ECSDA

Settlement efficiency considerations

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Introduction

One year and a half after the implementation of the Settlement Discipline Regime, the ECSDA Settlement Working Group is releasing this discussion paper to share its preliminary analysis about the main root causes of settlement fails in Europe, as far as visible at the level of CSDs and reported through a survey by their participants. The intention is to share some initial recommendations to improve the settlement efficiency in Europe.

The deep attention of CSDs to settlement efficiency is driven by one of their main missions which is to support market efficiency and financial stability. Settlement fails stand in the way of efficiency by generating undue costs, creating further frictions for the connected transactions and ultimately being a driver of systemic risk. If a participant is expecting to receive securities or cash on the intended settlement date but is not receiving them because of a settlement fail from its counterparty, there is a risk that the affected participant is also unable to meet its obligations with other counterparties. That might result in a potential "domino effect" and be a cause of systemic risk.

However, in our view, allowing for a lower level of fails is preferable to aspiring to full efficiency, as it might lead to an unreasonable level of rigidity in financial markets and result in high costs (for pre-funding in addition to the necessary ecosystem technology upgrades). A certain level of tolerance is instrumental to the well-functioning financial markets aspiring for high levels of liquidity and settlement velocity.

This paper is, therefore, looking at how to reduce the number of fails, while not reducing the volume and value of transactions to be settled.

I. ECSDA analysis of settlement efficiency: volatility blurs the assessment of the impact of penalties

Considerations about factors impacting the overall efficiency rates (since February 2022)

ECSDA CSDs have observed that, *in the months preceding February 2022,* on average, the settlement efficiency had improved. To our understanding, this increase was triggered by the preparation of the CSD participants for the entry into force of the CSD Regulation´s requirements on the settlement fail cash penalties.

However, *from February to July 2022*, the war in Ukraine and the subsequent market volatility increase[1], in addition to the need to establish - legally and operationally - the corresponding sanctions upon the accounts of certain participants, had an impact on the efficiency rates that dropped quite significantly in some EU markets.

[1] ESMA TRV Risk Monitor, 2022 n°2, chart 39 also noted the rise of the Equity settlement fails after the Russian invasion. Available at: https://www.esma.europa.eu/sites/default/files/library/esma50-165-2229_trv_2-22.pdf.

We deem it relevant to highlight that external shocks and systemic stress – *such as the ones mentioned in the previous paragraph* - tend to lead to lower settlement efficiency rates. Despite this, an increase in settlement fails rates following an external shock is part of the shock absorption mechanism, and thus contributes to reducing system risk[2].

From July 2022, in the context of continued uncertainty, settlement efficiency rates have partially recovered, resulting in better rates *in March and April 2023* compared with the same period of 2022, although the mentioned challenges that impacted the rates significantly remained.

We, therefore, recognise that, since February 2022, some improvements in the efficiency rates were observed. However, given the relatively high degree of systemic distress, we cannot draw a conclusion on the real impact of the Settlement Discipline Regime implementation on the settlement efficiency rates yet.

With regard to CSDs, during the turbulent period, they have proved to be structured in a resilient way to face volume increases and peaks without significant degradation of services.

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[2] Please refer to the chart "Composite Indicator of Systemic Stress" on page 13, 2023 edition, European Commission's "European Financial Stability and Integration Review".

Considerations about the specifics of the CSDR settlement fails reporting methodology[3]

The CSDR methodology applied by European CSDs represents a new way of assessing settlement efficiency by looking at the settlement fails instead of looking at what has settled on the Intended Settlement Date (ISD) versus what has not. This new and harmonised methodology is quite complex, and it is necessary to take its specificities into account before allowing for full data comparability of EEA CSDs (in)efficiencies and/or non-EU/ EEA markets' (in)efficiencies.

