

MARKET CLAIMS AND TRANSFORMATIONS IN T2S

Which CSD should identify them?

1. Introduction

The purpose of this document is to clarify the corporate actions (CAs) transaction management¹ model in the context of the T2S implementation and to recommend a course of action. It is to support the T2S Corporate Actions Subgroup (CASG) standards on transaction management: i.e. market claims, transformations and buyer protection processes in the context of T2S.

This issue can be considered from two angles: the functional angle and the commercial/service level angle. This note focuses on the former technical aspects of the market claims and transformations processing. The latter addresses a wider perspective, i.e. what will be the service levels between CSDs in T2S and is driven by expected competition between service providers, including CSDs. Although this aspect is not analysed within this paper, the service level arrangements in a future T2S environment may play an important role in the workable solution for CAs on flows management. The conclusions section provides more in this direction.

Transformations and market claims processes are both within the scope of this analysis. In order to foster efficiency in T2S, connected markets should avoid as much as possible a divergence in approach and processes between market claims and transformations unless such divergence is justified by clear benefits outweighing the loss of efficiency arising from different processes.

The analysis in this document relies on several assumptions:

- a) the Corporate Actions Joint Working Group (CAJWG) standards will be implemented fully by all relevant stakeholders for all markets joining T2S;
- b) these CASG standards are proposed as best market practices with the aim of introducing harmonisation in cross-CSD settlement. Therefore, the analysis is made without any reference to the current legal and fiscal compliance context in which the CASG standards will be endorsed and implemented;
- c) all participating CSDs in T2S, including their users and CCPs, will offer market claims and transformation services in the manner prescribed in the CAJWG standards;
- d) the functional reference point is the current version of the T2S URD (v4.2);
- e) it is possible to distinguish functionally between the processing related to a corporate action on stocks or holdings (for example, the distribution of a cash dividend to record date holders) and the processing related to a corporate action on flows (for example, the generation and processing of a market claim).

The validity of the assumptions has to be tested as the T2S Programme progresses towards the T2S production date (2013) and should these assumptions not be realised, then the result of this analysis may need to be reviewed and revised accordingly.

¹ Within the scope of the present document, CAs transaction management (or CAs on *flows*) is used in a limited sense to designate *market claims* and *transformations* procedures on *flows* (pending transactions). *Buyer Protection* rules are beyond the scope of this document, although part of the transaction management classification in most documentation. However, the buyer's elections may result in a market claim or a transformation procedure, and therefore the present analysis also applies.

This note is structured in four main sections:

- Section 2 considers the existing practices in the pre-T2S area.
- Section 3 highlights the changes that T2S will bring to these practices.
- Section 4 analyses the various possible situations/scenarios in T2S.
- Section 5 constitutes the summary of the findings and presents the CASG recommendation and way forward for the new standards.

2. Current practices

How are claims and transformations managed currently?

Domestic

In the current domestic environment, market practices are very diverse. CAs transaction management is not always a practice supported by every markets and when supported not always via a centralised CSD mechanism. Those markets, in which transaction management is very common, are using different methods. This document will not provide a full description of the current situation as this is beyond its scope. It is expected that the CAJWG will bring a great level of harmonisation to domestic CAs transaction management processes.

However, when claims and transformations services are offered by the CSD, the CSD (which acts as Issuer and Investor CSD at the same time) detects and raises the claims centrally on behalf of its participants. It is exactly this layer of the service, the *detection* or *identification* of the pending transactions eligible for claims and transformations, which is the prime focus in the rest of this note.

Cross-Border

Looking at the cascade model for corporate actions on stocks of the ECSDA reports² is very useful as it provides a starting point to define the impact of the T2S implementation.

Cross-border CSD links in Europe are characterized by a link between the *Issuer CSD* and another CSD (usually referred to as *Investor CSD*). In practice, the Investor CSD opens one or several accounts with the Issuer CSD. When it comes to CAs transaction management, if the service is offered by the Issuer CSD to its account holders, claims and transformations are initiated by the Issuer CSD, like for any other corporate action on stock. The model does not differ from the ECSDA DVP model for settlement activities.

In this context, the Investor CSD has the same status as any other account holder in the Issuer CSD (as per Code of Conduct). The Issuer CSD will notify the Investor CSD of any corporate actions. It will also raise and affect market claims and transformations for the account(s) held by the Investor CSDs with the Issuer CSD. The Investor CSD will in its turn notify its own participants (including potentially other Investor CSDs) of the corporate actions and reflect the claims and transformations in its own books. This is the so called “cascade” effect.

One of the two key conditions for a CSD to process transaction management on CAs is a) that the CSD must be aware of pending settlement transaction to consider it in its transaction management detection framework and b) that the CSD is aware of the corporate event, a condition always being met for the Issuer CSD.

Today, the Issuer CSD is aware of the pending transaction when this transaction is between one of its own participants and one of the Investor CSD participants. This is materialized by a settlement instruction in the books of the Issuer CSD between one of the Issuer CSD participant account and the omnibus account of the Investor CSD with the Issuer CSD.

² The European Central Securities Depositories Association’s response to the Giovannini Report Barrier 3, Corporate Actions - Part 2 Market Claims July 2006

Ecscda Report Of Working Group 5 On Cross Border Corporate Actions And Events Processing Updated: November 2002 (Issue 6.0)

If a transaction takes place between two of the Investor CSD participants and both participants holdings are within the same omnibus account of the Investor CSD at the Issuer CSD, the practice of the Investor CSD is often to internalize the settlement in its books. In that case, the Issuer CSD is not aware of the transaction and therefore can not take it into consideration for CAs transaction management services. It is up to the Investor CSD to detect the claim or transformation on the basis of the rules of the Issuer CSD. In any case, the Investor CSD is aware of the corporate actions details as it has holdings on its account with the Issuer CSD and the Issuer CSD would have notified every holder of the corporate actions details (including the Investor CSD).

Finally in today's practice, transactions between participants of two different Investor CSDs which are maintaining securities accounts in the Issuer CSD,³ will lead to a transaction in the books of Issuer CSD between the two omnibus accounts of the two Investor CSDs. Raising and processing CA transaction management in that situation is no different than the normal procedures between two normal participants of the Issuer CSD.

3. What changes with T2S?

A major change from today's situation will be the implementation of the CAJWG harmonised standards for market claims. Although this is not attributable to T2S, the implementation of the harmonised CAJWG standards by the launch of T2S, need to be kept in mind in order to perform this analysis.

