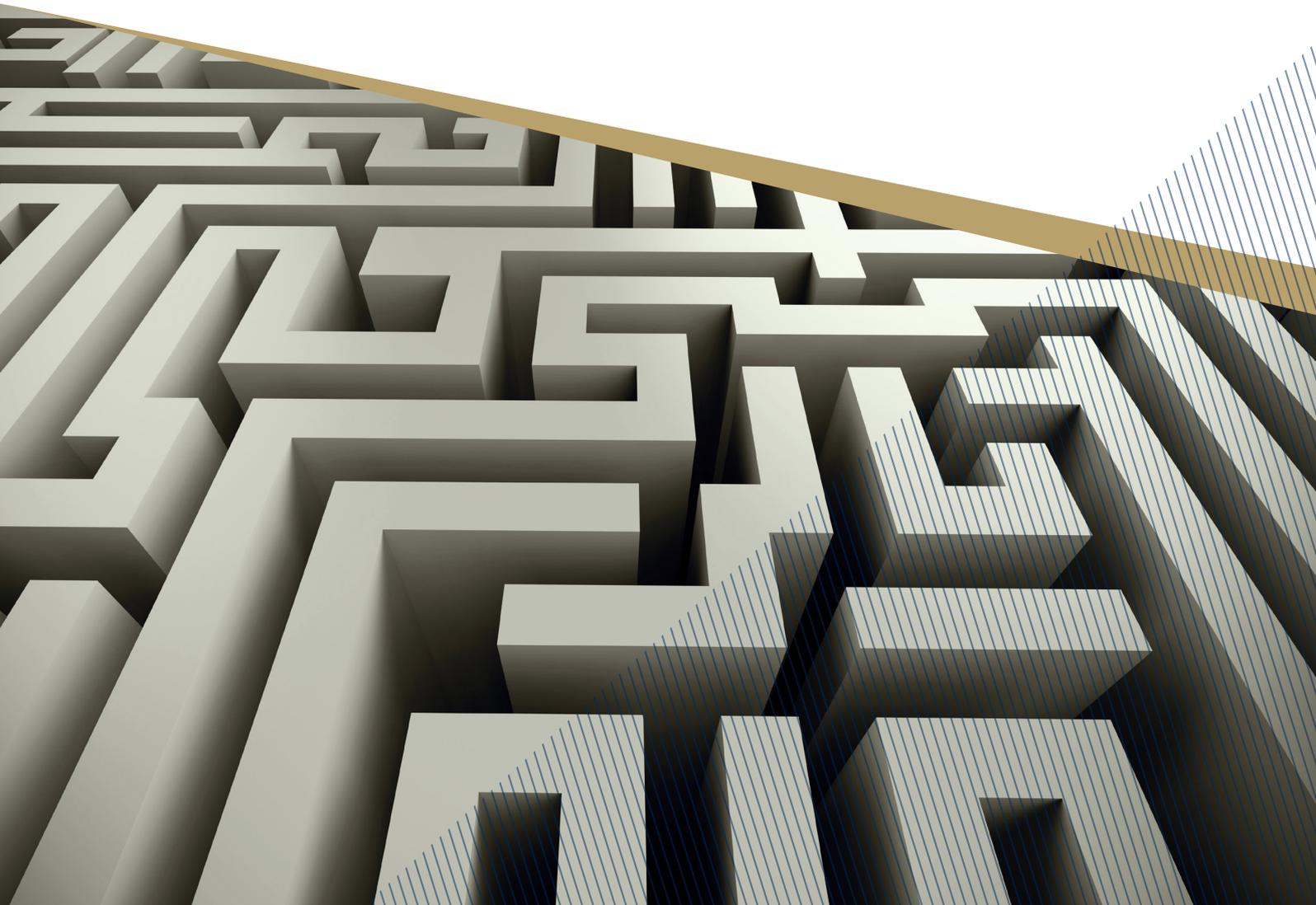


# CSDR mandatory buy-ins and securities financing transactions

A discussion paper by the ICMA European Repo and Collateral Council's (ERCC) Committee and the Secondary Market Practices Committee (SMPC)

| October 2018



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# Contents

Introduction	4
SFTs are not the same as outright cash trades	4
Which SFTs are in-scope?	5
Are open trades in scope?	5
How do you buy-in the start-leg of an SFT?	6
How do you buy-in the end-leg of an SFT?	7
What happens in the case of cash compensation?	7
How do you apply CSDR's asymmetry to SFT buy-ins?	7
<b>Scenario 1</b>	<b>8</b>
<b>Scenario 2</b>	<b>8</b>
<b>Scenario 3</b>	<b>9</b>
<b>Scenario 4</b>	<b>10</b>
How will this impact CCP netting pools?	10
What are the implications for matched-book trading?	10
Conclusion	11
Annex 1: Buying-in on the start-leg	12
Annex 2: Cash compensation on start-leg	15
Annex 3: Applying the CSDR asymmetry	17
Annex 4: Buy-ins with haircuts	19

## Introduction

In June 2018 ICMA published the discussion paper, [How to survive in a mandatory buy-in world](#), which sought to illustrate the adverse behavioural incentives arising from the design of the CSDR buy-in framework, highlighting the potential challenges that market participants will face once the regulation is implemented, and the risks posed to market efficiency, liquidity, and stability. The potential impacts on repo and securities lending markets discussed in that paper were largely focused on **out-of-scope** securities financing transactions (SFTs) and in particular the risks created to lenders of securities as a result of the innate relationship between cash and SFT markets and the asymmetry imbedded in the buy-in and cash compensation differential payments under CSDR which cannot be passed on through contractual SFT agreements. In many ways one could reasonably argue that the potential for unintended consequences for SFT market functioning and stability stem largely from the indirect impacts of linkages with outright cash transactions, primarily resulting from the CSDR asymmetry (also discussed in this paper).

