**Detailed response to Q34.1 and Q35.1 - EC Consultation on CSDR Review**

**Section 7: SETTLEMENT DISCIPLINE**

**Question 34.1 Please explain your answers to question 34, providing where possible quantitative evidence and concrete examples.**

***Buy-ins should NOT be mandatory***

* Our institution fully supports the objective of the CSDR Settlement Discipline Regime (SDR) to increase settlement efficiency in the market and decrease settlement fails.
* However, we are concerned that the introduction of the mandatory buy-in regime risks reducing the efficiency and liquidity of European capital markets, leading to greater costs to investing in European securities.
* This regime is expected to widen bid-offer spreads and negatively impact market liquidity, particularly for less liquid securities, and will ultimately lead to increased costs for end investors and increased borrowing costs for issuers. These increased costs negatively impact investors’ returns and their ability to save, and companies’ access to capital market funding, especially in times of market stress.
* While this regime is expected to negatively impact all asset classes, the impact will be most detrimental for less actively traded/illiquid securities, including instruments issued by SMEs, high yield and emerging markets securities. The mandatory buy-in regime is therefore in direct conflict with the wider Capital Market Union (CMU) objectives of developing EU capital markets, especially when aiming to provide efficient financing to smaller corporate clients and SMEs, whose securities will have lower inherent liquidity and therefore would be disproportionately affected by this regime.
* In addition, this regime could lead to reduced liquidity in repo and securities lending markets, thereby limiting firms’ ability to cover settlement fails, and increasing the frequency and cost of settlement failures.

***Why/how a mandatory buy-in regime can negatively impact the market – how is liquidity created in the market and the role of market makers.***

* The mandatory buy-in regime under CSDR is not sufficiently flexible, does not provide any choice to investors, and does not take into account the particular liquidity profile of the securities.
* For instruments where there are fewer readily available buyers and sellers in the market (absence of continuous two-way prices), market makers play a key role by taking risk onto their balance sheet to provide immediacy of execution to their clients. Market makers will hold the risk until they are able to trade out of those positions (find the other side to the trade) or hedge their positions, which happens over time.
* For these securities, market makers are an important source of liquidity. They provide certainty of execution, help to establish liquidity and pricing, and help end-investors to redeem funds or transact in a timely fashion in instruments for which there may not be a counterparty with an immediate opposite intention.
* Market makers aim to run low levels of inventory since high levels of inventories have high risk, capital and funding costs. At the point of trading, liquidity providers regularly offer securities that they do not hold on balance sheet, based on their reasonable expectation of sourcing such securities in the near future. For securities not held on their balance sheet, or which cannot be readily sourced, the introduction of a mandatory buy-in regime under CSDR would fundamentally impact the ability of market makers to make markets.
* To adjust for the expected cost of being bought-in, market makers will have to add a premium to their prices – this will widen the bid-offer spread (which will in turn increase costs to end-investors) – or they may simply not make an offer price on an enquiry thereby negatively affecting market liquidity.
* Asset managers may not be able to obtain the securities they want on behalf of investors, and thus may have to make sub-optimal investment decisions or may have to pay a liquidity premium.
* A mandatory buy-in regime will also negatively affect issuers. Issuance ability and pricing is related to the expected liquidity of the instrument. A decrease in liquidity, from the knock on effects of the mandatory buy-in regime, will cause borrowing costs to increase for issuers, with the greatest impact likely to fall on smaller and lower credit rated companies, especially in times of stress where access to a wide range of financing channels is needed (please see the analysis in the AFME submission on increasing new issue premiums during covid-19).
* Another impact is the negative feedback liquidity loop, which is the multiplicative impact of one trade not happening, since if a sale is not made, then the subsequently required purchase will not happen. This liquidity feedback loop is already observed every time there is a minor bank holiday or a slow Monday/Friday morning trading session. The impact of a mandatory buy-in would amplify this, where liquidity would quickly evaporate for less traded instruments as a result of mandatory buy-ins and increase fails and costs.
* These effects would be amplified in time of stress when markets become more volatile, bid-offers increase and settlement failures increase. Data from Euroclear shows that settlement fails increased during March 2020 particularly for less liquid securities – please see graph 2 below under question 35.1.
* This is likely to disproportionately impact those instruments which already suffer from lower liquidity and higher costs of trading. For these reasons, our view is that mandating a mandatory buy-in will have serious negative impacts on liquidity and on pricing of debt financing for borrowers, and that these impacts will be pro-cyclical and will increase significantly at times of market stress. The end result is that a measure which was meant to improve settlement efficiency and stimulate European capital markets is likely to come at an extremely high cost.

