



# CSDR: The Final Countdown



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In September 2019, we published a *CSDR: Settlement discipline regime client toolkit*, with a view to helping clients prepare for the most impactful aspects of the new regulation, which, at the time, was scheduled to enter into force on 14 September 2020.

A little over two years later, there have been a number of changes to the timeline and several challenges remain for market participants to overcome ahead of the revised implementation date of 1 February 2022. As a result, we have put together a new toolkit, providing an updated overview of the CSDR story so far, explanations and examples of how regulatory procedures can be expected to play out in practice, and suggestions on how to respond to the latest requirements, such as cash penalties which have repercussions across both the trade and post-trade industries.

It should be noted that during the preparation of this CSDR implementation guide we have excluded the mandatory buy-in which has now been postponed and will not enter into force with its settlement discipline siblings on 1 February 2022.



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# Foreword

## Third time lucky

The implementation date might have changed (twice) but the challenges remain. Despite unprecedented challenges facing all sectors of the industry, and many unanswered questions sitting with the regulators, the Central Securities Depositories Regulation (CSDR)'s Settlement Discipline Regime (SDR) is still scheduled to enter into force on 1 February 2022. The securities industry now needs to collectively dig deep to cross the finish line.

The SDR impacts all actors in the securities lifecycle, from the investors to the central securities depositories (CSDs). One of the main objectives of the regulation is to improve the safety and efficiency of securities settlement in the European Economic Area (EEA), and to achieve it, the SDR introduces a set of measures to prevent and address failures in the settlement of securities transactions.

CSDR is more than just a compliance exercise. Much is at stake for the securities industry if we are to collectively improve efficiency in securities trade through to post-trade and to help protect and promote the European capital markets, which will be critical to the post-Covid recovery.

With the clock ticking down towards 1 February 2022, Deutsche Bank's Securities Services team has updated its 2019 toolkit to help clients prepare for what will be the most impactful aspect of the broader CSDR regulation for many institutions. Following the publication of *'Your Guide to CSDR'* in 2018,<sup>1</sup> which provides an overview of the practical impact, key requirements and new opportunities of the regulation for securities market participants in Europe, this updated toolkit provides some suggestions on how to respond to the demands of the regulatory requirements and the repercussions this will have on trade and post-trade industries alike. It is the final countdown.



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## 1

## CSDR – The story so far

The Central Securities Depositories Regulation (CSDR)<sup>2</sup> re-writes the rules for securities settlement in Europe and introduces a strict set of rules for the central securities depositories (CSDs) in the European Economic Area (EEA). CSDR impacts all actors in the securities trade and post-trade lifecycle, from the investor to the CSDs.

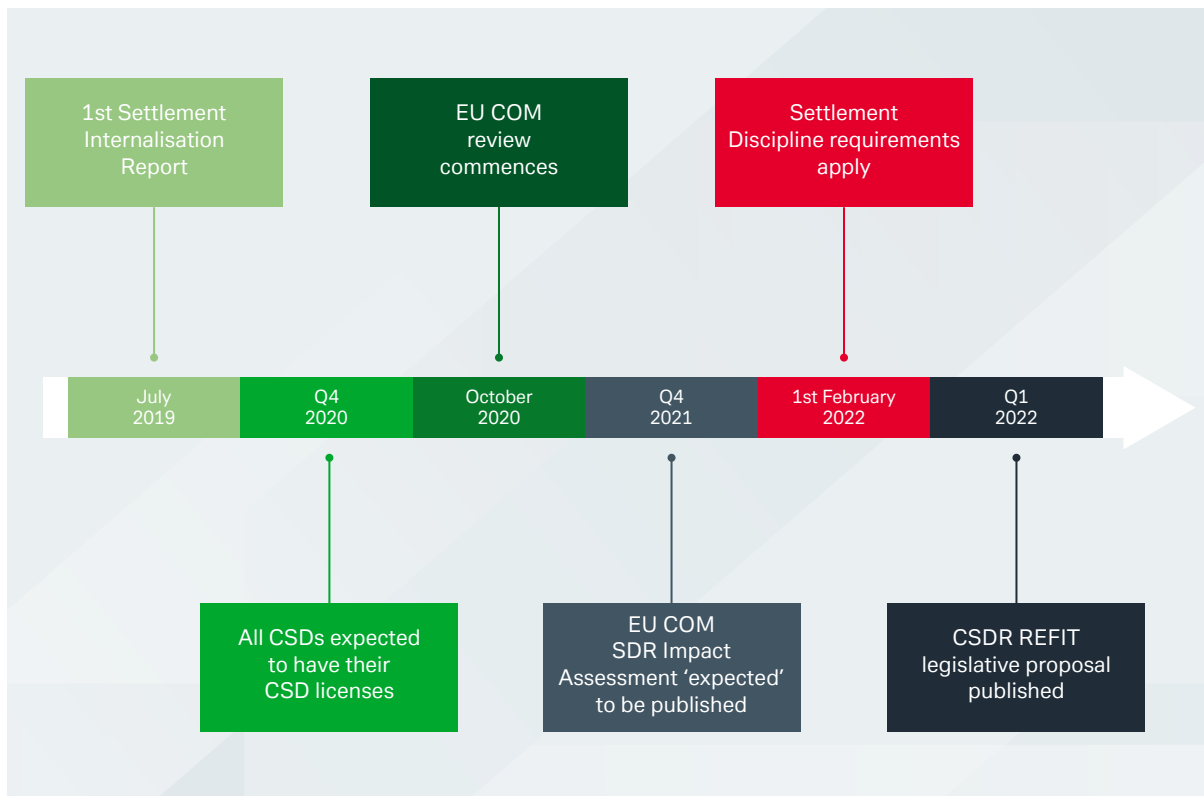
### The key provisions

While the majority of the 76 articles are focused on the CSDs, some create a shared responsibility between CSDs, their participants and their participants' clients. The key provisions are as follows:

- **Regulation of CSDs:** All CSDs in the EU/EEA are subject to new risk, prudential and supervisory standards and require new licences to continue to provide their services.
- **Harmonised Protocol:** CSDR prescribes a consistent approach to settlement, introducing common market rules and processes. In doing so, it promotes freedom of issuance and the dematerialisation of securities.
- **Efficiency & Transparency:** CSDR provides a framework for increased settlement discipline, penalising failure through cash penalties. Settlement failures are reported monthly to regulators, with internalised trades reported to the national competent authorities (NCAs).
- **Public Disclosure:** CSDR includes a number of account segregation requirements, including disclosure of risk, costs and insolvency protocols.



Figure 1: CSDR – dates and milestones



Source: Deutsche Bank

While this paper focuses on the upcoming requirements of the SDR and what our clients may need to consider in order to comply, it is worth noting some of the milestones that have already been passed and the work completed:

### CSD Re-authorisation

Under CSDR all CSDs in the EEA require new licences to continue to provide their services. Once CSDs have been awarded their licence, reconciliation requirements (Article 37) and account segregation and disclosure provisions (Article 38) apply and become mandatory for the CSD participant.

#### Daily reconciliation of securities (Article 37) – implemented:

- On a daily basis, **CSDs** must reconcile the number of securities submitted to them with what they have recorded in their participants' accounts.
- On a daily basis, **CSD participants** must reconcile their records with the information received from the CSD.
- Issuers, registrars, issuance agents, transfer agents and common depositories are also required to reconcile their records with the CSD.

#### Segregation & Disclosure (Article 38) – implemented:

- CSDs must offer clients a choice between omnibus and individual client segregation.
- CSD participants must offer clients a choice between omnibus and individual client segregation.
- Public disclosure of the risks, costs and protection levels of each account type.
- Public disclosure of the legal implications including national insolvency laws.

#### Settlement Internalisation Reporting – implemented

Settlement Internalisation Reporting refers to the requirement under Article 9 of CSDR to report all settlement not taking place at a CSD to the relevant 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 embedded as business as usual for affected firms and functions.

Details of these requirements can be found in our first CSDR guide, *Are you ready for CSDR?* (October 2018).<sup>3</sup>

#### The Settlement Discipline Regime

Despite the breadth and scale of CSDR, the major impact sits with the Settlement Discipline Regime (SDR) and it is where the workload for investors, custodians, CSDs, central counterparties (CCPs), fund managers, asset managers, banks, brokers, regulators – and essentially the whole trade-to-post-trade ecosystem – is focused ahead of the regime's entry into force on 1 February 2022. The road to implementation has been as contentious as it has been long and there is still much to be done and decided from a regulatory framework perspective.

SDR binds trade to post-trade and the provider to the consumer. Our clients have a dependency on Deutsche Bank and we have a dependency on the market infrastructure – the CSDs and CCPs. This toolkit outlines the impact and obligations on market participants such as Deutsche Bank and our clients. It highlights the aspects awaiting clarification and opinion from both the regulators – the European Securities Markets Authority (ESMA) and the European Commission – and the market infrastructure (CSDs and CCPs), in order to align and ultimately be certain of the impact and the steps required for Deutsche Bank and our clients.

To access Deutsche Bank's legal resources visit [www.db.com/CSDR](http://www.db.com/CSDR)



## 2

# The Settlement Discipline Regime

CSDR, 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).

This section will give an overview of the regulation, looking at how it will be applied, with a particular focus on cash penalties and how they will be calculated.

## 2.1 The SDR – an overview

A focus on prevention means that the SDR will require significant IT system changes at a market level (across CSDs, CCPs and trading venues), at a messaging level (across SWIFT and other confirmation/allocation platforms, such as the Depository Trust & Clearing Corporation, otherwise known as DTCC) and adjustments to legal arrangements between all parties concerned.

To demonstrate those changes, it sets out a number of steps (see Figure 2) to instil 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, new monitoring and reporting measures to be taken by the CSDs and ultimately, subject to regulatory clarification, a buy-in regime.





Figure 2: Steps towards discipline in securities settlement



Source: Deutsche Bank

### 2.1.1 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, as well as the Bank's active engagement in industry associations, such as the Association of Financial Markets Europe (AFME), the Association of Global Custodians (AGC), and the European Banking Federation (EBF), as well as others at a national level.

### Instrument scope

Despite calls from the industry, a single, golden source of in-scope instruments has not yet been made available. While the industry awaits clarification from the regulators, Deutsche Bank views the following financial instruments to be within the scope of the SDR:

- As defined by MiFID II/MiFIR:
  - Transferable securities Article 4(1)(44)(a)(b)(c); and
  - Sovereign debt Article 4(1)(61);
- Exchange-traded funds (ETFs);
- Units in collective investment undertakings (UCITS);
- Money-market instruments (other than sovereign debt under MiFID II 4(1)(61));
- Emission allowances; and
- Other financial instruments eligible for settlement in a European CSD.