This discussion paper is intended to serve as a companion paper to the June 2018 paper by providing an exploration and discussion of the potential impacts, considerations, and risks specifically in relation to **in-scope** SFTs. As becomes clear, applying the CSDR buy-in (and cash compensation) provisions to SFTs is not straightforward, and there remain a number of questions as to how the regulation is intended to be implemented, as well as to how market participants can identify and manage their risk.

## SFTs are not the same as outright cash trades

In discussing the application (or potential applications) of the CSDR mandatory buy-in provisions to SFTs, it is important to remember that SFTs and outright cash trades are very different. Firstly, from a market perspective, SFTs are not outright sales or purchases of securities, they are loans or borrows of securities.<sup>1</sup> Secondly, while SFTs may look like two separate transactions (a sale and a purchase), contractually they are single transactions. Thirdly, the revenue (or profit and loss) generated from an SFT derives from the repo or lending rate (or fee) applied to the transaction, and not from market moves in the value of the underlying securities. Finally, unlike outright cash trades, SFTs are margined. This can be in the form of variation margin, to ensure that the value of the cash loan remains in line with the value of the underlying securities, and also in the form of initial margin, through the application of haircuts.

It is also important to remember that under the contractual agreements for SFTS (namely GMRA and GMSLA in the European context), there are no provisions to buy-in against a failing SFT.<sup>2</sup> This is because in most scenarios it would make no sense to do so. This will become more apparent as we discuss how the CSDR buy-in provisions are potentially intended to apply to in-scope SFTs.

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<sup>1</sup> From a legal perspective a SFT may be contractually structured as a title transfer arrangement, involving an outright sale and repurchase.

<sup>2</sup> However, it should be noted that in many respects the mini close-out provisions in GMRA and GMSLA contracts largely resemble the mechanics of a buy-in when applied to end-legs of SFTs.

## Which SFTs are in-scope?

On 19 July 2018, ICMA published an [information brochure](#) on CSDR mandatory buy-ins, which outlines the overall scope and regulatory requirements under CSDR. More specifically with respect to SFTs, the CSDR Level 1 text, in Article 7(4)(b), provides an exemption for “operations composed of several transactions including securities repurchase or lending agreements... where the timeframe of those operations is sufficiently short and renders the buy-in process ineffective.” This would suggest that mandatory buy-ins should not apply to SFTs where the term (the days between the start and end legs) is shorter than the maximum allowable time to complete the buy-in process (i.e. to avoid having a buy-in against a start leg settling after the end leg).

The Level 2 regulatory technical standards (RTS) do not explicitly refer to “securities repurchase and lending agreements”. Rather, Article 22 (1)(b) describes “operations where one party transfers financial instruments to another party (‘first transaction’), with a commitment of that other party to return equivalent financial instruments to the first party (‘second transaction’).”

For such transactions, Article 22(2) outlines the exemption: “Where paragraph 1 applies, the buy-in process shall be considered ineffective **where the intended settlement date of the second transaction is set within 30 business days after the intended settlement date of the first transaction.**”

Thus, it can be concluded that any fixed-term SFT with a term of less than 30 business days (roughly 6 calendar weeks) is out-of-scope of the mandatory buy-in provisions. This means that fixed-term SFTs with terms of 30 business days or longer are in-scope,<sup>3</sup> with the CSDR buy-in provisions taking precedence over the underlying contractual provisions for settlement fails.<sup>4</sup> Based on the most recent ICMA European Repo Survey,<sup>5</sup> this would bring almost 30% of outstanding repos into scope.<sup>6</sup>

## Are open trades in scope?

It is not yet clear whether open repo trades can potentially come into scope if they run for more than 30 business days. Open trades, which are effectively rolling 1-day trades, can be closed by either party, usually with one-day's notice. Open trades are very common (forming 8% of the outstanding European repo market according to ICMA's latest Repo Survey), particularly for credit and EM repo, mainly since the cost of trading term repo has become too prohibitive for these markets since the introduction of new Basel capital rules, and lenders require the flexibility to recall less liquid bonds if they sell them.

In the event that open trades are deemed to be in-scope once they reach 30 business days, the likely result is that borrowers of securities on an open basis will simply act to close those trades before the 30-days is reached, while simultaneously opening a new open trade to maintain the original position. Thus, there will be an administrative burden for the market, rather than the mere passage of time actually bringing open trades into scope. However, this also creates a conflict of interests between lenders and borrowers. While borrowers of securities will wish to close-out open trades before they reach 30 business-days, and become in-scope of mandatory buy-ins, lenders of securities will have a strong preference that their open loans do reach 30 business days, since an in-scope end-leg will afford them greater protection in the event of the borrower failing to return the securities on time; particularly if this is linked to onward cash sales. Thus lenders may not take kindly to borrowers closing and re-opening trades as they approach the 30-day mark. Removing the asymmetry from the regulation would help to resolve this conflict of interests, as would deeming open trades out-of-scope.

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<sup>3</sup> Settlement Discipline is understood to apply to all transactions intended to settle on an EU CSD in transferable securities, money-market instruments, units in collective investment undertakings, and emissions allowances, which are admitted to trading or traded on a trading venue or cleared by a CCP.

<sup>4</sup> The GMRA and GMSLA provisions for settlement fails are expected to apply until the end of the extension period.

<sup>5</sup> [ICMA European repo market survey number 34 conducted December 2017](#)

<sup>6</sup> The actual amount as a percentage of all repo transactions will be lower again, since activity in short-dated repos is far greater than in the 'term' market.

Meanwhile, considering start legs, it seems highly unlikely that any open trade that did not settle would not be contractually closed by either of the parties within 30 business days. So, one could reasonably conclude that applying scope to open trades would similarly seem to be relatively pointless.

The same reasoning and arguments should also apply to 'evergreen' or 'extendable' structures that are originally termed for less than 30 business days. These are termed repos with a fixed maturity that, unless either counterparty elects otherwise within a certain timeframe, automatically roll (or extend) to a further future end date. Should either counterparty elect not to roll the trade at any point, then the trade will end on the last set end date. Again, if such transactions are expected to become in-scope once they have run for 30 business days or longer, the borrowing party will most likely act to ensure that they do not reach 30 business days, while the lending party would prefer to see the trade roll into-scope: a conflict of interests that could be solved by ensuring that trades that begin their life with terms of under 30 business-days remain out of scope.