The main change, introduced by T2S, is that T2S will foster cross-border settlement ("cross-CSD settlement" in the T2S User Requirements Document) and create a single harmonised settlement framework for both domestic and cross-border transactions.

This has a minimal effect on a "domestic" transaction. However, it introduces changes for "cross-CSD settlement", especially for the scenario related to a transaction between two participants of two different Investor CSDs. Firstly, this case is very infrequent in today's world but may be very frequent in the T2S era. Secondly, T2S, as a central settlement engine, introduces a specific central mechanism to deal with cross-CSD settlement and for the related *realignment* arising from such transactions.⁴

Therefore, this analysis will consider in more detail the impact of T2S and for each scenario consider the two key conditions for CA transaction management processing:

- a) which CSD is aware of the matched and unsettled (pending) transactions (and instructions) on this underlying security to include it in the claims and transformations detection process (and be aware of its relevant details, including the eventual ex/cum indicator presence and value in order to properly perform the transaction management required);
and
- b) which CSD is aware of the corporate action which is taking place on the underlying security.

³ It is also possible to have a scenario where the one or both Investor CSDs do not maintain omnibus securities accounts in the Issuer CSD but in other intermediating Investor CSDs.

⁴ For the purpose of this document realignment refers to final transfer of securities (or bookings) in the books of the Issuer CSD. In T2S, this process takes place or at least attempted for settlement on settlement date. Another important process is the creation of the settlement instructions for the realignment process. These settlement instructions are created immediately after matching and therefore are "pending" until final settlement on settlement date.

4. The various scenarios in T2S

4.1 Intra-CSD Settlement (Domestic Settlement)

In this simple scenario, the CSD detects and raises claims between two of its participants: it acts as Issuer and Investor CSD at the same time. Therefore, there is no issue related to the choice of the model used for claims and transformation processing.

For a “domestic” transaction, i.e. between two participants of Issuer CSD, or between two participants of the same Investor CSD, T2S does not make any real difference from a technical perspective. T2S will be used as the settlement engine by the CSD and the CSD will detect and raise the claim.

4.2 Cross-CSD Settlement

In addition to the use of the standard terminology for Investor and Issuer CSD roles, as described above, the note introduces a third role: the “*Instruction Owner CSD*” (*IOC*). The IOC is defined as the CSD that provides the securities accounts on which the participant has sent an underlying instruction. The definition also includes the case where the CSD participant maintains a direct technical connectivity to T2S and therefore sends its instructions directly to T2S.

There are always two IOCs per cross-CSD transaction. The IOC is the same CSD if the transaction is between two of its participants. This role can be assigned either to the Issuer CSD or the Investor CSD, depending on the settlement chain scenario as described in the following sections. By definition, the IOC is always aware of the pending instructions of its own participants.

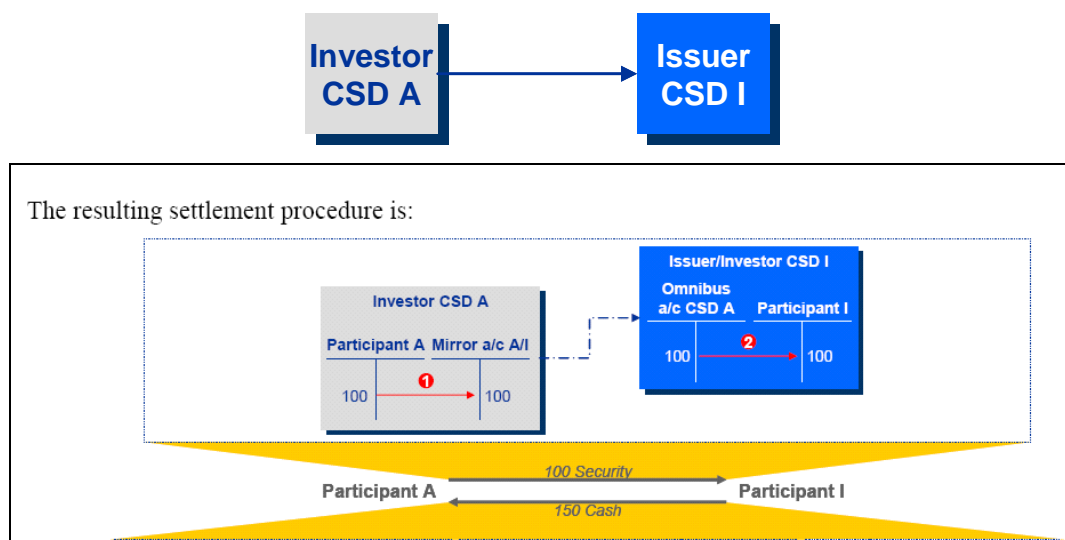
The note analyses in detail the benefits and risks of the CASG proposal that market claims and transformations should be detected by the IOC independently of whether this entity is the Issuer or the Investor CSD in the chain of the cross-CSD transaction⁵.

When all the involved CSDs are *CSDs in T2S*, T2S will profit from having all securities accounts, as well as all dedicated cash accounts, on a single platform and settle the transaction as domestic transaction from the perspective of the counterparties.

The following section describes the various T2S cross-CSD examples and the impact on the CA transaction management for each example. These examples map to the scenarios and examples of Chapter 3 and Annex 10 of the T2S URD V4.2.

⁵ See proposal 1 of the CASG market claims standards and proposal 4 in the CASG transformations standards.

Example 1: transfer of securities from (to) an Investor CSD in relationship with the Issuer CSD to (from) the Issuer CSD (most common case of Cross-CSDs Settlement), where participant A of CSD A sells securities to participant I of CSD I (Issuer) with the following links



From perspectives of participant A and participant I, the settlement takes place between their respective accounts with their respective CSDs. T2S generates movements 1 and 2 (as shown in the above flow) to perform the bookings.

The two key conditions for CA transaction management detection:

- CSD aware of the pending transaction

Both CSDs (Investor CSD A and Issuer CSD I) are always aware of the pending transaction since each CSD has a matched settlement instruction for each counterparty.

In this example both CSDs act as IOC.

- CSD aware of the corporate action

The Issuer CSD is always aware of the corporate action.

According to the cascade model for CAs on stocks, the Issuer CSD I should inform Investor CSD A on the corporate action details provided that Investor CSD A already has a position or pending transactions (as per the CAJWG standards) in the underlying securities of the corporate action on its omnibus account with Issuer CSD I.