In this context, we would like to outline the major differences from the methodologies taking a different perspective than were used by the EEA CSDs so far:

i. **Issues with reference data may have major impact** – Free-of-payment settlement transactions are "valued" with a price applicable for the relevant ISIN based on the individual CSD price data. As no single source of pricing data is available, some CSDs may over- or undervalue the same security, which impacts their total fails ratio in value. In other instances, in case of issues with the reference data on the side of CSD participants leading to incorrectly denominated instructions, for example for certain debt instruments quoted in units, these instructions have occasionally inflated considerably the monthly (and annual) CSDR "fails in value ratio" reported by some CSDs in the past months[4].

ii. **Counting of both settlement transaction 'legs'** – For intra-CSD settlements, both, the receiving and the delivering instruction legs are considered in the computation, this is double-counting the value and the volume of transaction.

iii. **Number of days a transaction fails** – CSDR methodology requires multiplying the value and the volume by the number of days a transaction is failing until it is fully settled or cancelled which results in a higher fail rate than if it only referred to a failure on ISD.

iv. **Matched instructions for which only one cancellation request has been received** – These are considered as fails until bilaterally cancelled (or settled). These transactions will remain pending in the SSS as the counterparty does not match the cancellation request (for unknown reasons), and will be continuously failing (though, presumably, the transaction is no longer valid).

For some CSDs, the number of instructions under sanctions or default (e.g., due to the war in Ukraine) had and still has an impact on the settlement efficiency rates of their ecosystems. Such sanctioned accounts and transactions are still included in the settlement fails reporting, even if these instructions are not subject to settlement, nor penalties. The difference between the SDR penalties and the SDR Fails reporting scope is important to be kept in mind when reviewing the efficiency data. Hence, it may be relevant to consider if the inclusion of these fails makes sense to be considered for the calculation of the settlement efficiency at the CSD level.

[3] *Note: The intention here is not to propose amendments to the current CSDR settlement fail reporting measures but rather to put in the right perspective the values which may result from the application of the CSDR methodology and to reflect on the need for establishing a common measure to assess settlement fails and efficiency if the EU has to be compared with other regions where the CSDR methodology is not applied.*

[4] *Note: as this kind of issue has been acknowledged as well by other associations, possible mitigating actions should be analysed in more detail jointly with them.*

II. Causes of settlement fails

Before diving further into the details of the root causes of settlement fails, a few general observations have to be taken into account.

The settlement phase in CSDs represents only a part of the post-trade process, where bottlenecks and issues can happen in other phases. As reported by industry stakeholders and CSD participants, the issues affecting settlement efficiency occur at different levels of the transaction processing chain (pre-trade, trade and post-trade).

Considering the interaction between trading and settlement, everything else being equal, more volatility will tend to lead to lower settlement rates (as there is a greater mobility of positions, market makers/liquidity providers are more likely to be, temporarily, short of securities etc.).

Therefore, CSDs will only be able to comment on the visible problems occurring in their books or based on the feedback collected from their participants as CSDs do not have the data on the actual reasons behind the fails.

Our observations

In their books, ECSDA CSDs identified the following main reasons for fails:

- ✓ **LACK OF SECURITIES**
- ✓ **'ON HOLD' INSTRUCTIONS (often linked to the lack of securities available)**
- ✓ **LATE MATCHING**

To better understand these main fail reasons, ECSDA CSDs shared with their respective participants a survey[5] to go into further detail on the usage of the 'on hold' functionality, and the reasons behind what is reported as fail reasons to CSDs.

As background, the survey was answered by 20 CSDs: 16 in T2S plus 4 outside T2S and, responses were received from the following participant segments: local custodians (most), broker-dealers (some) and CCPs (several).

[5] *Note: the survey questionnaire covered all instruments and the overall activity of participants.*

LACK OF SECURITIES

Lack of securities constitutes the main reason for fails reported to and seen at the European CSD level and is much more frequent than the lack of cash. The (il)liquidity of instruments can be one of the frequent factors associated with the missing position on the participant account at the CSD on the settlement date.

The survey (issued in March/April 2023) has shown that most frequently, the 'lack of securities' -related fails are due to the awaited delivery of corresponding securities through a related transaction or a realignment in another market. In several cases, the participants reported that securities lending was not possible for them as no lending service was offered, or that further internal position management or internal booking action was required first.