## How do you buy-in the start-leg of an SFT?

The first consideration for clarification here is whether or not the buy-in against a failing start-leg of an SFT is intended to be against purely the start-leg or against the entire SFT transaction (given that SFTs are usually a single transaction). Presumably the purpose of the buy-in is purely to enforce delivery of securities on the start-leg and not to cause a borrow to be changed to an outright purchase (very different transactions!). It may therefore be helpful to clarify in Level 3 guidance that in the case of buy-ins against start-legs it is only the settlement instructions for the start-leg which are cancelled and not those for the entire transaction.<sup>7</sup>

However, this raises another practical issue. The original transaction, typically, would have involved a loan of bonds from the defaulting party to the non-defaulting party, against a loan of cash from the non-defaulting party to the defaulting party. The buy-in restores the economic position of the non-defaulting party securities, as they will receive securities from the buy-in agent, but not from the defaulting party. Economically, the defaulting party will now be long the bonds, and in order to flatten their position, as well as to preserve the original agreed transaction, they will need to sell the bonds. This is illustrated in Annex 1.

The difference between the buy-in price and the price at which the defaulting party sells their bonds will almost always result in a loss for the defaulting party (the 'buy-in premium'). Overlooking the potential impacts of the CSDR asymmetry for now, the additional risk and potential costs of being bought-in on the start-leg of an SFT, compared to any potential returns from the SFT, would seem highly incommensurate. This is something that lenders of securities will need to reflect upon before agreeing to lend securities for 30 business days or more.

A further possible consideration is that it becomes market practice for parties mutually to agree to cancel SFTs in the event of a failing start-leg, before the mandatory buy-in kicks-in. Article 7(3) of the regulation provides for "*the right to bilaterally cancel the transaction, where a failing participant does not deliver the financial instruments*". In the case of most transactions, particularly outright purchases and sales, it is highly unlikely that there will ever be a scenario where it will be in the interest of both parties to agree to cancel the trade, since one is always likely to benefit from not closing the trade. The CSDR asymmetry reinforces this likelihood. The one exception, however, could be in the case of SFT start-legs, where neither party stands to lose or gain materially in the event of the trade being cancelled. Hence there is no buy-in or buy-in-like mechanism applicable to failing start-legs in GMRA or GMSLA.<sup>8</sup> Again, the CSDR asymmetry changes this dynamic, creating a potential winner and loser, but it may be that market participants accept mutual cancellation as a market standard in the greater interest of fair and efficient markets.

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<sup>7</sup> Articles 27(10), 29(11), and 31(11) of the RTS provide for the cancellation of the original settlement instructions of the failing transaction, but do not specify how this should be applied in the case of SFTs.

<sup>8</sup> The non-defaulting party has the right to cancel the trade and claim any interest (or fees) due to the date of cancellation, but has no means of forcing delivery nor for passing on costs arising securing the securities from an alternative source.

## How do you buy-in the end-leg of an SFT?

In many respects, one could argue that the possibility to buy-in the failing end-leg of an SFT is not particularly contentious, not least since the end-leg of an SFT (as opposed to the start-leg) looks a lot more like an outright, rather than contingent, transaction. While GMRAs/GMSLAs do not provide for a buy-in against a failing end-leg, they do provide that the non-defaulting party can cancel the end-leg, replace the securities, and request any replacement costs from the defaulting party. This process is known as a 'mini close-out', and in some respects resembles a buy-in. One could further argue that whereas a contractual buy-in against a failing cash trade (technically) cannot be passed-on to a related failing SFT end-leg, under CSDR this will be possible in the case of in-scope SFTs. However, as explained in the June 2018 paper, given the design of the CSDR buy-in framework, with mandated extension periods<sup>9</sup> and asymmetric settlement of the price differential,<sup>10</sup> the scope to pass-on buy-ins along settlement chains is extremely limited.

## What happens in the case of cash compensation?

While buy-ins against start-legs of SFTs may already be considered contentious, the additional possibility of the buy-in process resulting in cash compensation creates a number of potential complications. Suppose the start-leg of a term SFT fails, and once the extension period ends, the CSDR buy-in process is initiated by the non-defaulting borrower. If the buy-in is successful, and assuming the entire SFT transaction is not cancelled (only the start-leg settlement instructions), this is fine from the perspective of the non-defaulting borrower, if somewhat expensive for the defaulting lender. But what if the buy-in is not successful, even after the deferral period, and it results in cash compensation? How does this leave the non-defaulting borrower of securities? They do not receive the securities they borrowed, but still have an obligation to return the securities at the end of the SFT. This means that their original intended borrow of securities is transformed into the receipt of a cash compensation payment, as well an outright forward sale (which would require the non-defaulting party to purchase the securities outright in anticipation of this forward sale). It would seem unlikely that this scenario was the original intention of applying the buy-in provision to SFTs.

While it would make more sense that buy-ins should not be applied to the start-legs of any SFT, given the potential limitations of the Level 1 text, the Level 3 guidance should at least provide that: (i) cash compensation not be applied to the start-leg of an SFT if the buy-in is unsuccessful; and (ii) the entire SFT is cancelled, and not just the start-leg. This is illustrated in Annex 2.

## How do you apply CSDR's asymmetry to SFT buy-ins?

As discussed in the June 2018 paper, the CSDR asymmetry for the buy-in and cash compensation differential payments between the parties creates a whole host of additional risks and adverse behavioural incentives when applied to outright cash transactions.<sup>11</sup> Applying this to SFTs, the logic of the regulation seemingly begins to break down completely.