In the aforementioned example, in the case of a receipt (delivery of securities from participant I to participant A), there could be a chance that there is no position on the omnibus account of CSD A with CSD I before final delivery. In any case, the Issuer CSD I should be able to identify a pending transaction on the underlying security from the matched instructions, sent by his participant I, and advise the Investor CSD of the corporate actions details as soon as matching occurs.

However, the Issuer CSD needs to derive from the pending instructions the Investor CSD to which to send the CA notification. This is a process not known in the current environment.

In any case, the service level agreement between Issuer and Investor CSDs should solve this issue of CA information. Specifically, when a CSD in its role as Investor CSD offers to service a foreign security, it must ensure it receives the correct information on a corporate action, affecting the security. It is evident, especially from the following examples of cross-CSD settlement in T2S that the Investor CSD can not always rely on the cascading principle for receiving CA information and can not in all cases be assured that it receives the CA notification on time from the Issuer CSD.

So in this scenario both IOCs (the Issuer and the Investor CSDs) are able to raise and detect market claims and transformations.

Processing

Issuer CSD Model

CSD I will need to send to T2S, a settlement instruction to book a movement between its participant I and:

Option 1 – the omnibus account of CSD A with CSD I

This option implies that as a next step, CSD A will further have to associate this settlement instruction against the relevant underlying instruction in its own books. Following this, CSD A generates a movement between the mirror account (A/I) and its participant A account (as T2S can not create the instruction against the relevant participant A account in Investor CSD A)

Option 2 – the participant A in CSD A

The instructions could be sent as already matched instructions as the Issuer CSD instructs for both parties in both options 1 and 2. However, option 2 has some implications. It implies that CSD I has a power of attorney in order to instruct on the account of the participants of another CSD (e.g. participant A in CSD A).

IOC Model

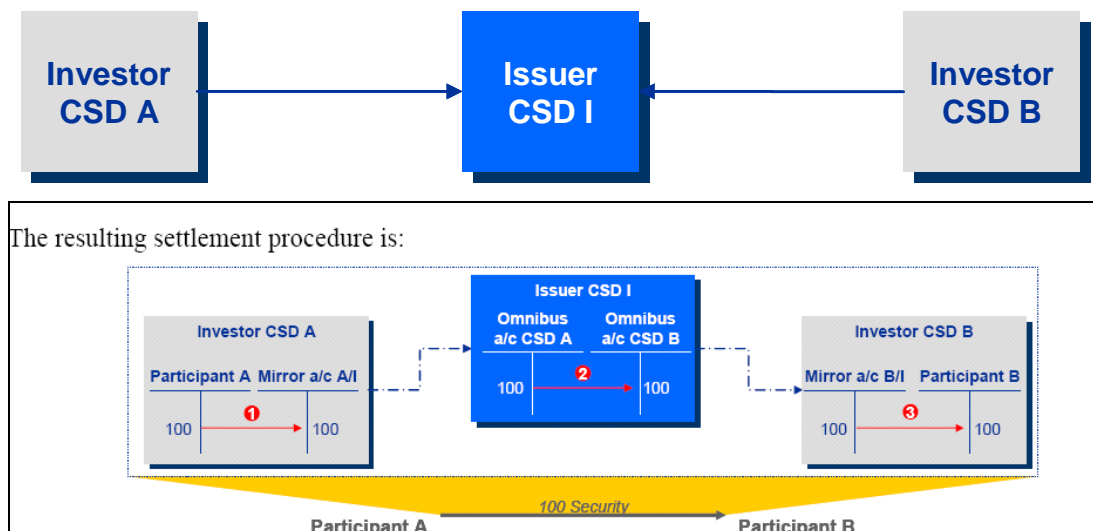
In this model, both CSDs would generate an instruction to T2S on behalf of their respective participants (A and I) and T2S would then match these instructions.

- CSD A would send an instruction to debit its participant A account and credit participant I account in CSD I;
- CSD I would instruct to debit participant A account in CSD A and credit participant I account in CSD I.

T2S will generate the relevant postings in the omnibus account A in CSD I and mirror account A/I in CSD A as per the settlement of the market claim/transformations instructions.

IOC Model seems more efficient in this example, provided that the risk of non-matching of the claims and transformations generated instructions in T2S is well mitigated.

Example 2: transfer of securities from an Investor CSD in relationship with the Issuer CSD to another Investor CSD in relationship with the Issuer CSD, where participant A of CSD A sells securities to participant B of CSD B with the following links



From the perspectives of participant A and participant B, the settlement takes place between their respective accounts with their respective CSDs (A and B). T2S generates movements 1, 2 and 3, as depicted in the flow above, to perform the postings.

This scenario is more complex and somewhat different than in today's world. Today, CSD A and CSD B would instruct CSD I for a settlement between their omnibus accounts, while in T2S they will instruct T2S and the settlement is transparent to them and to the Issuer CSD.

The two key conditions for CA transaction management detection:

- CSD aware of the pending transaction

Both Investor CSDs (A and B) are aware of the pending transaction since each CSD has a matched settlement instruction for one of its participants.

According to the T2S cross-CSD settlement (T2S URD), T2S creates movement 2 upon settlement attempt (or successful settlement) on settlement date and, as a result, the Issuer CSD will not know for sure that settlement is final between participant A and B until that point in time. The realignment instruction in T2S (instruction for movement 2 above) will be created at matching and the Issuer CSD could query on the pending instruction well ahead of the settlement date, if required.

The only CSDs that are aware of the transaction as early as possible and in all cases are the Investor CSD A and B, being the two IOCs. The Issuer CSD may also inform itself on the pending instruction for the realignment movement.

- CSD aware of the corporate action

The Issuer CSD is always aware of the corporate action since the underlying security is issued in its books.

According to the cascade model, Issuer CSD should inform Investor CSDs (A and B) on the corporate action details, provided that Investor CSDs A and B already have a position or a pending transaction in the underlying securities of the corporate action in their omnibus account with CSD I (or at least that Issuer CSD I is informed of a transaction pending between CSDs A and B).

In the T2S environment, the Investor CSDs (A and B) should ensure that their service level agreements with the Issuer CSDs or other entities, supports their timely access to corporate action information.

So in this scenario the Issuer CSD may be able to announce to the Investor CSDs the CA event information provided that either a) that the Issuer CSD is aware of the realignment instruction in due timing or b) an adequate SLA agreement exist between Investor CSDs and the Issuer CSD.

