Survey on matching and settlement failures discipline measures

In the course of April and May 2011, ECSDA Working Group 3 on settlement and related processes carried out a survey among its members based on the work of the Harmonisation of Settlement Cycles Working Group sub-group on settlement discipline. This sub-group produced a report in response to the CSD consultation of the European Commission on 1 March 2011 which recommended further work in the area of settlement discipline before deciding on whether and to what extent there should be European harmonisation in this area, including for late settlement penalties.

This paper presents the results of the ECSDA survey: as a fact-finding exercise, it aims at informing the current debate on settlement fails and market discipline measures of securities infrastructures. It complements the ECSDA report on market discipline which was published in September 2009 and provides additional details on matching and settlement efficiency monitoring, reporting and penalties at the level of CSDs in Europe.
1. Key findings

- Only a minority of CSDs are compiling statistics on late matching on a regular basis. This is because at market level the number of unmatched instructions is usually low and because some CSDs tend to look into matching efficiency of individual participants only on an *ad hoc* basis or at the request of participants.

- Penalty fees for late matching are used in only 3 CSDs. Typically, a flat fee is charged to the late inputting party per late matched instruction. However the criteria used to determine the fee tend to reflect local market practices (in terms of the type of instructions covered, the use of matching targets or not, etc.).

- Almost all (I)CSDs collect and publish statistics on late settlement. Despite some differences in the way settlement fail rates are computed (e.g. in relation to the type of transactions included), the common ECSDA methodology provides a common basis for assessing settlement efficiency across European markets and reveals that, on average, more than 97% of transactions settle on the intended settlement date.

- The vast majority of (I)CSDs produces regular reports on settlement fails (a minority only provides report on an *ad hoc* basis or upon request). CSD clients can typically receive their individual statistics, while regulators receive more or less granular statistics (market-wide or including details of individual participants) depending on the country. The frequency of the reports varies but monthly reports seem most common (which does not prevent CSDs from making daily calculations of settlement fail rates).

- Although some of the rules for recycling instructions are converging (e.g. cancellation of instructions 20 business days after ISD in many markets), a number of local specificities remain (e.g. priority to instructions with the largest amount of securities or to the oldest transactions, possibility or not for users to alter priorities, automatic buy-ins for stock-exchange trades, indefinite recycling of instructions).

- A majority of CSDs have a penalty scheme in place for late settlement, although the type of fees applied varies across markets (recycling fee vs. penalty fee, with some CSDs charging both). In most cases, the fees are charged to the first party in the chain (i.e. the party having caused the initial fail). All types of fees typically apply to a broad set of transfer instructions, both for fails due to lack of securities and for fails due to lack of cash.

- The penalty fee is often a flat fee per late instruction, although there can be some variants (*ad valorem* fee or formula taking into account settlement volumes of the participant, whether or not a CCP was used, and the number of days until settlement).

- In many cases, the penalties collected form part of the CSD’s revenues whereas in a few cases, the monies must be allocated for a specific purpose or be redistributed to participants.

- Finally, a number of CSDs offer securities lending and borrowing services to support settlement efficiency and reduce the likelihood of fails. The type of service depends on local market needs and goes from the CSD merely providing a technical facility to match lenders and borrowers to the CSD acting as principal in a securities lending and borrowing transaction.
2. Information on the respondents to the survey

20 (I)CSDs responded to the survey. The responses cover 20 national markets (with Euroclear UK & Ireland covering two countries) as well as the two ICSDs. The below abbreviations will be used throughout the report:

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<th>Abbreviation</th>
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* The Euroclear Settlement for Euronext-zone Securities (ESES) was established in 2009 to consolidate on one platform Euroclear France, Euroclear Belgium and Euroclear Nederland. Most answers are therefore common to the three CSDs, although matching and settlement penalties only apply in Euroclear France.
3. Matching efficiency

ECSDA has been supporting more efficient matching processes for many years, notably by adopting 17 European market standards together with the European Securities Services Forum (ESSF) in October 2006. The so-called “ESSF-ECSDA matching standards” aim at harmonising matching processes in Europe and reducing the likelihood of settlement fails. In December 2010, ECSDA released a status report on 26 member (I)CSDs showing a high degree of implementation of the standards across national markets, although the degree of compliance varies across individual standards.

