The Settlement Discipline Regime of CSDR
The settlement discipline regime under the Central Securities Depositories Regulation (CSDR) will introduce far-reaching changes to the way in which European securities transactions settle.
The regulation recognises that the new measures should be “scaled in such a way that maintains and protects liquidity” particularly for market-making in less liquid securities.

01. Introduction

ORIGINS OF CSDR

The CSDR is part of series of measures designed and implemented by the European Union (EU) to deepen the integration of European securities markets. EU and European Economic Area (EEA) central securities depositories (each, a CSD) are central to the fulfilment of this goal because they give investors confidence that the number of securities in issue will not exceed the number held, that their holdings will be maintained safely, and that their purchases and sales of securities will settle on time, even across national borders. For these reasons, CSDR was adopted in July 2014 to harmonise the way CSDs are authorised, regulated, operated and used.

The Main Provisions of CSDR

01. A common regulatory and prudential regime for CSDs: Each CSD to apply to its competent authority for authorisation under CSDR

02. CSDs free to inter-operate and compete: Market participants to be able to choose between CSDs to erode the distinction between domestic and cross-border securities

03. Protection of the “integrity” of issue: Each CSD to reconcile the number of securities in issue with the number held by the participants in the CSD

04. Dematerialisation of securities: Issuers established in the EU that issue (or have issued) securities admitted to trading (or trading) on trading venues must ensure that such securities are represented in electronic book-entry form

05. A choice of account types: Each CSD to offer participants the ability to hold their own securities in a segregated account and the securities of a client of a CSD participant in an individual or omnibus segregation account

06. Internalised settlement to be reported: Any firm that settles trades other than via a CSD must report them on a quarterly basis to their competent authority

07. Common settlement timetable: Article 5 of CSDR introduced a harmonised maximum settlement timetable for certain securities of two business days after trade date

08. Incentives to reduce settlement failure rates: Financial penalties and mandatory buy-ins to discourage failure to settle transactions on time

THE SETTLEMENT DISCIPLINE REGIME

This paper deals with one aspect of CSDR only: its settlement discipline regime. It is the last major component of the regulation to be implemented. The settlement discipline regime of CSDR was due to enter into force on 13 September 2020. However, on 4 February 2020, ESMA proposed this be postponed to 1 February 2021 and the associated legislation to effect such postponement has now been enacted. Further, due to Covid-19, a proposal has been made by ESMA to further delay the date on which the CSDR settlement regime will enter into force to 1 February 2022.
FURTHER CLARIFICATION REQUIRED

Despite the six years that have elapsed since CSDR was adopted, many aspects of the regime are yet to be published. The adoption by the European Commission of three sets of regulatory technical standards — two in November 2016 and one in May 2018 — has not resolved a number of issues raised by market participants during consultations on the settlement discipline regime.

The CSDR Timetable of Settlement Discipline Regime Measures

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>20 March: ESMA publishes a discussion paper on the settlement discipline regime</td>
</tr>
<tr>
<td>2015</td>
<td>23 July: The European Commission adopts CSDR</td>
</tr>
<tr>
<td>2016</td>
<td>28 August: CSDR is published in the Official Journal of the EU</td>
</tr>
<tr>
<td></td>
<td>17 September: CSDR comes into force</td>
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<tr>
<td></td>
<td>2 October: The European Commission mandates ESMA to issue technical advice on CSDR</td>
</tr>
<tr>
<td>2018</td>
<td>28 March: ESMA publishes its final report on the ESMA guidelines for internalised settlement reporting, requiring internalisers to send settlement reports to competent authorities, which share them with ESMA, from July 2019</td>
</tr>
<tr>
<td></td>
<td>2 October: ESMA publishes Q&amp;A on CSDR, in line with its power to issue guidelines, recommendations, opinions and questions and answers (Q&amp;As). ESMA has updated its Q&amp;As several times, and the latest version is dated 17 February 2020</td>
</tr>
<tr>
<td>2019</td>
<td>4 February: ESMA publishes a proposal to postpone the settlement discipline date of entry into force until 1 February 2021</td>
</tr>
<tr>
<td>2020</td>
<td>28 August: ESMA publishes a final report proposing the further postponement of the date of entry into force of the CSDR settlement discipline regime to 1 February 2022</td>
</tr>
<tr>
<td></td>
<td>13 September: The settlement discipline regime was originally scheduled to come into force</td>
</tr>
</tbody>
</table>

In fact, the regulatory technical standards have in some areas generated additional questions which need to be resolved before work on the systems needed to comply with the settlement discipline regime can be completed. As the authors of the regulatory technical standards have stated, adjusting to the settlement discipline regime will necessitate “significant IT system changes, market testing and adjustments to legal arrangements between the parties concerned, including CSDs and other market participants. Sufficient time should therefore be allowed for the application of those measures, to ensure that the parties concerned can meet the necessary requirements.”

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THE CONSEQUENCES OF SETTLEMENT FAILURE

Market participants have estimated that any IT investment necessary to accommodate the settlement discipline regime should have started. But until the uncertainties are resolved, it is difficult to commission detailed work on systems to cope with the new regime. In addition, in-house systems will have to interact with each other once the settlement discipline regime comes into effect — and they will be judged on their success in minimising rates of settlement failure.

This is because the regulation obliges CSDs to monitor the settlement performance of their participants, publish it in aggregated and anonymised form and report it to competent authorities. They are also expected to suspend those that fail “consistently and systematically” to settle transactions on time, and to disclose their identities. ESMA has published templates to which CSDs must adhere in reporting settlement performance.8 Even “internalised” settlements — those which settle in the books of market participants rather than via CSDs — must be reported to competent authorities on a quarterly basis, despite their exemption from the settlement discipline regime.9

But the potential consequences of CSDR are not limited to the risks of suspension and reputational damage. CSDR also imposes financial penalties on participants that cause settlement failures, to be paid to receiving participants via the relevant CSD. These are incurred on a daily basis until a transaction settles. If a transaction still fails to settle within a prescribed extension period, a mandatory buy-in process is initiated by the receiving counterparty. The failing counterparty must meet all the costs of purchasing the missing securities.