Instruments that fall under CSDR will have been:

- Admitted to trading on an EU trading venue;
- Listed on the ESMA Financial Instruments Database ([ESMA FIRDS database](#))<sup>4</sup> or,
- Cleared or eligible for clearing by an EU CCP
- Excluding shares where their principle trading venue is located in a third country ([ESMA SSR database](#)).<sup>5</sup>



ECSDA state that all CSDs will individually determine whether an International Securities Identification Number (ISIN) is actually in scope for SDR. This could lead to fragmentation and friction in its application – especially in a cross-border scenario



It should be noted that the exemption doesn't apply to third-country bonds. For example, a trade in a US Government bond could be in scope if settling in an EEA (I)CSD. US equities could be in scope if cleared or eligible for clearing by an EU CCP



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

### CSD Scope

The in-scope instruments will be settled at the following CSDs:

- All EU CSDs including the ICSDs; and
- EEA CSDs.

The list of CSDs can be found [here](#).<sup>6</sup>

While the location of the (I)CSD is a core part of the scope, care should be taken not to confuse the settlement location with the domicile of the market participant. The SDR applies to any investor, trading party, CSD participant or EU CCP clearing member regardless of their own domicile. It is an EU regulation for settlement in the EEA (I)CSDs, but it is a global regulation in its actionable applicability.



### The SDR and the UK market

On 23 June 2020, Rishi Sunak, the UK Chancellor of the Exchequer, made a statement on financial services legislation and the UK's planned approach following its exit from the EU. In the statement, Mr Sunak addressed the CSD Settlement Discipline Regime – announcing that the UK “will not be implementing the EU’s new settlement discipline regime, set out in the Central Securities Depositories Regulation, which is due to apply in February 2021”<sup>7</sup>

Care should be taken here, however, as the UK’s announcement does not exonerate UK incorporated firms of their regulatory obligations under the EU CSDR. In scope CSDR instruments submitted to settlement in an EEA (I)CSD by any firm, regardless of its domicile, will be subject to the SDR

### Instruction and transaction types

Once in-scope instruments have been identified in a firm’s static data universe, market participants will need to be aware of and be able to identify the transaction types that will be impacted. It should be noted that these differ between cash penalties and buy-ins, as follows:

#### The application of cash penalties

Deutsche Bank believes cash penalties will apply to all settlement instructions (in accordance with Article 2.1 of the *Settlement Finality Directive 98/26/EC*) that fail to settle on the intended settlement date (ISD) including cleared settlement instructions that are:

- DVP, FOP or DWP as well as PFOD;
- Matched (prior, on or after ISD);
- Failing to settle on and after ISD; and
- In a CSD subject to CSDR

We anticipate that cash penalties will apply to all settlement instructions with the exception of the following, which are still subject to confirmation by ESMA and the European Commission (as noted in the ECSDA Cash Penalty Framework):

- Corporate Actions on stock (CORP);
- Technical instructions such as T2S automatic realignments;
- T2S settlement restrictions; and
- Instructions that do not represent transfer orders under Art 2 of the SFD.



Note T2S auto-collateralisation operations are considered to be in-scope



We continue to consider that partially successful buy-ins, once buy-ins are introduced, will be using BSSP in field 22F (*see 2.2: Cash penalties*)



In addition to the potential exemptions outlined above, we understand that ECSDA have an outstanding request with ESMA/the European Commission to clarify whether the below are in scope:

- Primary issuance settlement (note that the initial creation of securities cannot be regarded as a transfer order from a legal standpoint).
- Treatment of investment funds redemption/subscriptions order routing instructions (CSD model vs TA model/transfer order vs settlement instructions model). Note this is different to REDMs, which are normal instructions with buyers behind them.

## 2.1.2 Measures to prevent settlement fails

This section covers aspects of the SDR which intend to prevent settlement fails; tighter requirements for allocations and confirmations, as well as mandatory CSD functionality, which will help to promote timely settlement.

### 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 inclusion of SSIs and the total cash amount in the allocation and confirmation process – both common matching and settlement points of failure – is a step towards eliminating trade date inefficiency. This ensures cohesion between trade, post-trade and the often siloed operational processes that occur between trading and settlement.

### Requirements

The below requirements have been sourced and paraphrased from the delegated regulation EU 2018/1229, which can be found [here](#).<sup>9</sup>

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; and
  - Other transactions, which can be identified by more granular ISO codes.



- ISIN or another 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; and
- 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 CTM, are supported by the Level 2 regulation, which will prove both efficient and valuable from a best practice perspective and 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.

### Processing and matching

The regulation mandates that CSDs will require their participants to '*settle their transactions on the intended settlement date*'. As an intermediary, the '*transactions*' do not belong to Deutsche Bank but to our clients. As such, we are aligning to and replicating, where possible, certain functionality that the CSDs are required to implement under the delegated regulation – allowing our clients to '*better manage their settlement instructions*'.

The CSD mechanisms include:

- Continuous, real-time matching and settlement;
- Recycling of settlement instructions;
- Common matching tolerance levels: €2 for settlement amounts of up to €100,000 and €25 for settlement amounts of more than €100,000;
- Common matching fields for settlement instruction and the population of the transaction type;
- Real-time settlement status information;
- Bilateral cancellation;
- Hold and release functionality;
- Partial settlement.

The CSD functionality that Deutsche Bank, in its capacity as an intermediary and participant of the (I) CSD, will facilitate for our clients are highlighted in bold. Please note that only the (I)CSDs themselves can cancel, match/settle, tolerance match and recycle. The (I)CSD, as the operator of the securities settlement system, is always the golden source.

## 2.2 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 anticipated exemption of corporate actions on stock, redemptions and T2S realignments/restrictions (*see 2.1.1 SDR essentials*)

The CSDs will operate the cash penalty regime by debiting the CSD participant who or whose client causes the settlement fail, and crediting the CSD participant that is affected by it. This is done on a monthly basis.

We recommend market participants review the [ECSDA CSD Penalty Framework](#) for detailed requirements.<sup>9</sup>

### 2.2.1 Types of cash penalty

Cash penalties will apply to each settlement instruction that fails to be settled or is input and matched after ISD. There are two types of penalty, the Settlement Fail Penalty (SEFP) and the Late Matching Fail Penalty (LMFP). Both have the same calculation methodology, albeit there are some subtle differences in the formulas.

#### Settlement fail penalty (SEFP)

The SEFP will apply to any matched instruction that fails on, or after, ISD – including instructions on hold. They must be matched before market cut-off on any given business day (either pre- or post-ISD) and ready for settlement – fully or partially – up to and including the market close of the CSD.

In practice the LMFP and SEFP reference the matched status. An instruction matched late but still continuing to fail would first incur LMFP and then SEFP.

#### Late matching fail penalty (LMFP)

While the SEFP and LMFP will follow the same principles for their calculation, the applicability of the LMFP will depend on: whether the instruction can settle on the business day it matches; and whether it matches before or after market cut-off.

- LMFPs are triggered by late matching post market cut-off on and post ISD.
- They will be calculated once on the business day the settlement instruction matches and applied retrospectively for each business day post-ISD the instruction has failed to match.
- They will apply to the participant who was last to enter or modify their settlement instruction for the period between ISD and the business day the settlement instruction matches at the CSD.
- If both the buyer and the seller input their settlement instruction on the same business day/ time, the seller will be deemed to be at fault.
- The market cut-off plays a decisive role:
  - If the settlement instruction **can still settle** on the business day it matches, the LMFP(s) will be calculated for each business day from ISD up to, but not including, the business day it matches.
  - If the settlement instruction **can no longer settle** due to matching post market close, the LMFP(s) will be calculated for each business day from ISD up to and including the business day it matches.
- It is possible for a settlement instruction to be instructed and matched post ISD. In such a scenario, LMFP(s) will be incurred, followed by SEFP(s) once matched. This is due to the seller having insufficient securities (*see scenario 3 in 2.2.4 Scenarios for more detail*).



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

### 2.2.2 Activation date

Cash penalties will apply under the SDR upon its implementation date – 1 February 2022. This means that cash penalties will apply for the in-scope settlement instructions that fail on the 1 February 2022, which is referred to by the CSDs and T2S as the ‘activation date’. Upon the ‘activation’ of the cash penalty regime settlement failures with an ISD on or prior to the activation date will incur penalties if they (continue to) fail on and beyond 1 February 2022.

- SEFP will apply to instructions that fail to settle on and after 1 February 2022. This includes matched settlement fails with an ISD before the 1 February 2022.
- LMFP will apply to instructions that match on or after 1 February 2022. If the ISD is prior to the 1 February 2022 backdated penalties to its ISD will not be applied.

It is vital that aged fails are resolved before 1 February 2022. Failure to do so means that once the switch is flicked and the fails continue, as at market close on 1 February 2022 penalties will be applied.

### 2.2.3 Technical requirements

The calculation of the cash penalty will depend on:

- The type of instruction;
- Whether the securities will be delivered or received by the counterparty; and
- The penalty rate of the ISIN or discount rate (the central bank interest rate on cash).

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 3) and the formulas for calculating them (see Figures 4 and 5) are understood and referenced for any in-house calculation or forecasts that market participants may want to make to manage their settlement risk. As a ‘pointer’ the following data points should be referenced in these calculations:

#### Instrument data

- Liquidity indicator (ESMA FIRDS database for shares);
- Financial instrument type (CFI code); and
- MICs of SME Growth Markets (ESMA register).

#### Pricing

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

#### Cash penalty rates

As evident in the cash penalty rate table (see Figure 3), settlement instructions for trades executed on an EU SME Growth Market are subject to lower cash penalty rates. However, the reduced rate will only apply when both the receiving and delivering party populate the same MIC code.