This section highlights some of the current practices which contribute to support the aims of the ESSF-ECSDA matching standards.

3.1 Matching fail rates

A "matching fail" refers to an instruction which has failed to match on time, i.e. which has not been matched at the end of the intended settlement date (ISD).

In practice, only 2 CSDs out of 20 respondents calculate matching fail rates. The matching fail rate typically only includes bilateral transactions, given that stock-exchange trades are already matched at the level of the exchange when they are transmitted to the CSD for settlement. Respondents indicate that the level of matching fails is extremely low or even null.

3.2 Statistics on late matching

5 CSDs out of 20 collect statistics on late matching: the ESES CSDs (BE, FR, NL) provide monthly reports on late-matched instructions to their clients (per instrument type); AT and UKI also provide clients with individual reports on their matching rates.

Some CSDs do not collect statistics on late matching but record and publish the proportion of instructions registered on ISD-3, ISD-2, ISD-1 and ISD respectively for instructions stemming from exchange trades that are subject to bilateral settlement (no CCP clearing). Others only provide late matching statistics upon request.

Generally speaking, not all CSDs have a criterion in place defining "late matching" and some consider that the matching date is something for counterparties to agree on, rather than for CSDs to establish and monitor. This explains why none of the respondents performs a regular monitoring of the reasons behind late matching. In addition, it must be noted that late matching is rare and that, even in the absence of a regular monitoring mechanism, CSDs might in some (rare) cases assist clients in their own investigations into late matching.

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2 The Swedish market practice is that instructions should be registered at the latest on ISD-2 before 12.00, and the % of instructions fulfilling this standard is published on a monthly basis as a report for the participants in the settlement system.
3.3 Fines (penalty fees) for late matching

Only 3 CSDs have a system in place which puts a financial penalty on transactions that match late (FR, SE for non-CCP cleared exchange trades, UKI). Euroclear France charges a late matching fee of 1.13 EUR for a forward-dated instruction (if the instruction is sent for matching after 20:00 on ISD-1) and 6.49 EUR for a same-day instruction sent after 14:30.

In Sweden, different criteria are used for exchange-traded and OTC transactions. Instructions in exchange-traded instruments registered after 12:00 on ISD-2 (i.e. not following market practice) are charged a higher fee than instructions registered before that point in time. For OTC instructions, a transaction is matched late if it is not matched before ISD-1.

Unlike FR and SE, UKI uses trade date rather than intended settlement date (ISD) as the basis for determining whether an instruction is matched late and targets are set for matching. For market-side participants, the target is 98% by the end of T+1 and 100% by the end of T+2. For custodians, the standard is less strict, reflecting the fact that they need to get instructions from their clients. For them, the target is simply 100% by the end of T+2. Transactions that match outside these targets attract a fine of 2 GBP per day it was late.

Some instructions can be exempted from the late matching fees, such as bulk collateral transfers, corporate actions movements, funds subscriptions and redemptions, or matched free of payment instructions. These exceptions are known in advance to participants and are detailed in the official CSD documentation.

In both FR and UKI, the late matching fee is a flat fee charged only to the late inputting party. In UKI, the fees are charged per instruction if a certain threshold is not reached for market-side participants, while custodians have a “hard” deadline.

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3 In PL, there used to be a penalty for late provision of settlement instructions in the OTC market after 18:30 on S-1 (see 2009 ECSDA report) but this fee has since been abolished by KDPW.