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'ON HOLD' FUNCTIONALITY

While this functionality provides the flexibility to participants to send their instructions to the market as early as possible, hence, decreasing the late matching risks, it was observed in some CSDs that a lot of failed deliveries were set 'on hold' and, therefore, appear as a major category of fails.

From the analysis of the CSD participants' responses to the survey, we conclude that the 'on hold' function, even if also set by default at an account or a transaction level, is mainly used when there is no sufficient provision for the delivery position or to allow the accurate management of the underlying customer positions.

In rare cases, the participants deemed that further automation of the 'release' function by the CSD might help.

LATE MATCHING AND LACK OF MATCHING

a. Late Matching

Although participants generally send instructions almost immediately after reception from clients, sometimes the underlying participants send the instructions after the cut-off, hence late for matching and settlement.

Late matching is a substantial portion of settlement fails visible at most CSDs.

The participants reported to their CSDs that the main reasons for late matching are most frequently:

- The need for correction of an instruction that is necessary to match the counterparty instruction or wrong SSIs sent by their underlying client,
- Missing information from the client to submit the instruction,
- Missing information from the counterparty,
- Dependencies on the internal processes, including ensuring the availability of securities, credit controls and approvals or other checks,
- Finally, in some cases, operational errors were also reported to be behind the late matching fails.

Regarding the possible improvements, participants highlighted that in some cases, further use of partial release/settlement could help to avoid re-instructing a previous settlement instruction and hence avoid late matching [6].

b. Lack of matching instructions (lack of clients' instructions)

While not counted in the fail ratio as the instructions lacking their counterparty leg remain unmatched, these instructions have a higher risk of matching late. The following reasons were highlighted by participants as reasons for the lack of matching instructions:

- Delays in releasing instructions due to long chains between custodians/broker-dealers,
- Missing or incorrect information of the counterparty/clients needed to match, different settlement details (place of settlement, amounts, dates - in case of bank holidays), and
- Delays in receiving the data.

The instruction correction time allowing for matching and, ultimately, settlement, depends significantly on each player and can vary from one hour up to several days. Some participants mentioned that the underlying reasons for the varying correction duration may be related to the participants' back-office departments being in different time zones.

In our view, improvements in SSI operational processes and better Straight Through Processing (STP) levels would improve settlement efficiency.

[6] *Note that partial settlement and partial release are the functions offered by some, but not all, CSDs. In cases when it is already available, further use of the tool should also be considered by participants.*

STRUCTURAL AND NATIONAL/MARKET SPECIFICS IMPACTING THE SETTLEMENT OF TRANSACTIONS

Some factors that may impact the settlement of transactions refer to structural aspects or national market practices that can hardly be influenced by CSDs or their participants.

Here are some examples:

- The shares registration process is quite specific. For some failing participants, a relevant number of failed "high value" free-of-payment registration orders occurred, requiring those clients to enhance their processing to reduce such fails; independent from that, as such transactions are neither "trades" nor do they "involve two trading parties",
- Participants may need to comply with asset protection rules/ law, i.e. where assets should only be released once they are available as part of the registration process; until then, settlement instructions are put "on hold" or only sent to the CSD once the securities are available (that may indeed be after the Intended Settlement Date),
- While for T2S-CSDs, matched transactions are cancelled after 60 days, this is not the case for all CSDs (including the international ones) outside T2S, hence, fails continue to occur "endlessly" increasing the fails ratios both in value and volume.

In addition, we understand that CSD-internal settlement is less complex than cross-CSD settlement (even within T2S), hence, while the existence of various EU CSD-links has multiple benefits for the European Capital Markets, operational issues related to cross-CSD settlement would require further attention and analysis by all stakeholders.

Finally, the time zone differences may also cause late settlement by CSD participants. For example, clients who realign a position from the US market can only use the securities for same-day settlement in the EU markets when the US delivered before the closing of the EU market or T2S.

