

Minimum Settlement Unit and Settlement Unit Multiples in T2S

1. Introduction

This note is a report by the CASG to the Harmonisation Steering Group on the issue of the usage of the Minimum Settlement Unit (MSU) and the Settlement Unit Multiple (SUM) in the T2S securities database.

It covers the following topics:

- Description of the problem
- The current discussion within the CASG and the CRG
- Size of the problem
- Considerations as to whether this issue should be included in the T2S harmonisation list, either as a separate individual activity, or as a broader activity that, for example, could cover issuance practices

2. Description of the problem

In the T2S securities database, there are fields that specify for a particular ISIN (i) the Minimum Settlement Unit (MSU) and (ii) the Settlement Unit Multiple (SUM) of that security. The MSU and SUM for a particular ISIN are typically defined by the issuer of the security, and form part of the static data of the security that are maintained by the issuer CSD. At the point of validation of a settlement instruction in that security, T2S checks to see if the securities amount in the transaction is consistent with the MSU and the SUM values for that security; if it is not, and assuming that the transaction type of the instruction does not benefit from an exemption, then T2S will reject the instruction.¹

¹ For more technical information with regards to the relevant T2S definitions being used throughout the document and the relevant T2S functionalities please refer to Annex 1

The MSU and SUM functionalities in T2S cause problems if a securities settlement instruction with a securities amount that is inconsistent with the MSU/SUM validations needs to be settled in T2S.

The most generic scenario is the case of **a security in T2S that has an MSU or SUM, which is higher than the minimum amount which could exist for that type of security.** For example, normally equities would not trade/settle/be held in amounts lower than 1 share (MSU=SUM=1) and debt securities in amounts less than 0.01 EUR if they are EUR denominated (MSU=SUM=0.01).

For such a security, there is, for example, the possibility that there is a court order or a will to separate a holding among two or more holders of security, which may not be compliant with the MSU and/or SUM validations.

Additional examples of scenarios that may cause problems are the following:

1/ MSU not equal to SUM / Trade –related settlements resulting in amounts on securities accounts which are not settleable because they do not comply with MSU and/or SUM validations

Some issuers have defined for some instruments values for MSU, which are greater than SUM. In these cases even if there is a series of individual trade-related settlements (during a given day or over time), compliant with the MSU and SUM for that security, a situation could arise where the end position in a security on a securities account is not compliant at least with the MSU anymore and cannot be settled. According to CSDs, most MSU/SUM problems fall into this scenario.

Example: A bond has an MSU of 10,000 EUR and a SUM of EUR 1,000 EUR. A CSD participant may buy a position of EUR 11,000 in one transaction, and then sell 10,000 EUR in another. This will leave the participant with a position of 1,000 EUR in that security; this position does not meet the MSU validation, and, therefore, cannot be moved in T2S.

2/ Corporate action processing / Impossibility to process non-trade related settlements, which are not compliant with the MSU and/or SUM values

The case could arise that an issuer announces the terms of a corporate action that requires security bookings that do not meet the requirements of the MSU and SUM validations. Such a situation causes problems for the CSD, as it has to effect the bookings on a corporate action on stock, and/or generate the claims and transformations. Assuming that the CSD finds a way of overriding the MSU/SUM requirements, and of effecting the bookings, then the problem is transferred to the end investor, as the end investor now has a position that it cannot sell or move.

Example: A bond has an MSU of EUR 100,000 and a SUM of EUR 10,000; at the same time there is holding of EUR 100,000 on an securities account of an investor. The issuer announces a partial redemption of the bond of 5%. This means that the CSD has to debit an amount of EUR 5,000 from the securities account of the investor, which holds EUR100,000. This will not normally be possible as this amount is not compliant with the MSU and SUM validations (except in the case when the corporate actions are exempted from these validations). However, even if the CSD manages to debit this amount, the investor will be left with EUR95,000, which he cannot transfer anymore because they are not compliant with MSU and SUM as well.

As can be seen from the scenarios set out above, if MSU and SUM are not set in T2S to the minimum indivisible amount possible for the respective security, there are some situations in T2S that have the potential to cause problems such as:

- 1/ Inability for the end investor to sell a position on its securities account
- 2/ Inability for the end investor to change custodian and to transfer the position to a new custodian
- 3/ Inability for CSDs to process corporate action movements and/or securities transfers resulting from court orders, exercising of wills, etc.
- 4/ Restrictions on the ability of a CCP to net transactions (as netting of a number of MSU/SUM-compliant transactions may result in securities transfers in T2S which are not MSU/SUM-compliant).