4 As explained earlier, SE does not have a late matching fee per se but charges a higher fee when non-CCP cleared exchange instructions are matched late on ISD-2.
4. Settlement efficiency - Monitoring and Reporting

In February 2010, ECSDA carried out a statistical exercise based on a common methodology aimed at providing comparable figures across Europe on matching and settlement efficiency. This exercise was a response to a demand from regulators and market participants for consistent data on Europe-wide settlement efficiency. The figures revealed an overall high level of efficiency (low level of settlement fails), with more than 97% of transactions settling on the intended settlement date (average across the 19 CSDs taking part in the exercise).

4.1 Settlement fail rates

In terms of scope, it appears that (I)CSDs do not always include exactly the same type of transactions in their monitoring and reporting of settlement fails. While most CSDs use a broad definition of fails and consider all instruction types (OTC, MTF-fed, CCP- or not CCP-fed, etc.), some CSDs only include exchange-traded securities in their fails calculations (SE, SI). The common ECSDA methodology looks at all types of instructions whether they are received directly (e.g. CCP-fed or trading venue-fed) or by bilateral input (e.g. OTC), including same-day settlement instructions.

Whereas fail rates include different types of instructions (DvP, FoP, etc.), they typically exclude cancellation instructions and other special instructions (e.g. securities lending and collateral movements, corporate actions entries, autocollateralisation movements, as well as any other technical movements generated automatically by the system with no chance to fail).

When calculating settlement fail rates, (I)CSDs will divide the number of failed deliveries by the total number of all settled delivery instructions (or by the total number of all matched delivery instructions, e.g. in SE). Whereas some only include matched delivery instructions in their calculation of fail rates, others (EB) also provide additional statistics including unmatched instructions. In line with the ECSDA methodology, the rate is usually calculated as a percentage of both the amount (volume) and the value of transactions.

In UKI, late input instructions are not included in the calculation of fail rates as the rates are calculated daily for transactions with a settlement date of that business day. Instructions are accepted in the matching system with a past settlement date and are presented to settlement on a same day basis, but they are not included as fails in the calculation of fail rates, irrespective of whether they settle or not. In contrast, the ESES CSDs provide statistics which include late trades (input after ISD) in the calculation of fail rates if they do not settle on the day they are presented to settlement and any other day they are recycled and remain unsettled. EB provide the flexibility to include them or not.

SE excludes recycled instructions from the statistics when they were input for bilateral settlement, but the CCP instructions are automatically recycled for the next settlement day and are therefore included in the statistics. EB does not include recycling instructions in its statistics.
In ES, GR and SI, instructions that fail to settle on ISD are not recycled but automatically cancelled. The settlement fail rate includes those instructions that have required the activation of a fail prevention mechanism (securities lending, buy-in, etc.).

4.2 Monitoring late settlement

All respondents except 3 collect statistics on late settlement. In 2 of the 3, there is no recycling and thus no "late settlement" stricto sensu. Some CSDs collect late settlement data on a regular basis (e.g. daily in ES) while others only do so upon request (SK).

Only 6 CSDs go one step beyond the mere collection of statistics and regularly monitor the reasons behind late settlement, classifying late-settled transactions per type of incidence. Reasons for not carrying out such regular monitoring include high settlement efficiency rates (reasons for late settlement are only analysed on an ad hoc basis when required) and the fact that (I)CSDs typically provide their participants with the necessary data to monitor unsettled transactions themselves.

4.3 Reporting of fails

Out of the 17 CSDs collecting statistics on late settlement, 14 produce regular reports on those figures. There are different levels of reporting depending on the recipients of the reports:

- Reports on settlement fails are often sent by (I)CSDs to each individual market participant (usually by email or via a secured section of website) or to those participants who subscribe to the reporting (e.g. ESES “Vision report” upon subscription).
- In some markets, the reports are also transmitted to and discussed with CSD user groupings, such as market committees (UKI, ESES CSDs) and banking associations (e.g. in DK, the Danish brokers’ association).
- Reports are also provided to public authorities, whether central banks and/or securities regulators. The data is sometimes the same data as for participants (e.g. SE), but in other cases regulators only receive a global reporting of overall rates (UKI), excluding the detailed reporting sent to each participant on their own performance,
- Finally, a number of (I)CSDs produce general aggregated statistics for the public.

