain (i.e. the issuer CSD is Iberclear) but where the securities themselves are listed and traded on a number of exchanges around Europe, such as the exchanges of Madrid, Frankfurt and Paris. In a T2S context (and given T2S's objectives) Clearstream Banking Frankfurt (the German CSD) and Euroclear France (the French CSD) would require accounts at Iberclear in order to allow the German and French CSDs to provide settlement services to investors in these countries; they would act as investor CSDs, and would provide their standard services to their own clients. They would not provide the same services as Iberclear (for example, registering the securities in the name of the underlying investor). This means that, as issuer CSD, Iberclear would have, in effect, a competitive advantage over other CSDs in that it would have the closest relationship with the issuer. The introduction of T2S would not change this (indeed, nor would the removal of Giovannini Barrier ⁹ assuming an issuer would still only have a single location of issue, even if there could be considerable more flexibility in choosing that location). Unless, in the Telefonica example, Clearstream Banking Frankfurt or Euroclear France became a CSD in Spain and complied with all the local legislation regarding registration (which would require significant investment) there would be no competition for the full range of issuer CSD services.

From another perspective, some CSDs might be able to offer better services in some areas than the investor CSD. For example, the Euroclear Single Platform will offer a wide range of sophisticated collateral management services that it is unlikely that other investor CSDs will be able to offer on the relevant securities. Therefore, should a client wish to centralise and automate the collateral management of, say, Telefonica shares, the client would be able to do so by using the services of Euroclear. This again is another area where there is no practical competition in the provision of services without (in this example) Iberclear investing significantly in collateral management services.

In the context of T2S, if an investor wished to make use of the best facilities of both settlement systems (e.g. Spanish registration and Euroclear's collateral management services) then the investor would not be able to do so via a single T2S account; rather the client would need to open separate accounts at the relevant Issuer and Investor CSDs, and to transfer positions between them as required. Again, this process is no different to what exists today, so T2S brings no new competitive pressures in this particular context.

³ The removal of restrictions on the location of securities issuance.

(ii) CSDs as future providers of pan European asset servicing

As noted above, central to the T2S proposition is the assertion that all T2S-connected CSDs would link to each other within the T2S environment. The mechanics of the internal settlement consequences are described in the URD and we do not comment on them further here. However, implicit within this feature of the proposition is not only the notion that CSDs can take delivery of the full range of T2S-eligible securities (or at least a meaningful subset of them) but also that they can provide the necessary asset services in relation to those securities after settlement. For this to be a realistic assumption, it would require that each T2S-connected CSD in effect must become a custodian, with all the consequences for providing asset servicing across a wide range of securities. To do so would require that CSDs have the appropriate depth of understanding of the local market requirements and practices of each other CSD across the wide range of functions and services not included within T2S. These would include:

- the need to build interfaces directly with each other CSD in Europe;
- the need to adapt their client interfaces to cater for local market specifics in foreign markets;
- the understanding of and capability to process corporate actions, collateral transactions etc and to provide regulatory reporting information from an Issuer CSD, and to be able to process that information and instruct clients. Often this information would be unique to the local market (e.g. for an Interbolsa user to process voluntary reorganisations in Portuguese securities requires submitting the Portuguese Tax Identification Number of the underlying holder);
- the need to have detailed knowledge of tax legislation and specific tax procedures (including requirements to lodge physical papers and forms) in a given market would need to be developed and maintained;
- the need to offer comparable legal protection to that which clients receive today from their existing suppliers.

(iii) Conclusion

This would transform CSDs into pan-European custodians with consequential effects on the cost base and risk profile of those CSDs. It is questionable whether many users/shareholders of CSDs would support the required investment by those CSDs to develop and operate such pan European securities capacity.

But, if CSDs do not deliver this pan European capacity, it is likely that clients would still need to utilise the services of an agent bank to provide the asset-servicing capacity which the design of T2S, and the needs of the European market, demand. T2S could therefore, actually increase, or at least maintain, the levels of intermediation in European securities markets. Given that it is widely accepted that it is the chains of intermediation in cross-border settlement that makes such settlement so much more expensive than book entry domestic settlement, it is likely that cross-border settlement costs would continue to remain high after the introduction of T2S.