To establish whether a trade is affected by this, you can review the list of SME Growth Market Trading Venues on the ESMA website: <https://www.esma.europa.eu/databases-library/registers-and-data>

Use file: “MiFID II/MiFIR TV/SI/DRSP” to open: [https://registers.esma.europa.eu/publication/searchRegister?core=esma\\_registers\\_upreg](https://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_upreg)

Figure 3: Cash penalty rate table

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 fail 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: EU 2017/ 389 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0389&from=EN>

### Formulas for calculating cash penalties

The formulas for SEFP and LMFP are similar, although the SEFP has one addition: the Receipt vs Payment (RVP) instruction type, which distinguishes between 'received late' and 'received late and already matched':

Figure 4: Formulas for calculating SEFP

Instruction Types (including instructions on hold)	Calculation based on	Formula to be applied
Delivery vs Payment (DVP) Delivery Free of Payment (DFP) Receipt Free of Payment (RFP)	Penalty based on the quantity of securities failed to be delivered and security penalty rate of the relevant asset type.	Security Penalty Rate * Reference Price * Quantity
Receipt vs Payment (RVP)	Penalty based on the quantity of securities failed to be delivered and the discount rate of the relevant currency.	Cash Discount Penalty Rate * Reference Price * Quantity
Debit Payment Free of Delivery (DPFOD) Credit Payment Free of Delivery (CPFOD)	Penalty based on the amount of cash failed to be delivered and the discount rate of the relevant currency.	Cash Discount Penalty Rate * Amount
Delivery With Payment (DWP) Receipt with Payment (RWP)	Penalty will be the sum of: — Penalty based on the quantity of securities failed to be delivered and security penalty rate of the relevant asset type; and — Penalty based on the amount of cash failed to be delivered and the discount rate of the currency.	Security Penalty Rate* Reference Price* Quantity + Cash Discount Penalty Rate* Amount

\*Security Penalty Rate is the rate derived from the ISIN and Place of Trade

\*Reference Price is the price of the ISIN on business day for which the penalty is calculated

\*Quantity is the number of securities failed to be delivered/remaining to be settled at market close

\*Cash Discount Penalty Rate is the discount rate of the currency divided by 360

\*Amount is the cash amount failed to be delivered/remaining to be settled at the end of market close

Source: Deutsche Bank





Figure 5: Formulas for calculating LMFP

Instruction Types (received or matched late)	Calculation based on	Formula to be applied
Delivery vs Payment (DVP) Delivery Free of Payment (DFP) Receipt Free of Payment (RFP)	Penalty based on the quantity of securities failed to be delivered and security penalty rate of the relevant asset type	Security Penalty Rate * Reference Price * Quantity
Receipt vs Payment (RVP) Received late	Penalty based on the quantity of securities failed to be delivered and the discount rate of the relevant currency	Cash Discount Penalty Rate * Reference Price * Quantity
Receipt vs Payment (RVP) Received late and already matched	Penalty based on the quantity of securities failed to be delivered and security penalty rate of the relevant asset type	Security Penalty Rate * Reference Price * Quantity
Debit Payment Free of Delivery (DPFOD) Credit Payment Free of Delivery (CPFOD)	Penalty based on the amount of cash failed to be delivered and the discount rate of the relevant currency	Cash Discount Penalty Rate * Amount
Delivery With Payment (DWP) Receipt with Payment (RWP)	Penalty will be the sum of: — Penalty based on the quantity of securities failed to be delivered and security penalty rate of the relevant asset type; and — Penalty based on the amount of cash failed to be delivered and the discount rate of the currency	Security Penalty Rate* Reference Price* Quantity + Cash Discount Penalty Rate* Amount

\*Security Penalty Rate is the rate derived from the ISIN and Place of Trade

\*Reference Price is the price of the ISIN on business day for which the penalty is calculated

\*Quantity is the number of securities failed to be delivered/remaining to be settled at market close

\*Cash Discount Penalty Rate is the discount rate of the currency divided by 360

\*Amount is the cash amount failed to be delivered/remaining to be settled at the end of market close

## 2.2.4 Scenarios

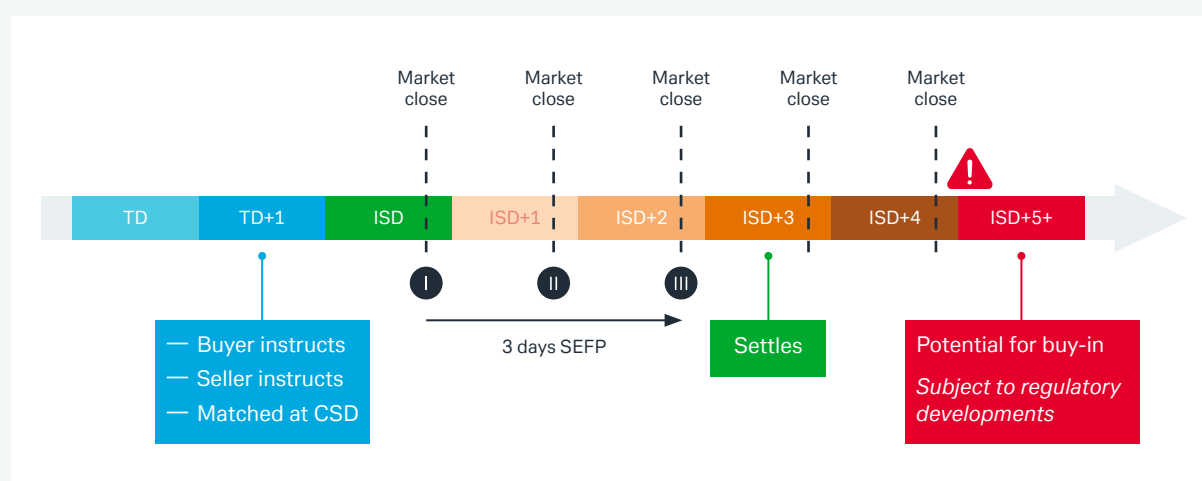
So far, we have spoken in theoretical terms about the application of cash penalties. Here we turn to some example scenarios where a settlement fail incurs a cash penalty and work through how this applies and how much is due. The examples begin with a straightforward scenario, gradually increasing in complexity as we run through.

### Scenario 1: A straightforward SEFP for the delivering party

Trade details: 1,000 Daimler AG ISIN DE0007100000, price 73.24 vs €73,240 to be settled DVP.

Settlement outcome: Both trading parties had matched instructions at the CSD prior to market cut-off on trade date+1. However, the delivering trading party failed to deliver to the receiving trading party for 3 business days due to a lack of securities. The trade then settled on ISD+3.

Figure 6: Settlement cycle for Scenario 1



Cash penalty type: The cash penalty is SEFP as the settlement instructions were matched on ISD  
Trading party at fault: The seller (lack of securities)

SEFP cash penalty calculation: Security penalty rate x reference price x quantity

Daily penalty rate for liquid shares: 1.0 bp

Reference prices: Day 1: €75.00, Day 2: €74.30, Day 3: €76.24

Cash penalty calculation:

Penalty Day 1 SEFP: 1,000 shares x 0.01% x €75.00 = €7.50	Penalty Day 2 SEFP: 1,000 shares x 0.01% x €74.30 = €7.43	Penalty Day 3 SEFP: 1,000 shares x 0.01% x €76.24 = €7.62	Total penalty amount = €22.55
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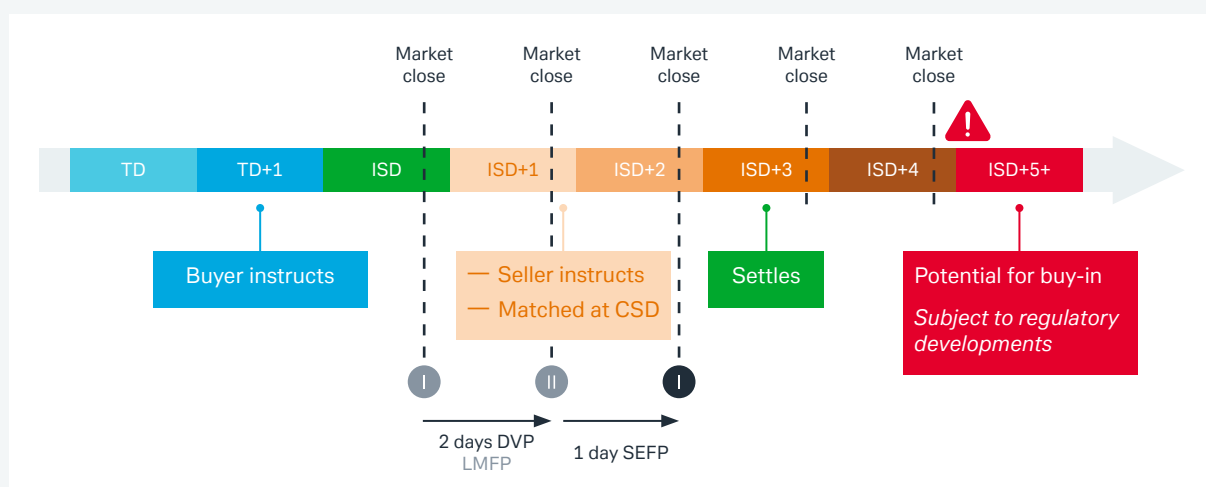
The SEFP cash penalty amount of €22.55 is paid by the delivering trading party that caused the fail due to insufficient securities – and credited to the receiving trading party.

### Scenario 2: An SEFP with an additional LMFP for the delivering party

Trade details: 1,000 Daimler AG ISIN DE0007100000, price 73.24 vs €73,240 to be settled DVP.

**Settlement outcome:** The receiving trading party instructed correctly on TD+1. However, the delivering trading party did not instruct until ISD+1 after market close. The delivering trading party then failed to deliver to the receiving trading party for a further one business day due to a lack of securities. The trade was then settled on ISD+3.

Figure 7: Settlement cycle for Scenario 1



Cash penalty type: Two days' DVP LMFP for the late instruction and one day's SEFP for the matched short

Trading party at fault: The seller (late instruction and lack of securities)

Cash penalty calculation DVP LMFP and SEFP: Security penalty rate x reference price x quantity

Daily penalty rate for liquid shares: 1.0 bp

Reference prices: Day 1: €75.00, Day 2: €74.30, Day 3: €76.24

Cash penalty calculation:

Penalty Day 1 LMFP: 1,000 shares x 0.01% x €75.00 = €7.50	Penalty Day 2 LMFP: 1,000 shares x 0.01% x €74.30 = €7.43	Penalty Day 3 SEFP: 1,000 shares x 0.01% x €76.24 = €7.62	Total penalty amount = €22.55
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The cash penalty amount of €22.55 is paid by the delivering trading party – which caused the fail by instructing two business days late and holding insufficient securities for one business day – and credited to the receiving trading party.