3. Current discussion within the CASG and the CRG

3.1 Before T2S

Today, before their migration to T2S, CSDs are successfully managing the above issue related to MSU/SUM rules. This is done by using one or a number of the following workarounds:

1. Instructions sent by Issuer CSDs are not subject to the MSU/SUM validations;
2. Issuer CSDs manipulate static data to override MSU/SUM values for a certain settlement;
3. Issuer CSDs use Deviating Settlement Unit functionalities to override MSU/SUM validations;
4. Transactions, which will not be normally compliant with MSU/SUM validations, are shaped by using two linked settlements that will individually pass the MSU/SUM validations.

3.2 After T2S

Tomorrow, in T2S this issue may become even more evident and difficult to manage due to increased cross-border activity and the more restrictive nature of validations with respect to MSU and SUM in T2S.

This is because before T2S, when the majority of settlements are intra-CSD, at least one of the CSD participants to a securities transfer would normally have a direct relationship with the CSD, which acts as a Securities Maintaining Entity (SME) for the respective security. However, in T2S it is expected that the number of cross-CSD transactions becomes higher and therefore, the number of cases will increase significantly when neither of the two CSD participants to a securities transfer will have a direct relationship with the Securities Maintaining Entity (i.e. in most cases the Issuer CSD). For example, there could be a case when participant A of CSD X has a transaction with participant B of CSD Y. However, the SME CSD for the security, which is the object of the transaction, could be CSD Z, with which neither parties (A or B) could have a direct relationship.

Therefore, certain ad-hoc solutions, which were implemented before T2S by CSDs to allow certain settlements of their participants which are not compliant with the MSU and SUM values for the respective security, will not be feasible anymore in the T2S environment of increased cross-CSD activity.

Possible solutions in T2S:

1. Instructions sent by the Issuer CSD may not be subject to the MSU/SUM validations;
Not feasible: in T2S all instructions will be subject to validations irrespective of the instructing party
2. CSDs could use the CORP transaction type to send settlements not purely related to corporate actions on stock to override validations related to SUM;
Not feasible: This workaround can be used only by CSDs and will result in wrong reporting. Additionally, this does not solve the problem with regards to MSU validations.
3. The Issuer CSD may temporary manipulate static data to override MSU/SUM values for a certain settlement;
Not feasible in case of settlements outside the SME CSD: Only the SME CSD for the respective security in T2S can manipulate the static data in T2S. Therefore, this workaround will not be practicable in certain cases, if settlement in T2S affects CSDs other than the SME CSD for the respective security and because of DCP instructions sent directly to T2S.
4. The Issuer CSD may use the Deviating Settlement Unit functionality to override SUM validation;
Not feasible in case of settlements outside the SME CSD: Only the SME CSD for the respective security in T2S can manipulate the static data in T2S. Therefore, this workaround will not be practicable in certain cases, if settlement in T2S affects CSDs other than the SME CSD for the respective security and because of DCP instructions sent directly to T2S.
5. Shaping of the settlement of a transaction, which will not be compliant with MSU/SUM validations, by using two linked settlements that will individually pass the MSU/SUM validations.
Feasible but undesirable: this workaround is always possible in T2S to be applied by any type of instructing party before or after T2S. However, this in effect amounts to splitting one settlement into two and thus results in wrong reporting of the underlying settlement. In this respect, it should be noted that this workaround can always be used by the counterparties in a transaction to circumvent the restrictions imposed by the issuers with MSU and/or SUM on the settlement quantities which questions the logic and effectiveness of imposing the validations with regards to MSU and SUM at the settlement level.

Summary of preliminary analysis:

- Issuers' imposed MSU and SUM rules are present today, in domestic and cross-border transactions;
- CSDs and their participants today have a number of workaround solutions on the CSD legacy platforms, which can be used on an exceptional basis;
- Tomorrow in T2S this issue may become more evident due to increased cross-border activity and more restrictive validation rules related to MSU/SUM in T2S;
- Nevertheless, there are also workaround solutions in T2S with no need for change in T2S functionality but they may be inefficient for CSDs and their participants or even question the whole logic of imposing such restrictions at the settlement level.