Every penalty levied will be paid to the participant which has not received the securities they expected. This means there will be clear winners and losers. It is expected that asset owners will on balance be net beneficiaries, because an estimated 80 per cent of all fails are occasioned by sell-side counterparts. These penalties are of course additional to and distinct from the costs of building and running the systems to accommodate the penalties and buy-ins.

The total costs of financial penalties and buy-ins to participants that fail are ultimately unknown. Although every large sell-side and buy-side firm has made projections of the likely costs, based on current rates of settlement failure, no comprehensive assessment of the overall costs is available. However, the transfers of value occasioned by cumulative financial penalties and especially buy-ins may be substantial. This may be the case even if, as intended, the settlement discipline regime changes behaviour and rates of settlement failure fall. But its eventual impact is inherently unknowable.

What is known is that settlement success and failure depend on the performance of counterparties and customers as well as in-house operations. It follows that the banks, broker-dealers, asset managers, CSDs and central counterparty clearing houses (CCPs) that make up the European securities industry cannot achieve effective compliance with the CSDR settlement discipline regime in isolation from each other. The regime affects the entire ecosystem.

THE SETTLEMENT DISCIPLINE REGIME OF CSDR

02. The Financial Penalty Regime

HOW THE PROCESS WORKS

The settlement discipline regime of CSDR has two components. The first, outlined in Article 7.2 of CSDR, imposes financial penalties on participants that cause settlement fails. Its purpose is to incentivise participants to settle transactions on time by imposing on failing participants a levy proportionate to the value and duration of the settlement fail. It is an important principle of the penalties regime that failing participants compensate receiving participants, with no intermediary benefiting from the transfer of value.

The financial penalties regime will be operated by the CSDs caught by CSDR. Their role is to monitor settlement failures every day; calculate the penalty to be charged to the failing participant by applying either an interest rate (for failure to deliver cash) or an ad valorem charge which varies according to the type and liquidity of the security (for failure to deliver securities) (see the table “Financial Penalties”), and collect the penalties from failing participants and pay them to receiving participants, except where either is a CCP.

The ad valorem charge is applied to the value of the undelivered securities, derived from prices set by certain trading venues or by a methodology approved by the competent authority of the CSD.10 The penalty is applied every day that the transaction fails to settle up to the point at which a mandatory buy-in process is completed or settled by a cash compensation payment if the securities needed for the buy-in prove unobtainable.11

Financial Penalties

<table>
<thead>
<tr>
<th>Asset</th>
<th>Basic Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Shares</td>
<td>1.0</td>
</tr>
<tr>
<td>Illiquid Shares</td>
<td>0.5</td>
</tr>
<tr>
<td>Small and Medium-sized Enterprise (SME) Growth Market Shares</td>
<td>0.25</td>
</tr>
<tr>
<td>Sovereign and Supranational Debt</td>
<td>0.10</td>
</tr>
<tr>
<td>SME Growth Market Debt</td>
<td>0.15</td>
</tr>
<tr>
<td>Other Types of Debt</td>
<td>0.20</td>
</tr>
<tr>
<td>All Other Instruments</td>
<td>0.5</td>
</tr>
<tr>
<td>Cash</td>
<td>Overnight interest rate of the central bank issuing the relevant settlement currency</td>
</tr>
</tbody>
</table>

The financial penalties regime will be operated by the CSDs caught by CSDR.
The participant of a CSD is often not the beneficiary of the proceeds of financial penalties arising from failed settlement instructions. Most asset managers outsource settlement to a global custodian bank, which makes use of sub-custodian banks to operate accounts on its behalf at each CSD.

This means sub-custodians and global custodians will have to exchange information, and global custodians will have to allocate debits and credits fairly across each of the funds affected. These exchanges of information require operational processes to be set up and systems adapted or built to execute them.

Fortunately, CSDR insists that CSDs follow a single model for the calculation and reporting of the financial penalties to their participants. The work of ECSDA has done to ensure its members harmonise their calculation and reporting methodologies to ensure participants do not face different models at different CSDs is invaluable in this respect. SWIFT has also enhanced its messages to accommodate reporting of financial penalties.

Despite this preparatory work, there may be variation in the reporting of financial penalties by individual CSDs. Further complications are added by the need for currency conversions. As ECSDA has pointed out, cross-CSD settlement fails will also entail complicated flows of information.

UNKNOWN COSTS

What remains unclear is what the gross financial penalties will be. Exactly which financial instruments will attract which level of fine remains vague in certain respects (see the Table “Financial penalties imposed by instrument”). It is not known whether a synthetic basket of securities, of the kind commonly used as collateral in tri-party transactions, is caught by CSDR at all.

Broad categories of “instrument types” are insufficient to solve this classification problem, which requires a table mapping securities by their International Securities Identification Numbers (ISINs) to the instrument categories. But even if the definitions of instrument types were more precise, it is still difficult to make convincing projections of the gross amounts likely to be levied under the financial penalties regime. Estimates depend not only on the instrument type, but on the volume and value of settlement fails in that type of instrument, and these are intrinsically hard to predict. Nevertheless, estimated (if rudimentary) projections indicate the amounts could be significant.

Participants of each CSD can receive a file every day with a breakdown of all settlement fails and an account of the credits they are owed (as receiving participant) and the debits they must pay (as a failing participant). The CSD is responsible for collecting and paying debits and credits through the accounts of its participants. Although penalties are calculated on a daily basis, the actual payment of debits and credits by the CSDs is monthly.

CSDs will accept appeals against penalties until the 10th business day of the month (the Appeal Month) immediately following the month in which the penalties were incurred, with final monthly aggregated penalties calculated and notified to participants on the 14th business day of the Appeal Month and payments made on the 17th business day of the Appeal Month.