Processing

Issuer CSD Model

CSD I will need to send a settlement instruction to T2S to post a movement between

- Option 1 – the omnibus account of CSD A with CSD I and the omnibus account of CSD B with CSD I;

This scenario implies that CSD A (and CSD B) would further have to associate this instruction against the underlying instructions and in turn generate a movement between the mirror account and its participant (as T2S does not create automatically these instructions against the participants' accounts).

- Option 2 – the participant A in CSD A and participant B in CSD B.

The option 2 is probably easier to reconcile for CSD A and B, as T2S will generate all the movements in the mirror and omnibus accounts of all involved CSDs on the basis of these instructions. The instructions could be sent already matched locally in the systems of Issuer CSD I since the Issuer CSD instructs for both parties in both options 1 and 2.

However, option 2 has legal implications. It implies that CSD I have a power of attorney to be able to instruct on the accounts of the participants of other CSDs (e.g. participant A in CSD A and participant B in CSD B)

IOC Model

In this model, both Investor CSDs would generate a settlement instruction to T2S on behalf of their account owners and subsequently T2S would match these instructions.

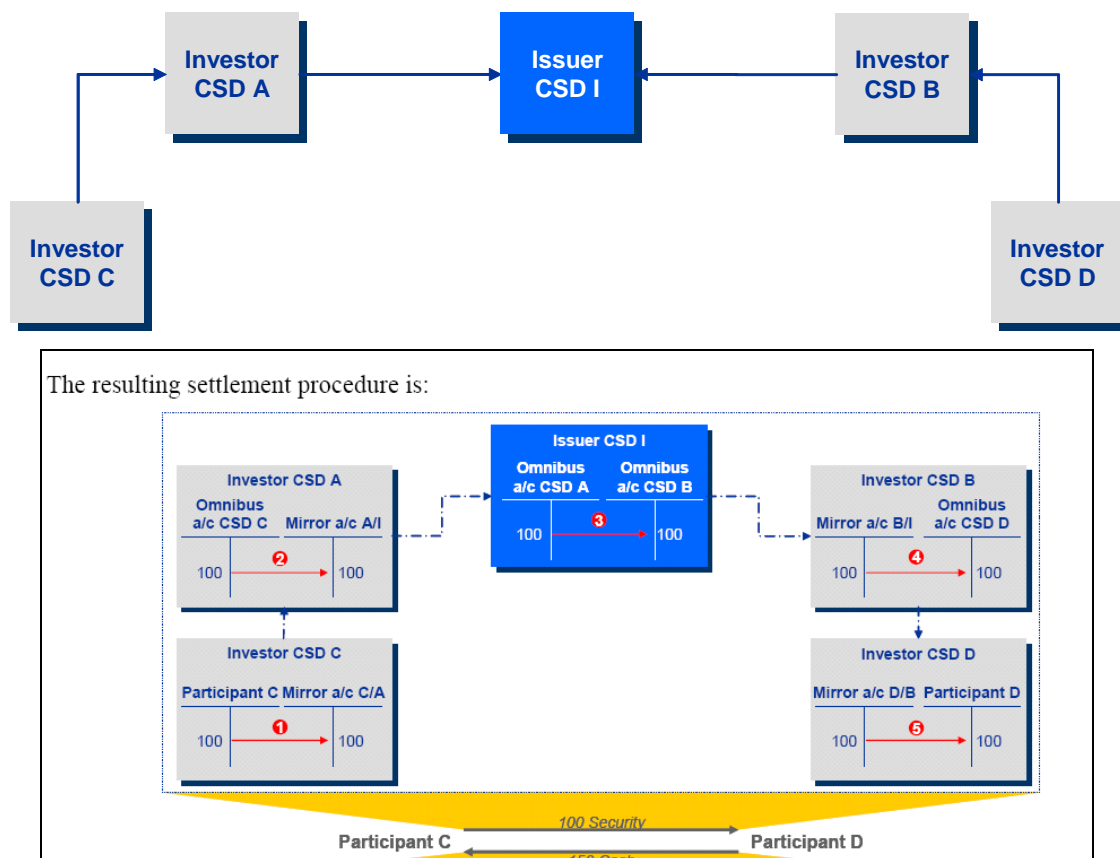
- CSD A would send an instruction to T2S to debit its participant A account and credit participant B account in CSD B;
- CSD B would send an instruction to T2S to debit participant A account in CSD A and credit participant B account in CSD B.

On the basis of these instructions, T2S will generate the relevant bookings between the omnibus accounts A and B in CSD I. T2S will generate the bookings between participant's A account in CSD A and mirror account A/I in CSD A. T2S will also generate the bookings mirror account I/B in CSD B and participant B account in CSD B.

The Issuer CSD I will have to exclude from its market claims detection mechanism the posting no. 2 of the flow, i.e. the realignment settlement related to the settlement of the market claims transaction to avoid raising a claim when it is not needed.

IOC Model seems more efficient in this situation, provided that the risk of non-matching in T2S is well mitigated.

Example 3: transfer of securities from an Investor CSD in relationship with a Technical Issuer CSD to another Investor CSD in relationship with a different Technical Issuer CSD, where participant C of CSD C sells securities to participant D of CSD D with the following links



This scenario is very much like the previous scenario, but with an additional layer of complexity (i.e. an additional layer of CSD intermediation between the IOCs and the Issuer CSD).

From the perspectives of participant C and participant D, the settlement takes place between their respective accounts with their respective CSDs (C and A). T2S generates movements 1, 2, 3, 4 and 5, as depicted in the diagram above, to perform the bookings.

The two key conditions for CA transaction management detection:

- CSD aware of the pending transaction

The two IOCs, Investor CSD C and D, are always aware of the pending transaction as they have matched settlement instructions for their participants.

The Issuer CSD I and the intermediating Investor CSDs A and B may be aware of the pending transaction between participant C and D well before settlement date or settlement attempt. This will depend on CSDs I, A and B subscription level on the T2S reporting functionalities or their querying model in T2S. T2S will create upon matching of the initial settlement instructions all relevant realignment instructions.

T2S generates movements 2, 4 and 3 upon the settlement attempt (or successful settlement).

- CSD aware of the corporate action

The Issuer CSD is always aware of the corporate action since the underlying security is issued in its books.

In the T2S environment, the Investor CSDs (C and D) should ensure that their service level agreement with the Issuer CSDs or other entities supports their timely access to corporate action information.