There is an on-going discussion in the T2S Change Request Group (CRG) regarding the need for a change in the respective T2S functionalities with regards to MSU/SUM, including the timing of such changes.

3.3 Possible Changes to T2S Functionalities

3.3.1 Change Request T2S-497-SYS - No check on MSU when settling Corporate Action instructions

In T2S, based on the current functionality, in the case of corporate actions on stocks (i.e. using the “CORP” transaction type), CSDs will not be able to override the MSU but only the SUM validation – please refer to the table in Annex I. However, the CRG is currently considering to implement a change request (T2S-0497-SYS) which will allow CSDs to override the control against MSU under a corporate action on stock settlement scenario (i.e. using the “CORP” transaction type). This CR is considered mandatory by some CSDs for specific bonds and funds, in order to be able to debit existing positions as part of a CA such as redemption, where the position < MSU (a situation which could have resulted from normal settlement). Subject to the detailed assessment of the 4CB, this change request could be implemented at the earliest before wave 2.

If implemented, this change request would mean, for example, that a CSD would be able to process a redemption for a position in a bond that does not meet the MSU/SUM requirements.

3.3.2 Other changes to T2S functionality

The CRG is currently considering, based on a note of the T2S CASG (see Annex II) and a forthcoming survey with the CRG members and/or CSDs, whether there could be a need to override the validations with respect to both MSU and SUM also for other types of settlements in T2S such as corporate actions on flow; CCP transactions; portfolio transfers, etc. Next time the way forward on this will be discussed in July by the CRG, which may agree to issue a survey with the CRG members, but no immediate resolution is expected on this.

The discussions in the CASG and CRG are difficult as there is no clear rationale why some types of activities should benefit from an override, and so do not need to comply with the MSU/SUM requirements, while other activities do not benefit from an override.

In addition, the more activities that benefit from an override, the greater is the chance that end investors will acquire positions that do not comply with the MSU/SUM requirements, and thus end investors (and in some cases CSDs) will be exposed to the problem of untransferable positions.

3.4 Possible long-term solutions

The current discussions in the CASG and the CRG are largely focused on short-term workarounds.

The paper from the CASG (in annex to this paper) argues that there are two basic long-term solutions.

One is that all issuers, together with exchanges and CSDs, set MSU=SUM and fix the terms of corporate actions so that all corporate action processing is compatible with the MSU/SUM restrictions. (This corresponds largely to Option A in the CASG paper).

The other long-term solution is to modify T2S functionalities so that the list of activities benefiting from an override is expanded, and that - if there are any activities that do not benefit from an override – there are operationally easy ways of dealing with the situation. (This corresponds largely to Option E in the CASG paper).

There are currently different views within the CASG as to whether Option A is a realistic option. The principal concerns relating to Option A are that any implementation (i) will take a very long time (as it relates to legal, contractual and regulatory matters), and (ii) will in any event be incomplete (as T2S may still need to cater for markets and market specificities that are beyond the scope of T2S harmonisation efforts).

4. Size of the Problem

The entities which have to implement the MSU and SUM requirements of issuers in their settlement engines are CSDs, including in their investor CSD role. Thus even if CSDs do not face the problem in their role as issuer CSDs they may do so when they act as Investor CSD. For example, based on figures provided to by Clearstream Frankfurt to the CASG², only 0.1% of the ISINs deposited at it as Issuer CSD have an MSU> SUM; the large majority of ISINs actually have MSU=SUM. However, in its capacity as Investor CSD around 18% of Eurobond ISINs or, 17% of the non-Eurobond instruments it accepts to settle, have MSU>SUM. It can therefore be expected that that in T2S, when cross-CSD settlement is expected to increase substantially and new CSD links will most likely be established, this problem will be faced even by CSDs which do not have it today.

The types of securities which are involved are usually bonds including but not limited to Eurobonds, Danish or other EU bonds issued in order to benefit from the exemptions not to comply with the EU Prospectus Directive, bonds issued by local governments, corporate bonds, bonds of banks, etc. Thus CSDs, which are mostly settling bonds, are normally more exposed to this problem. MSUs/SUMs are specified in issuance documents and, therefore, difficult to change in the short term. Most often Issuers wish to control certain aspects of the distribution process via higher MSU/SUM in order to limit the offering of issued securities to institutional investors (e.g. not to be liable to comply with certain regulatory requirements – in the case of EU securities sold in denominations and multiples of 100,000 are exempted from complying with the Prospectus directive). Nevertheless, there could be other reasons why Issuers may wish to have higher MSU/SUM for certain ISINs.