The trade association for EU and EEA CSDs, the European Central Securities Depositories Association (ECSDA), has codified how CSDs will execute this process in practice, to ensure a common methodology is used in all markets.

POTENTIALLY COMPLEX INFORMATION FLOWS

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COMPLICATED WORKFLOWS

The sheer volume of processing work created by the settlement discipline regime will be a major challenge. At current rates of activity, European CSDs are experiencing a significant number of settlement fails a year. The settlement discipline regime might reduce this number, which could save large amounts of money, but it might also lead to massive investment in a new post-trade infrastructure in order to comply with the regime.

Once the settlement discipline regime is in force, each of the EEA and EU CSDs will have to deliver daily reports to their participants, calculate the daily debits and credits, run a monthly appeals process, make amendments and aggregate and net the results, and then make the necessary payments. Their sub-custodian participants will then have to reconcile the outcome with their asset management counterparts, who must in turn reconcile it with their asset management counterparts, who must allocate the debits and credits to their investor clients — which will be scattered all over the world — fairly.

So, although the parameters of the financial penalties regime are clear, and the means of calculating the penalties are agreed and published, the sheer volume and complexity of the workflows required to achieve compliance with CSDR demand a high level of automation. That in turn requires substantial investment in technology to build both the capacity and the flexibility to handle the detail.

CSDs are also seeking clarification from ESMA as to which trading venues to use to determine the “reference prices” necessary for the financial penalty calculations, since securities trade on multiple trading venues at varying prices and in fluctuating volumes. Although CSDR requires that “reference prices” for the calculation of such market values are derived from certain trading venues or by a methodology approved by the competent authority of the CSD, uncertainty persists about how this model will work in practice, and ESMA has not yet provided definitive guidance.

UNSETTLED ASPECTS OF FINANCIAL PENALTIES

Not every aspect of this complicated cascade of calculations and information exchanges is settled either. Article 19 of the RTS of May 2018 introduces a separate process for fails “where a CCP is a participant”. In cases where a CCP is the failing or receiving participant, the CSD will calculate the penalty and inform the CCP of the credits and debits due, and the CCP will collect the debits from its clearing members and pay the credits to its clearing members, and report the outcome to the CSD on a monthly basis.

There is widespread industry agreement that it would be better to not have this exception and for the CSDs to undertake collection and distribution on behalf of the CCPs of all penalties instead. Considerable efforts are being made to determine the viability and practicality of this option.

Even without such added complications, the operational complexity of the financial penalties regime leaves minimal room for error. If any aspect of the complicated chain of intermediaries, information exchanges and detailed calculations fails to work as intended, or breaks down even temporarily, a large backlog of unresolved settlement failure claims will build up.

CSDs cannot use penalties to cover the operating costs of their financial penalties system, but can charge participants separately for these.
UNINTENDED CONSEQUENCES

There are likely to be unintended consequences of the financial penalties regime. One is created by the fact that, although internalised settlements must be reported, penalties are not applied to them. This creates the possibility that, if an internalised transaction fails to settle, a counterparty due to settle a subsequent transaction at the CSD may end up paying a penalty for a failure that was not their fault. However, this issue is being discussed by custodian banks, which are aiming to publish a code of practice that solves it.

Another potential unintended consequence is that financial penalties may create an inadvertent incentive to refuse partial deliveries of securities. Under the settlement discipline regime of CSDR, acceptance of partial deliveries is at the option of the receiving party, except on the last day of the buy-in extension period. Partial deliveries do generate difficulties for receiving parties because of the operational process of allocating the partial deliveries fairly between funds. This complicates net asset value (NAV) calculations in daily fund accounting too. But because the receiving party has also to pay for the securities rather than holding on to the cash, the addition of financial penalty fees on fails may — at the margin — encourage firms to be less willing to accept partial deliveries.

MARKET RESPONSE

The potential behaviour of counterparts is currently the subject of study by major market participants affected by CSDR, on both the sell-side and the buy-side. They are using internal data to assess which of their counterparties have a persistently poor settlement record, as well as reviewing their own internal processes for signs of weakness. Predictably, there are counterparts with poor delivery records. A Bank of England study of the government bond and equity markets of the United Kingdom found that settlement fails “cluster around specific sellers.”

The main causes of this effect are the prevalence of smaller firms with less automated post-trade processes; inadequate maintenance and in use of Standing Settlement Instruction (SSI) databases; delayed allocation processes; exposure to the Asian time zone; and involvement in less liquid types of securities, such as small- to mid-cap equities, corporate bonds and ETFs. Firms with any of these characteristics face the prospect of paying a higher proportion of financial penalties.

Asset managers are assessing settlement failure rates, mostly in conjunction with global custodian banks, which they expect to handle all operational aspects of the financial penalties regime. Research indicates that many custodians and/or asset managers intend to absorb any penalties, disputing only those above a certain size, and to pass on any gains to clients (though whether they will do this on a per trade basis or in net or gross aggregate amounts is unclear).

This places an onus on the global custodian banks to increase their operational efficiency, and they are making considerable improvements to their settlement systems, including systems to move inventory faster, but they also expect to have to hire more settlement staff to manage financial penalties. To minimise the costs, they are trying to identify the largest sources of fails and to anticipate likely fails earlier. They are also looking to match more settlement instructions earlier and putting sub-custodians under pressure to lift their settlement performance in domestic European markets.

The fact that buy-ins are mandatory on a universal scale marks a fundamental change in the way that the European securities markets work. Mandatory buy-ins were introduced by the Short Selling Regulation of 2012, but only very narrowly for settlement fails of share transactions cleared by EU CCPs. Outside of this, buy-ins take place on a voluntary basis and only in small numbers and to address specific problems.