Only the two IOCs are able to raise the corporate action on flows, provided that they are informed on the corporate action of the foreign securities they offer for settlement to their participants.

Processing

Issuer CSD Model

CSD I will need to send a settlement instruction to T2S to post a movement between

- Option 1 – the omnibus account of CSD A with CSD I and the omnibus account of CSD B with CSD I.

The option implies that CSD A and CSD B further would have to link this instruction against the underlying instructions (between participants C and D) and in their turn generate a movement between the mirror accounts and their participants (as T2S does not create these instructions); Option 1 implies that CSD A and CSD B would in their turn need to instruct T2S to do the respective bookings to replicate these movements in their relationship respectively with Investor CSD C and Investor CSD D.

- Option 2 – the participant C in CSD C and participant D in CSD D.

Option 2 is probably easier to reconcile for CSD C and CSD D, as T2S will generate all the movements in the mirror and omnibus account in all relevant CSDs on the basis of these instructions.

The Issuer CSD instructs T2S (already matched settlement instructions) for both parties in both options 1 and 2.

However, the legal implication of option 2 is that CSD I has a power of attorney to be able to instruct on the account of participants of other CSDs (e.g. participant C in CSD C and participant D in CSD D).

IOC Model

In this model, Investor CSDs C and D would each generate an instruction to T2S on behalf of their participants (C and D) and T2S would then match these instructions.

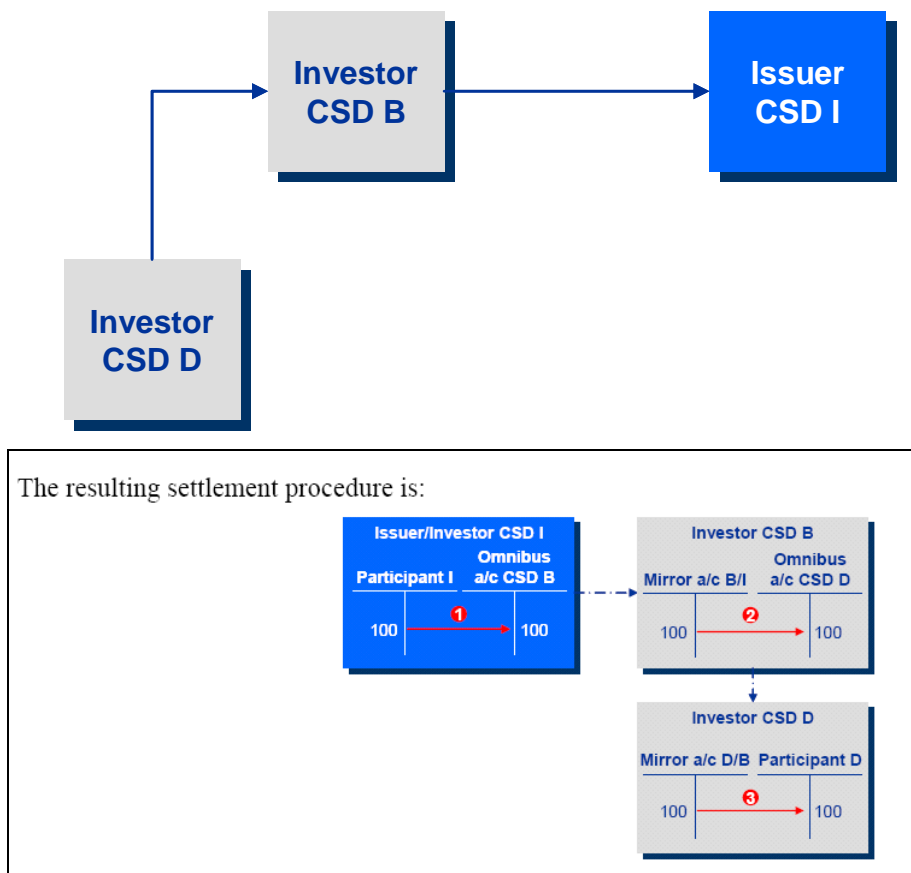
- CSD C would send an instruction to debit its participant C account and credit participant D account in CSD D;
- CSD D would instruct to debit participant C account in CSD C and credit participant D account in CSD D.

T2S will generate the relevant bookings in the participants and omnibus accounts of all involved CSDs.

The Issuer CSD I will have to exclude from its market claims detection mechanism the posting no. 3 of the flow, i.e. the realignment settlement related to the settlement of the market claims transaction, to avoid raising a claim when it is not needed. Similarly, Investor CSD A and B have to do the same with the postings 2 and 4 of realignment settlement, related to the settlement of the market claims transaction.

IOC Model seems more efficient in this situation (less monitoring, instructing and querying requirements for all involved CSDs) provided that the risk of non-matching in T2S is well mitigated

Example 4: transfer of securities from (to) the Issuer CSD to (from) an Investor CSD in relationship with a Technical Issuer CSD, where participant I of CSD I (Issuer CSD) sells securities to participant D of CSD D (Investor CSD) with the following links



From the perspective of participants I and D, the settlement takes place between their respective accounts with their respective CSDs. T2S generates movements 1, 2 and 3, as depicted in the diagram above, to perform the bookings.

The two key conditions for CA transaction management detection:

- CSD aware of the pending transaction

Both CSDs (Investor CSD D and Issuer CSD I) are the IOCs and they are aware of the pending transaction in all cases as each CSD has a matched settlement instruction for one of its participants.

Investor CSD B may be aware of the pending transaction, prior to the T2S settlement attempt, provided that the relevant realignment instruction (related to booking movement 2) has been monitored by CSD B in T2S.

- CSD Aware of the corporate action

The Issuer CSD is always aware of the corporate action since the underlying security is issued in its books.

In the T2S environment, Investor CSD D should ensure that its service level agreement with the Investor CSD B or other entities supports their timely access to corporate action information. The same is true for Investor CSD B vis-à-vis Issuer CSD I since there is no contractual relationship or account servicing relationship between Issuer CSD I and Investor CSD D.

Processing

Issuer CSD Model

CSD I will need to send a settlement instruction to T2S to post a movement between its participant I and

- Option 1 – the omnibus account of CSD B with CSD I

This option implies that CSD B would further have to generate a movement between the mirror account and the omnibus account of D in its book. Further on, CSD D would need to do the same for participant D in its own books. T2S does not generate these instructions.

- Option 2 – the participant D in CSD D

Option 2 is probably easier to reconcile for CSD D, as T2S will generate all the movements in all CSDs relevant accounts on the basis of the instructions.

