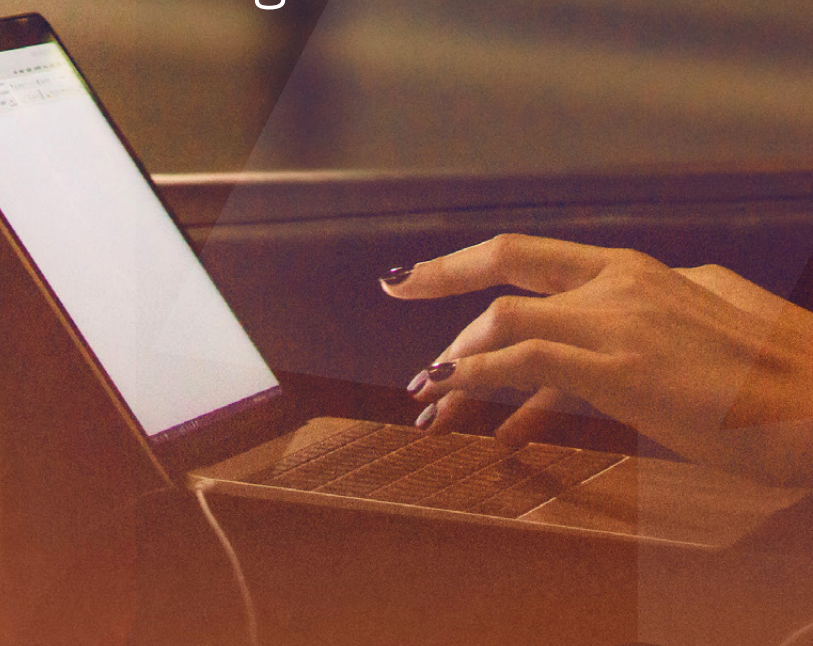


CSDR:

Settlement discipline
regime client toolkit



Introduction

With the clock counting down to the Central Securities Depository Regulation's (CSDR) settlement discipline regime (SDR) entering into force on 14 September 2020, Deutsche Bank's Securities Services team has published this toolkit to help clients prepare for what will be the most impactful aspect of CSDR for many institutions. It follows the publication of 'Your Guide to CSDR'¹, which provides an overview of the practical impact, key requirements and new opportunities of the regulation for securities market participants in Europe. This toolkit provides some suggestions on how to respond to the demands of the regulatory requirements, which include cash penalties and mandatory buy-ins, with repercussions impacting the trade and post-trade industries alike.

It sets the scene with a brief overview of CSDR and its key elements as well as the important milestones.

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Foreword

The Central Securities Depository Regulation (CSDR) impacts all actors in the securities lifecycle, from the investors to the CSDs. Nowhere else in the regulation is this better demonstrated than with the settlement discipline regime (SDR), which enters into force on the 14 September 2020. One of the main objectives of the regulation is to improve the safety and efficiency of securities settlement, in particular for cross-border transactions, by ensuring that buyers and sellers receive their securities and money on time and without risk. To achieve this objective the SDR provides a set of measures to prevent and address failures in the settlement of securities transactions which include cash penalties, mandatory buy-ins and monitoring and reporting measures to be taken by the CSDs.

Deutsche Bank has established a bank-wide project which is a core change initiative for the bank and is operated under the leadership of Deutsche Bank's Securities Services team. The project has undertaken a significant amount of work to understand and prepare for the requirements of the SDR. This involves looking at CSDR not just on a regional basis, but on a global basis, to ensure that its clients and relationships, regardless of their domicile, are fully considered and supported to comply with the regulation.

The bank's Securities Services Market Advocacy team has been engaging with regulators and industry bodies such as the Association for Financial Markets Europe (AFME), the Association of Global Custodians (AGC), and the European Banking Federation (EBF) in addition to the local trade associations in the markets that Deutsche Bank Securities Services operates in. This participation has helped to ensure that the bank's voice is heard and that clients are also represented through the team. Indeed, CSDR is a great example of the necessity of client advisory given the impact to providers and consumers throughout securities post trade.

Given the intention of the SDR to incentivise timely settlement, the bank recognises that a provider's client service ethos and operational performance is a differentiator. Deutsche Bank is currently leveraging its data and innovation teams to review clients' current operational behaviour and settlement efficiency rates and model them against future CSDR outcomes. Ultimately, the custodian will play the role of a valuable information conduit sitting between the CSDs, its clients and their trading parties. In this vein, Deutsche Bank is exploring how real-time data and settlement analytics can provide clients with a view of their settlement horizon.

By combining a deep understanding of CSDR with innovative real-time data processing, Deutsche Bank Securities Services feels confident that it can help its clients meet their requirements of CSDR by portraying settlement risk on a near real-time basis.



James Cox,
Head of Securities
Services, EMEA,
Deutsche Bank

1

What is CSDR?

CSDR² is the current, prominent, regulation in the European Union (EU)/European Economic Area (EEA) for the securities industry. It re-writes the rules for securities settlement in Europe and introduces a strict set of rules for CSDs akin to the Markets in Financial Instruments Directive (MiFID) for trading venues and European Markets Infrastructure Regulation (EMIR) for central counterparties (CCPs). CSDR impacts all actors in the securities trade and post-trade lifecycle, from the investor to the CSDs. Deutsche Bank considers the regulation through four pillars (see figure 1).

Figure 1: The four pillars of CSDR



Source: Deutsche Bank

While this paper focuses on the upcoming requirements of the SDR and what participants may need to consider to comply, there are some in-flight and recently completed significant milestones which are also worth noting:

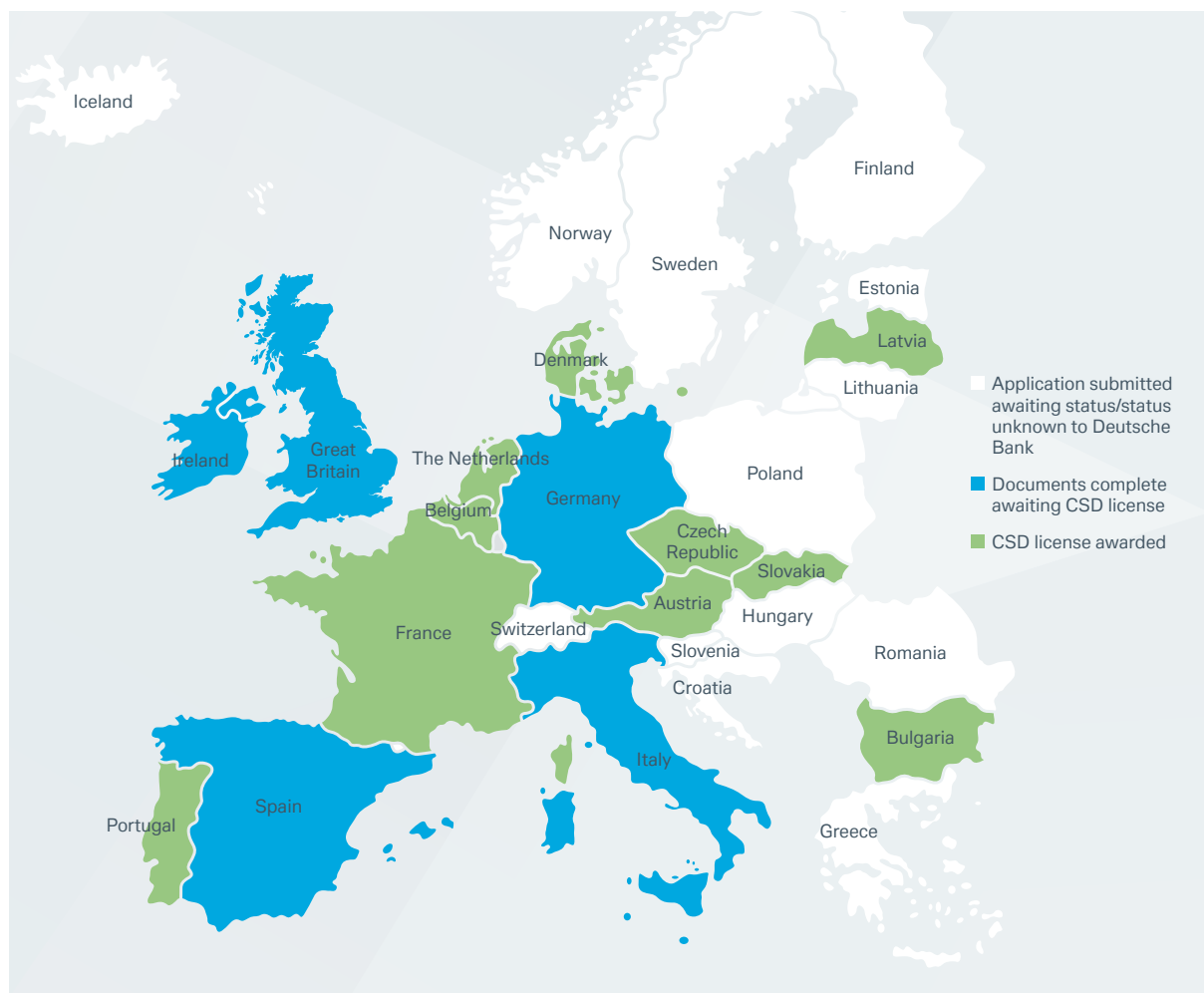
CSD re-authorisation

Under CSDR, all CSDs in the EEA require new licenses to continue to provide their services. The deadline for CSDs to submit their application to their national competent authority (NCA) was 30 September 2017. While the timeframe for the re-licensing has extended much further than anticipated, progress is being made on the three key phases (see figure 2):

- CSD license documents provided by the CSD
- Documentation deemed complete by the NCA
- CSD license awarded

Upon the CSDs being awarded their license, reconciliation requirements (Article 37) and account segregation and disclosure provisions (Article 38) apply and become mandatory for the CSD participant. Details of these requirements can be found in the CSDR guide.³

Figure 2: Authorisation of CSDs in Europe under CSDR



Source: Deutsche Bank



Settlement internalisation reporting

To date, for non-CSD industry practitioners, the focus has been meeting the deadline for the first 'Internalised Settlement' Report. Settlement Internalisation Reporting refers to the requirement under Article 9 of CSDR to report all settlement not taking place at a CSD to the national competent authority (NCA). The rules for the first regulatory reporting regime at a settlement level were applied from 10 March 2019. With the first reports having been submitted to the NCAs on 12 July 2019, the process should now be institutionalised as business as usual. The next reports are due on 14 October 2019.