In fact, in some cases broker-dealers and asset managers are able to fail to deliver without the fear of being bought in because of wider commercial considerations. The introduction of a mandatory buy-in regime operating to clearly defined rules and timetables, and covering all in-scope transactions settled in a CSD, removes that informal element. It also limits the amount of time available to the parties to use existing contractual remedies to handle settlement failures before a buy-in becomes mandatory.

These are among the reasons why the number of buy-ins can also be expected to increase significantly from the levels of today. An analysis by ECSDA, based on November 2014 data obtained from 11 European CSDs, estimated that the CSDR buy-in regime would have generated 150,000 buy-ins that month, or more than 7,500 on each business day for an average daily value of €10.7 billion. Extrapolating the data for a 12-month period, ECSDA estimated 1.8 million buy-ins during a year, worth more than €22.5 billion.

Extrapolations from a single month of data, drawn from a sample of European CSDs in 2014, has its limits as a guide to the future. Furthermore, market participants are bound to change their behaviour in response to a new settlement discipline regime that imposes costs for settlement fails. Any number of fails that lead to buy-ins remotely close to 7,500 a day will cause difficulties for the existing post-trade infrastructure.

Buy-ins are at present largely manual. Although new workflow applications are being developed, they are stymied by continuing uncertainties about how the buy-in regime will actually work in practice. They will take time to be tested and adopted too. In any event, it is unlikely that a large reduction in buy-in volumes will follow from general improvements in operational efficiency, because buy-ins are not caused by operational difficulties but trading strategies.

In modern securities markets, there is no plausible operational reason why a transaction should not settle within four business days of the intended settlement date. Trade fails persist beyond such a period not for mundane reasons, such as missing or erroneous SSIs, but because of a trading decision.

The most obvious is when an asset manager short-sells a security and is unable to borrow it to cover the short position or a market-maker adopts a “naked” short position in which the security is not borrowed to cover the short position but the trade is allowed to fail instead. There are other cases in which the economics of a trade mean it is cheaper to fail to deliver the securities than it is to borrow them. In less liquid asset classes, such as corporate bonds, fails have become a normal market practice.

THE SETTLEMENT DISCIPLINE REGIME OF CSDR
The framers of CSDR understand this. They have excluded transactions for which the intended settlement date (ISD) of the return leg is within 30 days after the ISD of the first leg (each, a 30 Day Exempt Transaction) from the buy-in regime, precisely because they know that short term repo transactions are the main source of liquidity in the bond markets. But regulators also recognise that market-makers, which rely on short sales and securities borrowing to make bid and offer prices in other markets such as small- to mid-cap equities, are equally important as sources of liquidity.

“Market-making activities play a crucial role in providing liquidity to markets within the Union, particularly to less liquid securities.” But in practice CSDR threatens to curtail the market-making that underpins liquidity in markets such as small- and mid-cap equities, corporate bonds and ETFs.

**HOW THE PROCESS WORKS**

The buy-in process begins a fixed number of days after the intended settlement date at a CSD. The actual number of days varies according to the nature of the asset that was not delivered. This extension period is as set out in the table “The Buy-in Timetables”. As with the classification of securities for the imposition of financial penalties, the definition of liquid and illiquid shares remains subject to the establishment of a definitive source at the level of the individual ISIN.

On the last day of the extension period, the failing party is obliged to deliver whatever securities it can obtain — even a partial delivery is treated as preferable to no delivery at all — and the receiving party is equally obliged to accept it. The failing party is free to deliver securities up until the time they are notified that a buy-in process is under way, which is permitted from the first business day after the expiry of the extension period. At that point the initial failing settlement instruction is put on hold and the failing party is barred from delivering securities to fill it. From the moment the buy-in process starts, the failing party becomes merely another potential source of the securities to complete the buy-in.

The buy-in agent is appointed by the “receiving trading venue member” or “receiving trading party” (OTC) or, in the case of buy-ins where a CCP is a party to the trade, the CCP. CCPs are also permitted an alternative to appointing a buy-in agent, which is to host an auction to purchase the undelivered securities. It is also important to note that CCPs which fail to deliver securities to their clearing members are exempt from the buy-in regime and internalised purchase the undelivered securities. It is also important to note that CCPs which fail to deliver securities to their clearing members are exempt from the buy-in regime and internalised purchase the undelivered securities.

The deferral period varies, like the extension and buy-in periods, by the type and liquidity of the asset (see the table “The Buy-in Timetables”). At the end of the deferral period, the buy-in agent delivers such of the securities as it is able to source. The failing party will pay cash compensation to make up for any securities that have not been bought in.

The amount of cash compensation to be paid, in respect of a ‘delivery vs payment’ settlement instruction, is the difference between the market value of the undelivered securities the business day before the cash compensation is paid and the settlement amount of the securities in such settlement instruction (provided the settlement amount is lower). For ‘delivery free of payment’ fails the same calculation applies but with the settlement amount replaced by the market value of the instruments on the day of the trade. The compensation must be adjusted for exchange rates and entitlements, such as dividends due or interest accrued, and the adjustments disclosed to both parties. Determination of the market values that drive cash compensation is subject to the same uncertainties as to the source of reference prices as those used to calculate financial penalties.

**AN ASYMMETRIC RISK**

Under the settlement discipline regime, the failing party has not only to make a cash payment to adjust for the price of the buy-in being higher but is not allowed to receive a payment in return if the price of the buy-in is lower. Instead, the difference between the prices is “deemed paid” to the receiving party.

This marks a departure from conventional buy-in practices in most securities markets in the EU, which allow the buy-in differential to be paid in either direction between the buyer and seller, depending on whether the buy-in price is higher or lower than the original trade price. This is judged to be more equitable, since neither the failing party nor the receiving party makes an unexpected profit or loss purely as a result of the buy-in.