In addition, if intermediation remains the only effective way of delivering cross border settlement, given Europe's fragmented legal and fiscal structures, then the introduction of T2S could actually increase the internalisation of settlement on the books of the existing pan-European agents settling in commercial bank money, since T2S is expected to be a catalyst for further consolidation among local agent banks.

7 DECOMMISSIONING OF CSD SYSTEMS

As noted above, T2S would not lead to a change in the ways investors access their foreign investments since the same levels of cross-border intermediation would continue to exist. The business case of T2S is further affected by concerns with regards to the extent CSDs would effectively be able to decommission systems. The success of T2S as a vehicle for reducing the costs of eurozone settlement is predicated almost entirely on the ability of CSDs to decommission all, or a sizeable proportion of, their settlement systems. Without such decommissioning the T2S system represents an additional piece of European settlement infrastructure with the consequent implications for the costs of settlement processing in Europe taken as a whole.

Euroclear is now more than half way to completion of its multi market programme to deliver a single multi-currency settlement and custody platform for the Belgian, Dutch, Irish, French and UK securities markets. As a result of this programme the five local markets within the Euroclear group have already decommissioned their core settlement engines as a result of the transfer of settlement services to the Single Settlement Engine (SSE) and to ESES. Once complete, the integration of all settlement and custody services will provide a single domestic market for the five markets within the Euroclear group and the international business through Euroclear Bank.

As a consequence of the structure of the Euroclear platform and business model, the opportunities for decommissioning are extremely small, since Euroclear will need to retain a settlement platform for the UK market settling in sterling and US dollars and for the multicurrency commercial bank money settlement in Euroclear Bank. Consequently, we believe that the binary decision expected by the ECB from each eurozone CSD to either outsource to T2S the entirety of euro settlement activity or not, could have significant and potentially detrimental effects on those markets which already operate on a single settlement platform. Those CSDs that offer multi-currency settlement or which offer commercial bank money settlement would not be able to decommission any systems at all as a result of T2S.

In particular, within the Euroclear group, Irish securities have settled efficiently in a fully integrated and multicurrency manner on the same platform as UK securities since 1996. The Irish market would need to decide whether their financial markets are best served by integration with the eurozone on T2S or with the UK financial markets and sterling on the Euroclear Single Platform. In addition, each of the three Euronext markets must agree whether their local CSD should settle in T2S in order to ensure that the existing efficiencies of domestic settlement between such markets through the Euroclear Single Settlement Platform is preserved.

- (i) The need for the continued maintenance of databases within the CSDs

The CSDs have engaged in a long and constructive dialogue with the ECB as to whether, and if so how, the CSDs would interact with the T2S System. As a consequence of the debate, the

ECB now recognises that most CSDs operate integrated custody and settlement services and have resolved to make available all input, matching and settlement information in T2S to the CSDs in 'push' mode, which Euroclear welcomes. In addition, the CSDs have recognised that in order to be able to take advantage of T2S, they may need to reshape their settlement and custody systems considerably prior to the launch of T2S in, or around, 2013.

We believe that it is worth noting the key issues at stake here, given the importance of the topic for the markets and for the economic success or otherwise of the T2S project.

The extent of the impact of T2S on the databases in CSDs' own systems would vary depending on several factors, including the complexity of the instruments, the operating environment and the service levels offered to customers. The impact would be most seriously felt by those CSDs that provide real-time integrated services on complex instruments, including such functions as customer reporting, transaction management, notification of corporate events, elections on voluntary and optional corporate events, projections of liquidity requirements, lending and borrowing and collateral management and registration services inter alia.

To facilitate the requirements of the users, all CSDs' service offerings have progressed over the years and become more sophisticated both in terms of the service level provided and also in providing customers with the opportunity of interacting with the CSDs in real-time intraday. To all intents and purposes in technical system terms there is no distinction between the functions of a CSD and an SSS. One of the main reasons for this move to real-time integrated services is to reduce the risks inherent in the securities settlement and asset servicing processes.