Remember, SFTs are the lending and borrowing of securities. They are traded on the SFT rate (or fee), and not on the price of the underlying securities. The price of the underlying securities merely serves to ensure that the cash and collateral in the SFT are of equal value (subject to any haircut). There is usually no end-price for SFTs: the settlement of the end-leg is based on the start-price<sup>12</sup> plus the interest accrued over the life of the SFT. The parties to an SFT do not have direct market exposure to the price of the underlying securities,<sup>13</sup> and the revenues or profitability of an SFT are not directly generated by the price of the underlying securities. SFTs are also subject to daily margining, based on the price of the underlying securities. Furthermore, the 'start price' of the SFT could also include a haircut. So, in light of all this, how is Article 35 (*"Payment of the price difference"*) intended to be applied in the case of a buy-in or cash compensation against an SFT?

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<sup>9</sup> It is unusual for all transactions in a settlement chain to have the same settlement date, and so with mandatory buy-ins each settlement date in the chain will require a separate buy-in.

<sup>10</sup> As explained in the June 2018 paper, due to the asymmetry, parties in settlement chains will be incentivized to imitate their own buy-in process, immediately, rather than wait for the mandatory buy-in.

<sup>11</sup> See also, [CSDR Mandatory Buy-ins: An illustration of the problems arising from the asymmetric treatment of the payment of the buy-in or cash compensation differential](#), ICMA, March 2016

<sup>12</sup> Usually quoted as a 'dirty price' (including accrued interest)

<sup>13</sup> Except for in the case of counterparty default, noting that the SFT will also be marginated based on the value of the underlying securities.

## Scenario 1

Let us assume that A and B enter into an SFT, whereby A lends B €100mm face value of XYZ bonds for 3mths, at a rate of 1%. The market value of the bonds (including accrued interest) is 100.00, and there is no haircut. So, B agrees to lend A €100mm cash in return for 1% (annualized) interest. At the end of transaction, B is expected to return €100mm face value of XYZ bonds to A, and A is expected to return €100mm cash, plus interest, to B ( $\approx$  €100.25mm).

Now suppose that A fails to deliver the bonds on the start-leg, and a CSDR buy-in is executed against A.

Assume the buy-in is executed at 101.00 (including accrued interest).

The start-leg instructions of the SFT will need to be cancelled. A will now need to sell €100mm face value of the bonds. Additionally, A will pay B the difference between the buy-in cost and the original price applied to the transaction, i.e. 1pt (101-100), and will incur a loss based on any difference between 101 and the sale price (the 'buy-in premium').<sup>14</sup>

Original Transaction					
A	Cash	Securities	B	Cash	Securities
SFT SL	+€100mm	-100mm XYZ bonds	SFT SL	-€100mm	+100mm XYZ bonds
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€0.25mm		Net	+€0.25mm	

Post CSDR buy-in					
A	Cash	Securities	B	Cash	Securities
Sale	+€101mm	-100mm XYZ bonds	Buy-in	-€101mm	+100mm XYZ bonds
Buy-in differential	-€1mm		Buy-in differential	+€1mm	
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€0.25mm		Net	+€0.25mm	

## Scenario 2

Let us assume the same scenario as above, but this time the buy-in is executed at 99.00 (including accrued interest).

Again, A will need to sell the bonds to flatten their position and receive their cash. And again, A will incur a loss based on the difference between the buy-in price and the price at which they sell the bonds. Importantly, there is no payment from B to A, since the differential is "deemed paid".

Assuming there is no adjustment to the end-leg, this now means that A effectively receives €99mm versus the start-leg but will pay back €100.25mm versus the end-leg. This is an additional loss of €1mm, which would be significant enough for an outright cash trade, but with respect to a 3mth SFT it is immense. And the further the buy-in price is below the original price used to value the transaction, the greater the losses incurred by A.

Meanwhile, B makes a windfall profit of €1mm in this scenario, and this windfall increases the further the market in the underlying security falls.

Original Transaction					
A	Cash	Securities	B	Cash	Securities
SFT SL	+€100mm	-100mm XYZ bonds	SFT SL	-€100mm	+100mm XYZ bonds
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€0.25mm		Net	+€0.25mm	

<sup>14</sup> To simplify the illustrations below, we will assume that there is no buy-in premium and that the buy-ins are executed at the prevailing market price

Post CSDR buy-in					
A	Cash	Securities	B	Cash	Securities
Sale	+€99mm	-100mm XYZ bonds	Buy-in	-€99mm	+100mm XYZ bonds
Buy-in differential	Deemed paid		Buy-in differential	Deemed paid	
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€1.25mm		Net	+€1.25mm	

This is illustrated further in Annex 3.

### Scenario 3

Let us revisit Scenario 1, but this time assume that A charges B a 5% haircut. This means that A lends B €100mm face value of XYZ bonds, but using a price of 105.00, and therefore against €105mm of cash. At the end of transaction, B is expected to return €100mm face value of XYZ bonds to A, and A is expected to return €105mm cash, plus interest, to B ( $\approx$  €105.2625mm).

Again, assume that A fails to deliver the bonds on the start-leg, and a mandatory buy-in is executed at 101. This is above the market price at the time the trade was agreed (100), but below the price applied to the start-leg (105). So, does this mean that the difference between 105 and 101 is "deemed paid", and A incurs a loss of 4pts (€4mm)?

And what if this was applied to Scenario 2? In this case, would A lose 6pts (€6mm)?

Original Transaction					
A	Cash	Securities	B	Cash	Securities
SFT SL	+€105mm	-100mm XYZ bonds	SFT SL	-€105mm	+100mm XYZ bonds
SFT EL	-€105.26mm	+100mm XYZ bonds	SFT EL	+€105.26mm	-100mm XYZ bonds
Net	-€0.26mm		Net	+€0.26mm	

Post CSDR buy-in					
A	Cash	Securities	B	Cash	Securities
Sale	+€101mm	-100mm XYZ bonds	Buy-in	-€101mm	+100mm XYZ bonds
Buy-in differential	Deemed paid		Buy-in differential	Deemed paid	
SFT EL	-€105.26mm	+100mm XYZ bonds	SFT EL	+€105.26mm	-100mm XYZ bonds
Net	-€4.26mm		Net	+€4.26mm	

This is illustrated in Annex 4.