Given the asymmetric price adjustment is embedded in CSDR, one solution under consideration is contractual arrangements that supersede the formal structure, though this would require official agreement by the European Commission.
THE PROBLEM OF CHAINS

Another difficulty is chains of unsettled transactions, or “fails chains”. Naturally, a failure of one transaction to settle has knock-on effects, since buyers cannot deliver the securities they expected or sellers the cash they anticipated. Sometimes these chains are extended. They are especially prone to arise in less liquid asset classes such as corporate bonds, because it is harder to obtain securities. Chains with as many as 20 links can arise, with some counterparts appearing more than once.

Buy-ins might cause a variant of these chains, in which each receiving party initiates a buy-in of their failing counterparty. Naturally, this has led to concern that one failed delivery will lead to multiple buy-ins. Innocent parties, which have failed to deliver solely because they failed to receive, would be bought in but in less liquid markets, chains of buy-ins might also have a severe effect on liquidity and, in consequence, the integrity of prices.

One solution is “pass-ons,” in which only one buy-in is executed by the party at the end of the chain. CSDR appears to provide some support for “pass-ons”, urging the parties involved to start “co-ordinating their actions amongst themselves, and informing the CSD thereof, where a transaction is part of a chain of transactions and may result in different settlement instructions.” But there are two obstacles to clear if this co-ordination is to work in practice.

The first is caused by the asymmetric price differential. In a chain with a single intended settlement date it should be possible, using a streamlined notification process, for the buy-in to be “passed on”. By a series of such “pass-ons”, the buy-in would eventually reach the final buyer in the chain, who would then initiate the buy-in. Once the buy-in is complete a series of cash adjustments would restore every member of the chain to the position they would have enjoyed had the trade settled in the normal way. The exception, of course, is the original failing party, who would have to meet all the costs of the buy-in.

Unfortunately, the asymmetric price differential threatens to disrupt this neat solution. If there is a movement in the price of the undelivered securities that enables the receiving party to make a profit, they will be tempted to initiate a buy-in anyway. As a result, an innocent failing party will be out of pocket.

The solution proposed by the International Capital Markets Association (ICMA) is for counterparties to incorporate a contractual nullification of the asymmetric price differential, such that, if the buy-in at the end of the chain is successful, a series of cash adjustments between each member of the chain restores them to the position they would have been in had the trade settled (except for the initial failing party, which will meet all costs of the buy-in).

This solution needs endorsement by the European Commission. The nullification would still have to be incorporated in all relevant contractual provisions between trading parties. The solution might also occasion conflict if a trading party does not agree to these terms.

The second obstacle is created by chains with multiple intended settlement dates. The proposed notification to “pass on” the buy-in needs to occur within the “extension period” before a buy-in must be initiated by the first link in the chain (see the table “The Buy-in Timetables”). In accordance with the provisions of CSDR, the final link in the chain would initiate the buy-in after the end of its extension period. In a chain with multiple links, each with a seven business day extension period, that could in theory prolong a buy-in for a considerable period of time.

On any interpretation, the CSDR settlement discipline regime demands that the buy-in will happen at some point, but a workable solution to this conundrum that is acceptable to the EU authorities has yet to be agreed.

BUY-IN COMMUNICATIONS CHALLENGES

Chains also present, in acute form, an operational challenge created by the buy-in regime in general. While CSDR lays down explicit rules about how and when a buy-in should be initiated and executed once the extension period (see the Table “The Buy-in Timetables”) has expired, it offers minimal guidance on the content of the notifications that the receiving party should send to the failing party and no guidance on the cut-off times within the day specified.

Given the number of expected buy-ins, the volume of information exchanges is likely to be significant, and the need for automation and standardisation commensurately high. Yet, unlike the financial penalties regime, SWIFT is not involved in providing standard message templates.

CSDs are in a good position to help, but are not required under CSDR to assist with the buy-in process. Although some market participants have proposed the creation of an industry utility, the idea has gained no traction and, in any event, it would be difficult to establish one before the CSDR settlement discipline regime comes into effect.

LACK OF BUY-IN AGENTS

However, there is a more fundamental challenge that an efficient buy-in process must overcome. To date, there is a lack of candidates to play the role of the buy-in agent. Experience suggests that buy-ins are a time-consuming and low margin activity. Although one trade association is expecting to compile a register of buy-in agents, as of the date of publication few organisations appear willing to provide a buy-in agency service.

CSDR requires that buy-in agents have no conflict of interest in the execution of the buy-in and achieve “best execution” for the failing party (in accordance with the rules of MiFID II). Some major broker-dealers might agree to service large asset managers, on these terms, for relationship reasons.

However, asset managers and other trading parties might insist on a broader roster of buy-in agents since an environment in which large broker-dealers operate to the exclusion of others is problematic on a number of levels. Buy-in agents may offer services in one or more specific markets or in all markets, either in-house or through a network of agents to source securities in the markets affected. In less liquid markets, there is an intrinsic shortage of brokers, which might create another issue — namely, buy-in agency monopolies.
Unintended Consequences

SHORT- VERSUS LONG-TERM EFFECTS

Regulation may have unintended consequences, and this is true of the CSDR settlement discipline regime.

Though their impact is impossible to judge before the new regime officially starts, they include possible imbalances between the costs and benefits of reduced settlement fails, adverse effects on liquidity and transaction costs in some asset classes, and potential incentives for some trading and settlement activities to move outside the EU.

It is important to distinguish these potentially substantial consequences from the short-term effects that occur in the early stages of any new project. For example, in its early months of operation the settlement discipline regime will find some market participants are under-prepared, especially if they are small firms, end-investors or trading securities in Europe from outside the EU.

The continuing uncertainty over details of the financial penalties and buy-in regimes also means that systems development and testing schedules will be truncated, increasing the likelihood of initial technological glitches.

Lastly, were the necessary amendment of legal documentation not to be completed by the time the settlement discipline regime comes into effect, this may increase the risk of disputes.

COST-BENEFIT ANALYSIS

The substantial unintended consequences, on the other hand, fall into four categories. The first is that the costs of implementing the settlement discipline regime are found to outweigh the benefits in reduced settlement fails.