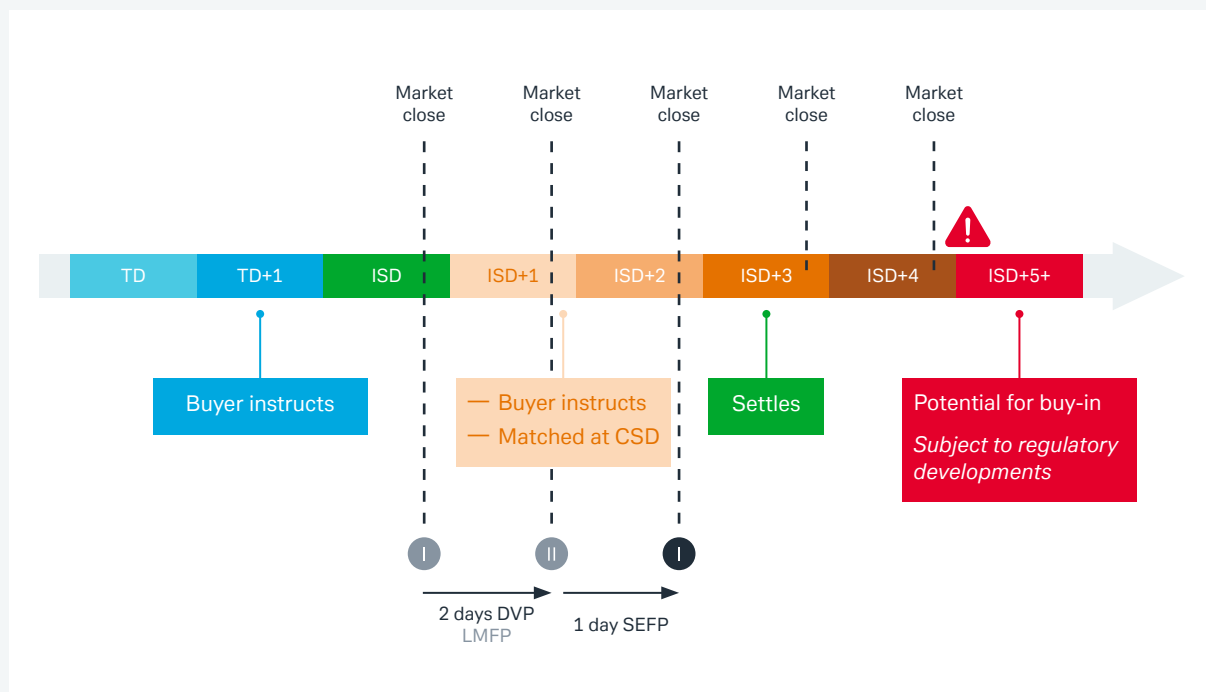
The calculating for LMFP on a DVP instruction is the same as the SEFP

### Scenario 3: An LMFP for the receiving trading party

Trade details: 1,000 Daimler AG ISIN DE0007100000, price 73.24 vs €73,240 to be settled DVP.

**Settlement outcome:** The delivering trading party instructed correctly on TD+1. However, the receiving trading party did not instruct until ISD+1 after market close. The delivering trading party then failed to deliver to the receiving trading party for one business day due to a lack of securities. The trade then settled on ISD+3.

Figure 8: Settlement cycle for Scenario 3



Clients 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 of this behaviour is. It is also important for clients to ensure that, when submitting settlement instructions, they are either confident that the details are correct, or willing to take on the liability for any errors, since any amendments post ISD could be pricey.



Cash penalty type: Two days' RVP LMFP for the late instruction and one day's SEFP for the matched short

Trading party at fault: The buyer (late instruction) and the seller (lack of securities)

Cash penalty calculation LMFP: Cash discount penalty rate x reference price x quantity

Cash penalty calculation SEFP: Security penalty rate x reference price x quantity

Daily penalty rate for liquid shares: 1.0 bp

EUR discount penalty rate: 25 bps per annum

Reference prices: Day 1: €75.00, Day 2: €74.30, Day 3: €76.24

Cash penalty calculation:

Penalty Day 1 LMFP: $1,000 \text{ shares} \times 0.25\%$ $/360 \times €75.00 = €0.52$	Penalty Day 2 LMFP: $1,000 \text{ shares} \times 0.25\%$ $/360 \times €74.30 = €0.52$	Penalty Day 3 SEFP: $1,000 \text{ shares} \times 0.01\% \times$ $€76.24 = €7.62$	Total net penalty amount = €6.58
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The receiving trading party will incur a cash penalty amount of €1.04 for the LMFPs it incurred from instructing 2 business days late. The delivering trading party will incur a cash penalty amount of €7.62 due to the SEFP it incurred from being insufficient of securities for one business day. This will result in a net credit payment to the receiving trading party of €6.58 (see next section Application of the penalties).

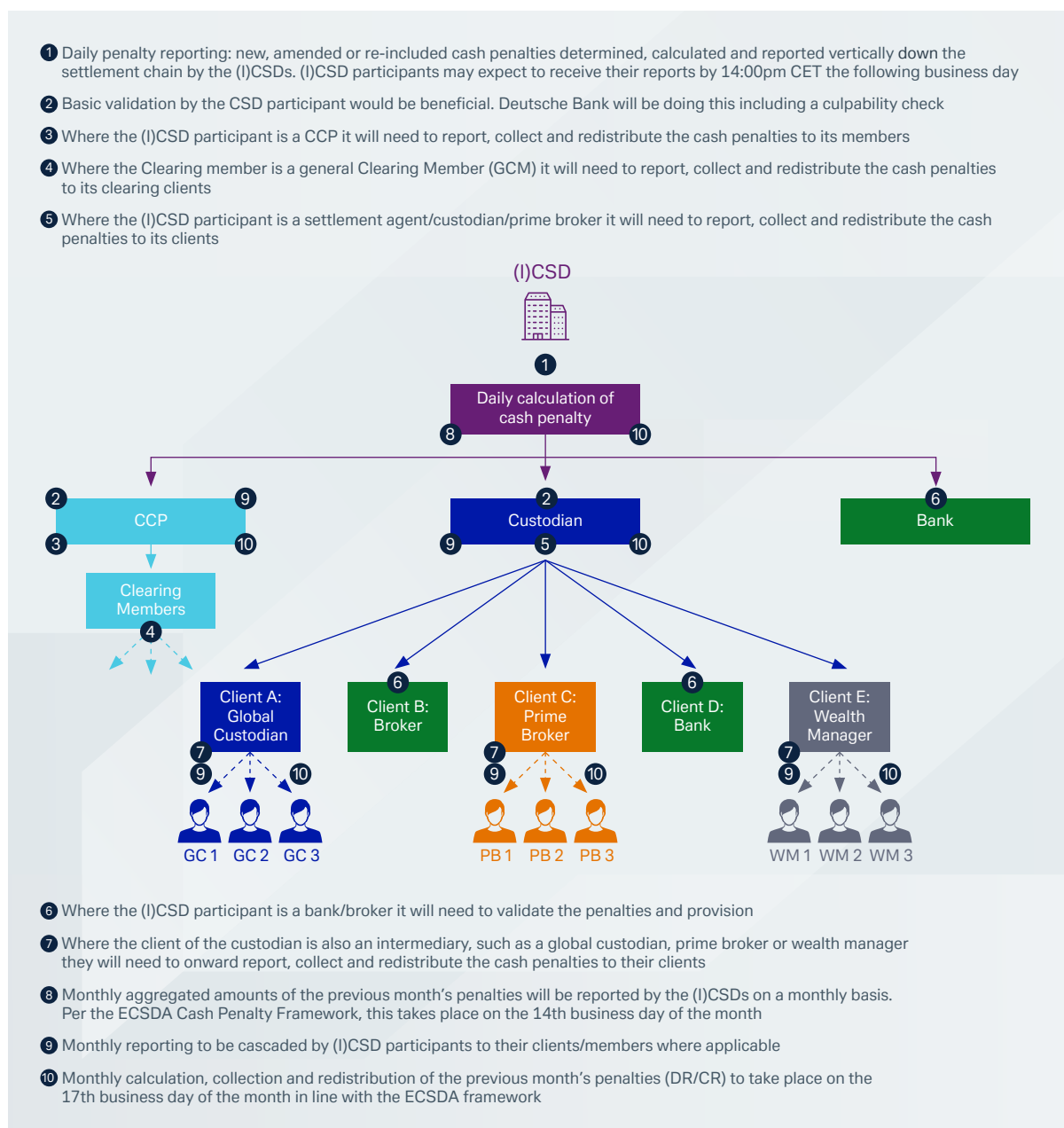


### Application of the penalties

Cash penalties are a **vertical process** (see Figure 8). Penalties are levied by the CSD, which debits the party that caused the settlement fail and credits the non-defaulting party. This process effectively leads to a monthly net redistribution of fines with CSD participants receiving a net debit or a net credit from each CSD it is a participant of on a monthly basis.

Where the CSD participant is **not** the principal party to the securities transaction, for example, they may be a settlement agent or custodian like Deutsche Bank Securities Services. Here, the role is to reflect the exact terms of the instructions received from clients and transmit them to the (I)CSDs for settlement. The cash penalties can be “passed through” to their clients, debiting and crediting as indicated and calculated by the CSD on a monthly basis.<sup>10</sup>