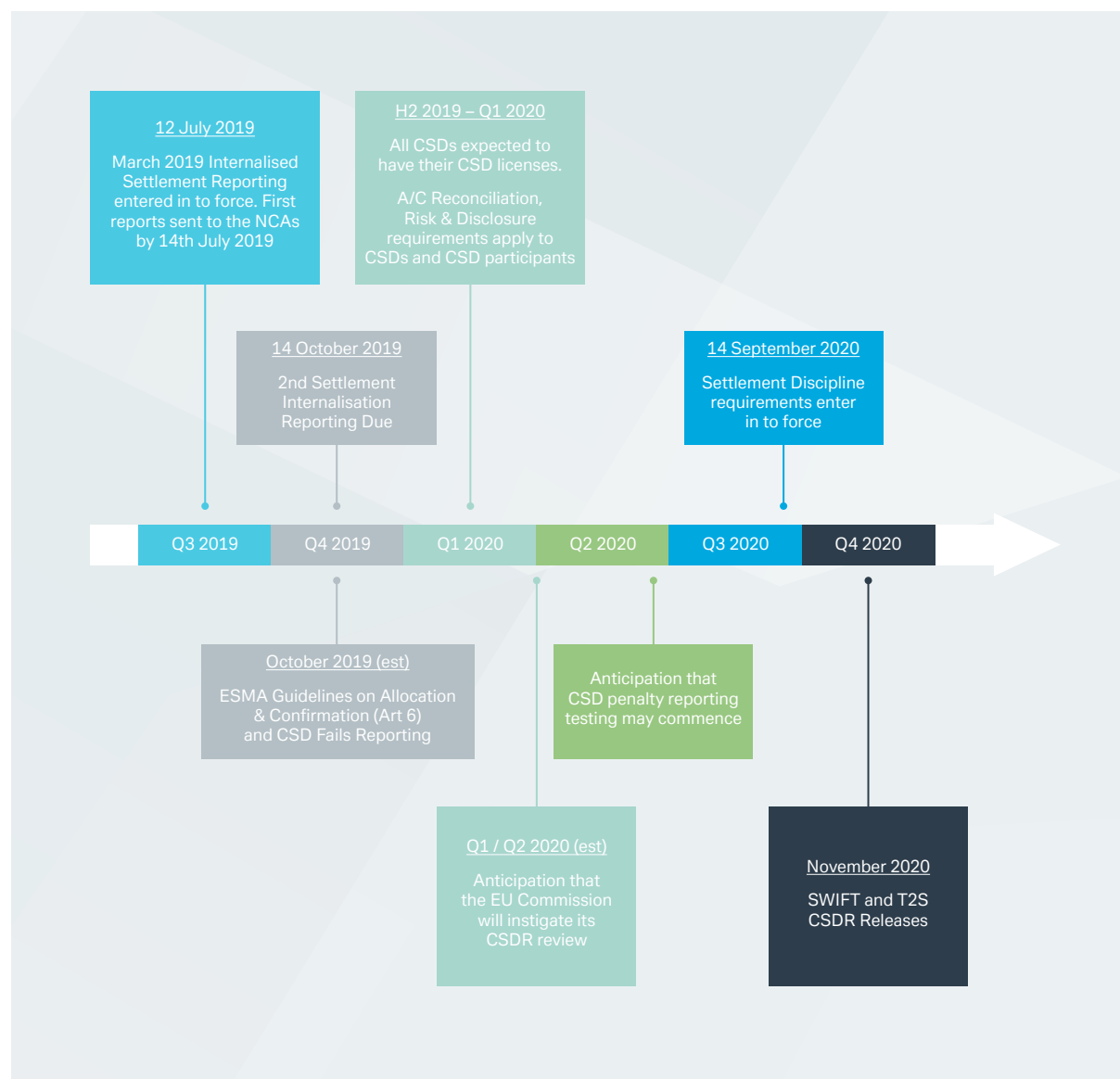
Following that milestone, settlement discipline, which is very much the nucleus of the regulation, steps into the spotlight impacting trading parties to the CSDs and everyone else in-between. The impact is significant and the repercussions costly, in both financial and reputational terms, if compliance is not achieved.

2

CSDR milestones

CSDR has a number of upcoming milestones which the industry is working towards (see figure 3).

Figure 3: CSDR regulatory timeline



Source: Deutsche Bank

3

The settlement discipline regime

CSDR, or Regulation (EU) No 909/2014, harmonises the conduct of securities settlement in the European Union and the rules governing CSDs. One of the main objectives of the regulation is to improve the safety and efficiency of securities settlement, in particular for cross-border transactions, by ensuring that buyers and sellers receive their securities and money on time and without undue risk. To achieve this objective, the regulation harmonises the timing and framework for securities settlement in the EU. In particular it provides a set of measures to prevent and address failures in the settlement of securities transactions (settlement fails) commonly referred to as the settlement discipline regime (SDR).

A focus on prevention means that the SDR will require significant IT system changes at a market level (CSD, CCP and trading venues), at a messaging level (SWIFT and other confirmation / allocation platforms) and adjustments to legal arrangements between all parties concerned.

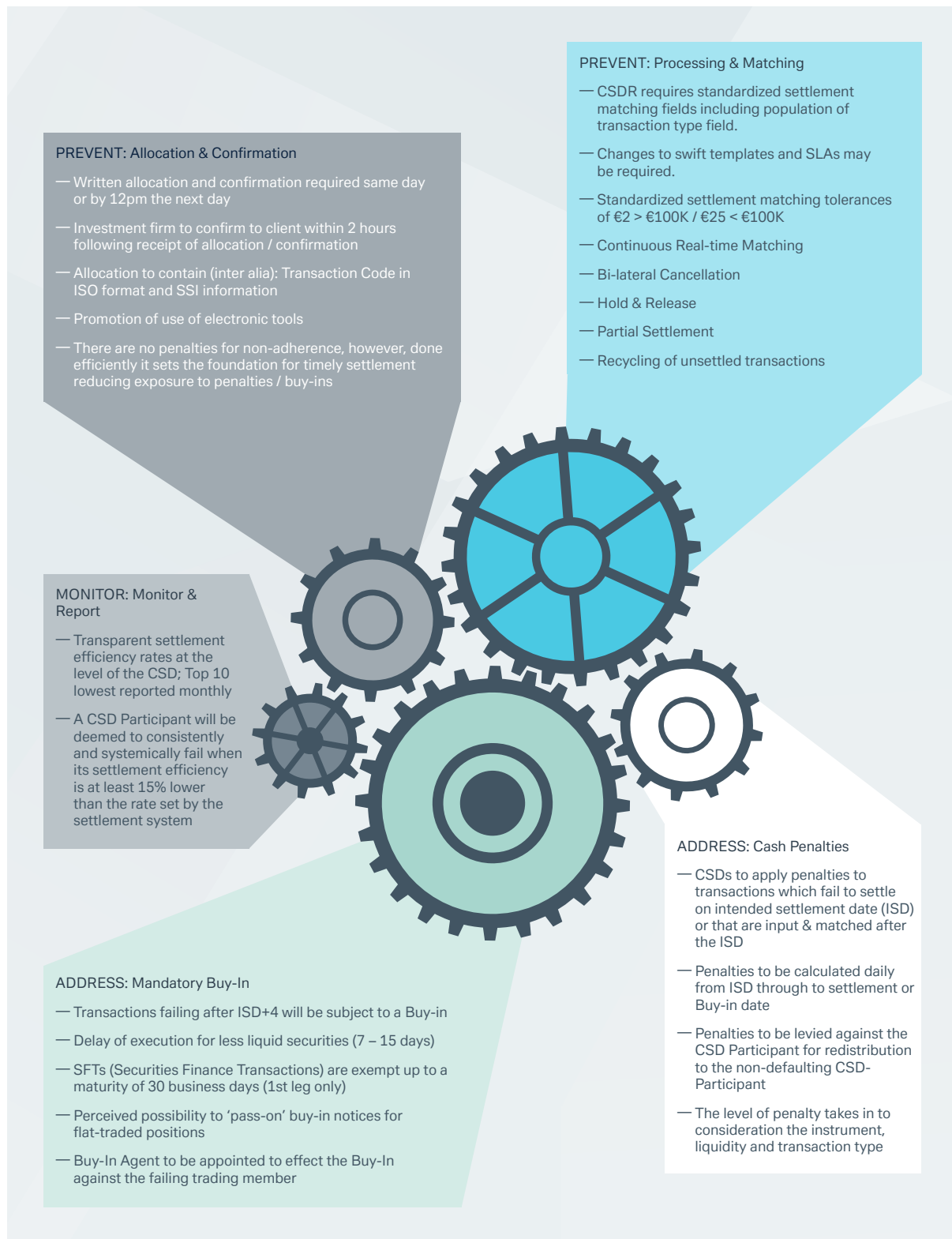
To demonstrate those changes, it sets out a number of steps (see figure 4) toward discipline in securities settlement. The first steps are aimed at preventing settlement fails within the allocation and confirmation process and through changes to the processing and matching of securities transactions. It then introduces steps to address settlement fails through the introduction of cash penalties and mandatory buy-ins and, lastly, new monitoring and reporting measures to be taken by the CSDs.

“The settlement discipline regime, although complex in its execution, is quite simple in its intention; to incentivise timely settlement and prevent undue risk to investors”

*Emma Johnson, Director, Securities Regulation & Market Reform,
Deutsche Bank*



Figure 4: Steps towards discipline in securities settlement



4

Where does the impact of SDR lie?

SDR binds trade and post-trade together. Poor performance and discipline, both top to bottom and bottom up, could prove costly to an organisation.

For example, an institution may be performing many different roles, from trading to settlement, which might also include being a participant of a CSD. All actors in an institution need to know what their obligations are, what they need to do and when they need to do it to ensure the right steps are taken towards achieving timely settlement and to avoid the repercussions of the SDR.

This toolkit outlines the impact and obligations on market participants while acknowledging that further clarification and opinion is required from ESMA and the CSDs in order to fully align and ultimately be certain of the impact and the steps required to comply.

All actors in an institution need to know what their obligations are;
what they need to do and when they need to do it



5

SDR essentials

This section highlights the suggested principles on which market participants may want to base their own analysis. These recommendations are based on Deutsche Bank's own implementation of the regulation and through its active engagement in industry associations such as the Association of Financial Markets Europe (AFME), the Association of Global Custodians (AGC), the European Central Bank (ECB) and the European Banking Federation (EBF) among others at a national level.

I. Instrument scope

At the time of printing this guide, there was no single list of in scope instruments. While the industry awaits clarification from ESMA, and following much industry debate, Deutsche Bank views the following types of financial instruments to be within the scope of SDR:

- Equities and other equity-like instruments
- Debt securities
- Funds instruments
- Money market instruments
- Emission allowances and
- Other financial instruments eligible for settlement in a European CSD

These instruments will have been:

- Admitted to trading on an EU trading venue
- On the ESMA Financial Instruments Database (ESMA FIRDS database) or,
- Cleared/eligible for clearing by an EU CCP

They will be settled at the following type of CSD:

- EU CSD (subject to CSDR)
- EEA CSD (subject to incorporated laws similar to CSDR)
- EU 3rd Country CSDs aiming at providing services and being recognised in the EU

However, if the instrument appears on ESMA's exemption list due to its primary trading location being in a third country then we believe that transactions in these instruments will be out of scope.

We recommend market participants' instrument data teams are consulted and tasked with reviewing requirements, making use of the 'Classification of Financial Instrument '(CFI) codes' to help compile an in scope instrument universe.

II. Transaction types

Once in scope instruments have been derived by market participants, they will need to be aware of and be able to distinguish the impacted transaction types. It should be noted that these differ between cash penalties and buy-ins, as follows:

i. Cash penalties

Deutsche Bank believes cash penalties will apply to all settlement instructions which fail to settle on the intended settlement date (ISD), including cleared settlement instructions, with the exception of the below which are still subject to confirmation by ESMA:

- Redemptions (Trans Code REDM)
- Corporate actions on stock (CORP)
- Technical instructions such as Target2-Securities (T2S) automatic realignments
- T2S settlement restrictions

All other transactions will be penalised for failing to settle on ISD.

ii. Buy-ins

Buy-ins are slightly different. The Level 2 text of the regulation makes reference to the “failing trading party” and the “receiving trading party” as the participants in the transaction. With this in mind, if the settlement instruction does not represent a trade then there will be no receiving trading party to initiate the buy-in process. Therefore, it is logical to assume that if a settlement instruction does not represent a trade then the settlement instruction should be deemed to be out of scope for a buy-in. In some instances such as “conversions” or “portfolio transfers” where the trade could take longer to settle, the execution of a buy-in could be compromised as the receiving and delivering party are essentially the same.