The penalty regime, though its details are well advertised and understood, will be complex and high volume. Accommodating its demands necessitates considerable up-front investment in automating processes, and maintenance costs will be significant too. Legal costs will also rise, as the new rules will involve extensive redrafting of contracts at both the firm and the industry level and require legal advice on the interpretation and implementation of the settlement discipline regime.

In addition to increased technology and legal costs, there is a widespread expectation in the securities industry that reviewing penalties, allocation decisions and the resolution of disputes will require meaningful additions to operational staff numbers.

The same is true of buy-ins, whose number is expected to increase from a handful a week to an unknown but potentially much larger number measured in at least the hundreds a day. Buy-ins are time- and labour-intensive and, even if new automated services are available to support the process by the time the settlement discipline regime comes into effect, additional staff will be required.

These increased technology, legal and operational costs may be passed, ultimately, to investors, eroding investment returns. Custodians may also pass on to end-investors the costs of claims for operational failings by penalised asset managers.

All these costs are likely to be incurred even before the costs of buy-ins are felt. The potential costs of these are significant. Faced with these costs — legal, technological, operational and regulatory — some market participants may decide to withdraw from some or all securities markets in the EU.

However, the potential gains should not be forgotten. If the settlement discipline regime succeeds in its ambition of reducing significantly the number and duration of settlement fails — which are not costless, given the need for exception processing — it might allow market participants to make valuable savings in headcount.

IMPACT ON SMALL- AND MID-CAP MARKET-MAKING

Although the authors of CSDR state explicitly that the benefits of lower rates of settlement failure must be balanced against the need to preserve the liquidity-enhancing activities of market-makers, the balance is easier to commend in theory than to achieve in practice. In fact, there is a strong belief among market-makers that the buy-in provisions of the settlement discipline regime will have a particularly deleterious effect on their ability to make two-way prices in small- and mid-cap equity markets.

Though small- and mid-cap equities do benefit from a longer extension period than liquid shares — it is seven business days or 15 days for securities listed on an SME growth market, as opposed to four business days for liquid shares — they tend to have limited market liquidity. There are occasional large block trades between institutional investors, but most trades are driven by market-makers providing liquidity. The market-making model depends on the ability of firms to sell to buyers what they have not got rather than what they have got and borrowing the stock to settle the transaction if they cannot obtain it in the market before the expiry of the applicable extension period.

Borrowing small- and mid-cap stocks is intrinsically difficult, because free float is limited, and they are often tightly and closely held. For example, one market-maker has estimated that half the stocks in the FTSE-350 index are not available to borrow. It follows that, if market-makers in small- to mid-cap equities are to avoid financial penalties, they must reduce the number of stocks they cover and, if they are to meet the costs of financial penalties and buy-ins they may incur, then they must widen bid-offer spreads.

Developments of this kind could adversely affect SME stock markets, which would be a perverse result, given CSDR is part of the Capital Markets Union (CMU) programme of the European Commission, one of whose explicit goals is to reduce the dependence of SMEs on bank finance and increase their access to the equity capital markets.

IMPACT ON ETF MARKET MAKING

Similar concerns about the impact of the buy-in mechanism are raised by market-makers in European ETFs. Like small- to mid-cap equity markets, ETFs lack intrinsic liquidity and are prone to settlement fails. Market-makers that sell ETFs short to provide liquidity tend to cover the short position by buying the underlying components because, like small- and mid-cap equities, there is no liquid market in which ETFs can be borrowed. This is difficult to accomplish, especially in ETFs tracking less liquid securities, such as those listed in emerging markets. As with small- and mid-cap equities, there is a risk that market-makers will either exit the market or increase their prices.

IMPACT ON BOND DEALERS

Bonds as well as equities are likely to be affected. All sell-side respondents to a recent ICMA survey consider that mandatory buy-ins will have an adverse or significantly adverse impact on the liquidity and efficiency of European bond markets.

Although the settlement discipline regime is expected to have minimal adverse effects on the bulk of the government bond markets, where only older or partially redeemed bonds suffer from liquidity problems, the corporate, high yield and emerging markets bond markets are already difficult to trade.

A corporate bond issuer may have only one class of equity, but the company will usually have several fixed income securities in issue. They tend to be small relative to the equity capitalisation of the issuer, and to be tightly held by investors who hold them to maturity.
So the settlement discipline regime poses much the same challenge for bond dealers as it does for market-makers in small- to mid-cap equities. They sell short to provide liquidity and allow transactions to fail if they cannot buy or borrow the securities. Faced with the costs of financial penalties and buy-ins, they may reduce the number of bonds they cover and/or widen bid-offer spreads to cover the costs of running more long positions or covering expected buy-in costs.

Yet the lack of transparency in corporate bond markets — they are traded mainly OTC — magnifies the problems of illiquidity and the difficulty of borrowing successfully. Studies by ICMA suggest that the settlement discipline regime will force dealers to widen spreads significantly and reduce the number of bonds they will cover.

According to a recent survey by ICMA, the buy-in regime will reduce the capacity of bond market-makers to show offers across all types of bonds, with investment grade and high-yield bonds most affected and sovereign credit least affected. In the same survey, buy-side respondents endorsed this expectation. The market-makers also predicted bid-offer spreads on all classes of bond will more than double, with covered bonds the most affected. Studies by ICMA suggest that the settlement discipline regime will force dealers to widen spreads significantly and reduce the number of bonds they will cover.

IMPACT ON SECURITIES FINANCING AND LENDING

Bond dealers were equally concerned about the impact of the settlement discipline regime on the repo market, which they use to fund long positions and cover short sales. Buy-ins threaten to reduce the willingness of dealers to lend the bonds they hold for cash, and investors to lend them securities to cover short positions. Repo transactions which are 30 Day Exempt Transactions are exempt from the buy-in provisions of CSDR.