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



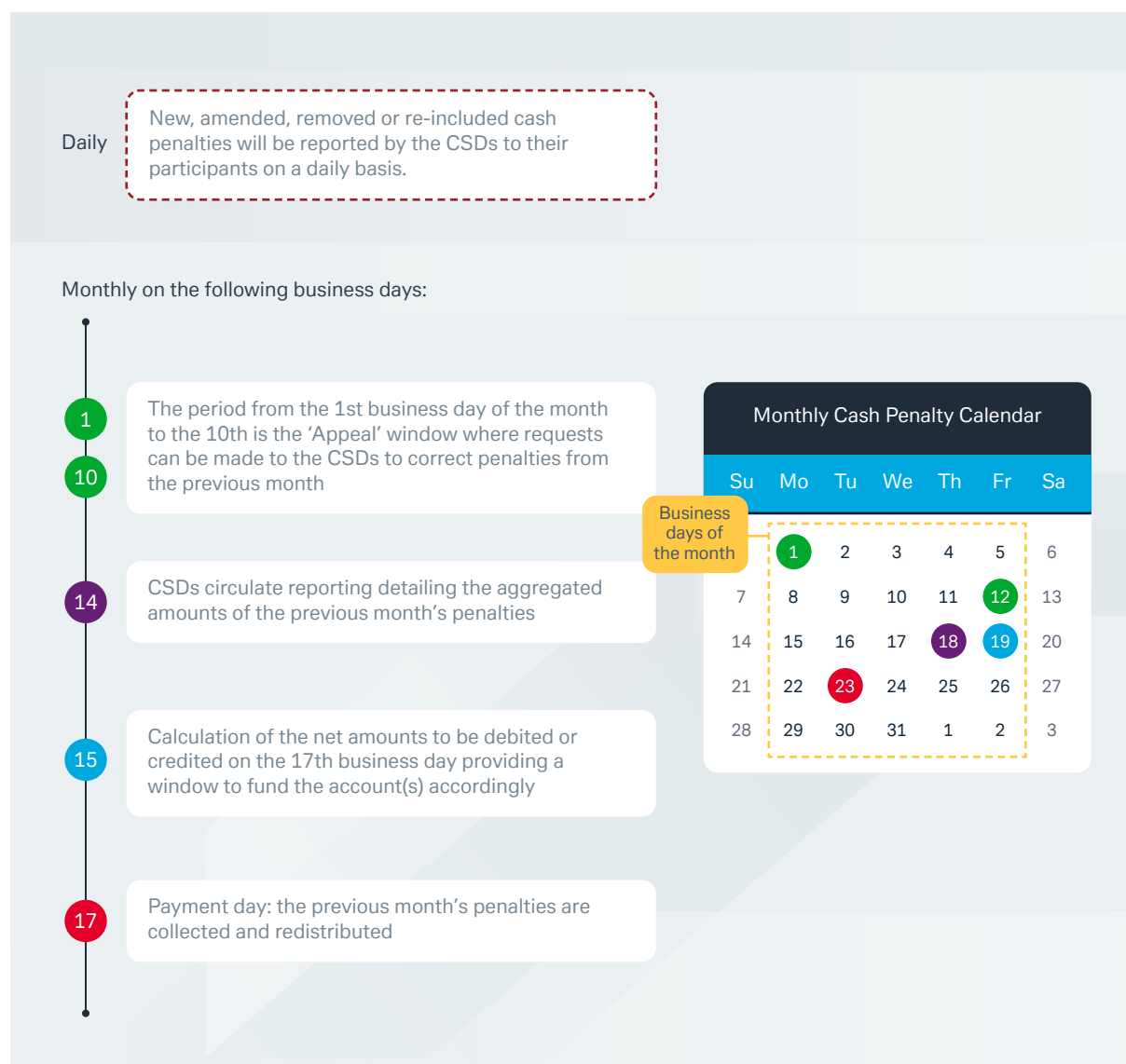
## 2.2.5 The cash penalty lifecycle

In this section, we take you through the cash penalty lifecycle – outlining what information market participants might expect to receive, at what frequency, and the steps they will need to take throughout the cash penalty lifecycle.

As explained in the previous chapter, the cash penalty framework will be operated by the (I)CSDs in the EEA. In order to assist this implementation in as harmonised a way as possible, the European Central Depository Association (ECSDA) has devised a CSDR Cash Penalties Framework, which outlines all operational aspects of the regime for its members – a valuable tool for all market participants (not just CSD participants).

In the Framework, ECSDA outlines the daily and monthly events that will take place on a recurring daily and monthly basis when the cash penalty regime goes live. The aspects most relevant to Deutsche Bank clients are summarised in Figure 9.

Figure 9: The cash penalty lifecycle



Perhaps the biggest challenge for participants will be alignment with the CSD's business days. Notably, the 1st, 10th, 14th, 15th and 17th business days of a month will be 'trigger points' for action, but they won't align exactly with the actual dates in a calendar month. As you will see in the model calendar in Figure 9, the 10th business day will be the 12th of the calendar month. Since there will be operational trigger points, we encourage our clients to find a way to manage this in their operational tools.

We will now explain the daily and monthly events in a little more detail.

### Daily reporting

As we illustrate in Figure 10, the daily cash penalty reporting is a cascade of information triggered by the (I)CSDs to their participants. This will be a time-sensitive operation for all post-trade actors.

Figure 10: Daily cash penalty reporting information







In field 22F, the qualifier “FWIS” signals new penalties, the qualifier “FWAM” signals amended or removed penalties. Field :16R:PENDET will show the details of any changes



If Deutsche Bank identifies itself as the culpable party (due to a system issue, for example), the bank will still report the penalty but indicate ‘N’ in the CMPU to flag that we will absorb the penalty

### Monthly appeal process (business days 1 to 10)

While the ECSDA Cash Penalty Framework references the monthly appeal process, it also highlights that appeals will be “on an exceptional basis” and the scope appears to be very limited.

#### What can be appealed?

The CSDs, as the operator of the cash penalty mechanism, will always be the primary source of cash penalty information, including all calculations. In the regrettable absence of a golden source of instrument and pricing data for the SDR, each CSD will use its own pricing source, which may result in price deviations for instruments eligible for settlement in multiple CSDs. For this reason, price deviation will not be an acceptable reason to appeal.

This leaves a limited set of circumstances for appeal. ECSDA draws attention to the scenarios listed in the ESMA CSDR Q&A’s “Settlement Discipline Question 4 – Cash penalties: scope”<sup>11</sup> as potential reasons to appeal in the event that a cash penalty is applied to:

- An ISIN suspended from trading or settlement;
- Settlement instructions involving cash settlement outside the CSD’s own system if the relevant payment system is closed for business; and
- Technical issues at the CSD that prevent settlement.

However, much will depend on the (I)CSDs and there is still limited detail at this stage.

### How will the appeal be made?

Appeals can only be lodged by the party that maintains the contractual relationship with the (I)CSD, which, for Deutsche Bank clients will be the bank itself. While we envisage that our internal validations will identify any valid grounds to appeal in accordance with the (I)CSD's criteria, which we will duly raise on our client's behalf, clients who believe there are grounds to appeal can contact their client manager, who will be happy to help. In order to apply for an appeal, clients will need to provide their intermediary with (I)CSD with the following:

- Full details of the transaction;
- The reason for the appeal;
- The expected penalty amount and calculation details.

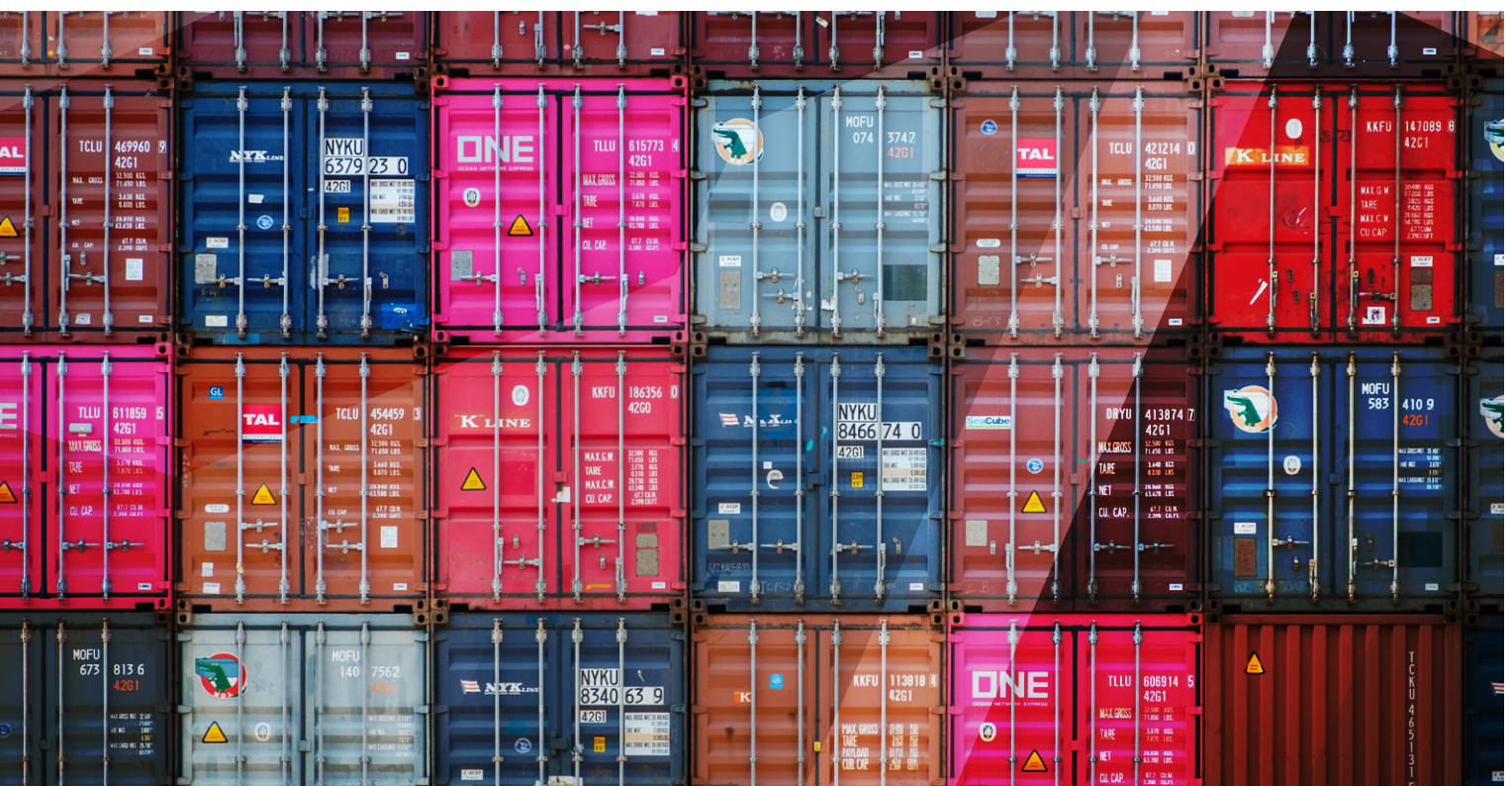
### When can the appeals be made?

**Raising an appeal:** Appeals will be a time-sensitive process. Any appeal will need to be lodged by the 10th business day of the following month. To allow time to investigate and raise any appeal with the CSD on our client's behalf, Deutsche Bank intends to impose a deadline of two days prior; i.e. on the 8th business day of the following month. We therefore recommend that clients check their penalty reports on a daily basis and raise appeals as quick as possible.

- Should an appeal be lodged and deemed acceptable it will be reported the following business day.
- Any adjustment will be completed by the CSD on the 12th business day and reported on the 13th business day.



The decision of the CSD with respect to the dispute will be final. Please note that Deutsche Bank will not be involved in bilateral claims between trading-level counterparties



### Monthly reporting (business day 14)

On the 14th business day of the following month, the (I)CSDs will report the monthly aggregated amounts of the previous month's penalties to their participants.