***The negative impacts of mandatory buy-ins on saving and investing***

* The current mandatory buy-in regime under CSDR is intended to apply across all asset classes and across all markets in the EU. A few basis points added to the price of each and every trade can have a profound compounded effect on capital markets activity.
* For example, end investors seeking to save for their retirement might incur these fees across all of their trades and over a number of years. The result is that mandatory buy-in acts as a drag on investors’ returns, and for example, a lower retirement income.
* A further consequence is that the higher cost of trading may act as a disincentive on saving and investing. End investors might therefore decline to invest or choose to invest in strategies that preclude more frequent trading, or invest in markets outside of the EU where they do not incur such costs.
* Finally, some studies have indicated that in jurisdictions where there is a heavy emphasis on cost disclosure for retail products, investors focus on the costs to the detriment of performance, i.e., they choose products with lower costs even when those products have lower net performance. To the extent that mandatory buy-in causes spreads to widen, and these implicit costs are captured and disclosed under the PRIIPs and MIFID II regulations, this could drive investment behaviour toward a narrower and more concentrated set of investment strategies that might not be right for all investors’ objectives and lead to further concentration in large-cap instruments.
* Taken in aggregate, mandatory buy-ins will not benefit end investors and are likely to lead to inefficient capital markets activity at precisely the time in which EU policymakers are seeking to further support and integrate these markets via the CMU.

***The mandatory buy-in regime should be replaced by a discretionary regime***

For the above reasons, we strongly believe that policy makers should remove the mandatory buy-in regime under CSDR for non CCP cleared transactions. Under a blanket mandatory regime, the buyer would be forced to initiate a buy-in even when it is against their economic interest and the market maker would be forced to price in a possible buy-in, increasing the costs associated with the transaction. In addition, if the securities cannot be sourced by the buy-in agent, the original transaction will be replaced by a cash compensation, which does not allow the buyer to meet its investment objectives as it will not receive the contractually agreed securities. The buyer may wish to allow the seller additional time to make the delivery, rather than accept cash compensation which does not contribute to the overall investment objective.

We therefore strongly believe that the mandatory buy-in regime should be replaced by a discretionary buy-in regime - at the discretion of the buyer. Moving to a discretionary regime would provide the buyer with more flexibility to decide whether or not to initiate a buy-in based on market conditions and the market they are operating in. Allowing the buyer discretion to initiate a buy-in when it is commercially and economically rational to do so would mitigate the negative impact on pricing and liquidity. This will also make the regime more consistent as discretionary buy-ins could apply to all financial instruments, avoid the need for carve-outs to the regime (please see section below on the scope of the current buy-in regime), and allow parties to decide on the most optimal recourse to resolve outstanding fails.

Such a discretionary buy-in regime should be enshrined into EU law and harmonised across all EU Member States. With regards to cleared transactions, we believe that existing CCP buy-in rules should remain in place. Generally, it is our view that in the cleared space, settlement arrangements are already sufficiently disciplined and that appropriate deterrents are in place which do not require the implementation of a mandatory buy-in.

***Penalty Regime:***

We believe that an appropriately calibrated cash penalty regime will have a positive impact on settlement efficiency on a standalone basis, as it will sufficiently penalise sellers while compensating buyers for late delivery and will ultimately lead to lower settlement fails.

We strongly believe that EU policy makers should consider introducing a targeted, differentiated, phased-in penalty regime which aims to reduce settlement fail levels over a determined period of time i.e. targeting a specific settlement fails level for each asset class. The penalty regime should be calibrated per asset class and be based on the current failure rates. This would ensure markets’ specific features are taken into consideration. Over time, if the settlement fail target is not achieved and if policy makers deem it appropriate, the penalty rates should be reassessed.