There remains a concern whether the European authorities will confirm that open or undated repos — which make up 5-6 per cent of the European repo market and nearly 80 per cent of the government bond lending market — are also out of the scope of the CSDR settlement discipline regime. Open repos and securities loans have no fixed maturity but are simply “rolled over” every day. Economically, they function as overnight repos or loans, which means it is possible they will be exempted from the scope of the CSDR settlement discipline regime.

IMPACT ON THE SECURITIES LENDING MARKET

The settlement discipline regime might also have a negative impact on the securities lending market, in which market-makers and asset managers borrow equities as well as bonds to cover short sales as well as settlement fails. According to a recent survey by ICMA, the settlement discipline regime means that borrowing securities will become more difficult and more expensive.

Securities are normally lent on an open basis, without a fixed maturity date, so there is a risk that securities lending transactions will not qualify as 30 Day Exempt Transactions in the same way as open repos.

In a mandatory buy-in regime, it is riskier to lend a security since it might not be returned quickly enough to avert a buy-in, especially if it is subject to exceptional demand (in the jargon, “special”) that makes it too costly or valuable to return. Recalls of stock on loan not only undermine short positions but can cause a buy-in.

Bonded stock may be recalled at any time. So borrowing securities to cover a short position will become riskier. It may not be possible to borrow the same security to cover the recall, forcing the short seller either to cover the position in the market (possibly at an adverse price, especially in the case of an illiquid security) or fail to deliver to the lender, who may face a buy-in whose costs the short seller would be liable to meet.

Current lending agreements oblige borrowers to cover such costs but will need to be rewritten to ensure they cover all potential eventualities under the CSDR settlement discipline regime.

POSSIBLE LOSS OF BUSINESS TO OTHER JURISDICTIONS

There is a risk that the costs of the settlement discipline regime reduce the volume of securities business in the EU. There are two ways in which this might happen. The first is that trading firms and asset managers based outside the EU decide that the risks of trading or investing in European securities outweigh the rewards and reduce or abandon their activities in EU markets.

The second is that issuance and trading activities that currently take place in the EU move to offshore jurisdictions. Bond issuers, for example, might find that the cost of debt capital is lower if they issue securities outside the EU. Bond dealers might also find that their profits are larger if they apply their capital and trading expertise to markets outside the EU.
05. Knowledge and Preparedness

HAVE OTHER ISSUES DISTRACTED PARTICIPANTS FROM PREPARING FOR CSDR?

Until recently, the CSDR settlement discipline regime had a low profile. Many front offices of securities firms were focused on Brexit and the effort of compliance with MiFID II and other regulations. In back offices, the focus was on implementing other components of CSDR, such as shortening the settlement timetable to trade date plus two days (T+2) and authorising EU and EEA CSDs.

One result is that some market participants are better prepared for the settlement discipline regime deadline than others. Importantly, preparedness does not mean simply achieving compliance with the settlement discipline regime. It means understanding the impact of the regime on existing business and making judgments about how to reshape that business to reduce risk, minimise costs and protect revenues.

PREPAREDNESS VARIES BY REGION

It is important to recognise that the settlement discipline regime affects all market participants involved in in-scope transactions even if they are based outside the EEA, and discussions with securities market participants indicate that the degree of preparedness varies sharply by region.

Naturally, awareness of the CSDR settlement discipline regime is highest in Europe. It is lowest in Asia, which is unsurprising, given the relatively low levels of interconnection and the time zone differences. However, time zones also mean that Asia is the region with the biggest handicap in terms of matching settlement instructions quickly to avoid settlement fails.

Though time zones mean interactions between Europe and North America are both dense and frequent, awareness of the settlement discipline regime is not as high as might be expected in the United States and Canada. Firms with direct European dealing or asset management capabilities are generally better informed, though heads of operations in London do report limited awareness of the settlement discipline regime and its effects in New York and Boston.

CSDS ARE LIMITING THEIR ROLE

In terms of institutions, CSDs, CCPs, broker-dealers and custodians are now well aware of the challenges created by the settlement discipline regime, but awareness among asset managers is varied. In general, the buy-side is both less informed and not as advanced in its preparations. This partly reflects an expectation that settlement discipline is a problem their brokers and custodians will solve on their behalf.

CSDs, led by ESCMA, have developed a strong framework to handle the financial penalties regime. No CSD has yet reported any difficulties in developing the systems they need to track the high level of daily calculations and notifications. There is some concern that the CSD-to-participant message formats will not be standardised, leading to increased development costs.

SECURITIES DEALERS LIKELY TO CUT COVERAGE AND RAISE PRICES

Certain types of market participant — namely, small- to mid-cap equity market-makers and ETF dealer-cum-creation agents — are intensely aware of the impact of the mandatory buy-in regime on their core business. Discussions with market-makers indicate the lack of an exemption or extended “extension” period for market-makers in the CSDR settlement discipline regime will have a profound effect on their ability to offer two-way prices at competitive spreads and maintain current levels of liquidity. However, they have no obvious solutions to the threat.

In markets where it is difficult or impossible to borrow to cover short positions, acting as market-maker — which means being obliged to sell stock even if it is not in the inventory — will become a gamble on being able to source the securities in the market. Some combination of wider spreads and reduced coverage of less liquid securities seems inevitable unless solutions, such as new SME listing venues, become available. Similarly, trading ETFs whose underlying instruments are illiquid is likely to become both more expensive and curtailed.

At larger dealing firms, which trade all products, awareness of the settlement discipline regime is equally high but less intense. Many have internal task forces working on how the firm can best comply and adapt. They are identifying and quantifying markets and settlement counterparts likely to generate fails and buy-ins. They are likely to recalibrate not only which counterparts they are willing to do business with, but in which markets they will offer liquidity and on what terms.

More than 60 per cent of respondents to a recent ICMA survey were planning changes to operational processes as a result of the settlement discipline regime, but significant minorities on both the buy-side and the sell-side were not.