5. Should this topic be included in the T2S Harmonisation List?

5.1 T2S harmonisation activity

The HSG could have a first discussion on considering a new harmonisation activity (possibly as part of a group of Issuance related topics). The reasoning to pursue this harmonisation activity is that validation rules on MSU and/or SUM can be easily circumvented by shaping settlement of transactions and do not really serve the purpose for which they are intended by the issuers, i.e. to control the minimum/multiple amount which can be held and/or traded by CSD participants. At the same time these restrictions slow

² *Statistics only for securities to be migrated to T2S with wave 1. Securities to be added with wave 3 not included.*

down processing at CSDs due to the additional validations being implemented and the need to occasionally settle amounts which are not compliant with MSU and/or SUM.

An important topic is the question of what is the underlying purpose of the MSU/SUM validations, and of whether there are alternative tools to achieve the objectives of issuers (and conceivable national regulators). For example, one idea that may merit more detailed analysis is that CSDs do not implement such validations in their settlement engines but report ex-post to the issuers all settlements below MSU and not compliant with SUM which have taken place during a given period.

Other considerations:

1/ Capital Markets Union – Issuance practices: in the public consultation, several public authorities including the European Central Bank and the Bank of England have supported harmonisation work with respect to issuance practices

2/ Capital Markets Union – Regulatory convergence/consistency: if anomalous MSU/SUM restrictions are driven by different requirements from different national securities regulators or by different transpositions of the Prospectus Directive, then this is certainly a relevant CMU topic

3/ Apart from Danish bonds, the biggest source of MSU/SUM problems are international bonds. This means that issuers and issuer agents for the international bond market are key stakeholders. One body that has done harmonisation work on issuance practices relating to the international bond market is ISMAG.

4/ Even if there are changes to issuance practices for EU and international bonds, there is still the potential for problems on T2S, as CSDs on T2S may act as investor CSD for bonds issued in other countries (such as the US).

5/ The MSU/SUM issue is a real, but also a technical and tightly defined problem. It may not by itself merit a major harmonisation structure and effort. However, there is the question of whether there are additional issues relating to issuance practices at the CSD level that may benefit from harmonisation in a T2S context. If the answer is yes, then maybe the MSU/SUM topic can be included in a broader harmonisation activity.

Table 1: Possible Harmonisation activities on [HSG to complete the table]

<i>Activity</i>		<i>Objective</i>	<i>Definition</i>	<i>Monitoring</i>	<i>Implementation</i>	<i>Comments</i>
Issuance rules and procedures	MSU	Issuers to agree on a standard rule for a MSU for all securities settling in T2S CSDs	<p>Actors: Issuers, Issuer agents, ISMAG, Regulators, T2S AG</p> <p>Delivery Date: 2016</p> <p>Status: not initiated yet</p>	<p>Actors: T2S HSG/ NUGs</p> <p>Status: not initiated yet</p>	<p>Actors: Issuers, T2S markets</p> <p>Target Date: 2019</p>	

<i>Activity</i>	<i>Objective</i>	<i>Definition</i>	<i>Monitoring</i>	<i>Implementation</i>	<i>Comments</i>
SUM	Issuers to agree on a standard rule for a SUM for all securities settling in T2S CSDs	Actors: Issuers, Issuer agents, ISMAG, Regulators, T2S AG Delivery Date: 2016 Status: not initiated yet	Actors: T2S HSG/ NUGs Status: not initiated yet	Actors: Issuers, T2S markets Target Date: 2019	

6. Conclusions

The HSG is invited to decide:

Option 1: to propose to the July AG a new activity on Issuance related topics

Option 2: to postpone any further work on the issue until after T2S migration phases are complete

Option 3: AG/HSG to escalate topic to European Issuers or any other relevant association/stakeholder group

7. Annex I: T2S definitions

To better understand the issues involved, the following definitions in T2S should be kept in mind:³

Term	Definition
Minimum Settlement Unit (MSU)	Defines the minimum quantity or nominal of a security for settlement. The value could be zero.
Settlement Unit Multiple (SUM)	Defines that the settlement quantity or nominal must be a multiple of the defined value. The value must be greater than zero.
Deviating Settlement Unit (DSU)	Defines lot sizes outside of the multiple that can settle for a given security. The value must be greater than the MSU.