This is particularly true for equities where in the corporate actions area, for example, having real time processing up to a deadline is a matter of real economic benefit for participants and also on risk management for underwriters. In addition, the ability to make corporate action payments throughout the day reduces the risk of payment not being able to be made on a payment date.

But it is also true for collateral management services which are time critical and consequently heavily dependent on the real time availability of status and balance data. These securities financing and collateral management services could suffer a material loss of effectiveness when the balance data is managed remotely from the interface to the client.

(ii) Conclusion

Whilst it is of course technically possible for CSDs to decide to fragment their existing integrated systems in order to participate in T2S, the consequences of such 'reshaping' may lead to a significant reduction in the efficiency of services offered to clients in the areas of corporate actions and collateral management. As a result local databases may need to continue to be maintained within the local CSD. It is for this reason that Euroclear, and we expect other CSDs, will adopt a cautious approach to this option when assessing choices in relation to T2S.

8 LIQUIDITY MANAGEMENT

T2S aims to create a single pool of eurozone liquidity for both cash and securities. The creation of such a pool could deliver benefits to firms by providing more efficient management of their cash liquidity, together with centralised and consolidated reporting, and the ability to project future euro stock and cash liquidity needs.

(i) A single pool of liquidity?

In order to be able to deliver a single pool of cash and securities liquidity, it is vital that one of the key objectives of T2S is delivered, namely that clients can access all of their T2S eligible securities out of a single CSD account. However, as shown above in Chapter 7, it is unlikely that this would happen and that clients would either have to use a custodian for all or part of the European securities markets in which they are active, or establish direct access to several European markets.

Where clients decide to use a custodian for cross border settlement they would only have access to central bank money settlement in their domestic CSD, and would continue to settle cross border securities against the commercial bank money of their chosen custodian. As a consequence, access to a single pool of eurzone collateral is still likely to be intermediated by their chosen custodian.

Those that are able to establish direct access to many markets (or have already established such access) would indeed be able to link their securities accounts against a single central bank money account that allows access to a single pool of collateral.

But even for these clients, T2S would not be able to provide users with a full and detailed view on balances and pending positions, since:

- not all euro securities settlement activity would necessarily be covered by T2S (which is an optional system);
- corporate action processing on both balances and transactions are out of scope of the project (see Chapter 4 above on 'Lean' T2S); and
- some participants (including CSDs and CCPs) may choose to submit instructions to T2S just before settlement.

The consequence of this is that clients would not be able to project their entire liquidity needs through T2S; they would, as in today's environment, need to aggregate the reporting provided by the CSDs that are participating in T2S. As we have seen in Chapter 6, it is unwise to assume that CSDs would be able to expand their services to give their clients the option of a single securities account for all securities eligible for settlement in T2S.

It could be argued that the benefits that T2S could bring to the creation of a single pool of euro stock and cash liquidity (despite the limitations described above) could also be delivered in part by other means. In particular, if the ECB were to allow more efficient cross-CSD cash settlement on T2 (on which the ECB is currently consulting) this would already allow participants to achieve such benefits on the cash side. In addition, CCBM2 and a more pragmatic approach to securities held through relayed links would lead to similar benefits on the securities side⁴.

(ii) The effect of T2S on Commercial Bank Money

The move to a single model of central bank money settlement in the euro zone for those CSDs that choose to participate in the project would have implications for those clients that currently obtain settlement liquidity from commercial banks. Such firms include the international broker/dealer community, who typically do not operate Central Bank Money facilities. Such firms could be disadvantaged by the current T2S liquidity proposals.

The URD envisages settlement banks being able to dedicate liquidity to the accounts of their clients. This means that, on a daily basis, as well as transferring liquidity into T2S for their own settlement purposes, the banks must also initiate separate transfers of liquidity for each of the clients for whom they are offering credit facilities. In the Irish (and UK) markets (were they to join T2S) there are 15 settlement banks that currently provide credit to over 8,000 corporate participants. This means 8,000 transfers of liquidity into the system each day, which, even if automated using standing facilities, is a cost and an operational inefficiency that the settlement banks currently do not incur. This is in contrast to the current environment, where the settlement banks simply need to transfer liquidity for their own account (i.e. a single transfer of liquidity for securities settlement purposes as opposed to a transfer for each of their clients), and to manage the credit that they extend to their clients in Commercial Bank Money – given that the credit they extend to clients tends to be fairly static, this means the operational overhead is currently very low. This is likely to change with the current T2S proposal.