Even within the largest dealing firms there is a worrying lack of awareness on many trading desks of how significant buy-in costs might be, especially in the corporate bond markets. That same ICMA survey found substantially more than half of respondents across the buy-side and sell-side thought there was either limited or very limited awareness of the regulatory requirements and likely impacts of the settlement discipline regime.

Yet those impacts will be inescapable in the absence of palliative measures. As with any regulation, all parts of CSDR settlement will eventually be subject to review, and the settlement discipline provisions are no exception. But it would be imprudent for securities dealers to rely on immediate amelioration of these parts of the regime they find disagreeable.

CUSTODIANS WILL BE INFORMATION CONDUITS

Many custodians are reviewing their counterparties and modelling the likely impact of the settlement discipline regime. They have developed a good idea of which brokerage and asset management customers and global custodian banks used by their clients will be problematic in terms of operational quality. This understanding will be crucial once the settlement discipline regime comes into effect. Even if penalties and buy-ins are not their direct responsibility, they will not want them to cause friction with the buy-side.

Buy-side firms that have outsourced operations expect their global custodians, as direct or indirect — via sub-custodian banks — participants in CSDs, to manage or solve the issues created by the settlement discipline regime. In particular, they expect their global custodians to act as the conduit for the information published by CSDs about the financial penalties and to absorb the costs of settlement fails or pay the credits that accrue.

Doing these tasks well involves modelling the workflows and adapting or developing systems and hiring staff to handle the expected volume of information exchanges and client queries. The work is in some cases at an early stage, partly because the role of the custodian in the buy-in notifications process remains unclear. It is nevertheless highly likely that they will be involved in notifying asset managers they are being bought in or appointing a buy-in agent.

ASSET OWNERS LIKELY TO BE NET BENEFICIARIES

The level of awareness among asset managers of the potential impact of the settlement discipline regime varies widely, though awareness increases with the value of assets under management and proximity to the European regulatory system. The larger asset managers are reviewing — in conjunction with their global custodian, where they have outsourced some or all back and middle office functions — which executing brokers and client custodian banks are likely to cause settlement fails.

Of course, asset managers can be themselves a major cause of settlement fails, through inadequate use of SSI databases, mismatched settlement instructions, or late booking of allocations to funds. Discussions with asset managers indicate that most will shield asset owners from the costs of financial penalties and pass on any revenue. Since it is estimated that 80 per cent of settlement fails are caused by the sell-side, end-investors are likely to be net beneficiaries of the settlement discipline regime. That is an outcome the architects of CSDR would applaud.
Conclusion

The settlement discipline regime of CSDR remains imminent, even allowing for the proposed delay to 1 February 2022. The scale of its impact on the European securities industry, in terms of the infrastructural costs of achieving compliance and buy-ins, is unclear but is potentially significant for some firms. Therefore, it behoves all firms to understand how the financial penalties and buy-ins will work, collaborate with counterparts, CCPs and CSDs to clarify and refine the settlement discipline regime where necessary, and then invest in the systems and people to comply with its requirements.

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FOOTNOTES


10 CSDR applies to a ‘CSD’, which is a legal person that operates a ‘securities settlement system’ (as defined in Article 2.1(10) of CSDR) and provides at least one other core service listed in Section A of the CSDR Annex.


12 See details of the buy-in process under Section 3.0 below.

13 ECSDA CSDR Penalties Framework, under the section called ‘Monthly Events’.

14 ECSDA CSDR Penalties Framework.


Figures 2.14 and 2.18. However, ICMA believes this exemption is not a complete solution. See ICMA European Repo Market Survey Number 37, Conducted June 2019 and published November 2019, pages 12, 13 and 14.


ICSDA Comments on the upcoming CSDR technical standards and technical advice on settlement discipline, 19 February 2015.


The maturity analysis in the latest survey of the European repo market by ICMA found 53.5 per cent of repos in the survey as a whole have a maturity date of a month or less, but 89.9 per cent of those traded on automated trading systems have maturities of a month or less. See ICMA European Repo Market Survey Number 37, Conducted June 2019 and published November 2019, Figures 2.14 and 2.18. However, ICMA believes this exemption is not a complete solution. See SECSDA mandatory buy-ins and securities financing transactions: A discussion paper by the ICMA European Repo and Collateral Councils (ERCC) Committee and the Secondary Market Practices Committee (SMPC). October 2018.


See the “Financial Penalties” table under Section 2 above.


See under “An Asymmetric Risk” on page 15.


Where the price of the shares agreed at the time of the trade is higher than the price effectively paid for those shares...the corresponding price shall be deemed paid.” See Commission Delegated Regulation (EU) 2018/1229 of 25 May 2018 supplementing Regulation (EU) No 909/2014 of the European Parliament and of the Council with regard to regulatory technical standards on settlement discipline, Official Journal of the European Union, (43), Article 35.2 L230/20. Article 35.2 corrects an error embedded in the original regulation, Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories, Official Journal of the European Union, Article 76, which stipulated that...where the price of the shares agreed at the time of the trade is higher than the price effectively paid for the execution of the buy-in, the corresponding price shall be paid to the receiving participant by the failing participant no later than on the second business day after the financial instruments have been delivered following the buy-in. The world “higher” in the regulation should have read “lower.” The “deemed paid” formula in RTS Article 35.2 corrects this error in the original “Level I” regulation, which as set out below is self-unfailable.


See page 19.


78.22 per cent of global government bonds on loan had no fixed maturity in one survey. See Figure 11, International Securities Lending Association, Securities Lending Market Report, February 2017, page 14.


This document has been provided to you for informational purposes only and is intended as an overview of certain aspects of Regulation (EU) No. 909/2014 of the European Parliament and of the Council of 23 July 2014 (“CSDR”) and certain of the regulatory technical standards adopted under CSDR.

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