The settlement instructions could be sent already matched, as Issuer CSD I instructs for both parties in both options 1 and 2.

The legal implication of option 2 is that CSD I requires a power of attorney to be able to instruct on the account of the participant of another CSD (e.g. participant D in CSD D)

IOC Model

In this model, both CSDs (Issuer CSD I – Investor CSD D) would generate a settlement instruction to T2S on behalf of its account owners and subsequently T2S would match these instructions.

- CSD I would send an instruction to debit its participant I account and credit participant D account in CSD D;
- CSD D would instruct to debit participant I account in CSD I and credit participant D account in CSD D.

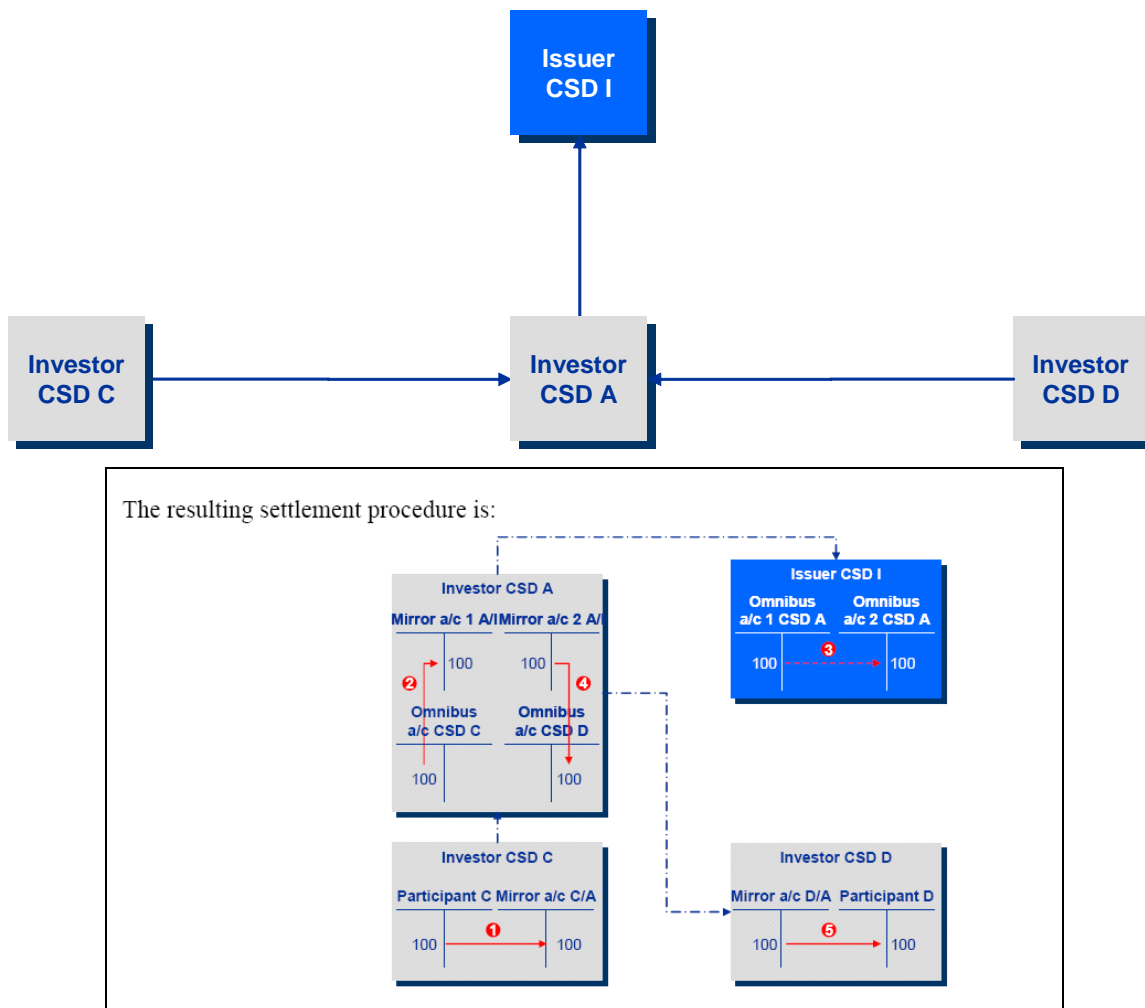
T2S will generate the relevant postings in the omnibus account B in CSD I. T2S will generate the bookings in the relevant accounts of CSDs B and D as per the settlement of the CA transaction management instructions.

CSD B remains unaware of the pending transaction prior to settlement date unless it queries or receives information on the pending realignment instruction for booking 2. CSD B will have received on payment date on its omnibus account in the Issuer CSD I the distribution, as proceeds of the underlying corporate action will be distributed by the Issuer CSD I on its participant's accounts, provided that CSD B has a position in the underlying security and/or CSD I is aware of the pending settlement instruction for booking 1.

Issuer CSD I will have to exclude from its market claims detection mechanism the posting no. 1 of the flow, i.e. the settlement related to the settlement of the market claims transaction, to avoid raising a claim when it is not needed. Similarly, Investor CSD B has to do the same with the posting no. 2 of realignment settlement related to the settlement of the market claims transaction.

IOC Model seems more efficient in this situation, provided that the risk of non-matching is T2S is well mitigated.

Example 5: transfer of securities from an Investor CSD in relationship with a Technical Issuer CSD to another Investor CSD in relationship with the same Technical Issuer CSD, where participant C of CSD C sells securities to participant D of CSD D with the following links



From the perspective of participants C and D, settlement takes place between their respective accounts with their respective CSDs. T2S generates movements (1, 2, 3, 4 and 5,) as depicted in the diagram above, to perform the bookings.

The two key conditions for CA transaction management detection:

- CSD aware of the pending transaction

As in previous examples, the two IOCs (Investor CSDs C and D) are by definition those CSDs which are always aware of the pending transactions and the matched settlement instructions of their participants.

Investor CSD A and Issuer CSD I may be aware of the pending bookings 2, 3, and 4 provided that they has access to the related pending realignment instructions in the T2S platform.

- CSD aware of the corporate action

The Issuer CSD is always aware of the corporate action since the underlying security is issued in its books.

As in all previous examples, in the cascading model of CA information dissemination, Issuer CSD I should inform Investor CSD A which in its turn should inform Investor CSDs C and D. All this presupposes non zero balances in Investor CSDs accounts or early warning of pending transactions forwarded to or queried by the Issuer CSD I.