Figure 11: Deutsche Bank's approach to monthly reporting



Source: Deutsche Bank



The monthly cash penalties report sent on the 14th business day should be treated as the pre-advice. Deutsche Bank will not send a separate report on the 15th business day

### Deutsche Bank's monthly cash penalties statement and invoice

To support the monthly reporting process, Deutsche Bank will send supplementary reports on the 16th business day of the following month. By adding in this additional step, we can convey more transactional granularity than is possible in an MT537 message. The report takes the form of:

1. A summary statement: The report will display the aggregated amount per penalty type, i.e. the amounts resulting from LMFPs and SEFPs, and the grand total, representing the combined sum of LMFP and SEFP amounts.
2. A detailed statement: In addition to the details provided in the Summary statement, the detailed statement will display a breakdown of the LMFP and SEFP figures at a sub-account level.

Our cash penalties statements will be accompanied by a supporting document (in csv format), which will contain each penalised transaction and the associated penalty information.

Should the 16th fall on a public holiday or on a weekend, the statement will be sent on the next available business day.



Penalties absorbed by Deutsche Bank will not be included in the client's monthly cash penalties report or in the separate cash penalties statement

### Payment day (business day 17)

The payment day refers to the collection and redistribution of the previous month's penalties. As with all aspects of the cash penalty mechanism, the process is triggered by the CSDs, who will debit the participants whose cash penalties amount to a net debit (collection), before crediting the participants whose cash penalties amount to a net credit (redistribution).

The CSDs will collect the cash penalties via:

- Direct debit/credit the cash accounts linked to clients CSD account; and
- Payments free of delivery (PFODs).

For CSD participants that are principal to the transactions, the cash penalty cycle will conclude at this point, with each institution taking care to reflect and reconcile the cash penalties paid/received in their books and records.

CSD participants such as Deutsche Bank that are intermediaries will need to replicate the CSD's process.



On the 17th business day, Deutsche Bank will:

- Automatically debit the communicated amount from clients' nominated cash account;
  - Should the cash account not contain insufficient funds to cover any debit, then this account will be taken into overdraft, and standard overdraft fees will apply overnight. We therefore encourage clients to fund their cash account upon receipt of the monthly cash penalty report on the 14th business day.
- Debit or credit penalties in the currency used by the CSD;
  - It is recommended that clients have accounts in multiple currencies for the payment and receipt of cash penalties. However, if a client does not have an account in a particular currency, Deutsche Bank will carry out the necessary conversion to credit or debit in the currency of the client's cash account with the Bank.
- Use a unique reference for the payment booking, which can be linked back to the invoice number. For example:
  - Sample Invoice Number: SES-DEU-PEN-102020-XX  
SES for Securities Business + DEU for Country code Germany + PEN for Penalty Statement + MMYYYY for month & Year + Unique Seq No
  - Sample payment reference: DEUPEN102020XX.
- Provide payment confirmation via MT940/950.



We do not require our clients to open a dedicated cash penalties account. Clients that prefer to operate in this way can liaise with their relationship manager, who will be happy to discuss options



Direct participants of a CSD are recommended to familiarise themselves with the CSD's chosen approach, as the payment process will vary from CSD to CSD

## 2.2.6 Testing

The delay from 1 February 2021 to 1 February 2022 acknowledged and considered the need to test the operation of the cash penalty mechanism. Due to the complexity of the regime and CSDs' readiness, the date of 13 September 2021 date was mooted by the ECB's T2S platform as the appropriate time to commence what is referred to as "dry run" testing. In addition to the T2S CSDs, some non-T2S CSDs have also committed to a similar dry-run exercise in the lead-up to 1 February 2022.

While this is a valuable opportunity, there are pre-requisites prior to participating in the dry-run test.

### Reporting templates and CSD functionality

Before a CSD participant can even consider testing, they require the daily and monthly reporting templates from the CSDs, along with details of other technical developments the CSDs (and CCPs for those participants who are also members of a CCP) will be releasing. While some CSDs have been superb in their readiness to develop and share the output of their solutions and templates, others have not – and this reduces participants' development window and where applicable those of their clients.



### CSD/Participant market testing

Timing and criteria are set by the CSD. This may not be standardised, but it is an essential exercise to ensure firms can have their technical development validated and rubber stamped. The issue here is that some of the market tests are so late in the day there is only a very limited window for the CSD participant to make any technical revisions ahead of 1 February 2022 – let alone to truly benefit from the dry-run test. This is particularly pertinent for intermediaries, such as custodians, who have a role to play in assisting their clients with their own testing and readiness.

As previously mentioned, we recommend staying close to your CSD partners to be able to benefit from the testing process as a vital dress rehearsal for 1 February 2022. The Association for Financial Markets in Europe (AFME), the Association of Global Custodians (AGC) and ECSDA are collaborating, each playing a crucial role here. We recommend market participants get in touch with them if they have any concerns or suggestions.



From a Deutsche Bank point of view, you can refer to your Client Relationship Manager(s), who will be on hand to assist you with your testing needs

### 2.2.7 Cash penalty bilateral claims

As experienced currently in the matching and settlement process between trading parties, there will be times when settlement instructions match or settle late after the intended settlement date which, under CSDR, will result in cash penalties.

Since the (I)CSDs, as operators of the cash penalty mechanism, are removed from the bilateral dialogue between the trading parties, they will not therefore always have the context of the settlement fail, which is critical to correctly identifying the party at fault.

To enable trading parties to pass on cash penalties to the party responsible for the fail and its associated cash penalty, AFME, in collaboration with its members, has written a guideline for the management of bilateral claims.<sup>12</sup>

AFME lists the following example:

If Party B provides incorrect information to Party A, causing Party A to send a late settlement instruction, the CSD will charge the penalty to Party A. In this scenario, Party A should be able to issue a claim to Party B to recover the penalty amount.<sup>13</sup>

We recommend all market participants review and take note of this, as it could become market practice in the same way ISITC TMPG claims have been established in respect of the US Treasury market.

### 2.2.8 Outstanding questions

Cash penalties are in a considerably more complete and meaningful state than their mandatory buy-in sibling, but there remain questions outstanding with the regulators. These have been raised by market infrastructure (CSDs/CCPs), industry associations and market participants alike, and largely pertain to scope and data. The most impactful outstanding questions are summarised as follows:

Can certain settlement instructions be exempt from the regime, given that they are outside participants' control?

- We believe this question to be focused on CLAI, TRAN and T2S auto-realignments and it is Deutsche Bank's main concern when it comes to achieving certainty on the scope of the cash penalty regime. The expectation is that corporate action instructions should be exempt; however it is too late for the CSDs/T2S to make any technical changes for 1 February 2022.

Will CSDs and CCPs contractually agree that the CSD is responsible for the collection and distribution of all penalties, nullifying the CCP's obligations under Article 19?

- There has been a long-running debate as to whether CCPs can defer their regulatory obligation to operate cash penalties for their members to the CSDs. It is not yet clear what the CCPs have concluded, but it is unlikely that there will be a uniform approach. CCP outreach is essential here.

How will CSDs manage scenarios of non-payment by a participant? On what basis should the cash penalty proceeds received be distributed?

- How CSDs should collect and redistribute cash penalties is one of ECSDA's key open questions.<sup>14</sup> In the absence of regulatory guidance, the approach is likely to differ from CSD to CSD. Again, CSD outreach is essential here, as is monitoring for updates from ECSDA to questions raised by participants.<sup>15</sup>



It is worth keeping an eye out for the updated ESMA Q&As.<sup>16</sup> Deutsche Bank also circulates this information through its market newsflashes<sup>17</sup>



## 2.3 Repercussions

Beyond the financial and operational impacts of the cash penalty regime, there are two further aspects for market participants to consider – both of which pose reputational risk as an extra incentive to improve operational and settlement efficiency.

### Systematic delivery failure

Under Article 7.9 of the CSDR and Article 39 of the delegated regulation, CSDs, CCPs and trading venues are expected to establish procedures that enable them to suspend any participant that “fails consistently and systematically” to deliver the financial instruments on the intended settlement date. A participant is considered as consistently and systematically failing where its settlement rate is at least 15% lower than the rate of settlement efficiency of that particular securities settlement system, during at least a relevant number of days over the 12 previous months.

Having notified and consulted with the relevant NCAs, and after providing the participant the opportunity to submit its counter-explanation, the participant will be suspended and its identity disclosed to the public. This provision provides market participants with a strong incentive to enact meaningful change – ensuring, insofar as possible, that transactions are settled on the intended date.

For CSD/CCP participants that are intermediaries, such as custodians or general clearing members like Deutsche Bank, this provision is especially punitive. These participants could face suspension for trading outcomes and client behaviours they are not principal to.

### CSD reporting to the NCAs

Under Article 7.1 of the CSDR and Article 14 of the delegated regulation, CSDs are required to report comprehensive details pertaining to settlement fails to both ESMA and their NCA on a monthly basis. CSDs are also required to publicly disclose certain fail information on their website annually. Market participants will want to limit their exposure here – a focus on preventing settlement fails will help to protect reputations.

## 3

## Operational discipline

SDR binds trade and post-trade, as well as internal and external parties, together. An institution can leave no stone unturned if it wants to meet the operational discipline required to limit settlement failure. This section outlines some of the key ways in which operational efficiencies can be embedded into the various processes involved to ensure timely settlement. These include preventative measures – from the need for timely, accurate information and static data, to effective inventory management – that should be incorporated to avoid cash penalties and buy-ins.

### 3.1 Internal and external obligations

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 to achieve timely settlement and avoid the repercussions of the SDR.

Outside of an institution the SDR binds: providers and consumers together; the trading party to its custodian/settlement agent; and the custodian/settlement agent to the CSD. The flow of information needs to be accurate and seamless within and outside an institution, at the point of:

- **Trading:** the two trading parties agree a sale/purchase between themselves, including agreeing the quantity and price of a security.
- **Post-trade:** the two trading parties are executors of the terms agreed at the point of trading.

Settlement success has a strong dependency on instruction accuracy and available resources. Where settlement is facilitated by a custodian or settlement agent, that entity can only act on the instructions received by its client. It can also only initiate settlement at the CSD if the client has the resources available to effect settlement, such as the securities when the client is the delivering trading party and cash when the client is the receiving trading party.

#### Operational discipline is in the spotlight

The SDR urges market participants to remediate settlement fails at their root cause. Settlement failure resulting in cash penalties may be due to incorrect trade or economic details, such as the wrong cash amount, wrong security or, most commonly, the incorrect settlement details, such as wrong Standard Settlement Instructions (SSIs). In situations like this, the custodian or settlement agent cannot itself amend its client's instruction. This can only come from the client that breaks straight-through processing (STP) and increases latency in the settlement process, as the greater the number of touchpoints, the greater the risk of settlement failure. Time and resources will be rewarded by remediating avoidable errors ahead of 1 February 2022.