## Scenario 4

A similar anomaly occurs with respect to haircuts and buy-ins against end-legs. Re-using scenario 3, let us assume that the start-leg settled, but B fails to deliver the bonds back to A. This time it is A buying-in B. Again, assume a buy-in price of 101.

This time it is A that effectively gets to keep the haircut, with B losing it.

Post CSDR buy-in					
A	Cash	Securities	B	Cash	Securities
SFT SL	+€105mm	-100mm XYZ bonds	SFT SL	-€105mm	+100mm XYZ bonds
Buy-in	+€101mm	+100mm XYZ bonds	Sale	-€101mm	-100mm XYZ bonds
Buy-in differential	Deemed paid		Buy-in differential	Deemed paid	
SFT interest	-€0.26mm		SFT interest	+€0.26mm	
Net	+€4.26mm		Net	-€4.26mm	

The seemingly obvious conclusion is that the CSDR asymmetry should not exist at all, and particularly not with respect to SFTs. Given that the correction of the asymmetry would require a change to the Level 1 text of CSDR, in the meantime, at the very least, the Level 3 guidance should provide that in the case of a buy-in against an SFT, the payment of the buy-in differential is based on the original price applied to the SFT so that any haircut does not impact the amount of the differential payment. This also requires the ability of differential payments to be made by the non-defaulting party to the defaulting party (see Annex 4), which will need to be addressed in the Level 3 guidance (if not in the Level 1 text).

## Is there a better way to apply CSDR buy-in rules to SFTs?

Applying cash market buy-ins to SFTs, as appears to be required under CSDR, is both complex and unsatisfactory, particularly when it comes to start-legs. Firstly, it replaces one type of transaction (a borrow) with another (an outright purchase). In the case of cash compensation this becomes even more complicated, requiring both parties to the original SFT either having to execute separate outright cash transactions in the market, or cancelling the original SFT. Secondly, the economics of cash transactions and SFTs are very different, with the potential costs arising from a buy-in scarcely commensurate with the interest paid and received on an SFT. Add to this the additional economic impacts of the CSDR asymmetry and the potential buy-in costs become even more disproportionate. Adjusting buy-in differential payments for haircuts adds another level of complexity.

While a market-driven solution could be that parties agree to a best practice of mutually agreeing to cancel failing SFTs before the end of the extension period, the regulation still leaves a tempting option for the non-defaulting party, not least as a result of the asymmetry. A better solution would be to treat SFTs as distinct from outright cash transactions and apply the CSDR buy-in provisions accordingly.

It could reasonably be argued that a buy-in against the failing start-leg of an SFT should require cancelling the failing SFT and replacing it with another, identical SFT; not by the execution of an outright cash transaction. However, appointing a buy-in agent to 'purchase' an SFT would in most cases not be possible, at least for non-cleared SFTs, since SFTs are bilateral contracts, with associated counterparty risks and capital implications for both parties. In other words, executing a buy-in against a failing SFT will generally not be possible [as per Article 21 of the RTS]. Thus, the logical conclusion would be to go straight to cash compensation, but **based on the current market for replacing the original SFT** [applying the process outlined in Article 32 of the RTS], rather than basing this on the market value of the underlying collateral. This would seem to be consistent with the intent of the regulation: ensuring that the non-defaulting party is not economically disadvantaged as a result of the fail, while also not putting the non-defaulting party at disproportionate economic risk, even if the asymmetric treatment of the differential payment is still applied.

## How will this impact CCP netting pools?

A significant number of European SFTs are cleared through CCPs (roughly 53% of outstanding repos according to the ERCC Repo Survey), a significant majority of which are short-dated and likely to be out-of-scope of CSDR-SD.

Currently, CCPs net cash transactions and repo transactions (start- and end-legs) as part of their daily settlement netting processes. However, following the implementation of CSDR-SD, this will no longer be possible, as transactions in-scope of mandatory buy-ins will need to be segregated from out-of-scope transactions. This would effectively result in two distinct netting pools, which would reduce netting optimization and consequently lead to additional settlement. Additional settlement will give rise to additional costs and, in all likelihood, a corresponding increase in settlement failure.

## What are the implications for matched-book trading?

Repo and lending desks, as part of their service to clients as well as financing their own firm's trading activities, are required to take multiple SFT positions onto their trading book, in different securities, for varying terms, with imbedded interest rate and credit risk, which they need to manage (these trading books are somewhat misleadingly known as 'matched books'). While mini-close outs against failing end-legs are always a possibility, as well as the risk of a failing SFT causing a cash market contractual buy-in, the likelihood of either is generally considered low and relatively manageable, even for less liquid securities such as credit or emerging market bonds. However, CSDR will increase the market risks of repo and lending desks, and with it the operational effort to manage this, significantly.

Matched-book traders will need to know which SFTs are in -scope and which are out-of-scope to isolate their exposure to potential mandatory buy-ins. They will also need to identify how the settlement of different legs of SFTs, as well as outright cash trades, are contingent upon each other, and where an out-of-scope settlement can cause an in-scope fail. In the course of providing liquidity to clients, matched-book traders will need to identify and assess the risks of this resulting in a mandatory buy-in, either directly or indirectly, and price accordingly, or otherwise decline the business. Given the potential for significant losses resulting from a buy-in, particularly with respect to the economics of an SFT, and amplified by the CSDR buy-in asymmetry, matched-book trading (and even intermediation) will become far more complicated, especially for less liquid securities.