The Minimum Settlement Unit, the Settlement Unit Multiple and the Deviating Settlement Unit are defined for each security in T2S Static data by the Securities Maintaining Entity (SME) for that security, which is usually the Issuer CSD, or in case the Issuer CSD for that security is not part of T2S, the so-called technical Issuer CSD for the respective security in T2S.

The values of these attributes are used in different processes/validations in T2S. Below is a description in which case the values of the attributes are used in T2S for the purposes of validation of settlement instructions with regards to the settlement quantity:

Functions	Minimum Settlement Unit	Settlement Unit Multiple	Deviating Settlement Unit
Settlement Quantity Validation (For instructions not related to CAs on stock - CORP)	Yes	Yes	Yes
Settlement Quantity Validation (For CAs on stock - CORP)	Yes	No	No

For example, an equity instrument could be defined in T2S as having MSU=100 shares, SUM=100 shares and DSUs 150 shares and 250 shares. Also a fixed-income security may have the following MSU=10,000 EUR; SUM=1,000 EUR and DSUs 10,500 EUR; 11,500 EUR and 12,500 EUR.

In this case, based on the set-up regarding MSU above, all incoming settlement instructions (including for corporate actions on stock) having a value for the settlement quantity lower than 100 shares for the equity instrument or lower than 10,000 EUR for the fixed-income security will be rejected by T2S.

Similarly, all incoming settlement instructions (with the exception of those related to corporate actions on stock, i.e. having the CORP transaction type identifier) having a value for the settlement quantity which is

³ "Insights on the usage of Minimum Settlement Unit, Settlement Unit Multiple and Deviating Settlement Units", January 2015 from the series T2S Knowledge Base: https://www.ecb.europa.eu/paym/t2s/progress/pdf/insights_on_the_use_of_msu_sum_and_dsu_in_t2s.pdf?3888191efdfa962526273150a8b8574b

not a multiple of 100 shares for the equity instrument above or 1,000 EUR for the debt instrument will be rejected by T2S at validation. However, if the settlement quantity is equal to exactly 150 shares or 250 shares in the case of the equity instrument or to 10,500 EUR; 11,500 EUR or 12,500 EUR in the case of the fixed-income instrument (i.e. equal to the values provided for the DSUs in T2S static data), these instructions will be successfully validated in T2S.

Annex II: Note of T2S CASG to CRG on MSU and SUM in T2S

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09.04.x01/2015/003580

**Feedback of T2S CASG to CRG on Minimum Settlement Unit and
Settlement Unit Multiple in T2S****1. Background**

In its meeting in March 2015 the CRG discussed Change Request T2S-0497-SYS (*No check on minimum settlement unit when settling Corporate Action instructions*), which was raised by the VP securities. Based on the business cases presented by VP and NBB-SSS, also supported by other CSDs, which mentioned that the CR could help them solve potential migration problems, the CRG agreed to submit for detailed assessment to the 4CB this CR, specifying that it concerns only instructions with transaction type “CORP”, i.e. corporate actions on stock. The CRG will further investigate with CSDs whether the Change Request is required for the Community Testing for Wave 3 or Community Testing for Wave 2 if the wave 2 CSDs indicate so. The 4CB will analyse when the Change Request and its detailed assessment can be available (currently scheduled for end July).

In addition, the DCPG agreed in its feedback to the CRG that both CAs on stock and on flow (claims/transformations) should ideally reach the same level of validation with regards to MSU and SUM.

In this context, the CRG agreed that the CASG should discuss on whether another change request will be needed to: i) override validation with respect to MSU on corporate actions on flow (market claims and transformations); ii) override validation with respect also to SUM on corporate actions on flow (market claims and transformations).

This note provides the feedback of the CASG to the CRG on this issue. To summarize, this CR which has been sent for detailed assessment only covers the validation for the MSU, which will be ignored for the transaction type “CORP”. It is a minimalistic CR which is needed for redemption of bonds. However, as described below, there are broader issues with regards to CAs processing which need to be addressed in a comprehensive way. The CASG proposes a number of potential solutions to the CRG as well as a way forward to come to the solution which will be most feasible for T2S.