There are two other considerations to take into account here. Firstly, it is currently possible in Ireland and the UK for settlement banks to secure credit lines extended to participants on the basis of a floating charge on the securities in the account for which credit is being extended. This is not a facility which is available in T2S. Secondly, the URD does not mention clients being able to make their securities available for automatic self-collateralisation which is a facility which exists in the Irish (and UK) markets.

⁴ Specifically, relaxing the current ECB requirements regarding collateral being held via relayed links.

9 HARMONISATION

There is a consensus in the market that harmonisation of market practices and (where necessary) legal and fiscal arrangements is vital for the creation of a single European capital market.

Euroclear, with the support and active participation of its clients, has implemented a significant programme of harmonisation to ensure that the delivery of ESES and of the Single Platform generates real benefits to the users. The Eurosystem has also now adopted a harmonisation work stream to ensure that the delivery of T2S can also deliver real benefits to the European securities markets.

There are however, two key differences between the Euroclear approach to platform consolidation and harmonisation, and the Eurosystem's current approach.

(i) An end-to-end approach to harmonisation

Euroclear has adopted an end-to-end approach to harmonisation to ensure that the clients of our clients see the benefits of our business model. Consequently, Euroclear is not simply harmonising settlement, it also plans to harmonise all the other (I)CSD services, including corporate actions and collateral management using the best elements of market practices as agreed by the users themselves.

T2S on the other hand is currently limited to the harmonisation of settlement processing only, and the harmonisation of the interface between the participating CSDs and the T2S platform. T2S aims to commoditise the settlement process, leaving CSDs to handle all other, non-commoditised tasks and all national specifics; a consequence of the focus on developing a "lean" T2S (see Chapter 4). But even in the narrow field of settlement related harmonisation, substantial market wide effort is required, for instance, to ensure the successful introduction of ISO20020 across all the T2S formats for all participating CSDs before the launch of T2S).

As noted previously, Euroclear's experience is that the cost savings to clients are primarily realized through system and practice harmonisation of corporate actions and other elements beyond pure settlement. We continue to believe that a more holistic approach to harmonisation is required from the Eurosystem.

(ii) Single securities accounts

An equity is typically only issued in an issuer CSD and, as a consequence, to enable cross-border settlement, an investor CSD would need to intermediate the securities holdings in the issuer CSD. By way of example, if an Italian investor wishes to hold German securities (issued into Clearstream Frankfurt) in a Monte Titoli account, Monte Titoli would need an account in Clearstream Frankfurt to hold the underlying securities – this is the model enshrined in the T2S

architecture and discussed above in Chapter 4 and 6. Monte Titoli would need to provide asset servicing facilities to the Italian investor – as Germany is not the natural market for the Italian CSD, this poses significant additional operational risks for Monte Titoli. As a matter of practice, the Italian investor might normally prefer to use a local market agent who is familiar with the market and its practices. As a consequence of the design of T2S, an intermediated cross-border settlement model is maintained.

Euroclear however, in its development of single domestic settlement market for Belgium, France, Ireland, the Netherlands and the UK, has implemented a multi-jurisdictional model that allows a participant to hold securities from multiple legal jurisdictions in one account (the “Operational Securities Account” or “OSA”). This means that, although the OSA looks like one account at a technical level, in legal terms it effectively represents many different underlying legal accounts. Consequently, a participant can hold (for example) French, Dutch and UK securities in one account, with the French securities held under French law, the Dutch securities under Dutch law, and the UK securities under UK law. Euroclear France, Euroclear Netherlands and Euroclear UK & Ireland would provide asset servicing on the relevant securities respectively. The investor would have the closest relationship possible with the issuer of the securities held, and would also have the best form of legal title available in the local jurisdiction. In addition, no special actions are required by the issuing company to maintain the benefits for shareholders accessing the securities via the Euroclear Group.