## Conclusion

Buy-ins, mandatory or otherwise, are generally not applied to SFTs, and GMRA and GMSLAs provide for alternative remedies in the case of settlement fails which are tailored to the underlying characteristics of SFTs, as opposed to outright cash transactions. This paper attempts to illustrate the potential challenges of applying the CSDR mandatory buy-in framework to SFTs, and the complications and questions that this raises. SFTs are fundamentally different in nature to outright securities purchases and sales, and it is difficult to understand how the architects of the CSDR Level 1 text ever expected mandatory buy-ins to apply to SFTs, and to what extent they had evaluated the practicalities and implications. This raises serious concerns about the overall market impact of CSDR mandatory buy-ins in terms of liquidity, efficiency, and stability.

This paper also highlights a number of areas where Level 3 guidance can play a critical role in supporting implementation with respect to SFTs. However, it also supports the broader market view that the CSDR mandatory buy-in regime is highly undesirable and will be far more damaging to the functioning of European financial markets than beneficial. With the regime not set to come into force until September 2020, there is still time for regulators and policy makers to reconsider both its design and application.

ICMA has long supported and advocated for measures to improve settlement efficiency in the European fixed income and collateral markets.

The widely used ICMA Buy-in and Sell-out Rules provide non-defaulting parties with the right to enforce physical settlement of failed outright trades without incurring any direct losses, while the GMRA effectively allows non-defaulting parties to remedy failed repo transactions. The ICMA Buy-in/Sell-out Rules, as well as the GMRA, are regularly reviewed and revised in line with market developments to ensure optimal settlement and replacement efficiency.

ICMA has also been an active member of the European Post Trade Forum, focused on addressing longstanding inefficiencies in Europe's post-trade systems, which are often the cause of settlement fails.

ICMA continues to advocate for a more robust cash penalty mechanism under the CSDR Settlement Discipline framework as an alternative to a mandatory buy-in regime.

# Annex 1: Buying-in on the start-leg

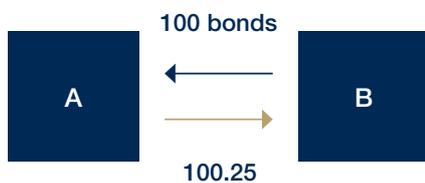
## Original trade

Assume a simple fixed-term, fixed-rate SFT, where A lends bonds to B. A is due to deliver bonds vs cash on the start-leg, and B is due to return the bonds vs cash (plus interest) on the end-leg.

### Start-leg



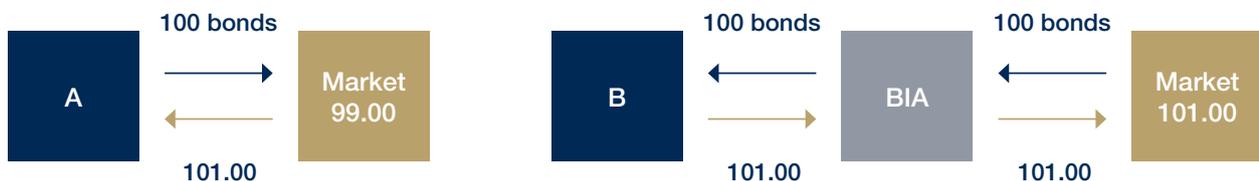
### End-leg



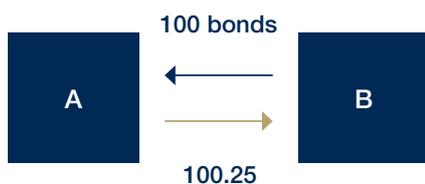
## Buy-in - scenario 1 [Only start-leg is cancelled]

In this scenario A fails to deliver bonds to B on the start-leg and a mandatory buy-in is initiated by B against A. Only the instructions for the original start-leg are cancelled, and the end-leg remains valid.

### Buy-in



### End-leg



B's borrow of securities from A is no replaced by an outright purchase on the start-leg. However, as the end-leg sale to A remains valid, cancelling the start-leg means that B is still effectively borrowing the bonds (only the counterparty to the start-leg has changed). Meanwhile, A will need to sell the bonds in the market since the buy-in and subsequent cancellation of the start-leg will effectively make them outright long the bonds.

If the buy-in price is **higher** than the original start-price of the SFT, A will pay the differential to B. In this example (for simplicity), the buy-in price and market price are the same (101.00). So, A sells bonds at the same price as the buy-in (101.00) and pays the differential to B (1.00). Economically both parties are restored to the same position they would have been in had the original start-leg settled.

In reality, however, the buy-in price is likely to be higher than the market price, and this difference will be a market loss incurred by A.

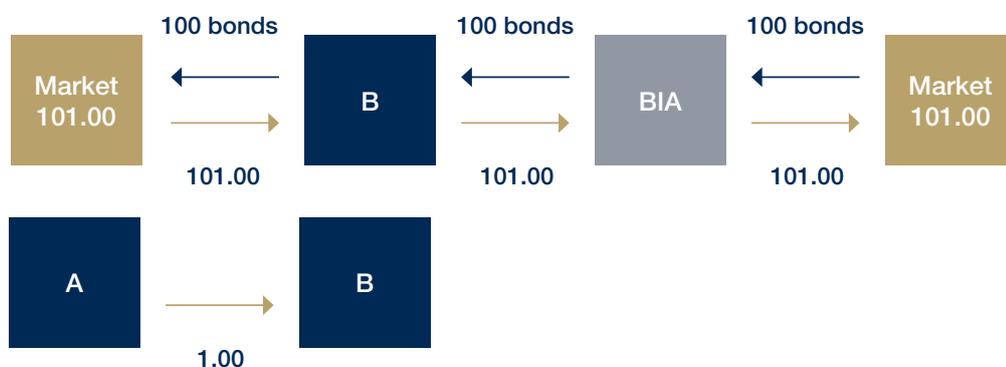
Original Transaction					
A	Cash	Securities	B	Cash	Securities
SFT SL	+€100mm	-100mm XYZ bonds	SFT SL	-€100mm	+100mm XYZ bonds
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€0.25mm		Net	+€0.25mm	

Post CSDR buy-in					
A	Cash	Securities	B	Cash	Securities
Sale	+€101mm	-100mm XYZ bonds	Buy-in	-€101mm	+100mm XYZ bonds
Buy-in differential	-€1mm		Buy-in differential	+€1mm	
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€0.25mm		Net	+€0.25mm	

### Buy-in - scenario 2 [Entire trade is cancelled]

In this scenario, the entire original SFT is cancelled.