In terms of the frequency of the reports, there remains differences across markets with some CSDs reporting statistics daily (DE, ES, HU, RO, UKI for regulators), fortnightly (UKI participants), or monthly (CH, EB, ESES, DK, FI, PL, SE). Some CSDs also provide statistics on an ad hoc basis, or upon request only (SK).

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5 The main reasons behind late settlement are typically the following: a) instructions are not matched, b) lack of cash, c) lack of securities. In IT, the CSD actually monitors the pre-settlement phase and when a short position is likely to occur, the participant involved is solicited to take all the measures that are necessary to prevent fails.

6 Market committees are provided with reporting at a global and security type level.

7 It should be noted that monthly reports do not prevent (I)CSDs from making daily calculations of settlement fail rates.
5. Settlement efficiency - Penalties

Some (I)CSDs charge a penalty fee to participants who fail to settle on time. The recent debates on the draft short selling regulation and the future CSD legislation in Europe have revealed an interest from policy-makers in better understanding the potential benefits of such penalties in terms of settlement efficiency and safety. This section thus aims to shed some light on the design of current penalty schemes operated by European CSDs.

5.1 Types of fees

Instructions settling late can be charged to (I)CSD participants in two ways: the recycling of failed instructions can be charged, and/or a penalty fee can be imposed.

The type of fees applied varies across markets:
- 6 (I)CSDs do not charge either type of fees (DE, EB, GR, LU, SI, SK);\(^8\)
- 2 CSDs only charge participants a fee for recycling fails (BE, NL);\(^9\)
- 4 CSDs impose a penalty fee for late settlement but do not charge for recycling (AT, CH\(^10\), ES\(^11\), RO);
- And 8 CSDs charge both a recycling fee and a penalty fee for late settlement (DK as of 1 July 2011, FI, FR, HU, IT, PL, SE, UKI).

Fees for recycling instructions can take different forms, e.g. a daily fee for each day the instruction is recycled (fixed fee equivalent to around 0.50 EUR in DK) or a fee applying after a certain number of days (e.g. in UKI, since 1 May 2011, a recycling fee applies to transactions that are unsettled 20 days or later after ISD, 20 days being the point a failed transaction is no longer considered part of the settlement fine regime). When instructions are not recycled (e.g. SE), the extra fee comes from the cost of re-entering a new instruction for settlement into the system. In EB, daily recycling is not charged up until the end of the recycling period. However, the cancellation of an instruction at the end of the recycling period is charged.

As for penalty fees, they also differ across CSDs. In UKI, settlement fines are only calculated up to 20 days post ISD. SE charges a fixed fee when participant fails to deliver equity-related instruments on time, whereas in HU the fines apply for stock-exchange trades and not for OTC transactions.

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8 In GR and SI, there is no recycling and participants are charged for using fail prevention mechanisms (buy-in costs, borrowing rate etc.). In DE, penalties have been defined but are not activated. Daily penalty reports are available to market participants showing what the impact of penalties would have been if these were activated.
9 This was the case of DK until 1 July 2011. After this date, a new behavioural regime is to be implemented in DK which allows the CSD to impose sanctions on professional participants if a certain threshold of settlement efficiency is not met.
10 Only for CCP-transactions from the Swiss Stock Exchange.
11 There is no recycling in Spain.
5.2 Rules for recycling unsettled instructions

In some CSDs, unsettled instructions are not recycled and transactions need to be re-entered the next settlement day. Other (I)CSDs automatically recycle for the following business day, for example up to 20 business days, after which the transaction is cancelled if still unsettled. Finally, whether recycling is allowed might depend on the type of instructions (OTC vs. on-exchange).