2. Current practices of CSDs and requirements of the CAJWG and T2S CA standards with regards to fractions handling and

Today CSDs hold securities in their books are typically characterised by minimum trading volume value or Minimum Settlement Unit (MSU) in T2S terminology. This is embedded in the CSDs static data and is defined by the issuer of each security, irrespective whether it is an equity share (denominated in units) or a debt security (denominated in nominal). The MSU presents a threshold below which settlement is not allowed. In addition, the CSDs need to maintain a value of multiple trading volume or Settlement Unit Multiple (SUM) in T2S terminology. Securities transactions cannot settle and thus securities cannot be transferred, if transfer orders are not in accordance with the SUM. Currently CSDs use the MSU and the SUM functionalities to impose the requirements of issuers with regards to minimum/multiple trading volume of a security at the settlement level.

However, when settling on their own platforms, CSDs have always the possibility, on an exceptional basis, to settle securities transfers which are not in compliance with the MSU and SUM of the respective ISIN. This may be needed in the case of:

- a) Corporate actions on stock (e.g. redemptions);
- b) Corporate actions on flow (e.g. market claims and transformations);
- c) Potentially other settlements (e.g. netted securities transfers originating from CCPs; collection of odd lots of a security in one securities account; portfolio transfers; etc.);

This can be achieved by a number of possible ways: override MSU and SUM when the CSD is the instructing party; manipulate MSU and/or SUM so that temporary they are lowered to allow for settlement of certain instructions or use the Deviating Settlement Unit functionality; shaping the settlement of a securities transaction by two linked securities transfers which are compliant with the validations on MSU and SUM; etc.

In T2S, based on the current functionality, in the case of corporate actions on stocks (i.e. using the “CORP” transaction type), CSDs will not be able to override the MSU but only the SUM. In fact, what change request T2S-0497-SYS would achieve, if and when implemented, would be to allow CSDs to override the control against MSU under a corporate action on stock settlement scenario (i.e. using the “CORP” transaction type). However, with regards to corporate actions on flow, CSDs and/or their participants will NOT be able to override the controls with regards to MSU and SUM when needed on an exceptional basis except by the use of the Deviating Settlement Unit functionality.

With regards to the requirements of the CAJWG and T2S CA standards, it is very clear that in principle no fractions of securities on securities accounts should be the outcome of a corporate action event on stock and on flow. Therefore, no fractions of shares should arise on securities accounts of CSDs in T2S as a result of corporate action. Thus with respect to shares, there will not be problem with the validations on MSU and SUM if they are set as follows: $MSU=SUM=1$.

Similarly, with respect to bonds, problems with CA processing will not arise if the $MSU=SUM = 0.01$ EUR. However, there are certain issuers which are setting the MSU of certain ISINs much higher than the SUM as well as the SUM higher than the minimum settleable amount possible. Examples of such securities include are bonds issues (including Eurobonds issues). Some preliminary data shows that in certain markets ISINs, which have higher MSU than SUM, could reach up to 20% of the ISINs, which are held by a CSD. Thus the problem arising from higher MSU as well as SUM is actually quite common.

3. Potential solutions for CSDs in T2S regarding restrictions on MSU and SUM

In the context of i) the problem with validations with regards to MSU and SUM described above as well as ii) CR T2S 0497 SYS, the CASG has outlined the following potential solutions:

A. T2S Community does not implement CR T2S-0497-SYS and agrees to set for all securities in T2S $MSU=SUM$, which is equal to the minimum amount which can be held/traded for the respective security. For example, for shares normally this would mean that in T2S $MSU=SUM= 1$ unit; for bonds $MSU=SUM=0.01$ (1 eurocent nominal value). Then the check on higher MSU or SUM for certain ISINs will not be implemented at the settlement level in T2S.

PROs:

- would solve the problem on MSU and SUM validations at T2S level;
- no change request will need to be implemented;
- this solutions does not prevent CSDs, if required by the issuers of securities with higher MSU and SUM, to provide them with regular reports: i) whether transactions with the respective ISIN took place which are not according to the MSU or SUM and ii) whether there are holdings on securities accounts, which are below MSU. It could be argued that the information provided in these reports will be more comprehensive than the controls on MSU and SUM effected at settlement level.