#### Buy-in



B's original borrow of securities is now replaced with an outright purchase, and B will need to sell the bonds its receives from the buy-in to flatten its position.

If the buy-in price is **higher** than the original start-price of the SFT, A will pay the differential between the buy-in price and the original start-price of the SFT to B, which will be a loss to A and a windfall profit for B. However, B will also incur a loss if the buy-in price is higher than the price of its subsequent sale of the bonds (in this example the buy-in price is the same as the market price).

Original Transaction					
<i>A</i>	<i>Cash</i>	<i>Securities</i>	<i>B</i>	<i>Cash</i>	<i>Securities</i>
SFT SL	+€100mm	-100mm XYZ bonds	SFT SL	-€100mm	+100mm XYZ bonds
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€0.25mm		Net	+€0.25mm	

Post CSDR buy-in					
<i>A</i>	<i>Cash</i>	<i>Securities</i>	<i>B</i>	<i>Cash</i>	<i>Securities</i>
Buy-in differential	-€1mm		Buy-in differential	+€1mm	
			Buy-in	-€101mm	+100mm XYZ bonds
			Sale	+€101mm	-100mm XYZ bonds
Net	-€1mm		Net	+€1mm	

Thus scenario 1 (only the start-leg instructions are cancelled) seems to be the most logical approach to applying buy-ins to the start-leg of SFTs.

## Annex 2: Cash compensation on start-leg

Assume a similar scenario to Annex 1, only this time the buy-in on the start-leg is not possible and results in cash compensation.

### Original trade

#### Start-leg



#### End-leg



### Cash compensation – scenario 1 [Only start-leg is cancelled]

In the case of cash compensation on the start-leg, A no longer delivers any bonds, and B no longer receives any bonds. A will pay B the difference between the original start-price of the SFT and the cash compensation reference price (assuming the latter is higher).

However, if the end-leg remains valid, then B will effectively have a forward sale to B. This will therefore require B having to offset this forward sale by purchasing bonds in the market, and B having to offset their forward purchase by selling bonds in the market.

In this example we have assumed for simplicity that A and B both execute their respective outright sale and purchase at the same market price, which is also the same as the cash compensation reference price, but this is unlikely in reality. In this scenario, both parties will assume market risk as a result of the cash compensation.

#### Cash compensation



### End-leg



Original Transaction					
A	Cash	Securities	B	Cash	Securities
SFT SL	+€100mm	-100mm XYZ bonds	SFT SL	-€100mm	+100mm XYZ bonds
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€0.25mm		Net	+€0.25mm	

Post CSDR buy-in					
A	Cash	Securities	B	Cash	Securities
Cash comp differential	-€1mm		Cash comp differential	+€1mm	
Sale	+€101mm	-100mm XYZ bonds	Purchase	-€101mm	+100mm XYZ bonds
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€0.25mm		Net	+€0.25mm	

### Cash compensation – scenario 2 [Entire trade is cancelled]



In this scenario, the entire trade is cancelled, which means that neither party is forced to assume market risk as a result of the cash compensation. However, in the case of the cash compensation reference price being higher than the original SFT start-price A will pay the differential to B, which is a windfall profit for B (and a loss for A). Due to the asymmetry in CSDR, however (see Annex 3), in the event that the cash compensation reference price is lower than the original SFT start-price, there is no payment between the parties (since it is “deemed paid”).

This leads to two conclusions in the event of cash compensation against the start-leg of an SFT:

- (i) The entire trade should be cancelled
- (ii) There should be no payment of the price differential between the parties

## Annex 3: Applying the CSDR asymmetry

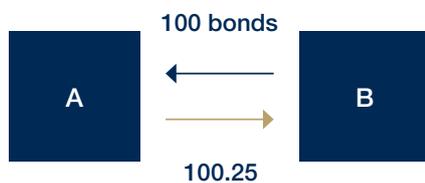
Using the scenario presented in Annex 1, we now explore what happens if the buy-in price is lower than the start-price of the original SFT. <sup>15</sup> This also assumes that only the start-leg is cancelled and not the entire transaction.

### Original trade

#### Start-leg

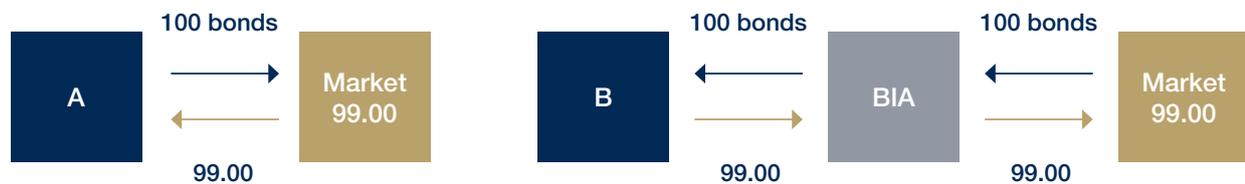


#### End-leg

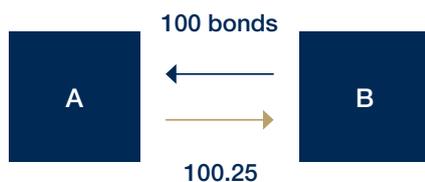


As illustrated in Annex 1, in the event that the buy-in price is higher than the start-price of the original SFT, the only loss incurred by the defaulting party (A) will be the difference between the buy-in price and the market price at which they subsequently sell their bonds. However, as explained in ICMA's previous work, the CSDR asymmetry means that where the buy-in price is lower than the original transaction price, this creates additional market losses for the defaulting party and windfall profits for the non-defaulting party. This also holds true in the case of buy-ins against SFTs.