There are different rules for recycling instructions. In 5 CSDs, the optimisation algorithm prioritises pending instructions with the largest amount of securities and/or the highest value. In 5 CSDs, priority is given to the oldest transactions (with the oldest ISD).

In IT, settlement of queued fails is attempted first by following a FIFO principle ("first in, first out"), but, if unsuccessful, a FAFO principle is applied ("first available, first out").

In AT, instructions are chosen by the system randomly and there is no real criterion for prioritisation. In ES, instructions should be settled on ISD through bilateral or multilateral cycles depending on the type of transaction; unsettled instructions have to be re-entered.

In 4 CSDs, users are able to alter the priorities on transactions. In UKI, it is possible for most transaction types with some exceptions. In HU, clients can alter the sequence of performing transactions by altering the default KELER priority generated automatically. In PL, clients can choose to link instructions so a transaction only settles if a related transaction also settles (or has settled).

In a number of CSDs, instructions are recycled for a maximum of 20 business days after ISD and once this time limit expires, the instructions are cancelled. In HU, if an exchanged-traded transaction is still not settled on ISD+2 at 10:30, a compulsory buy-in procedure is applied without exception. In RO, late settlement penalties apply for a maximum of 5 days, after which the unsettled trade is cancelled. In some CSDs (UKI), there is no time limit for transactions to be recycled, although the penalty fee is only charged until ISD+20.

5.3 Scope of penalty schemes

The type of transactions on which late settlement penalties can apply is not always the same across CSDs. Both DvP and FoP transactions are covered, and generally penalties apply to both OTC and on-exchange trades (exceptions: in HU, penalties only apply to exchange-traded transactions, whereas in AT, they only apply to OTC transactions), whether or not they are channelled via a CCP feed. In SE, there is a different penalty regime for equity-related instructions and for fixed income instructions.

Securities lending and borrowing transactions are not always covered (only in 4 CSDs), especially given that not all CSDs have SLB services. Similarly, repo transactions are only included in the penalty scheme of 4 CSDs.

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12 7 (I)CSDs confirm that they do not offer such a possibility.
13 In HU, the maximum number of days for recycling OTC transactions was recently raised from 5 to 20 (to be in line with international standards).
14 Stock Exchange trades are handled by CCP.A and not by OeKB.
Looking at the reasons for failures, the majority of CSDs have penalties in place both for fails due to lack of securities and for fails due to lack of cash. In SE, the penalties only apply in case of lack of securities, whereas in DK, they only applied to lack of cash/credit until July 2011.

The penalty regimes sometimes contain some exemptions, which are typically described in the CSD documentation for participants and are thus non-discretionary.

In UKI, settlement penalties only apply to FTSE350 securities: Gilts and MMIs are exempted, as are illiquid securities where borrowing is not possible, or severely constrained. In FI, fails with CCP transactions are about 3 times more expensive to recycle than other transactions (30 EUR against 9 EUR respectively). In FR, discounts are granted for brokers and clearing members (pro rata to their volumes and, for clearing members, to the number of underlying brokers clients).

5.4 Fee calculation

In most cases, penalty fees are calculated per instruction. For some instructions in fixed income securities, the calculation is made per "short position" (SE). In HU, fees are charged per instruction depending on the volume on the trade and the number of days until settlement.

In a few CSDs (RO, PL), the penalty fee is an ad valorem fee (% of transaction value).

In DK, IT and UKI, penalty fees are charged if a certain settlement performance threshold is not reached.

Monte Titoli for example charges penalties to participants for failed transactions at the close of business on ISD if the settlement efficiency rate is below 90% in terms of settled counter-value and/or 95% of the number of settled trades. In case only one of the two parameters is below the threshold at the close of the daylight batch and if the threshold remains below the average value/number of fails recorded during the previous year, 1 basis point penalties are also charged. The penalty fee amounts to 200 EUR for each unsettled trade, once it has been checked that assets needed for fulfilling settlement were already missing at the start of the overnight batch.