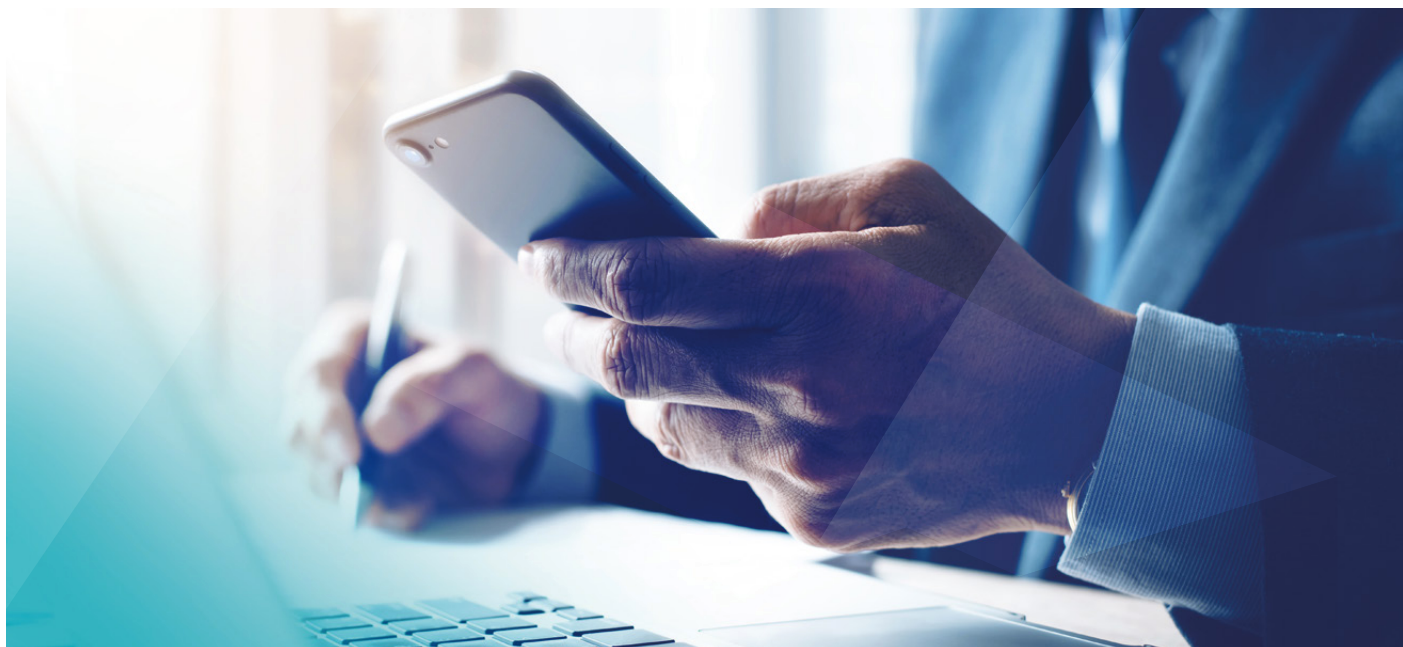
At a high-level the following instruction types can be deemed to be in scope:

- Purchase and sale transactions
- Securities lending transactions
- Repo and reverse repo transactions
- Buy-sell-back / sell-buy-back
- Potentially triparty repo

As a CSD participant, Deutsche Bank believes all other transactions would not represent a trade and hence would not qualify for a buy-in. These exclusions may include market claims, issuances, collateral movements and realignments.

At the time of print, ESMA was expected to publish a response to an industry-driven Q&A seeking confirmation of the instruments in scope.

What is clear, however, is that the need for market participants to accurately populate the four letter transaction code in the SWIFT message will prove critical. For example, the use of TRAD as a default signifies that the settlement instruction is a trade – a purchase and sale transaction – and therefore in scope for a buy-in. Accurate static data is of vital importance and is discussed in more detail in the next chapter.



iii. Repercussions matrix

The matrix below (see figure 5) sets out the cash penalty and buy-in schedule for trades that fail to settle on ISD onwards. As of 14 September 2020 this will form your new settlement lifecycle.

Figure 5: Repercussions for instruments that fail to settle on time

	Settlement Period	Cash Penalties	Extension Period	Buy-in Period	Deferral Period
	Settlement Convention (deviations may apply)	Cash Penalties to apply at the close of	Failure to deliver up to the following business days from ISD will result in Buy-in	Timeframe for the Buy-in process execution/settlement	Window for deferral
Liquid Shares	TD+2	ISD	4 Business Days after ISD	4 Business Days after ISD	4 Business Days after ISD
Other Securities inc. Debt	TD+2	ISD	7 Business Days after ISD	7 Business Days after ISD	7 Business Days after ISD
SME Growth Markets	TD+2	ISD	15 Business Days after ISD	7 Business Days after ISD	7 Business Days after ISD

Source: Deutsche Bank

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Operations essentials

SDR, although complex in its execution, is quite simple in its intention to incentivise timely settlement. The repercussions for poor settlement performance – cash penalties and mandatory buy-in at a trading party level – are essentially a ‘call to action’ to be operationally more efficient. From timely and accurate trade bookings through to allocation, confirmation, settlement and inventory management – front, middle and back offices are impacted. Since CSDR will call out and penalise poor processes, steps towards prevention should be started now.

From timely and accurate trade bookings through to allocation, confirmation, settlement and inventory management – front, middle and back offices are impacted

I. Timeliness and accuracy

The timely flow of information is of paramount importance. Timeliness and accuracy will play a leading role, not just in preventing fails but also in assisting with an orderly application of cash penalties and buy-ins. A review of straight through processing (STP) and data efficiency should be encouraged.

Areas to focus on include:

- **Front to back:** Starting with internal systems – from trade capture through to trade enrichment and message generation, to outbound through the messaging gateway and vice-versa for the flow of inbound messages, including matched / settled settlement statuses
- **Non-STP Remediation:** Market participants should conduct a detailed review of non-STP processes and liaise with their settlement agent and CSDs to get an overview of current weaknesses

II. Static data

Although reference data is not a requirement in the regulatory text, inaccuracy, lack of procedures and monitoring can lead to settlement delays, which will ultimately shine an unwanted spotlight on an institution.

A static data clean-up remediate repeat data failures such as incorrect instrument or client data and time sensitive monitoring of exceptions queues such as SWIFT message and non-STP breaks will be essential for avoiding the repercussions of the SDR. Procedures should be updated to ensure that both front and back-office systems are set-up so that allocation / confirmation and settlement instructions are not held or released with inaccuracies.

i. Instrument

Instrument data should be set up accurately in all systems. Failure to set up instruments is a common reason for STP failure in internal workflow tools.

ii. Counterparty

In addition to position adequacy, accurate standing settlement instructions (SSIs) and the use and management of them will prove pivotal to a firm's settlement discipline success.

One of the most common reasons for unmatched and failing trades is incorrect counterparty reference data, including SSIs and the lack of an efficient process supporting it. Accurate trade booking to the correct client is also essential.

From client on-boarding, to periodic reviews through to the inclusion and use of on-line repositories such as the Depository Trust and Clearing Corporation (DTCC) 'Alert', the collection and maintenance of up-to-date SSIs requires focus. CSDR offers a life-line with the mandatory inclusion of SSIs in allocation and confirmation messages, presenting an opportunity to market participants to do more upfront and clearly demonstrate to their clients the settlement details they will be using and the corresponding details they have for them.

A static data clean-up remediating repeat data failures such as incorrect instrument or client data and time sensitive monitoring of exceptions queues such as SWIFT message and non-STP breaks will be essential for avoiding the repercussions of the SDR



III. SWIFT messaging

Ensure that the correct SWIFT message formats are used; liaise with the CSDs and settlement agents and look to remedy non-STP due to incorrect message formats.

i. Transaction codes

As detailed in the previous section, the use of the transaction code in Field 22F "SETR" should be accurately populated. Deutsche Bank believes that the most common transaction types and their codes in-scope for buy-in are:

- Purchase and sale transactions = TRAD
- Securities lending and borrowing transactions = SECL / SECB
- Repo & Buy-Sell Backs = REPU / RVPO / SBBK
- Triparty = TRPO / TRVO

The transaction type used in the SWIFT message should match the actual transaction type. This will bring greater transparency in the overall processing and will clearly identify the type of transaction, which will ultimately assist in the applicability and application of the buy-in process. It may also prevent queries from the regulator on finding that there are aged fails with a TRAD indicator for which no buy-in nor cash compensation has been reported.

ii. CSDR specific SWIFT release changes

CSDs will use both ISO 20022 and ISO 15022 message formats. Where the ISO 20022 format is used it will be convertible in to ISO 15022 and vice-versa. The use of the reporting standard will be decided by the CSD and the participant using it. Deutsche Bank currently expects there will be no changes to the message formats currently sent by its clients. However, the caveat is that there may be some, as yet uncommunicated, changes from the CSDs when it comes to implementation specifics, which will hopefully become clearer over the final months of 2019.

All market participants need to ensure that CSDR-specific SWIFT changes are understood, adopted and introduced in to settlement and reporting systems without error. At a high level, these changes include:

Cash penalties

The CSDs will report penalty calculation information – using a new PENA qualifier – through either or both the **MT537** (statement of transactions) and **MT548** (securities settlement status advice) messages. Deutsche Bank does expect some CSD specific reporting nuances. CSD outreach is currently being conducted by AFME via ECSDA.

The existing ISO 15022 MT537 and MT548 messages will be adapted by SWIFT to cover penalty related information, which is expected to be implemented in the November 2019 SWIFT standards whilst the ISO20022 smt.xxx message for cash penalty reporting is due to be released in November 2020, after the SDR enters into force.

Buy-ins

Buy-in indicators have been introduced and consist of BYIY.

Market participants are advised to liaise closely with their internal SWIFT network team and their SWIFT relationship manager in order to fully understand the detail behind the CSDR-related SWIFT changes.

IV. Settlement efficiency

Market participants should ask themselves the following key questions in relation to settlement efficiency:

- How efficient are they today?
- What is their settlement rate?
- What are the main reasons their trades fail to settle on intended settlement date?
- How would they fare if the settlement discipline regime entered into force today? (The penalty calculation table in Section 7 could be a helpful measurement of this.)
- What would their net cash penalty exposure be?
- Would they be facing buy-in?
- What is their mark-to-market exposure?

All this data and exposure monitoring is essential, not just in preparation for the SDR but also for ongoing workflow and risk management. Policies and procedures should be updated to accommodate the regime and it would also be prudent to target and measure settlement efficiency against a minimum 95% benchmark. Deutsche Bank recommends clients aim for 99%.

Direct participants of a CSD should be mindful of their performance. CSDs are required to monitor settlement fails and report participants that consistently and systemically fail to their competent authority. This 'name and shame' approach could cause reputational damage for those institutions so preventing such failure is essential.

The main reason trades fail after ISD is due to a lack of securities in place in order for a transaction to be able to settle. Position adequacy and monitoring is therefore vital

V. Inventory management

The main reason trades fail after ISD is due to a lack of securities in place in order for a transaction to be able to settle. Position adequacy and monitoring is therefore vital.