### Buy-in on start leg



#### End-leg



As in the example in Annex 1, the buy-in provides B with the bonds (from a new source), while A now needs to sell bonds to replicate the effect of lending securities. For the economics of the original transaction to remain intact, the differential between the buy-in price and the original start-price should be paid between A and B, in either direction,

<sup>15</sup> It should also be borne in mind that SFTs usually use 'dirty' (or 'all in') prices, which include accrued interest

depending whether the buy-in price is higher or lower than the original start-price. However, due the CSDR asymmetry, in the case that the buy-in price is lower than the original start-price, no payment is made from B to A. This is a windfall profit for B, and a market loss for A. The further the buy-in price is below the original SFT start-price, the greater B's profits and A's losses. In this example, the difference is 1.00.

Original Transaction					
<i>A</i>	<i>Cash</i>	<i>Securities</i>	<i>B</i>	<i>Cash</i>	<i>Securities</i>
SFT SL	+€100mm	-100mm XYZ bonds	SFT SL	-€100mm	+100mm XYZ bonds
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€0.25mm		Net	+€0.25mm	

Post CSDR buy-in					
<i>A</i>	<i>Cash</i>	<i>Securities</i>	<i>B</i>	<i>Cash</i>	<i>Securities</i>
Sale	+€99mm	-100mm XYZ bonds	Buy-in	-€99mm	+100mm XYZ bonds
Buy-in differential	Deemed paid		Buy-in differential	Deemed paid	
SFT EL	-€100.25mm	+100mm XYZ bonds	SFT EL	+€100.25mm	-100mm XYZ bonds
Net	-€1.25mm		Net	+€1.25mm	

## Annex 4: Buy-ins with haircuts

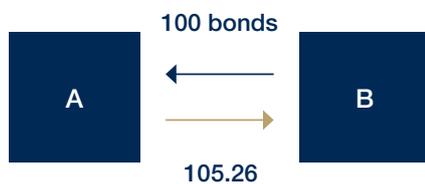
Using the scenario illustrated in Annex 1, this time assume that A applies a haircut to the SFT – in this example, 5%.<sup>16</sup> In the original agreed SFT, A lends 100 bonds to B, at market value 100.00, against a cash value of 105.00. At the end of SFT, B returns 100 bonds to A, and B returns 105.00 cash to B, along with interest.

### Original trade

#### Start-leg

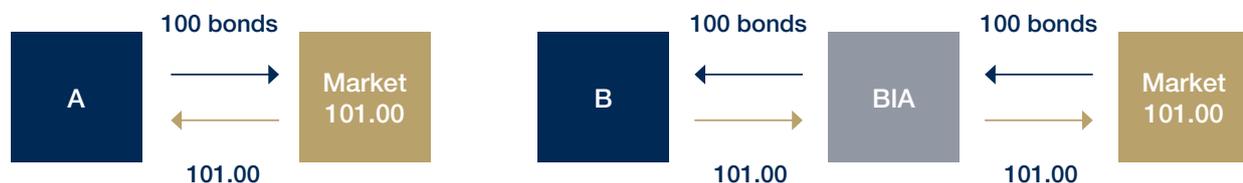


#### End-leg



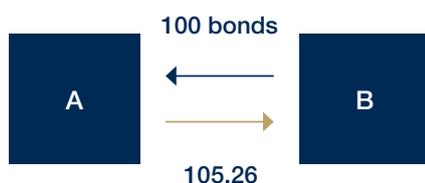
Assume that the start-leg fails, and B executes a mandatory buy-in against A on the start-leg (again, we will assume that only the start-leg is subsequently cancelled and not the entire SFT).

### Buy-in on start-leg



Deemed paid

#### End-leg



This raises an important question with respect to the payment of the buy-in price differential. Should it be based on the price used on the start-leg of the original SFT (which includes a haircut), or should it be based on the market price used to reference the start-price of the original SFT (i.e. adjusting this for the haircut). Logic would dictate the latter. This requires the ability for payments of the differential from the non-defaulting party to the defaulting party.

<sup>16</sup> Haircuts are generally taken by the party considered to have the better credit rating against the party considered to have the lesser credit rating. Haircuts are usually applied as a percentage deduction from the market value of the collateral, but can also be in the form of 'initial margin', which is applied as a percentage increase in the market price of the SFT.

Original Transaction					
A	Cash	Securities	B	Cash	Securities
SFT SL	+€105mm	-100mm XYZ bonds	SFT SL	-€105mm	+100mm XYZ bonds
SFT EL	-€105.26mm	+100mm XYZ bonds	SFT EL	+€105.26mm	-100mm XYZ bonds
Net	-€0.26mm		Net	+€0.26mm	

Post CSDR buy-in with haircut					
A	Cash	Securities	B	Cash	Securities
Sale	+€101mm	-100mm XYZ bonds	Buy-in	-€101mm	+100mm XYZ bonds
Buy-in differential	Deemed paid		Buy-in differential	Deemed paid	
SFT EL	-€105.26mm	+100mm XYZ bonds	SFT EL	+€105.26mm	-100mm XYZ bonds
Net	-€4.26mm		Net	+€4.26mm	

For the economics of the trade to be preserved, and to prevent B receiving windfall profits as a combined result of the haircut and the CSDR asymmetry, B will need to make a payment to A that adjust for the haircut, i.e. the difference between the originally agreed SFT start-price (including haircut) and the buy-in price. So, in this example, following the buy-in at 101.00, B will need to make a payment to A of 4.00.



Post CSDR buy-in adjusting for haircut					
A	Cash	Securities	B	Cash	Securities
Sale	+€101mm	-100mm XYZ bonds	Buy-in	-€101mm	+100mm XYZ bonds
Buy-in differential	+€4mm		Buy-in differential	-€4mm	
SFT EL	-€105.26mm	+100mm XYZ bonds	SFT EL	+€105.26mm	-100mm XYZ bonds
Net	-€0.26mm		Net	+€0.26mm	

This further illustrates why the CSDR asymmetry should not apply in the case of SFTs.



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