The Euroclear multi-jurisdictional model therefore, abolishes the need for cross-border settlement for markets settling on the Single Platform. Thus a Belgian bank delivers a French security to a Dutch bank through a single book entry with no need for interposing an extra layer of intermediation in the ownership chain, or changing the applicable law. This significant benefit would be lost in the T2S model.

10 ECONOMIC CONSIDERATIONS

It is not yet possible to comment on the Economic Feasibility Study being undertaken by the ECB, the results of which are not yet available. A full understanding and analysis of this study would be a necessary component of all CSDs' decision making in relation to T2S. This section describes a small number of areas which are relevant for Euroclear and its assessment of the ECB's study when it becomes available; some of these points may also be applicable to other CSDs.

As we currently understand the scope of the Economic Feasibility Study, a central assumption is that the CSDs would decommission (or at least significantly reshape) their existing settlement engines and that these can be replaced by a single settlement platform (T2S), generating significant savings in the areas of development costs and operating costs. As noted in previous chapters of this paper, the ability of CSDs to decommission systems is not a matter of policy preference but is determined by:

- The implications of the 'Lean' T2S concept and, to some extent, the Direct Connectivity concept;
- Functional, operational and legal considerations in settlement-related areas that fall outside the scope of Lean T2S or in asset servicing areas; and
- The imperative to maintain customer service levels.

It is therefore important to reflect on these considerations as part of the Economic Feasibility Study and factor into the equation the fact that it is highly unlikely that CSDs would be able to decommission material components of their existing platforms without significantly impairing their operational efficiency and service levels. Consequently, the costs of developing and operating T2S would come in addition to the on-going costs of operating the CSD legacy platforms.

In a related area, it is important that the all-in cost of settlement includes those settlement-related functions which are outside the scope of 'Lean' T2S and which therefore remain in the CSD operating environment. We understand that the ECB's Economic Feasibility Study would include an allowance for the cost of providing helpdesk services; however, there are other costs as well which should be taken into account. These include:

- Operations functions which remain with the CSDs, including:
 - Daily timetable management;
 - Reconciliations and investigations;
- Client support (in addition to the helpdesk), including:
 - Documentation;
 - Training;
- Transaction tax services; and
- Other reporting services.

In the Euroclear CSDs, these cost centres equate to approximately 40% of the total which is funded by the settlement fee. Consequently, even if the ECB's assumptions about CSDs' ability to decommission systems (and thereby reduce costs) were correct, the average cost of settlement for Euroclear clients would be 40% of the CSD's settlement fee *plus* the 29c charge of T2S itself.

T2S could theoretically decrease the direct cost of cross-border settlement (assuming that such settlement can be offered through a single CSD, which we believe doubtful) but it seems that it would do so at the expense of an increase in cost for domestic settlement.

In addition, the ECB assumes in the methodology for the Economic Impact Analysis that the creation of wealth is dependent on the reduction of settlement fees and on disintermediation in order to bring issuers and investors closer together. But it is important to note that the settlement fees of the CSDs represent only a very small (5%-10%) proportion of the total costs borne by end users of European securities markets, as a result of the widespread use of intermediaries to manage the complexities of cross-border settlement which, as shown in previous chapters, T2S is unlikely to be able to change. It is therefore, from Euroclear's experience, not the delivery of a "lean" single settlement processing engine which delivers real end client benefits, but rather the delivery of an integrated settlement and custody platform combined with significant market harmonisation, that reduces end client costs.

11 GOVERNANCE AND LIABILITY ISSUES

While the Eurosystem has begun to discuss some of the contractual issues that arise from the introduction of T2S in broad outline, there remain a significant number of unanswered questions which would directly affect each CSD's ability to continue to provide its clients with the same level of service including inter alia, a strong voice in strategic decision-making, robust legal rights to securities, liability in case of system failures, and the ability to continue to deal with their home legal regime. Some of these issues also raise difficulties for CSDs with national securities regulators. These issues are described in brief below.