Depot management: Market participants should ensure they know where their inventory is at any given point of time. The following steps are recommended:

- The use of stock record position ladders will be beneficial, however, differentiate between traded and settled positions – they are different. What has been traded may not have settled yet
- Familiarise yourself with the process of moving stock to and from a (I)CSD and what the respective deadlines are
- Proactively re-align positions ahead of ISD so that realignment instructions are in place to maximise the opportunity of securities being available in the right depot on ISD
- Consider borrowing to cover short positions in order to avoid penalties and buy-ins
- Proactively look to pair-off / partial pair-off / net as techniques to reduce fails and optimise available position
- Make use of hold and release functionality, which will be a mandatory requirement at the CSDs
- Depot reconciliation is also vital to ensure that market participants have position integrity vs their settlement agent / CSD

Partial settlement: This is not just for use on the last day of the extension period (ISD+4) and includes the following benefits:

- A best practice vision is for all receive versus payment (RVP) instructions to be sent with a partial indicator (Y) in order to allow a partial settlement, ahead of any penalty calculation. This might increase liquidity in the settlement system and therefore enhance overall settlement efficiency
- DVP instructions could also be sent with the partial indicator, however, where omnibus accounts are used the custodian will need to conduct its own disposition checks. In this context a future “partial release” function could provide operational efficiencies over having to manually cancel and re-instruct partial deliveries
- Until the above become market practice, opportunities for partial settlement should be offered and sought. A process to identify these opportunities in market participant’s workflow systems should be considered
- Under CSDR, CSDs are required to support partial settlement. As a result, Deutsche Bank expects the demand and use of it will increase as the benefits become more obvious

Linking: A useful technique for broker dealers

- For activity based on buying and selling flat and holding little inventory, linking could also prove beneficial. The custodian and the CSD will know that only the linked transactions can be settled together or after one another without having to rely on hold and release. Therefore, participants can only deliver what they have received before

VI. Processing and matching changes

- Close to real-time information: market participants should ensure they get the information from the CSD / settlement agent so that they know the status of their open trade population and what positions they have available
- Market participants should understand the requirements from the CSD, the Target2-Securities (T2S) settlement platform and SWIFT. The more aligned they are to the communications and proactive to the changes required, the more prepared they will be
- Care should be taken around trades on SME Growth Market because while these trades have a better penalty rate market participants will need to ensure their instruction carries the place of trading flag and ensure their counterparty does the same. Only when both instructions are instructed the same way will the lower penalty rate for SME Growth Markets be calculated
- Matching tolerances at the CSD will be: €2.00 up to settlement amounts of €100,000 and €25.00 for settlement amounts greater than €100,000
- Bilateral cancellation will also become mandatory at all CSDs that are subject to CSDR



7

SDR: Key stages

This section covers the three key stages of the SDR: Allocation and confirmation, cash penalties and mandatory buy-in in order to help market participants with their planning and implementation of SDR.

I. Allocation and confirmation

The inclusion of 'pre-settlement' measures in the CSDR are as understated as they are vital. The requirement for mandated discipline at the trade / pre-settlement level solidifies the dependency on trade booking efficiency, timeliness and accuracy. The phrases 'do more upfront' and 'do it once and do it right' apply here. The inclusion of SSIs and the total cash amount – both common matching and settlement points of failure – in the allocation and confirmation process is a step towards eliminating trade date inefficiency, ensuring cohesion between trade, post-trade and the often siloed operational processes that occur between trading and settlement.

The inclusion of 'pre-settlement' measures in the CSDR are as understated as they are vital

Requirements: (sourced but paraphrased from the Regulatory Technical Standards (RTS))

- Written allocations should include full details of the transaction:
 - one of the following types of transaction:
 - *Purchase or sale of securities*
 - *Collateral management operations*
 - *Securities lending / borrowing operations*
 - *Repurchase transactions*
 - *Other transactions, which can be identified by more granular ISO codes*
 - *ISIN or other identifier where the ISIN is not available*
 - *the delivery or the receipt of financial instruments or cash*
 - *the nominal value for debt instruments, and the quantity for other financial instruments*
 - *the trade date*
 - *the trade price*
 - *the currency*
 - *the intended settlement date of the transaction*
 - *the total amount of cash that is to be delivered or received*
 - *the identifier of the entity where the securities are held*
 - *the identifier of the entity where the cash is held*
 - *the names and number of the securities or cash accounts to be credited or debited*

- For transactions with professional clients, written allocations and confirmations will be required on the same day within the same time zone or by 12pm TD+1 where there is a +2 hour time zone difference or for transactions made after 16.00 CET
- Investment firms must confirm the receipt of written allocations and confirmations within 2 hours of receipt or within the first hour of business on TD+1 for those received within an hour from close of business the previous day
- For transactions with retail clients, receipt of the written allocation and confirmation is required by 12.00 CET TD+1

Electronic allocation and confirmations, such as DTCC's CTM, are supported by the Level 2 regulation, which will prove both efficient and valuable from a best practice perspective, for immediacy, efficiency and for a settlement matching audit trail. In addition, in the Level 2 regulation, where an investment firm receives the necessary settlement information in advance, it may agree in writing that the written allocations and confirmations do not need to be sent. Situations where this might occur include references in trading agreements, disclaimers on SSI information or public websites which would benefit from referencing CSDR in this regard.

The ESMA consultation of the allocation and confirmation process in December 2018 largely appreciated the existing functionality and processes followed today. Feedback to this consultation is expected in Q4 2019.

II. Cash penalties

Settlement instructions that are matched (prior, on or after ISD) and fail to settle on and after ISD in a CSD subject to CSDR will be subject to cash penalties.

Cash penalties will apply to all failed settlement instructions including cleared transactions with the assumed exemption of: corporate actions, redemptions and T2S realignments (subject to confirmation by ESMA). CSDs will impose a penalty by debiting the CSD participant who causes the fail and credit the CSD participant who has been failed to. This process, detailed in the ECSDA CSD Penalty Framework, is expected to occur monthly but is dependent on the CSDs themselves. The industry is awaiting further detail from the CSD community.

However, what is certain is that if a market participant has fails at market close on ISD they will be either positively or negatively subjected to cash penalties. As always with CSDR there are some deviations to apply, which will be described in this section.

What is certain is that if a market participant has fails at market close on ISD they will be either positively or negatively subjected to cash penalties

i. Calculation methodologies

The methodology used to calculate penalties is not a single standard, but is dictated by the security type. It is essential that the cash penalty rates (see figure 6) and the formulas for calculating them (see figure 7) are understood and referenced for any in-house calculation or forecasts that participants want to make to manage their settlement risk.

Figure 6: Cash penalty rates

Type of Fail	Rate
1. Settlement fail due to lack of shares that have a liquid market, excluding shares referred to in point 3	1.0 basis point
2. Settlement fail due to a lack of shares that do not have a liquid market, excluding shares referred to in point 3	0.5 basis point
3. Settlement fail due to lack of financial instruments traded on SME growth markets, excluding debt instruments referred to in point 6	0.25 basis point
4. Settlement fail due to a lack of debt instruments issued or guaranteed by: (a) A sovereign issuer; (b) A third country sovereign issuer; (c) A local government authority; (d) A central bank; (e) Any multilateral development bank (f) The European Financial Stability or the European Stability Mechanism	0.1 basis point
5. Settlement fail due to a lack of debt instruments other than those referred to in points 4 and 6	0.2 basis point
6. Settlement fails due to a lack of debt instruments traded on SME growth markets	0.15 basis point
7. Settlement fail due to a lack of all other financial instruments not covered in points 1 to 6	0.5 basis point
8. Settlement fail due to lack of cash	Official interest rate for overnight credit charged by the central bank issuing the settlement currency with a floor of 0

Source: ESMA

Figure 7: Formulas to be applied

Instruction types	Failure caused by	Formula to apply
Delivery Versus Payment Delivery Free of Payment Receipt Free of Payment	Lack of securities	Security Penalty Rate X Reference Price X Quantity
Receipt Versus Payment	Lack of cash	Cash Discount Penalty Rate X Reference Price X Quantity
Receipt Versus Payment already matched	Lack of securities	Security Penalty Rate x Reference Price X Quantity
Debit Payment Free of Delivery Credit Payment Free of Delivery	Lack of cash	Cash Discount Penalty Rate X Amount
Delivery With Payment Receipt With Payment	Lack of securities Lack of cash	Security Penalty Rate X Reference Price X Quantity + Cash Discount Penalty Rate X Amount

Source: Deutsche Bank

The following data points should be referenced in these calculations:

Instrument data

- Liquidity indicator (ESMA FIRDS database for shares)
- Financial instrument type (CFI code)
- MICs of SME growth markets (ESMA register)

Pricing

- Daily MiFID reference price
- Central Bank discount rate (of ECB and other central banks)

ii. Exposure modelling

As can be seen from figure 6, penalty rates differ by security type. Although it has a higher penalty rate, the daily cash penalty to be applied to the average equity trade will be nothing compared to the penalties which may be applied to a bond transaction due to the typically higher cash values.

Scenario 1: A seller of 10,000 Daimler shares finds that their settlement instruction fails due to lack of securities. The transaction settles on ISD+3. The daily penalty rate for liquid shares is 1.0bp

- Reference price: Day 1: EUR 100, Day 2: EUR 105, Day 3: EUR 110
- Penalty calculation for a DVP with lack of securities is: Penalty Rate X Reference Price X Quantity
- Penalty Day 1: $0.01\% \times 100 \times 10,000 = \text{€}100$
- Penalty Day 2: $0.01\% \times 105 \times 10,000 = \text{€}105$
- Penalty Day 3: $0.01\% \times 110 \times 10,000 = \text{€}110$
- **Total** penalty amount due to be paid = **€315**

Scenario 2: Scenario 2: A seller of 100,000,000 Bunds finds that their settlement instruction fails due to a lack of securities. The trade settles on ISD+3. The daily penalty rate for government debt instruments is 0.1bp.

- Reference price: Day 1: EUR 100, Day 2: EUR 105, Day 3: EUR 110
- Penalty calculation for a DVP with lack of securities is: Penalty Rate X Reference Price X Quantity
- Penalty Day 1: $0.001\% \times 100 \times 10,000,000 = \text{€}10,000$
- Penalty Day 2: $0.001\% \times 105 \times 10,000,000 = \text{€}10,500$
- Penalty Day 3: $0.001\% \times 110 \times 10,000,000 = \text{€}11,000$
- **Total** penalty amount due to be paid = **€31,500**

Market participants should double-check the margins on their trades since cash penalties for failed settlement might make any trading profit disappear. They should take note of how many fails they have per day, how often they instruct, or match late, and what the overall profit and loss impact would be. Quality assurance on trade bookings is recommended. Market participants should check how many times their trade bookings are amended, and how many times the counterparty has been wrong but they have matched post ISD in order to settle the trade. They need to ensure, when submitting their settlement instruction that they are right or that they are willing to take on the liability, since any amendments post ISD could be pricy.

Further, cash penalties may eat into your credit limits with your settlement agent or custodian bank, which could impede the settlement of new transactions. Where you are a Deutsche Bank client we will work with you on this.

iii. Who takes the penalty?