## 3.2 Operational efficiency

Securities trade through to post-trade is based on a series of interlocked actions between each step of the process. If one step in the process is weak then settlement efficiency and reputations could unravel.

Figure 12 highlights some of the dependencies that exist to ensure settlement (yes, we know that settlement is also post-trade, but in a regulation focused on settlement efficiency, it warrants its own step in the process!). STP and robust technology, from front to back, will be essential in what are time-sensitive processes. Manual processes and a poor flow of information from front to back will be punished by cash penalties and ultimately buy-ins.

Figure 12: Key questions to achieve settlement



Source: Deutsche Bank

In the following section we will explore some of these themes in more detail.



### 3.3 Operations essentials

SDR, although complex in its execution, is quite simple in its intention – namely, to incentivise timely settlement. The repercussions for poor settlement performance – cash penalties and ultimately 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 will be impacted. Since CSDR will call out and penalise poor processes, steps towards prevention should be started now.

#### 3.3.1 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, in due course, buy-ins. A review of STP and data efficiency should be encouraged. Areas to focus on include:

- **Front to back:** Readying internal systems will be a critical first step. This includes everything, from trade capture, trade enrichment and message generation, to outbound messages via the messaging gateway and vice-versa for the flow of inbound messages, including matched/settled settlement statuses.
- **Non-STP remediation:** Conduct a detailed review of non-STP processes and liaise with your settlement agent and CSDs to get an overview of your current weaknesses.

#### 3.3.2 Static data

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

A static data clean-up remediating repeat data failures, such as incorrect instrument or client data and time sensitive monitoring of exceptions queues, 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. Some areas to consider include:

##### 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.

##### Counterparty

In addition to position adequacy, accurate 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 onboarding to periodic reviews, through to the inclusion and use of online repositories, such as DTCC, the collection and maintenance of up-to-date SSIs requires focus. CSDR offers a lifeline, with the mandatory inclusion of SSIs in allocation and confirmation messages presenting an opportunity to market participants to do more upfront. For example, they can clearly demonstrate to their clients the settlement details they will be using and the corresponding details they have for them.

### SWIFT messages

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.

### Transaction codes

The use of the transaction code in Field 22F “SETR” should be accurately populated. The transaction type used in the SWIFT message should match the actual transaction type. For example, the use of TRAD as a default signifies that the settlement instruction is a trade – a purchase and sale transaction – and will ultimately be in scope for a buy-in. Using the correct transaction indicator will bring greater transparency and will clearly identify the type of transaction, which will ultimately assist in the applicability and application of a buy-in process. It may also prevent queries from the regulator on the occasion that aged fails with a TRAD indicator are found for which no buy-in nor cash compensation has been reported.

## 3.3.3 Inventory management

The main reason trades fail after ISD is due to a lack of securities. Improved visibility of inventory, real-time data, predictive rather than reactive controls and provisioning to enable position adequacy and monitoring will be vital to avoid negative SDR outcomes.

### 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, to differentiate between traded and settled positions – they are different. This is because 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 ultimately buy-ins.
- Proactively use pair-off/partial pair-off/net as techniques to reduce fails and optimise available positions.
- Make use of hold and release functionality, which will be a mandatory requirement for 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 a buy-in extension period and includes the following benefits:

- Best practice would be 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, but would then have to be double checked by the custodian in order to avoid stock pilferage and to protect other clients' activity. In this context, a future 'partial release' function could provide operational efficiencies over having to manually cancel and reinstruct partial deliveries.
- Until the above become market practice, opportunities for partial settlement should be offered and sought. A process to identify these opportunities in the workflow systems of market participant should be considered.
- Under CSDR, CSDs are required to support partial settlement. As a result, Deutsche Bank expects the demand and use of partial settlement will increase as the benefits become more obvious.

### Netting and Pair-off

Opportunities to pair-off and or net fails with your counterparties should be explored as a technique to reduce settlement fails and to reduce SDR risk.

- You may want to consider building tailor made reports to identify possible scenarios
- While an agreement will be required from your counterparties, the benefits to both parties can be easily explained.

### Linking

Linking is a useful technique for broker dealers. For activity based on buying and selling flat and holding little inventory, linking could 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.

### Shaping

Shaping is a useful technique for broker dealers – and involves splitting deliveries into the same shapes as receipt instructions. This is less straightforward and is again subject to your counterparty's agreement. But it may be worth considering and discussing with them.

## 3.3.4 Processing and matching changes

- Market participants should ensure that their systems can take in the information from the CSD/ settlement agents as close to real-time as possible. This will allow them to 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 these communications and the required changes, the more prepared they will be.
- Care should be taken around trades on SME Growth Market. While these trades have a better penalty rate, participants will need to ensure their instruction carries the place of trading flag and that their counterparty's instruction includes same. Only when both instructions are issued the same way will the lower penalty rate for SME Growth Markets be calculated.
- Matching tolerances at the CSD will be: €2.00 for settlement amounts of up to €100,000 and €25.00 for settlement amounts greater than €100,000.
- Bilateral cancellation will also become mandatory at all CSDs subject to CSDR.

In addition to solid STP and technical capabilities, strong front-to-back organisational alignment within an institution is important for SDR success. Any siloes, which create a lack of awareness and understanding of upstream and downstream processes will ultimately prove a threat to settlement efficiency. For example, poor matching, allocation and affirmation processes will have a negative downstream impact. Capacity planning and prioritisation are also important considerations to ensure the right exceptions, processes, unmatched and fails have adequate focus and resources.

## 4

## How Deutsche Bank can help

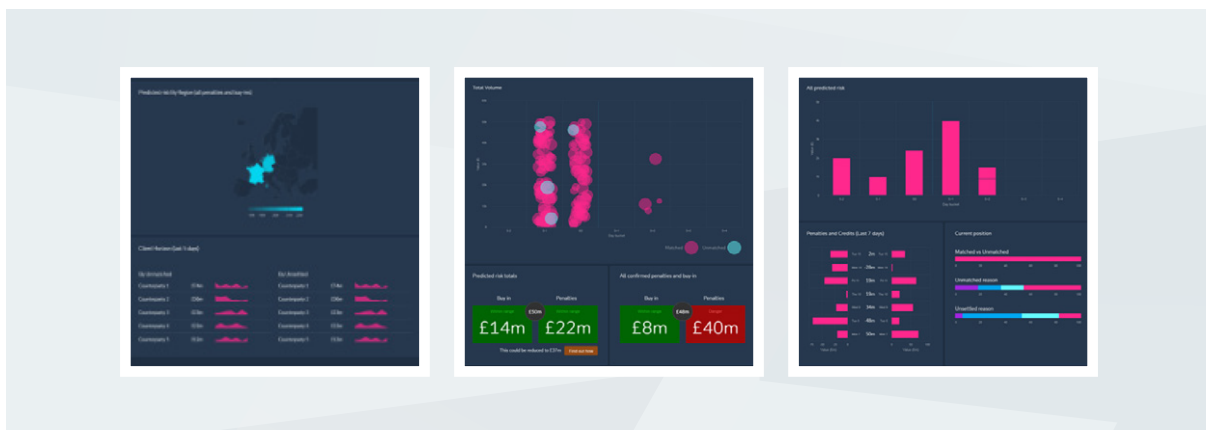
Settlement failure is costly for both banks and their clients. In addition to the substantial financial penalties levied by CSDR, settlement failure disrupts trading strategies and can disturb markets. The SDR is a trigger for lasting change and is designed to improve the smooth functioning of European capital markets. It drives the need for optimal settlement performance – with techniques and an operational focus that will benefit markets outside the EEA.

Deutsche Bank Securities Services views the intent of the SDR as a positive step to promote front-to-back operational efficiency. The Deutsche Bank response combines an in-depth understanding of CSDR with innovative real-time data processing to help clients minimise and/or avoid settlement risk.

### 4.1 The CSDR Dashboard

The new Deutsche Bank Corporate Bank portal will host the CSDR dashboard. Deutsche Bank is targeting its launch in February 2022 when the SDR enters into force.

Figure 13: Screenshot of the CSDR Dashboard



Source: Deutsche Bank

#### Phase 1 – target February 2022

Our easy to navigate real-time view of transactions show the unmatched/matched/status for instructions that are yet to settle in the market – whether for pre- or post ISD. The dashboard features include:

- Clear and easy-to-navigate colour coded warning mechanism for transactions that will be or are already subject to cash penalties. Outcomes are portrayed on the dashboard entry page in addition to the 'transaction overview display', where greater detail is provided.
- Summary reports will be circulated to view precisely what transactions are facing penalties, in order to prioritise reconciliation, resource allocation and risk evaluation exercises.
- Data export capability.

## Phase 2 – target Q2 2022

Our agile development process targets the following additions to an ever-evolving product:

- Enhanced visualisation of settlement date vs CSDR outcomes/prediction in an interactive visual dashboard.
- Colour coded display showing the magnitude of risk/impact for the speedy detection of the most impactful transactions.
- Visual display of 'risk per market' based on the activity settling in each EEA CSD.

## 4.2 The securities settlement status API

The Securities Settlement Status API provides clients with secure access to an up-to-date view of their securities settlement transactions, including matching and settlement status.<sup>18</sup> It enables the client to query the status of their securities transactions in a near real-time manner, with the response providing an accurate view of its stage in the settlement life cycle. The response is not just a view of a specific point in time, but also includes all status changes with crucial timestamps up to that point. This advisory update will allow our client's operations teams the ability to direct their investigations towards the ageing and most impactful unmatched/unsettled transactions.