Since CSD C and CSD D have no contractual relationship with Issuer CSD I, the solution on the timely corporate action information of the two Investor CSDs (C and D) relies on the SLAs they have with the Investor CSD A.

Processing

Issuer CSD Model

CSD I would need to send a settlement instruction to T2S to post a movement between omnibus account 1 and omnibus account 2 of CSD A in its book.

In this case, Investor CSD A would have to instruct in T2S the postings on omnibus accounts C and D within its books and finally, CSD C and CSD D would have to instruct in T2S the final postings against their own participants.

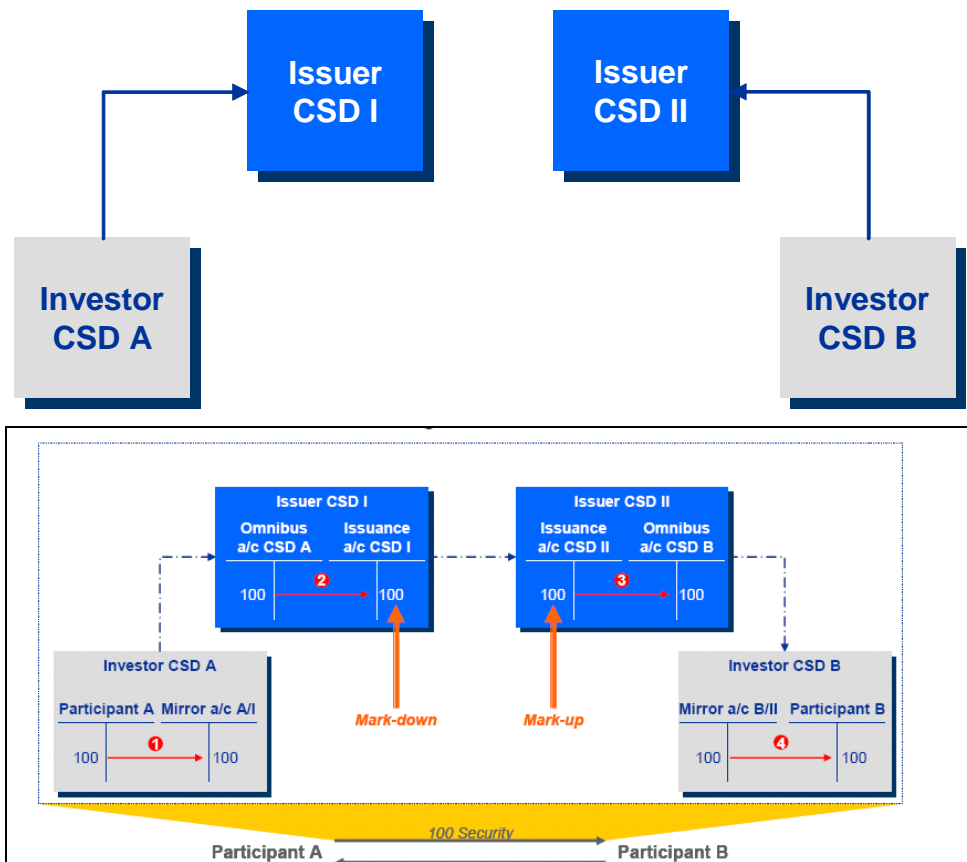
IOC Model

In this model, Investor CSD C and D each would generate a settlement instruction to T2S on behalf of its participant (C and D) and T2S would then match these instructions.

T2S will generate the relevant postings in the omnibus account C and D in CSD A (and the linked mirror accounts entries) and CSD I as per settlement of the market claims or transformation instructions.

CSD A remains unaware of the transaction prior to settlement unless it queries or receives information on the pending realignment instruction for bookings 2 and 4. CSD A will have received on payment date in its omnibus accounts in the Issuer CSD I the distribution proceeds, as proceeds of the corporate actions will be distributed by the Issuer CSD I on its participants accounts. This may create an issue with settling market claims and transformations. The out turn of the underlying CA may need to be distributed to CSDs C and D before the settlement of the market claim/transformation in CSD I. As a consequence, Issuer CSD I will have to exclude from its CA transaction management detection mechanism the posting no. 3 of the flow, i.e. the realignment settlement related to the settlement of for example a market claims transaction, to avoid raising a claim when it is not needed. Similarly, Investor CSD A has to do the same with the movement 2 and 4 of realignment settlement related to the settlement of the market claims transaction.

Example 6 (multi-issued securities): transfer of securities between two Investor CSDs, each of them is using a different Issuer CSD as Technical Issuer CSD, where participant A of CSD A sells security to participant B of CSD B with the following links



This case does not have to be considered in detail as it follows the same processing in T2S as per example 2 above. IOCs (CSD A and CSD B) perform the same function as per example 2.

5. Conclusions

This note has introduced a new term, the IOC, which includes both Issuer and Investor CSDs. The note analyses in detail the most possible and realistic scenarios for cross-CSD settlement in T2S.

The analysis has demonstrated that neither the Issuer CSD model nor the IOC model is perfect in its current state. The Issuer CSD model is closer to the cascading principle according to which entitlements are distributed on holdings. The IOC model is closer to the cross-CSD settlement logic of T2S. The challenge is to bridge these two models and forge recommendations that will deliver an efficient T2S settlement environment.

5.1 Issuer CSD Model

The logic of this model is aligned with the logic of corporate action processing on stock. The Issuer CSD is always aware of the corporate actions details by its very nature as Issuer CSD of the underlying security.

Therefore, the details applied are always correct for both parties to the transaction, as they are generated by the same central party (Issuer CSD).

However, depending on the Issuer CSDs access to the realignment pending instructions, the Issuer CSD may not be aware the underlying pending transaction (and all its relevant instructions details such as the ex/cum details) with sufficient advance notice to inform the Investor CSDs on market claims/transformations information as from record date. In reality, only the two IOCs are in all cases aware of the pending transaction as early as possible (the Issuer CSD may or may not be one of them, depending on the cross-CSD settlement scenario – those of 1 and 4 above).

Cash arrangements can also be an issue in some scenarios (e.g. the need for the Issuer CSD to establish cash arrangements cross-border in some scenarios and the related funding and risks issue related to such arrangements). This issue needs to be resolved, implying the willingness of Issuer CSD and Investor CSDs to establish proper cash arrangements for the bookings of the claims and transformations via their respective cash accounts rather than directly between the underlying transaction participant's cash arrangements.