Cash penalties will apply to each settlement instruction that fails to be settled or that are input and matched after ISD. There are two types of penalty, which both have the same calculation methodology:

i. Late matching fail penalty (LMFP):

- Applies to any instruction matched after the relevant cut-off on ISD
- Will be applied on the business day that the instruction matches and retroactively for each day it fails to settle past ISD
- Will apply to the participant who was last to enter or modify the settlement instruction

The applicability of LMFPs largely depends on whether or not the instruction can settle on the business day when it matches. This depends on whether the instruction matches before or after market cut-off.

Penalties do not only apply to the seller. An understanding of LMFPs is important since under CSDR, receiving parties may incur the LMPF if they were late with their instruction.

ii. Settlement fail penalty (SEFP):

- Applies to any matched instruction which fails on ISD onwards, including instructions on hold
- Matched before the relevant cut-off on a given business day (either pre or post ISD)
- Is available to be settled, fully or partially, up to and including the market close of the CSD

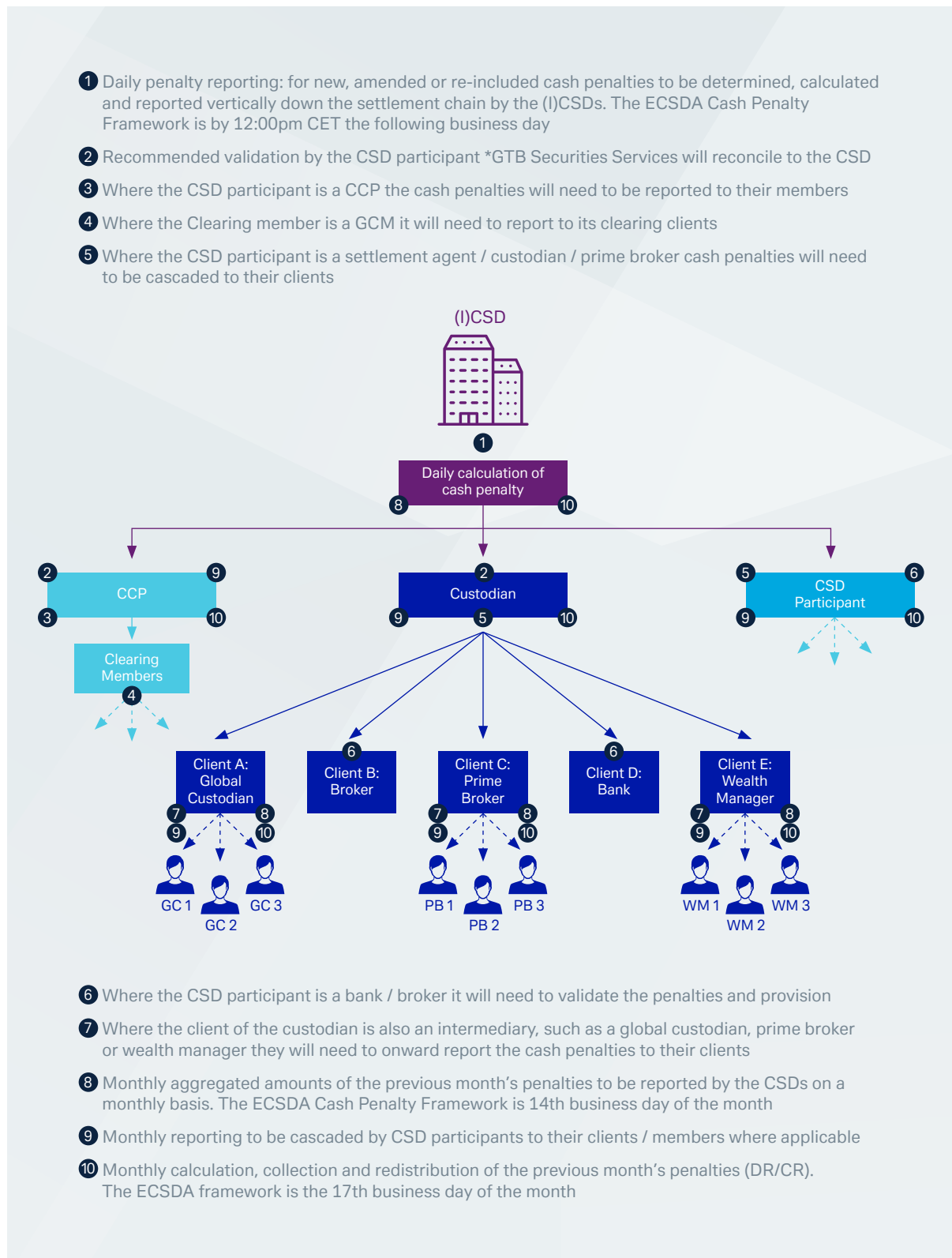
In practice, whilst essentially one and the same in respect of the cash penalty calculation that will ultimately be applied to the transaction, they reference the matched status. An instruction matched late but still continuing to fail would first incur LMFP and then SEFP.

Unlike buy-ins, cash penalties are a *vertical process* levied by the CSD debiting the CSD Participant which caused the fail and crediting the non-defaulting CSD-Participant

iv. Application of the penalties

Unlike buy-ins, cash penalties are a *vertical process* levied by the CSD debiting the CSD Participant (see figure 8) which caused the fail and crediting the non-defaulting CSD-Participant. This process effectively leads to a monthly net redistribution of fines between participants with a participant receiving a net debit and a net credit. Where the CSD participant is not a trading party, for example, they are either a settlement agent or custodian they will apply the penalties to their clients, debiting and crediting where appropriate.

Figure 8: High level illustration of how the cash penalty process may flow from the CSD



v. Penalty calendars

A penalty calendar (see figure 9), with timings based around the framework for CSDs devised by ECSDA, provides market participants with information on what they can expect to see when and from whom, including steps they need to take throughout the penalty lifecycle. The source of the information will always be the CSDs and as such, it largely depends on the CSDs themselves as to what form the daily and monthly reporting will take. At the time of writing this toolkit, feedback from Deutsche Bank's CSD network was beginning to emerge, albeit subject to further clarification.

Figure 9: Penalty calendar

Timing	Requirement	Deutsche Bank's expectation*
Daily	Details of new, amended, removed or re-included penalties to be reported by the CSDs to the CSD participants by 12.00pm CET the following business day	The bank will report to clients daily using the information received from the CSDs DB will only send its daily report once it has reconciled vs the CSD DB anticipate that that we will report to you via SWIFT MT537 and CSV which will also be available via Autobahn. The bank does however anticipate that market variants will apply
Monthly 10th business day	End of the appeal window where requests to the CSDs to correct penalties from the previous month can be made	This is an area still subject to clarity from ESMA and is an as yet to be defined process by the CSDs. Market deviation should also be expected Deutsche Bank will be reviewing the penalties applied against its accounts and clients and will dispute anything it feels is unjustified on clients' behalf
Monthly 14th business day	Aggregated amounts of the previous month's penalties —Sum of all the cash penalties to be credited or debited —Consolidated list of the previous months penalties	Deutsche Bank will perform quality assurance and financing checks against its own penalty provisions before reporting to clients
Monthly 15th business day	Calculation of the net amounts to be debited or credited —CSDs may send a pre-advice	Deutsche Bank will perform quality assurance and financing checks against its own penalty provisions before reporting to clients
Monthly 17th business day	Collection and redistribution of the previous month's penalties	Where PFODs are not used (T2S) Deutsche Bank will debit and / or credit the cash accounts linked to clients CSD accounts accordingly Please note that DB are still to determine the exact date that this will take place

Source: Deutsche Bank

**Deutsche Bank's expectations:*

While the industry aligns on its interpretation of the penalties and awaits feedback from the CSDs, Deutsche Bank will assist in providing the following safeguards:

- A turnaround of the information received from the CSDs and reporting that information to its clients without undue delay
- Deutsche Bank is working on a mechanism to review and validate the daily penalties applied and calculated by the CSDs
- Through the bank's reporting suite, it will look to leverage real-time data to design some new dashboards for its clients

vi. Cash penalties – industry current state

Much work still remains to be done across the industry on cash penalties. At the time of going to print it was still unclear how penalties will be applied by the central counterparties (CCPs); whether it is the CCPs or the CSDs who will distribute the cash penalties remains a watching brief.

As referenced, the European Central Securities Depository Association (ECSDA) has created a framework for the CSDs to follow. CSD participants now need to work with the CSDs to understand the finer details of how they will report the cash penalties. With CSDs beginning to circulate more details as to how they will be responding to settlement discipline measures, Deutsche Bank recommends that market participants stay alert to information coming out of the markets where they are active. Deutsche Bank is working with the CSDs where it has membership and will distribute information via its flow content hub. Register for updates at www.db.com/flow

vii. Next steps

It is highly recommended that market participants clean up aged fails. In this regard T2S has a significant number of transactions outstanding, which will be subject to penalty when SDR goes live. This housekeeping exercise could become expensive if it is left too late.

III. Mandatory buy-in

Repercussions for settlement failure, whether that be due to booking, operational or counterparty inefficiency, will be felt at a trading level. This impact can be illustrated through an analysis of the timeframes, the eligibility of securities for buy-in and who would be bought in.

i. Timeframes

Where a participant fails to deliver the securities to the receiving participant buy-ins will be initiated, executed and settled based on the strict timeframes (see figure 10).

Figure 10: Timeframes for buy-in initiation

	Settlement Period	Extension Period	Buy-in Settlement Period	Deferral Period
	Settlement Convention (deviations may apply)	Failure to deliver up to the following Business Days from ISD will result in a Buy-in	Timeframes for the delivery of securities following the Buy-in process	Timeframes for the deferral of the Buy-in
Liquid Shares	TD+2	4 Business Days after ISD	4 Business Days after ISD	4 Business Days after ISD
Other Securities inc. Debt	TD+2	7 Business Days after ISD	7 Business Days after ISD	7 Business Days after ISD
SME Growth Markets	TD+2	15 Business Days after ISD	7 Business Days after ISD	7 Business Days after ISD

Source: Deutsche Bank



Repercussions for settlement failure, whether that be due to booking, operational or counterparty inefficiency, will be felt at a trading level

ii. Eligibility

- Trades will need to be matched in a EU-CSD or an ICSD
- The trade will be unsettled due to the seller being short of securities and/or due to instructions being put on hold
- The failing counterparty must not be subject to insolvency proceedings
- The securities must still exist and be eligible for trading or settlement

The following deviations apply:

- No buy-ins should be executed for repo and lending transactions with a maturity of less than 30 business days, where the ISD of the second transaction is within 30 business days after the ISD of the first transaction
- Buy-ins cannot be initiated against a CCP nor can a buy-in be passed-on to a CCP

Deutsche Bank is advocating that a transaction should not be subject to buy-in when the underlying instrument is subject to a corporate action. In such a scenario it would be more prudent to resort back to existing measures on buyer protection to ensure that the receiving party can benefit from the corporate action proceeds rather than initiating a buy-in on an instrument, which will likely be under pressure from a liquidity perspective.

iii. Initiating and managing the buy-in process

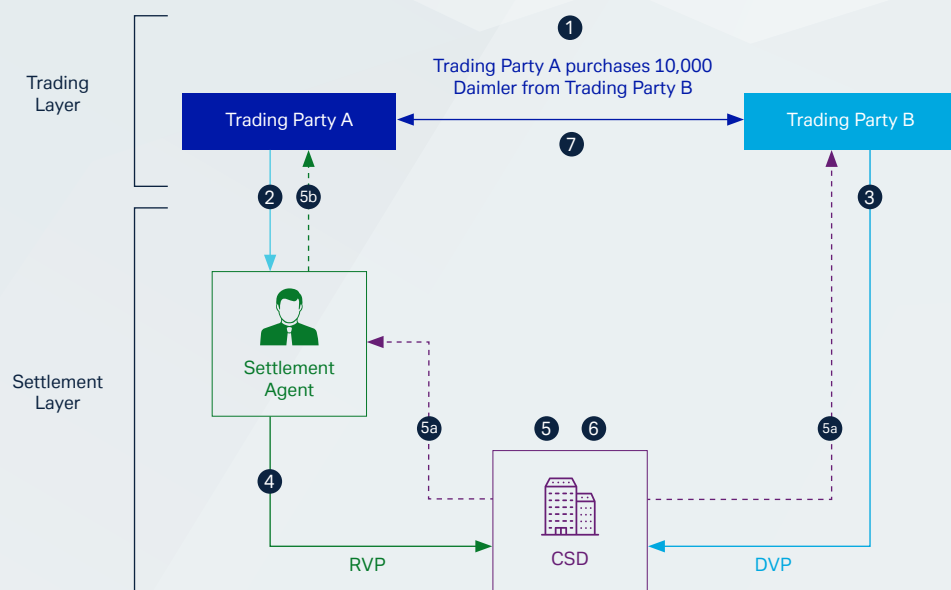
As discussed under 'SDR essentials' section in Chapter 5, buy-ins are executed at a trading party level. Settlement instructions representing a 'trade' as outlined in this section that are failing due to a seller being short of securities or where their instruction is on hold will be bought in (see figure 11). This 'horizontal' flow across trading parties (including the CCPs) contrasts with the 'vertical' flow for the cash penalties.