CONS:

- may not be able to be applied by all CSDs in all jurisdictions due to regulatory constraints or constraints stemming from contractual obligations of the CSDs to the issuers;

B. T2S Community does not implement CR T2S-0497-SYS and CSDs continue to manipulate MSU or SUM when needed on an ad hoc basis or make use of the Deviating Settlement Unit functionality in T2S.

PROs:

- there will not be a need to change the current T2S functionality;
- reports on transactions will be correct;

CONs:

- it will be operationally more difficult for CSDs to manage in particular, if the two counterparties to a cross-CSD trade in T2S do not have direct relationship with the CSD, which acts as SME in T2S for the respective security;

C. T2S Community does not implement CR T2S-0497-SYS and CSDs and CSD participants to shape settlements in a way to make them compliant with the MSU and SUM checks (i.e. use two linked settlements in case the volume of a transaction is below MSU or not according to SUM)

PROs:

- possible to do with the current T2S functionality;

CONs:

- has to be done also by CSDs for settling CAs on stocks
- the reports on settled transactions will be misleading as in this case two securities transfers will actually be shown instead of one;

D. T2S Community to implement CR T2S-0497-SYS and CSDs and CSD participants to shape settlements in a way to make them compliant with the MSU and SUM checks (i.e. use two linked settlements in case the volume of a transaction is below MSU or not according to SUM).

PROs:

- there will be no problem for settling corporate actions on stocks in T2S
- all settlements not compliant with MSU or SUM, if needed, can be initiated by CSDs in T2S using the 'CORP' code.

CONs:

- the reports on settled transactions will be misleading as in certain cases the transaction type code will not be correct.

E. T2S Community, in addition to CR T2S-0497-SYS, to implement additional changes to the T2S functionality, which will override the MSU and SUM validation checks for settlement instructions, in addition to the ‘CORP’ transaction types also for the ‘CLAI’ as well as ‘TRAN’ instructions. The CRG may extend this to other transaction types if deemed feasible.

PROs:

- would provide for a ‘clean’ solution to the problem in exceptions cases to override the controls on MSU and SUM by using standard T2S functionality if needed for corporate action processing on stock and on flow, including by CCPs;

- reports on transactions will not be affected;

CONs:

- will require enlarging of the scope of change request T2S 0497 SYS.

It should be mentioned that A. is the most preferred solution of the CASG, i.e. no restrictions with regards to the amount, which can be held or traded, should be applied at the settlement level. However, it has to be investigated with the T2S CSDs whether this will be possible in all T2S markets as of the go live of T2S. In case not, a new harmonisation activity may be worth pursuing by the T2S Community to achieve this in the long term.

If it is discovered that option A. is not possible, then the second best solution for the CASG is solution E. as it will provide comprehensive solution to CA processing on T2S, for CAs on stock and on flow, without the need for CSDs to resort to onerous procedures, needed to circumvent the MSU and SUM validations in case of CAs on stock and on flow.

4. Survey with T2S CSDs on MSU and SUM

In order to be able to analyse the most appropriate option in which the T2S community should address this issue, the CASG considers that a stock-taking exercise may be worth pursuing with the T2S CSDs. In particular, the T2S CSDs could be asked:

- i) Is your CSD currently using MSU or SUM functionality, setting values which are higher than the lowest amount, which can be held/traded for the respective security;

The CSDs, which reply positively to i), should then be asked:

- ii) Are you using higher MSU and SUM because:
 - it is a regulatory requirement;
 - it is a contractual requirement based on a contract with the issuer;
 - other, please describe.
- iii) How many are the ISINs on which higher MSU and SUM are imposed as at the end of April 2015? What is their share compared with all ISINs registered with your CSD for which you act as issuer CSD?
- iv) How many securities transfers have been concluded with amounts deviating from MSU and SUM during the month of April 2015? If possible, please provide a breakdown by type of settlements?
- v) How many are the individual holdings of securities in amounts lower than MSU at the end of April 2015 on securities accounts with the T2S CSDs?

5. Next steps

Based on the feedback provided by the CSDs in T2S on the survey above, the T2S Community (via the CRG) is to agree on one of the solutions presented above on the MSU and SUM functionality in T2S by end July 2015 when the detailed assessment of *T2S-0497-SYS No check on minimum settlement unit when settling Corporate Action instructions* will be completed.