In DK, the new system introduced in July 2011 foresees a sanction of 100,000 DKK for those professional participants who consistently fall below the benchmark, defined as the average settlement percentage for shares (measured in terms of value) minus 1.5%.

Some CSDs calculate penalties differently for equity and for fixed income instructions. In FI for example, for equities a fixed amount of 200 EUR is charged to participants if cash is not available for the settlement of those trades registered for settlement in the first optimisation on the settlement date by 10:00. If an automated marketplace trade is settled on T+6 or later, the sell-side participant is charged a fee about 20 times higher than the normal fee. At the same time, matching and settlement are free of charge for the buy-side participant (i.e. not even the normal settlement fee is charged). An additional fee of 20 EUR is charged when the settlement day is postponed beyond the record date.

15 The benchmark cannot be lower than 85%. The new behavioural regulation scheme foresees that professional account holders failing to meet the benchmark for three consecutive months will be contacted by the CSD and will have a chance to take corrective action before a sanction is imposed.
For debt instruments, a fixed fee of 330 EUR is charged if the settlement transaction is lacking securities or cash at 15:00. This late payment fee is collected only from the clearing party whose transaction is the first faulty transaction in a chain even if this shortfall causes delays in the other transactions further in the chain.

Penalties for lack of cash (rather than lack of securities) are typically calculated in a different way. In IT for example, in case of late settlement of cash in the daylight cycle, a flat fee is applied which is calculated based on the duration of the delay (i.e. 15 minutes, 30 minutes, or over 30 minutes) and on the frequency of the delay caused by each participant. This amount is then added to a variable interest fee of 10 basis points of the participant net debit position (360 days/year basis). Participants who try to cover their short position through borrowing are exempted from the fee. Instructions input after their intended settlement date are accepted provided that they bear an end validity date that is after the ISD.

In the case of CSDs which charge both a recycling fee and a penalty fee, it is interesting to note that the relative importance of each fee differs. In FI for example, the recycling fee tends to represent a higher cost than the penalty fee. In PL by contrast, the recycling fee tends to be low (equivalent to 1 EUR) and the penalty fee for late settlement is calculated as a percentage (0.3%) of the value of the transaction.

Moreover, there is no uniform way for determining who is to pay the penalty fees. In most cases, the penalty fee is charged to the first party in the chain, i.e. the party having actually caused the fail in a chain of transactions (CH for CCP-fed trades, DK, FI for fixed income, FR, IT, PL, SE for fixed income). In such cases, the CSD typically uses an algorithm which allows to determine which participant in a chain of transactions is the actual responsible of the fail. Subsequent participants in the chain of transactions are thus not penalised.

In other CSDs, the penalty applies to all failing parties in the chain (ES, RO, FI and SE for equity-related instructions). In HU, the fee only applies to clearing members. In UKI, the CSD does not seek to assign blame in a chain of transactions (the threshold is there to compensate for no-fault failures).

**5.5 Use of the fees**

In many cases, the penalties collected form part of the CSD’s revenues.

In some cases, the monies must be allocated for a specific purpose or be redistributed to participants. Within this category, different modalities apply. In AT, penalties are credited to the cash account of the party that suffered from the late settlement. In IT, the scheme includes the possibility for the CSD to return the monies collected to those participants that have shown a good level of market discipline, upon clear criteria defined in advance. However in practice the amount of money collected from penalties is so low that a distribution among participants would not make sense. In HU, the basic fee goes to the collective guarantee funds while the entire amount of cash market securities default surcharge is due to the innocent buyer. In CH, half of the fee is reimbursed to the member that has
suffered due to the fail and the other half is credited to the CCP. In UKI, monies collected as a result of the settlement regime (and the matching regime) can be used for funding developments for the good of the market, rebating to users or giving to charity. The CSD demonstrates to its regulators that the income from the regime is used for the good of the market.