The responsibility for initiating the buy-in against the failing party depends on the type of transaction:

- For cleared activity, the buy-in is initiated and managed by the CCP
- For non-cleared trades, the buy-in is initiated and managed by the receiving trading venue member or the receiving trading party if traded off-exchange

Figure 11: High-level buy-in scenario; how information from the settlement layer will inform the buy-in between trading parties

- ❶ Trading Party A purchases 10,000 Daimler from Trading Party B for T+2 settlement
- ❷ Trading Party A instructs its settlement agent with an RVP instruction For T+2 settlement
- ❸ Trading Party B is a direct participant of CSD who they instruct with a DVP instruction for T+2 settlement
- ❹ Trading Party A's settlement agent instructs the RVP for matching and settlement at the CSD
- ❺ The settlement instructions match at the CSD ahead of settlement date
 - ❺a The CSD sends a matched status to their participants via a SWIFT MT548
 - ❺b Trading Party A's settlement agent sends a matched status to them via a SWIFT MT548
- ❻ The trade fails on ISD due to Trading Party B being short of securities. The trade continues to fail on ISD+ 4 where it shows matched but short as at market close.
- ❼ Trading Party A initiates a Buy-In agent against Trading Party B on ISD+5



Source: Deutsche Bank

iv. Chain reaction

Due to the inherent nature of the industry and the disintermediation between the end investor and the ultimate seller, the likelihood is that there is just one trade between one buyer and one seller for any given security on any given ISD. For every leg of the trade – be it a purchase or sale – there will be another / multiple off-setting trades for any one ISD this is referred to as the ‘settlement chain’ and it creates multiple dependencies and consequences.

There is much ongoing industry debate on the subject of buy-in chains. For example, AFME and ICMA, amongst others, are working to achieve a common interpretation as to what constitutes a buy-in chain, whether the ISD must align, whether the nominal should align and indeed whether a buy-in can be ‘passed-on’ (see figure 12). Deutsche Bank is assuming that a buy-in can be passed-on for non-cleared trades. In its simplest terms, for any one given ISD, market participants will be in one of the following positions:

The beginning of the chain

Buyers who have bought securities and do not have an outgoing sale as at market close on ISD+4/7/15, will need to trigger the buy-in, appoint a buy-in agent and notify their delivering party.

The middle of the chain

Sellers who have sold securities but have failing receipts as at market close on ISD+4/7/15 will receive a buy-in notice which they will need to pass-on* (this may require multiple pass-on notices or a partial pass-on depending on the nominal(s) of the offsetting trades).

*Should ESMA support pass-ons for different ISDs this could complicate matters for sellers in the middle of a chain. Market participants should be organised to ensure that pass-on notices are not passed-on against the same trade since a trade cannot be bought in twice.

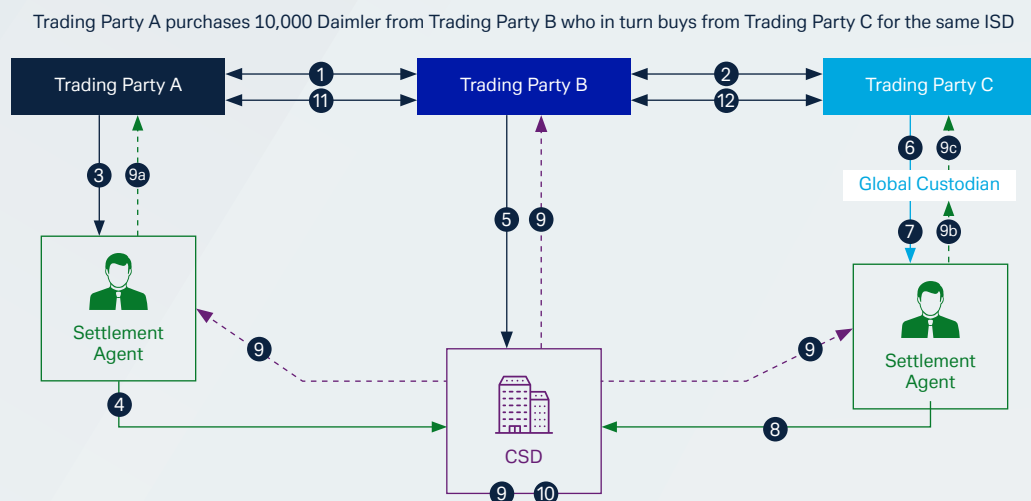
The end of the chain

Sellers are considered to be at the end of the chain and will be bought-in in the following circumstances: they have sold securities that they do not have; they have not borrowed for the same ISD as their sale; they do not have a failing receipt(s) for an earlier ISD; or their cover trade is for a later ISD.



Figure 12: High level buy-in scenario between three trading parties

- 1 Trading Party A purchases 10,000 Daimler from Trading Party B for T+2 settlement
- 2 Trading Party B purchases 10,000 Daimler from Trading Party C for the same ISD
- 3 Trading Party A instructs its settlement agent with an RVP instruction for T+2 settlement
- 4 Trading Party A's settlement agent instructs the RVP for matching at the CSD
- 5 Trading Party B is a direct participant of the CSD and instructs its DVP instruction to Trading Party A and its RVP instruction from Trading Party C for T+2 settlement
- 6 Trading Party C uses a global custodian who it sends details of its delivery to Trading Party B for T+2 settlement
- 7 Trading Party C's global custodian instructs its settlement agent with a DVP instruction for T+2 settlement
- 8 Trading Party C's global custodian's settlement agent instructs the DVP for matching at the CSD
- 9 All settlement instructions match at the CSD and the CSD sends SWIFT MT548 'matched' settlement statuses to their participants
 - 9a Trading Party A's settlement agent sends them an MT548 matched settlement status
 - 9b Trading party C's settlement agent sends their global custodian an MT548 matched settlement status
 - 9c Trading Party C's global custodian sends them a matched status notification
- 10 Both trades fail on ISD due to Trading Party C being short of securities. Both trades continue to fail on ISD+4 where they show matched but short as at market close. Stages 9, 9a, 9b, 9c are repeated
- 11 On ISD+5 Trading Party A initiates a Buy-In against Trading Party B
- 12 Trading Party B initiates a buy-in against Trading Party C or 'passes on' Trading Party A's Buy-In notice to Trading Party C

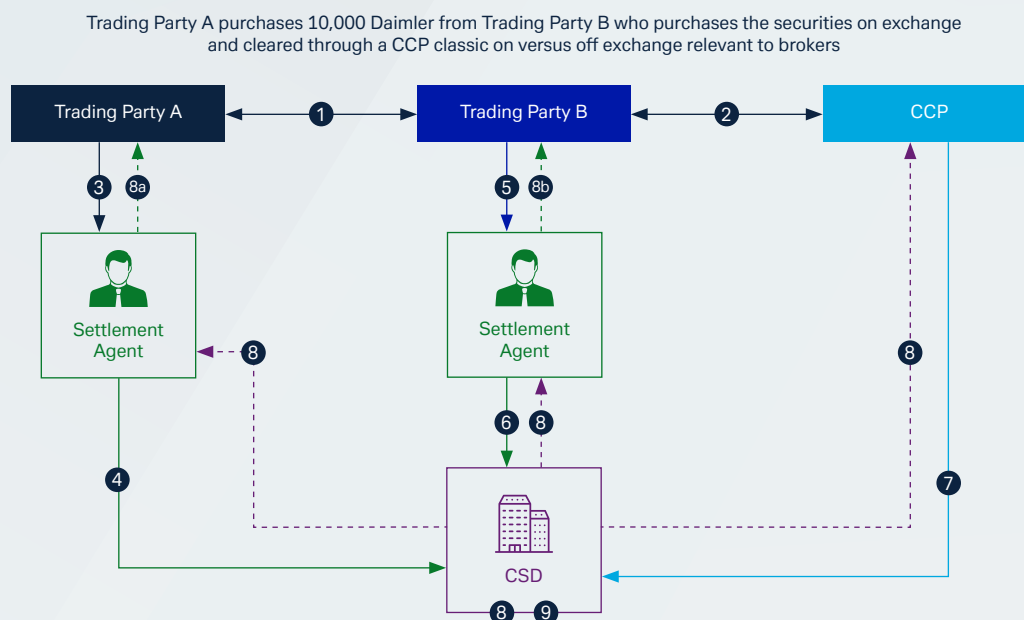


Source: Deutsche Bank

To add to the complexity, chains can also be broken; cleared transactions are the most obvious example here. Since CCP transactions cannot be bought in or be passed on to, any cleared transactions will break a chain and therefore independent buy-in processes managed by the CCP and the trading party will resolve the chain of fails (see figure 13).

Figure 13: High level buy-in scenario between three trading parties where one part of the chain is a CCP

- ① Trading Party A purchases 10,000 Daimler from Trading Party B for T+2 settlement
- ② Trading Party B purchases 10,000 Daimler on exchange and faces the CCP for the same ISD
- ③ Trading Party A instructs its settlement agent with an RVP instruction for T+2 settlement
- ④ Trading Party A's settlement agent instructs the RVP for matching at the CSD
- ⑤ Trading Party B instructs its settlement agent with an RVP instruction for T+2 settlement
- ⑥ Trading Party B's settlement agent instructs the RVP for matching at the CSD
- ⑦ Trading Party C is a CCP and is a direct participant of the CSD
- ⑧ All settlement instructions match at the CSD and the CSD sends SWIFT MT548 matched settlement statuses to their participants
 - ⑧a Trading Party A's settlement agent sends them an MT548 settlement status to show the instruction as matched
 - ⑧b Trading Party B's settlement agent sends them a matched status also
- ⑨ Both trades fail on ISD due to the CCP being short of securities. Both trades continue to fail on ISD+4 where they show matched but short as at market close. Stages 8, 8a, and 8b are repeated
- ⑩ On ISD+5 Trading Party A initiates a buy-in against Trading Party B
- ⑪ Trading Party B is unable to buy-in or pass on the buy-in to the CCP. As this trade is a cleared transaction the Buy-in will be managed by the CCP who will inform Trading party B of the results



Source: Deutsche Bank

It is also worth noting that best practice is exactly that. Although we advocate for a common market approach for the management of buy-ins there is every possibility that not every party in all circumstances will follow it. Market participants will therefore need to be prepared to map out their own requirements and response based on the regulation itself.

v. Risk management

Buy-ins are a risk event. They impact books and records and require a framework in order to be supported. Beyond the obvious frameworks, such as escalation, risk and key operating procedures, participants should consider how to reflect the buy-in trade and associated cash payment(s).