In addition, the Issuer CSD model requires the Issuer CSD to have a power of attorney on participant accounts of all CSDs with whom they establish links, in order to instruct the claims/transformations directly between the participant accounts even if they are held with other (Investor) CSDs. This is unlikely to reach broad consensus amongst the T2S stakeholders.

Finally the Issuer CSD cascading processing implies that all involved CSDs in the settlement chain need to monitor and instruct the claim or the transformation at its level of chain (multiplicity of instructing in T2S).

In order for the Issuer-CSD model to work, several options can be considered to tackle these issues:

Option	Description	Issue
1	<p>Ensures that T2S creates the pending realignment instructions upon matching of the underlying transaction, allowing all Investor CSDs and the Issuer CSD to be aware of the underlying transaction to provide CA information and perform market claims and transformation detection as from record date on matched unsettled transactions.</p> <p><i>Sub-option 1 – Issuer CSD raises all claims:</i></p> <p>This would imply that for a specific ISIN, the Issuer CSD should receive information and should monitor <u>all</u> pending settlement instructions</p>	<p>Sub-option 1 would add operational complexity and costs to all Issuer CSDs in order to monitor and manage all pending transactions (and instructions) sent to T2S on the ISINs issued in their books.</p> <p>Sub-option 2 does not reap potential benefits of T2S improved solution for cross-border settlement.</p>

	<p>across for all CSDs and participants maintaining an account in the Issuer CSD books, even though the Issuer CSD is not involved in the transaction chain (typical example no 3). In a T2S environment, this volume could be considerable.</p> <p><i>Sub-option 2 – Issuer CSD raises claims on its books and the cascading principle applies:</i></p> <p>This would mirror today’s situation and follow the same approach as CA on stock. However, it does not take advantage of the T2S enhanced settlement flows on cross border transactions.</p>	
2	<p>Drops the requirement, at least for cross-CSD settlement, to raise market claims and transformations as from record date on pending transactions, but simply has the Issuer CSD raise the claims upon settlement of the underlying transaction if the settlement takes place within 20 days of the record date.</p>	<p>This option will possibly result in a downgrade of service in some circumstances and is in contradiction to the recently agreed CAJWG standards.</p>
3	<p>Allows the Issuer CSD to query in T2S for all participants of all Investor CSDs matched pending transactions as of the record date in order to raise market claims and transformations.</p>	<p>This option seems rather unrealistic for obvious commercial and legal reasons.</p>

5.2 IOC model

The IOC model is more aligned with the efficient T2S mechanism for cross-CSD settlement.

This mechanism is different from the current industry corporate action on stock processing that flows down from the Issuer CSD to its participants and the Investor CSDs. Different mechanics for corporate actions on flows and on stock may create issues, especially if the timing of the bookings (and cascading down bookings) of distribution of corporate actions on stock is delayed compared to the corporate actions on flows (e.g. market claim settling before the proceeds of the corporate action on stock are distributed down to the last participant).

In case one of the counterparts in the pending transaction maintains its accounts in the Issuer CSD, then this Issuer CSD acts as IOC (see examples 1 and 4 above).

In case there is a chain of Investor CSDs, the intermediary Investor CSD faces the same challenges as per the Issuer CSD in the Issuer CSD model described above. So this is why the document refers to the model of Instruction Owner CSD, i.e. the Investor or Issuer CSD which “owns” the settlement instructions of the involved participants in the underlying transaction. The focus is not on the role of CSDs as Issuer or Investor infrastructure but on its direct involvement in the underlying transaction.

This model leverages T2S ability to generate the interim accounts movements and manage the realignment bookings in a single process.

Both IOCs will generate the market claims instructions and T2S will match them. There is always a risk that such instructions may not match. However, the anticipated harmonization brought by the CAJWG and CASG standards as well as other Giovannini related harmonisation initiatives (FISCO etc) are likely to reduce the risk of non-matching, even if this risk can never be totally excluded.

In order to work, several options can be considered to tackle the major problem with this model, i.e. the ability of the IOC, when it is not the Issuer CSD, to receive information on the corporate action and to initiate the detection and the instruction of market claims/transformations in T2S.

Option	Description	Issue
1	<p>IOCs (when it is the Investor CSD) can rely on sources other than the normal notification service of Issuer CSD that is based on distribution of</p>	<p>This option has risks as the Issuer CSD is the main and official source of information distribution of corporate actions (as per the CAJWG, its role is even</p>

Option	Description	Issue
	information to holders and pending transactions to identify the corporate actions.	reinforced). The IOC, generating claims on unconfirmed CA or on the basis of inexact details received from sources other than the Issuer CSD, can lead to a great number of unmatched instructions. The obvious and recommended alternative would be for the IOCs to sign specific service level agreements (i.e. notification service beyond the prescripts of the CAJWG) with the Issuer CSD (or the intermediating Investor CSDs where relevant) to receive accurate and timely CA information. There are a number of ways for the Investor CSD to be informed (Issuer CSD “push” mode, Investor CSD query mode, use of a third party etc). The choice of the arrangement is for each CSD to make based on its business model. It is neither in the mandate of CASG nor in the scope of this note to make recommendations on this.
2	the Issuer CSD is able to determine the relevant IOC from the settlement instructions it receives from the IOC’s participants	This addresses mostly cross-border scenario 1 and 4 (IOC = Issuer CSD). Examples 2, 3 and 5 predicate that holdings exist on the omnibus accounts of the IOCs, held with the Issuer CSD, allowing the Issuer CSD to distribute the CA information properly.
3	T2S creates the realignment instructions upon matching and the Issuer CSD can identify all relevant pending transactions affecting its books so that notification of the corporate action can be sent to the Investor CSDs connected directly to Issuer CSD.	This is possible in T2S but still relies on the cascade effect in some models since in some examples the IOC (s) may not be directly connected to the Issuer CSD (see examples 3, 4 and 5 above)

Final recommendation

The analysis demonstrates that the IOC model is the best option from a pure functional perspective within the assumptions defined in the introduction.

Therefore, CASG recommends the IOC model considering though

- the risk of unmatched instructions;
- the requirement to exclude the realignment movements, generated by the settlement of the market claims/transformations.

As it is expected that T2S will increase competition, it can be assumed that improved service levels will mitigate the risks related to dissemination of corporate action information from the Issuer CSD to Investor CSDs.