Figure 14: Deutsche Bank's settlement tracker



Source: Deutsche Bank

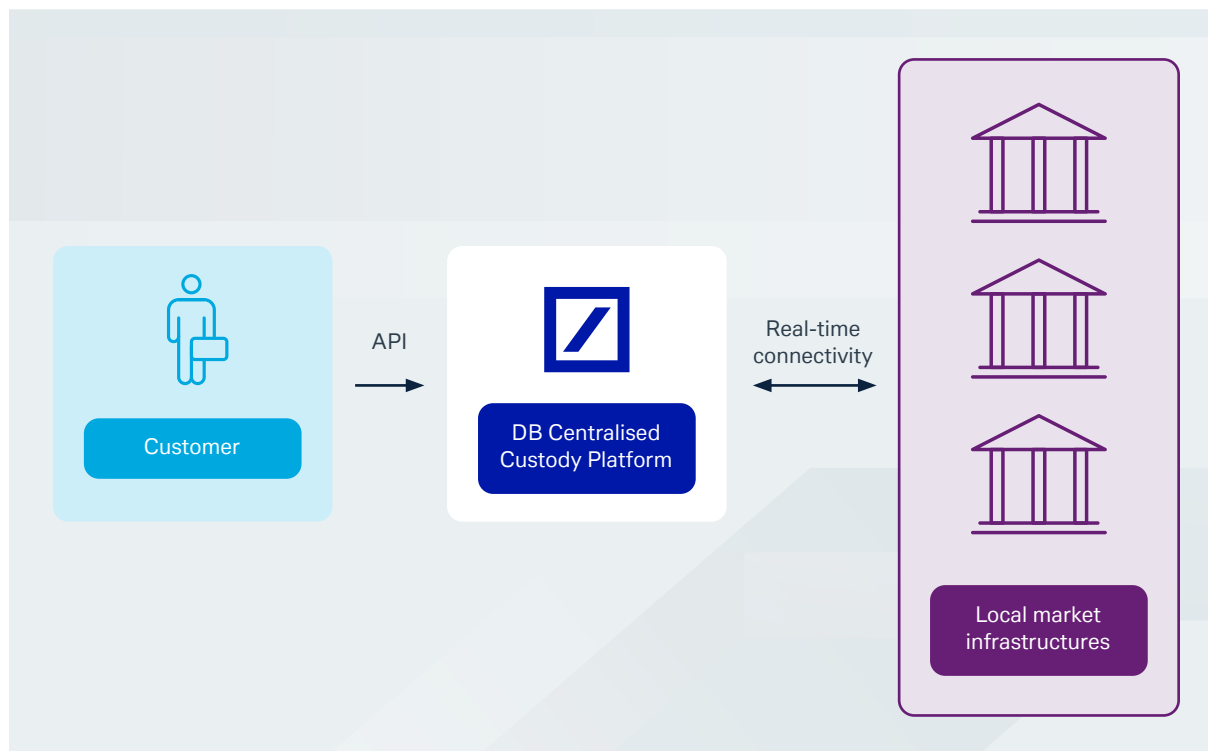
Note that a live updating version of this diagram can be viewed here to show how settlements are tracking: <https://developer.db.com/products/securitiessettlementstatus>



### How does it work?

The Securities Settlement Status API will allow customers to gain access to our core settlement systems – connected to the CSDs – in near real-time. This will provide our clients with the opportunity to build automated workflows or integrate it into their existing operations or trading platforms.

Figure 15: Securities Settlement Status API workflow



Source: Deutsche Bank

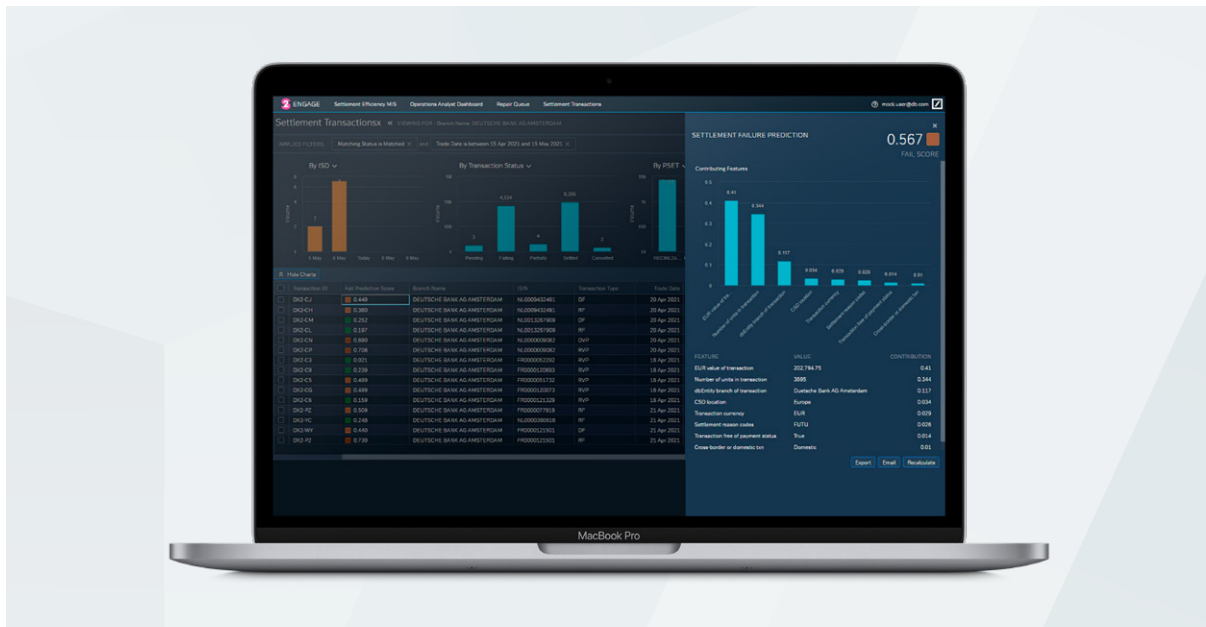
## 4.3 S2-Predict

S2-Predict proactively detects in-flight transactions at risk of settlement delay, to give unique advanced warning to clients for human-initiated actions. This early warning system can detect transactions in real-time, diverting attention away from the transactions that appear to be at risk, but upon historical analysis have always matched in time to settle.

S2-Predict leverages AI technology to predict potential settlement failure based on specific features and historical settlement data, including time, country, exchange, amount and asset type, as well as any combination thereof. In order to provide advance warning on in-flight transactions, the solution's prediction models are integrated with real-time data. The system constantly receives new input and uses them to generate up-to-the second output, generating forward-looking views on incoming transactions.

In Figure 16, the number at the top of the sidebar on the right shows the probability – in this case 0.567 (56.7%) likelihood – that the settlement of the selected transaction will fail. The chart beneath it displays the different features contributing to the probability of failure, alongside the degree to which they contribute. The prediction will re-run every time there is an update.

Figure 16: S2-Predict dashboard



Source: Deutsche Bank

The product is evolving and we are adding the option for users to define **high priority** trades according to the factors most relevant to them such as: likelihood of failure, notional value, intended settlement date (ISD) and client, among others. This means that users will be able to choose the thresholds that suit their needs, an example could be:

- Likelihood of failure > 70%;
- Value > €10,000 ; or
- ISD today.

#### 4.4 Digital Service Manager (DSM) – Client Query management

The DSM module will also be hosted on the Corporate Bank portal and will be the platform for query tracking and client interaction. By Q3 2022, we aim to have released:

- Interactive ‘click to chat’ capability for clients to raise transaction or generic settlement questions; and
- Direct interaction with Deutsche Bank client service desks by automatically using underlying transaction content.

## 5

## Towards CSDR Settlement Discipline Regime success

There is much at stake. The CSDR Settlement Discipline Regime is more than just a compliance exercise. Reputations and businesses will be at stake. Cash penalties are an integral pillar of the SDR and are set to motivate timely settlement. Each actor in the market – from securities trade through to post-trade – has a role to play in ensuring the regime's success and preventing more punitive outcomes such as a mandatory buy-in regime.

Market participants will need to carry out an overhaul of their front-to-back operational processes, communication and escalation, while gaining a complete end-to-end understanding of the regulation and how it impacts business and operational processes.

It is highly recommended that market participants clean up aged fails and look to optimise and embed new, improved operational processes. Static data should be reviewed and straight-through processing targeted. Key operating procedures (KOPs) and key performance indicators (KPIs) should be reviewed to ensure that operational processes have the appropriate focus, risk oversight and management information.

Regarding what will become of the mandatory buy-in regime, despite the fact that it is deferred from the broader SDR's entry in to force on 1 February 2022, it is Deutsche Bank's belief that the European Union's legislators will still consider the introduction of a buy-in regime, likely through the CSDR ReFIT. We hope this will benefit from meaningful revision and clarification of scope. Clients will be kept updated of the regulatory developments through our *Global Newsflash* service. Please contact your client manager for details.

We hope this guide has proved a useful tool on the way to implementing these changes. Further information on CSDR and Deutsche Bank's services can be obtained by visiting [www.db.com/flow](http://www.db.com/flow)



## 6

# Glossary

The SDR landscape is highly technical and complex. As a result, it is populated by a number of acronyms designed to crystallise specific concepts and streamline discourse. Since not all terms will necessarily be known by all readers, we have captured those mentioned in this guide and indicated their meanings below.

AFME	Association for Financial Markets in Europe	ICSD	International Central Securities Depository
AGC	Association of Global Custodians	ISD	Intended Settlement Date
CCPs	Central Counterparties	ISIN	International Securities Identification Number
CLAI	Market Claim	LMFP	Late matching fail penalty
CSD	Central Securities Depository	MiFID	Markets in Financial Instruments Directive
CSDR	Central Securities Depositories Regulation	MiFIR	Markets in Financial Instruments Regulation
DFP	Delivery free of payment	NCA	National Competent Authority
DPFOD	Debit payment free of delivery	OTC	Over the counter
DTCC	Depository Trust & Clearing Corporation	PFOD	Payment Free of Delivery
DVP	Delivery vs payment	RFP	Receipt free of payment
DWP	Delivery with payment	RVP	Receipt vs payment
ECSDA	European Central Securities Depositories Association	RWP	Receipt with payment
EEA	European Economic Area	SDR	Settlement Discipline Regime
ESMA	European Securities and Markets Authority	SEFP	Settlement Fail Penalty
FOP	Free of payment	SSI	Standard Settlement Instruction
GCM	General Clearing Member	STP	Straight-through processing
		T2S	Target-2 Securities

## References

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- See recitals 8 and 12: [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2018.230.01.0001.01.ENG&toc=OJ%3A%3A2018%3A230%3ATOC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.230.01.0001.01.ENG&toc=OJ%3A%3A2018%3A230%3ATOC)
- See page 30: [https://www.esma.europa.eu/sites/default/files/library/esma70-708036281-2\\_csd\\_r\\_qas\\_2.pdf](https://www.esma.europa.eu/sites/default/files/library/esma70-708036281-2_csd_r_qas_2.pdf)
- <https://www.afme.eu/Portals/0/CSDR%20Settlement%20Discipline%20-%20Bilateral%20Penalty%20Claims%20August%202021.pdf?ver=2021-09-02-091345-440>
- Ibid. See page 1
- The latest update, as of 5 October 2021, is available here: <https://ecsd.eu/archives/12974>
- <https://www.esma.europa.eu/questions-and-answers>
- Ibid.
- You can sign up for Deutsche Bank market newsbites at <https://flow.db.com/newsbites/newsbites-subscription>
- <https://developer.db.com/products/securitiessettlementstatus>



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