Buy-in trade booking

The buyer of the original failed trade, having appointed a buy-in agent to execute the purchase of the securities which were hitherto being failed to, will need to consider the buy-in trade booking and how it impacts their books and records.

- They will need to book a new receipt against the buy-in agent but they are not able to cancel their original receipt against their failing counterparty until the buy-in execution trade settles. This creates a risk horizon of two days or more, depending on how long the buy-in trades takes to settle in the settlement window (four or seven days)
- Buyers could cancel the original trade in their trading system and leave the settlement instruction on hold at the CSD but this would create a 'FoBo' *Front to Back office system reconciliation* break
- Their risk division will need to align 'front to back' to ensure that positions and exposures are monitored and reflected

The seller of the original failed trade bought in by their buyer will also need to consider the risk impact as this trade, which essentially becomes a risk liability on their books

- The failing trade will need to remain open until the buy-in trade between the buyer and its buy-in agent settles. Only at that time can their original now failed trade be cancelled. Buy-in costs and additional buy-in related fees will also need to be reflected
- Another option for the seller could be to cancel the original trade in their trading system and book a counter trade that reflects the buy-in components and associated cash compensation amounts.
- The adjusted trading position will also need to be reflected
- Buy-in costs and the buyer's out of pocket expenses will also need a booking mechanism. It should be determined whether this would be written off as a single entry – this could be in the form of a 'write-off' style entry such as an 'operations loss' booking. These costs would likely be taken to P&L and also require reconciliation in the cash reconciliation system. External payments will also be required (see section on Payments) and will also require reconciliation
- Once the buy-in is complete both parties should inform their respective settlement agents and cancel their instructions or trade booking

vi. Payments

There are a number of elements to the cash elements of the buy-in process: Payment of Buy-in Costs in the event of a successful buy-in execution. Cash compensation in the event of a failed buy-in execution.

Buy-in success

1. Payment of the Price Difference

The seller is required to compensate the buyer. This includes compensation between the cash value of the failed trade and the buy-in trade. But there are a controversial set rules here:

- Where the price of the failed trade is higher than the price paid for the execution of the buy-in, the corresponding difference shall be paid to the buyer by the seller
- Where the price of the failed trade is lower than the price for the execution of the buy-in the difference will be assumed paid

This creates the subject of 'asymmetry' which is widely contested and is on ESMA's radar thanks to extensive advocacy from ICMA.

2. Fees / Out of pocket expenses

The seller will be required to reimburse the entity that executes the buy-in for all associated costs, including any execution fees resulting from the buy-in. All costs will need to be disclosed by the Buy-in agent to the buyer who will in turn disclose to the failing seller.

Although a timeframe is not stipulated in the regulatory text, Deutsche Bank believe that it would be logical to stick to the same 2 day timeframe as the cash compensation so that the admin corresponds to the obligation. This will of course depend on the timing of the cascade from the buy-in agent and market participant's own approach to what is essentially a claim.

Buy-in failure = Cash compensation:

Where a buy-in is unsuccessful – whether that be due the securities being unavailable or due to the buy-in failing within the deferral period cash – compensation should be paid to the buyer by the seller. The payment should be received no later than on the 2nd business day after the end of the buy-in process or the deferral period if this was chosen.

Calculation:

- **DVP / RVP:** The difference between the market value on the business day before the payment of the cash compensation and the settlement amount of the failed settlement instruction where that settlement amount is lower than the market value
- **FOP:** The difference between the market value on the business day before the payment of the cash compensation and the market value of the securities on the day of their trade where the market value on the day of their trade is lower than on the business day before the payment of the cash compensation

vii. Legal provisions

Contracts between market participants, whether they be trading, broker or custody agreements should incorporate the relevant legal language for the buy-in procedure to be enforceable in every market where trading and settlement takes place. This is particularly pertinent when transacting with clients, counterparties and brokers who are not based in Europe but have accounts and / or transact in activity which settles in a European CSD – education is required to ensure that these parties will abide by European law.

Contracts between market participants, whether they be trading, broker or custody agreements should incorporate the relevant legal language for the buy-in procedure to be enforceable in every market where trading and settlement takes place

Article 25 Contractual Arrangements is referenced in the Level 2 text requiring parties in the settlement chain to establish contractual arrangements with their counterparties incorporating the buy-in requirements stated the Level 1 and Level 2 texts (buy-in execution and payment of cash compensation / price difference / buy-in costs). This is an important provision that market participants might want to take legal advice on.

8

SDR – a new settlement lifecycle

To meet the demands of the settlement discipline regime, operational, trading and risk processes, will need to be reviewed and enhanced. For many, particularly for securities operations teams there might also be changes to the working day. This section suggests a framework for the sequential actions that should take place over the course of the settlement lifecycle.

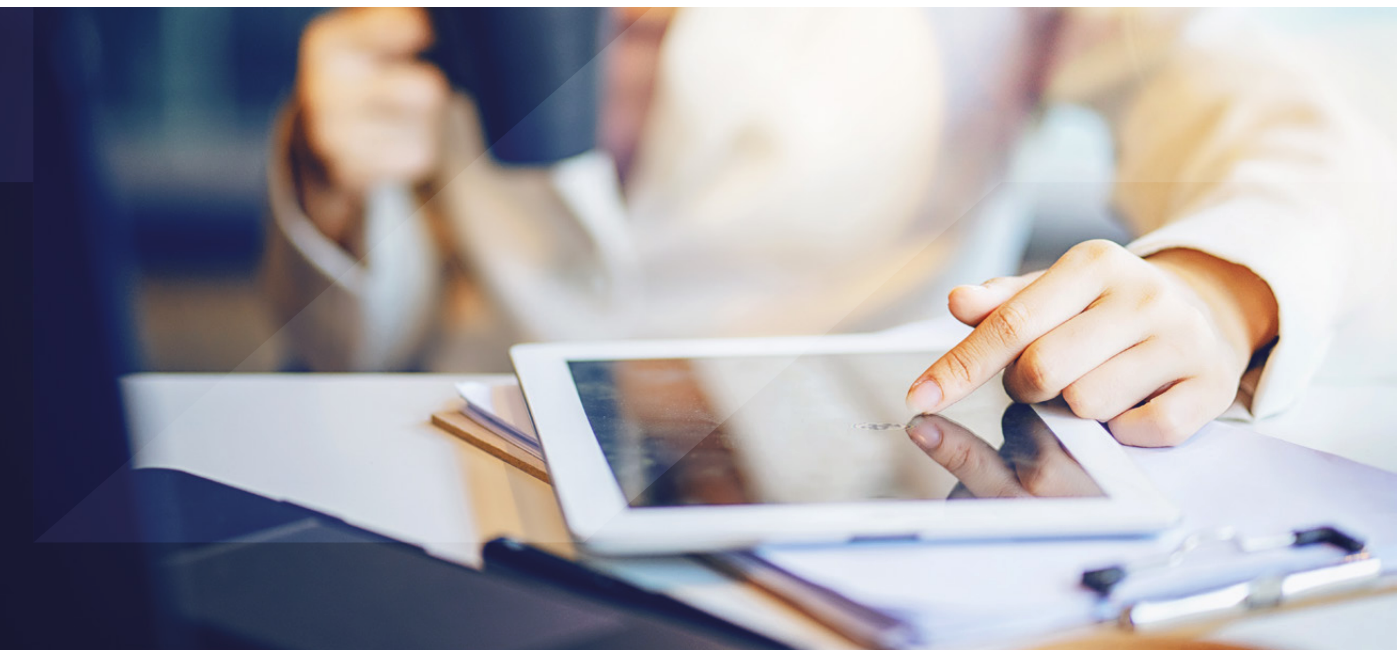
Trade Date → Intended Settlement Date (ISD)

- Allocations and confirmations should be sent on the same day / by 12pm TD+1 and include SSIs, transaction types and full economic details. Confirmation of receipt should be sent within two hours / 1st business hour on TD+1
- Pre-matching, at least on a risk prioritised basis, will be extremely helpful to a successful settlement outcome
- Proactive inventory management, including looking across and realigning across depots and identifying shortfalls in position and arranging cover are also important steps

ISD → ISD+3 / ISD+6 / ISD+14

Cash penalties now apply:

- Settlement instructions that are matched prior, on or after ISD and that fail to settle on and after ISD will incur cash penalties including instructions that have been put on hold
- Sellers should be closely monitoring their failed trades and activities such as borrows and partial settlement should be actively pursued at this stage
- Operations and middle-office teams should be liaising with their trading division, which will need to help mitigate and manage what will become trading book exposure. They will need information such as settlement / fail / position horizon in order to anticipate the likelihood of a buy-in
- **Assumption:** A buy-in pre-notification notice might be sent / received at this point. If one is received and if the seller has a failing receipt from another trading party in the same instrument then the buy-in pre-notification might be passed on to the respective trading party



ISD+4 / ISD+7 / ISD+15

The last day of the extension period, last day to settle before the buy-in process kicks in

- This is the final day of the extension period and all efforts are required to resolve the fail by market close as it will lead to a buy-in the following day
- Sellers should optimise their inventory and agree partials to avoid the buy-in being executed for the full amount. This is the last chance to arrange a borrow notifying the buyer if a borrow is possible
- On the final day of the extension period it becomes mandatory for the receiving trading party to accept any partial position. Should partial settlement be agreed the participant's settlement agent will need to be alerted. This is of particular importance when settlement is via an omni account
- At the close of the settlement cycle on the final day of the extension period – whether that be ISD+4, ISD+7 or ISD+15 – any open delivery transactions will be subject to buy-in the following morning



Instruction timeliness and communication: a custodian will act on the instructions from its clients. If an instruction is to be cancelled, if a new cover instruction / partial instruction is to be sent it will need to be within the instruction / market cut-off. Deutsche Bank will aim to process as quickly as possible. Communication will prove vital during this step



Bilateral cancellations can also be exercised. However, once a buy-in agent has been appointed, the settlement instruction, as an obligation between two trading parties, cannot be cancelled and will need to follow the course of the buy-in

ISD+5, ISD+8, ISD+16

Buy-in

Validate buy-in possible:

- The buyer should check whether a buy-in is possible or not by checking whether the financial instruments still exist and whether the failing trading venue member / trading party is subject to insolvency proceedings or not
- Where the buy-in is not possible; for example where the instrument no longer exists, the fail will be resolved through cash compensation (see Chapter III vi for details of this)
- If a trade is via a CCP, the CCP will manage the buy-in including its validation and initiation



Trading parties will need to be clear of who they can issue a buy-in to; they will need to check whether their failing receipt is a 'trade' with a trading party behind it. Further, a CCP cannot be bought in, if a participant's receipt is via a CCP the CCP will implement its own buy-in process in accordance with CSDR. Details of which have yet to fully emerge at the time of going to print