While Euroclear considers that it is too early to negotiate an outsourcing contract with T2S until other fundamental operational questions are answered, we do consider it necessary for the ECB to give assurances to the market and to the CSDs that would be asked to join T2S to the major terms of the governance and legal arrangements. Without such assurances, it is difficult to imagine how either the ECB, the CSDs or clients could form a true picture of the cost and risk impact of T2S.

(i) Governance

The Eurosystem is currently discussing the long term governance of the T2S system. Preliminary discussions to date have indicated that the ECB is considering that the CSDs that are users of T2S and their clients would have an advisory, rather than decision-making, role in governing T2S and its Operator. This would effectively remove the direct client decision-making role on strategic issues affecting settlement including pricing policy and major new developments, on setting and monitoring development of internal control and other major group operational standards, on setting spending priorities, budgets and monitoring cost and pricing trends, among other things. This would be a significant governance change for the markets served by Euroclear, where 24 client and shareholder representatives serve on its primary strategy setting board.

In addition, there are other aspects of T2S's governance that could result in substantial changes for Euroclear clients. The Eurosystem perceives euro settlement as a commoditised activity which would be operated or controlled by an entity that is also a market regulator and a central bank. The incentives and approach to risk and innovation, and the approach to clients that are taken by this type of entity are fundamentally different to those of a commercial entity⁵. Euroclear does not take the view that the ECB could not address these concerns; Euroclear does however, consider that it would be appropriate for the ECB to address these concerns clearly at

⁵ An idea to enhance the U.S. Federal Reserve to centralize settlement services for U.S. government securities (services currently performed by two major clearing banks) was considered by the Bond Market Association (BMA), representing some of the same clients (both U.S. and European) that would be affected by T2S, to be not viable. The BMA took the view that a central bank would not be as responsive as a private institution or public utility to the industry's concerns or calls for innovation, or industry views on the manner in which the clearance and settlement system should be conducted, and how risks in the system could best be mitigated (SEC Concept Release: Interagency White Paper on Structural Change in the Settlement of Government Securities: Issues and Options, Exchange Act Release No. 4587, 67 FR 32043. The BMA response can be found at <http://www.sec.gov/rules/concept/s71502/tconnor1.htm>)

this early stage. From the perspective of protecting client assets, Euroclear believes it is also important for the market to understand how the ECB would handle conflicting interests as a central bank and as operator of T2S in the event of a major client bankruptcy or in case of court orders to freeze assets, for example.

In the near term, the ECB's Governing Council has proposed to retain the current governance arrangements (ie, the Advisory Group and associated relevant Technical Groups) until the end of 2009 (which is perceived by the ECB as being the end of the technical specification phase of the project) and has also proposed that participation in these arrangements would be limited to a small group of stakeholders that have committed to support the project. The ECB has also begun to suggest that there could be a separate development contract as of the early stage of the development process. Clearly this is directly linked to the discussions on the future governance of the system during specification, build and live operation.

The advisory role (rather a decision-making role) would also be a significant departure for Euroclear clients, as the Euroclear SA/NV board currently has a standing committee that oversees key business model developments (including the development of Euroclear consolidated settlement engine, and key decision-making on harmonization and other issues important to Euroclear's clients). Among the issues that Euroclear believes are relevant for the market as a whole, are;

- whether it is appropriate for input on a market-wide project, such as T2S, to be limited to a small group of stakeholders who are in a position to give a very early commitment of support to the project;
- how much input CSDs or their clients would have in either negotiating or deciding significant issues such as development needs that impact one market more than others; and
- whether the governance arrangements permit CSDs to meet their ongoing regulatory requirements.

(ii) Contract and Liability Provisions

A T2S Legal Task Force on contractual issues ("TCI") was established in January 2008. The TCI's work to date has focused on validating an outline of contract headings and high-level contractual issues. Few details have been provided on the key provisions that the CSDs would be expected to accept should they elect to join T2S and which would therefore also impact each CSD's clients and client relationships.

While it remains quite early in the T2S project to address many contractual issues, there are certain issues that would directly affect each CSD's ability to continue to provide its clients with the same level of legal rights and risk management. These include:

- who would be the owner of the T2S system that would contract with the CSDs and would that entity be sufficiently capitalized to support legal liability to the CSDs or their clients?