6. Settlement efficiency - Securities lending and borrowing

Securities lending and borrowing facilities of CSDs contribute to settlement efficiency because they allow participants to avoid settlement fails by borrowing the securities they need to ensure timely delivery. 11 respondent (I)CSDs offer a securities lending and borrowing service aimed at reducing the likelihood of failures. In the other markets, bilateral lending typically takes place between market participants without any interference by the CSD.

In 7 cases (DE, ES, GR, IT, PL, RO, UKI), the CSD does not act as principal and merely provides a mechanism for matching lenders and borrowers. In UKI, bilateral lending facilities are available, including auto-generation of return legs and daily mark-to-market calculations. Euroclear UK & Ireland does not however act as an agent or facilitator, it merely provides the functionality. In GR, participants can choose between a bilateral and a centralised lending facility (both with standardised rates or bilateral agreed rates) with a CCP guarantee. In IT, the system allows participants to operate either as borrower or as lender of securities on automated or voluntary basis. Within the service, Monte Titoli operates as an agent on the basis of a double mandate to contract in the name of and on behalf of the counterparties, while the effects of each loan contract fall directly on the lender and the borrower. In PL, all KDPW participants are obliged to act as borrowers in the automatic lending and borrowing system. Lending is only on a voluntary basis. In ES, the CSD provides a central mechanism for pooling lenders and borrowers. There are two separate systems for equities (SCLV platform) and for fixed income (CADE platform). For equities, centralised securities lending after T+3 is mandatory in order to cover the lack of securities by the deliverer. For fixed income, short positions are covered at the end of the settlement day through a pool of lenders by means of sell/buy back transactions. In all these cases, the CSD does not take on any counterparty credit risk.

Other (I)CSDs (CH, EB, HU, LU) provide a more elaborated service where the (I)CSD can act as a principal to the securities lending and borrowing transaction.

In Hungary, KELER offers three mechanisms as part of its settlement system: (1) a pool securities lending system, (2) a trilateral securities lending system, and (3) a securities lending transaction concluded with KELER. In case 1, pool lending is anonymous and the transaction is concluded with the intermediation of KELER. In case 2, the lender and the borrower select one another and so the counterparties are known to each other. KELER is only involved in the registration of the transaction and collateral management. In case 3, clients can make a separate lending contract with KELER. The CSD can act both as a lender and as a borrower.

CH, EB and LU offer automated securities lending and borrowing facilities to their participants.
Euroclear Bank’s centralised Securities Lending and Borrowing program covers both the overnight and real-time processes. In contrast with the bilateral lending solutions facilitated by CSDs, in EB all securities made available by lenders are aggregated into an anonymous “lending pool”. There is therefore no direct link between lenders and borrowers, each having a contractual relationship with Euroclear Bank.

Clearstream Banking Luxembourg offers a lending service called ASL (Automated Securities Lending and Borrowing) which offers case by case and automated lending facilities as well as an “ASL plus” formula whereby Clearstream acts as principal and single borrower.

SIX SIS’ SecLend automated securities lending and borrowing service also allows the CSD to act as principal in the transaction, borrowing the securities provided by the lender and forwarding them immediately to the borrower.

7. Final remarks on CCPs

In addition to the penalties charged by CSDs for late matching and for late settlement, some CCPs also charge fees for late settlement (e.g. CC&G, LCH.Clearnet, KELER CCP\textsuperscript{16} and the current equity CCP in Sweden).

ECSDA would therefore welcome a similar survey on CCP practices in order to obtain a more comprehensive overview of the measures currently in place across the entire value chain.

For any questions on this paper, please contact the ECSDA Secretariat at +32 2 234 63 13 or email soraya.belghazi@ecsda.eu.

\textsuperscript{16} KELER CCP settles Budapest Stock Exchange trades in KELER. Cash market (multinet) default fee is charged per failed trades guaranteed by CCP for both sales and purchases. The amount is HUF 60 000 (EUR 227).