For receiving parties

Appointing a buy-in agent:

- For non-CCP trades; the buyer of the failing trade is required to appoint a buy-in agent and inform the failing counterparty
 - The **assumption** is that the buyer will issue a buy-in notice to the failing seller which can be passed through the chain with the exception of the CCP (refer to the section pass-on)
- If the failing receipt is through a CCP the receiving party will not be able to buy the CCP in. This will be managed by the CCP itself
- The buyer's receipt instruction should be put on hold if not already done so



Buy-in agents should be identified as soon as possible. This will require forward planning as there is every likelihood that an agreement will need to be in place and at a minimum buyers will need to conduct some due-diligence as to how they will execute the buy-in, what fees they will charge and when a payment is due

For delivering parties

- Look for offsetting trades. Can you pass the buy-in on? (subject to confirmation from ESMA) If you can, you will need to pass the buy-in notice on either in full / partial or multi forms depending on your offsetting trades (refer to the section III iv chain reaction)
- Upon receipt of the buy-in notice the seller must put their delivery instruction on hold (if not already done so)

Execution initiation

- For CCP transactions, the CCP will initiate the buy-in via auction or through a buy-in agent and requires no intervention by the buyer as it will be completely managed by the CCP
- For non-cleared trades the appointed buy-in agent will source the securities via the means it has available to it

Execution success

- For OTC trades, upon the successful execution of the Buy-in, the Buy-In agent should notify the buyer providing details of the quantity and price
- The buyer will then need to inform the seller of the results of the buy-in by the last day of the 4-7 day timeframe after the extension period
- The buyer should also inform the CSD of the buy-in status directly if they are a participant or via their settlement agent / custodian / prime broker, without undue delay
- **Assumption:** the Buy-in agent should send instructions for the Buy-in trade for the buyer to match.
- The Buy-in trade will be instructed with the SWIFT code BYIY in field 22F – both sides will need to use this identifier
- For CCP trades, the CCP shall notify the results of the Buy-in to the failing and receiving clearing members and to the relevant CSD by the last day of the 4-7 day timeframe after the extension period.
- Upon the successful settlement of the buy-in trade the settlement instructions of the settlement fail should be cancelled

Execution failure

- Where the buy-in execution is only partially successful, the buyer will need to decide whether to defer the buy-in and try again or to receive cash compensation
- Partial buy-ins will require a new instruction for the remaining quantity, complete with the buy-in indicator
- Where the buy-in fails completely, the buyer can choose to defer or to receive cash compensation.
- If the buy-in is not completed within the buy-in execution period, it can be deferred once. If it is still unsuccessful, it will need to be resolved through cash compensation
- For OTC trades; where the buy-in execution is deferred, the buyer shall notify the results of the deferral to the seller by the last business day of the deferral period
- The buyer will also ensure the relevant CSD is informed, directly if they are a participant or via their settlement agent / custodian / prime broker, without undue delay
- For CCP trades; where the buy-in execution is deferred, the CCP shall notify the results of that deferred buy-in to the failing and receiving clearing members and to the relevant CSD by the last business day of the deferral period

Cash compensation

- This occurs when a buy-in is not possible or is unsuccessful
- The buyer will need to notify the seller of the full breakdown
- The seller should pay the buyer no later than on the second business day after the end of the buy-in process or the deferral period if this was chosen
- Once the payment of the cash compensation is complete, the settlement instructions of the settlement fail should be cancelled



Communication between all trading parties; front / middle / back offices and the custodian will be of utmost importance during these steps

Cash payments

Cash Compensation

- **Price Difference:** the seller is required to compensate the buyer the cash difference between the value of the failed trade and of the buy-in trade
- **Out of pocket expenses:** The seller will be required to reimburse the entity that executes the buy-in for all amounts, including any execution fees resulting from the buy-in



There is no clear timeframe for the payment of the price difference and the out of pocket expenses but it is recommended to tie all payments in to the same 2 day period for compensation

9

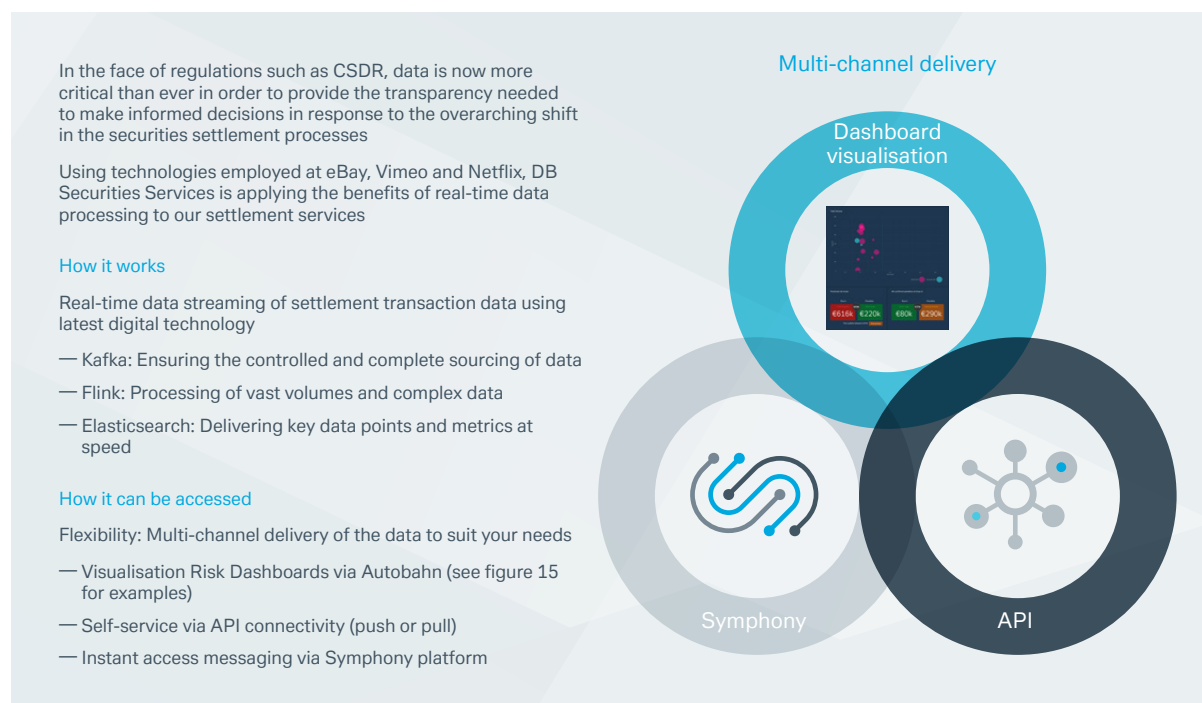
How Deutsche Bank can help

As the implementation details of the regulation continue to evolve, market participants should start to devise their own blueprint as to how they can implement CSDR internally including defining procedures around the buy-in regime in particular. We hope this guide provides some useful suggestions as to what market participants may want to consider.

Meanwhile, Deutsche Bank is well-versed in the CSD Regulation and is ready to help. A bank-wide implementation project is being led by the GTB Securities Services division, which has branches across the major European markets. The division remains active in regional and local industry associations with access to a large CSD network.

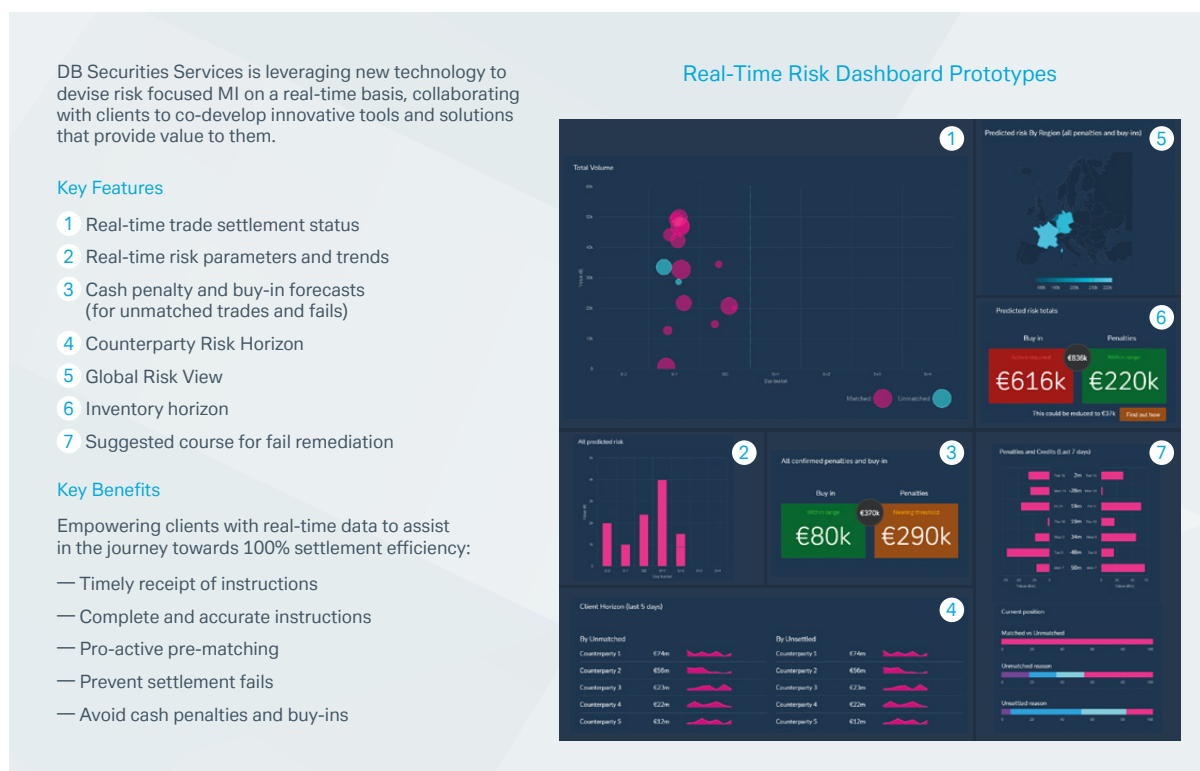
CSDR will drive settlement performance. In response to the regulation, Deutsche Bank is exploring how real-time data and settlement analytics can provide participants with a risk view of their settlement horizon, including a view of trades at risk of penalty and buy-in. These dashboards will provide performance-related insights such as where and why trades are failing, suggesting remedial action that can be taken.

Figure 14: Applying new technology to help our clients



Source: Deutsche Bank

Figure 15: Risk dashboards prototype example



Source: Deutsche Bank

Deutsche Bank Securities Services has adopted an innovative approach to technology with rapid prototyping and client co-development over the last two years (see figure 14) which includes Sesil, for intraday liquidity management and the chatbot Debbie for settlement statuses. By combining an in-depth understanding of CSDR with innovative real-time data processing (see figure 15) we feel confident that we can help clients to minimise and / or avoid settlement risk.

Our engagement with you will continue. There is much still to progress in the industry and we will look to issue a follow-up to this guide as soon as possible.

Further information on CSDR and Deutsche Bank's services can be obtained by visiting www.db.com/flow

References

1. <https://cib.db.com/insights-and-initiatives/white-papers/are-you-ready-for-CSDR.htm>
2. <https://www.esma.europa.eu/regulation/post-trading/settlement>
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