[5] *Note: the survey questionnaire covered all instruments and the overall activity of participants.*

III. How can the number of failed occurrences be reduces?

In general terms, and largely independent from the individual CSD profile, market or business coverage, CSD participants (and subsequently, the CSDs when it comes to the SSS settlement efficiency numbers) are highly dependent on their underlying clients´ behaviour/ input while having limited means to influence the process on the underlying clients´ level.

It is important to note that independently of the analysis of the root causes of fails, other relevant elements positively or negatively influence the treatment of the instructions, such as:

- Quality of the securities settlement reference data,
- Identification and correction of transactions that systematically fail, and
- Increase of STP.

About the matters that are closely connected with the CSDs, ECSDA recommends the following areas for further consideration:

1. **Further use of the available tools offered by the CSDs, such as H&R, partial settlement and partial release, where available**

   ECSDA Members encourage the use of existing tools offered by the CSDs.

   Although partial settlement is not the ultimate solution to settlement fails, an increased use of it would improve the overall settlement efficiency rate.

   In our view, higher levels of efficiency would be most optimally achieved by the simultaneous and intensive use of all existing tools.

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2. **Further services tools to be considered at the CSD level**

   From the analysis performed, we highlight that the actions leading to the higher level of settlement efficiency are mainly under the responsibility of the CSD participants and their underlying customers. Nevertheless, some measures might benefit from fine-tuning or new implementations by CSDs. As an example, ECSDA EEA CSDs intend to consider improvements in transparency of partial settlement, by allowing parties to know if an instruction does not settle because both parties do not accept partial settlement. Today, we are lacking partial settlement information in the matching messages exchanged.

3. **CSDs should engage with the market stakeholders**

   CSDs should proactively work through user committees, technical groups or other means with their market stakeholders to assess the settlement efficiency data. They may consider predictive analytics, artificial intelligence and other modern technologies that might aim at higher efficiency, but the cost of implementing them might be significant, especially for small to medium size markets/participants, and should be carefully considered at individual market level.

Overall, in line with the ECSDA remit, these recommendations are connected to the scope of CSD activities, although improvement may also be largely achieved by intervening at other levels. There will be a need to further improve the levels of end-to-end processing efficiency and to streamline the procedures at the stages from trading to settlement to automate as much as possible.

Conclusion

While we see that the lack of securities remains the main reason for fails, we have also identified different areas of improvement to increase the level of efficiency. This will, however, require a joint market effort.

First of all, CSDs will keep analysing the reasons for fails to identify any room for necessary improvements.

Depending on the CSD profile and licence (i.e. whether the CSD has a limited banking licence and therefore can also provide ancillary services enhancing settlement efficiency), the size of the market, the volume of instructions with the relevant issues, or costs that the market accepted to bear, the CSD may have put in place several tools and solutions, such as securities lending, H&R, partial settlement and partial release, which could help in reducing fail percentages.

Participants are therefore recommended to assess with their underlying clients how to decrease the issues due to the late receipt of settlement instructions or the need to adapt instructions before sending them to the CSD. In this context, the proper management of SSIs and other relevant matching (reference) data seems to be an area with improvement potential where the “hold” functionality would also help decrease “late matching” fails.

Participants are also suggested to assess how the lack of securities due to pending purchases/ receipts/ internal realignments could be addressed (which would likely lead to fewer fails due to “on hold” instructions) and how the securities inventory management could be optimised. For example, a broader usage of partial settlement (where available and in combination with partial release, if possible) would optimise the resources and, therefore, reduce such fails. In any case, CSDs will certainly play an important role in the analysis and efficiency enhancement, being the place where the actual transfer of securities takes place by having the possibility to offer data statistics and analysis. In our view, the best result will be achieved through a transparent collaboration among all the operators involved in the settlement process, to continuously identify pain points, solutions or mitigating actions.

ABOUT ECSDA

The European Central Securities Depositories Association (ECSDA) represents 39 Central Securities Depositories (CSDs) across 35 European countries. As regulated financial market infrastructures, CSDs play a vital role in supporting safe and efficient securities transactions, both domestic and crossborder.

39
Members

35
Countries

1.8
Quadrillion €
Worth instructions annualy

74
Trillion €
Worth assets

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