- Would the T2S operator assume the same level of liability to CSD clients for settlement errors as exists today (this varies between CSDs)?
- what would be the process to agree on changes affecting core or optional systems?
- how would change management (e.g., development priorities and costs), relationship management (e.g., key performance indicators and service credits, escalation) and contract management (e.g., negotiation of terms, amendment) function?
- what would be the liability structure (assuming that T2S would agree to assume liability towards the CSDs)?
- what would be the consequences for CSD clients, once T2S is launched, if T2S fails to operate to the same standard as the CSDs (e.g., slower processing times, backlogs, etc.)?

Implementation of T2S and many other contractual issues would not only necessitate changes to CSDs' own contracts with clients, they could significantly impact CSDs' risk profile, internal risk management processes and insurance arrangements and costs. Until answers to these questions are known, it would be difficult for clients or CSDs to assess the extent of T2S's impact in these areas.

(iii) Asset Protection

There have been no detailed discussions with the ECB on asset protection issues that directly impact clients, such as:

- how T2S would accommodate ownership structures in direct registration jurisdictions;
- how much control each CSD would retain over its own clients' accounts in case of events like court orders (e.g., freezes or attachments), or bankruptcy of a participant.

(iii) Regulatory and Client Obligations

Regulators require each CSD to maintain certain controls over critical activities outsourced to another entity. At a minimum, this requires contractual assurances that, inter alia, the CSD has appropriate risk management controls (e.g., access to audits), performance assurances (e.g., performance indicators and an appropriate liability regime), and a contractual governance structure that allows the CSD to retain authority over the outsourced activity. The ECB has not yet been able to give substantive assurances that the contractual structure would allow the CSDs to meet these requirements. The ECB has also not yet been able to give substantial assurance of its willingness to take liability in case of its own error, or that of its agents, in such a way that would enable CSDs to meet their own clients' expectations in this regard.

ANNEX 1 NON-FUNCTIONAL CHARACTERISTICS OF T2S

It is critical for a CSD to be able to properly assess, technically, the quality of a potential supplier's proposal in the case of an outsourcing of a key service. However, the current version of the URD does not contain any concrete information to allow a CSD to make a decision as critical as an outsourcing of its settlement processes. This is not surprising given the early stage of the development of the project and an expected live date of 2013, but given the ECB's desire to obtain expressions of interest from CSDs by July 2008, we believe it is reasonable to seek clarity of the principles underlying some of these non-functional requirements since within the URD they are described at a very high level and, most of the time, are limited to the expression of generic guiding principles and intentions.

In particular we would request greater understanding of

- the technical choices (such as hardware, connectivity, methodology regarding back-up of potential network providers etc envisaged for this new platform.
- how business continuity would be ensured. For instance, it is not clear what is the risk of data loss in the case of a regional disaster, nor the relevant remedial procedures. Moreover, there is no detail of the rules and mechanisms to avoid "spill over" effects when one of the participating parties would face technical issues. Some sort of "fairness" principle (e.g. the pre-definition of load patterns and processes in case of deviations in order to ensure equal treatment of CSDs) should be made available to potential participants.
- The proposed service levels and system performance. Basic information, such as the availability of the platform or the service levels for STP messages is missing from the URD. Peak day volumes are defined, but in order to assess the correct sizing of the platform, assumptions on peaks should be taken at a much lower level (e.g. 15 minutes).
- The proposed IT Service Management structure. Currently, no clarification is provided on the mechanism for scheduled releases, sign off and change management procedures, delivery of emergency fixes, and how testing and trialling would be organised.
- System security. Euroclear believes that T2S should explicitly state that it would support the strongest level of security. In the current version of the URD, there is no information available on how key principles such as strong authentication, non-repudiation, message integrity and guaranteed delivery of messages would be achieved. As CSDs remain responsible and liable towards their customers, it is evident that this needs to be backed up by a strict security framework between CSDs and T2S.

In conclusion, further clarification and concrete information is required in order to build the level of confidence a CSD would need before indicating its intention to outsource some of its critical services to a potential external service provider.