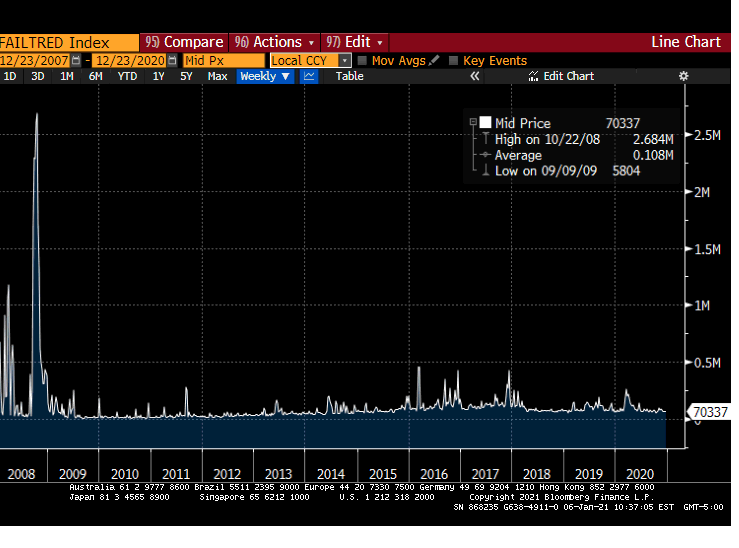
The European ETF market is an example of an asset class which would be unfairly penalised under the proposed current regime. Most settlement fails in European ETFs are due to structural issues including but not limited to multi stock exchange listings, some complex mark-up/mark down procedures in certain local CSDs and the OTC/MTF nature of trading of ETFs. The settlement issues have been alleviated somewhat with the ICSD model from Euroclear Bank and Clearstream. Therefore, under the current penalty regime, market participants would likely be charged for market structure inefficiencies. Market participants are very keen to see improvements in settlements in the ETF space, and are working towards improvements in this space, however, these changes take time.

Such a targeted, calibrated and dynamic penalty regime, which is reviewed on a regular basis based on empirical analysis, would improve settlement efficiency in all asset classes, support the integrity and efficiency of EU capital markets and will provide a compelling incentive to resolve fails promptly. Ultimately, all market participants have an interest in reducing settlement fails and penalties are an efficient way to achieve better settlement ratios by increasing the costs of failing without inhibiting market liquidity for instruments which are already thinly traded.

The US experience shows that the introduction of a ‘fail charge’ for US Treasury Securities reduced fails significantly. On 12 November 2008, the Treasure Market Practices Group (TMPG) published their recommendations to introduce a fails charge (known as the ‘TMPG fails charge’). The ‘TMPG fails charge’ went live on 1 May 2009. Studies have shown that the anticipation of the implementation of such a rule had a significant effect on settlement fails. A paper published in the ‘FRBNY Economic Policy Review/ October 2010’[[1]](#footnote-2) states that “primary dealer fails declined from a daily average of $379 billion during the week of October 16-2 to a daily average of $70 billion during the week of November 13-19 and averaged less than $50 billion a day in December”. The paper also shows that fails averaged just over $14.4 billion per day during the first four months of 2009, but only $4.2 billion per day since the implementation of the fails charge[[2]](#footnote-3).

The below graph (see graph 1) which show the fails on U.S. Treasuries post the ‘TMPG fails charge’ corroborates the above results. This clearly shows that a well calibrated penalty regime can have a significant positive effect on settlement efficiency. It is also worth noting that the covid-19 stress point in 2020 is visible but is much lower compared to the 2008 financial crisis peak.

**Graph 1:**



Source: Bloomberg

***A Pass-on mechanism should be introduced***

The current mandatory buy-in regime, as stated in Article 7 of CSDR, is unfit for purpose and creates significant risks for trading parties and uncertain economic outcomes. One of the main limitations of the mandatory buy-in regime is that it does not have a pass-on mechanism. Whether the future buy-in regime is mandatory or discretionary, a clear laid-out pass-on mechanism is a precondition for buy-ins to be successful and avoid several buy-ins to be processed at the same time for the same or associated fail.

A pass-on process allows the seller, which is in turn a buyer of all or part of a corresponding amount of securities, to pass on the buy-in notice down the chain to the ultimate failing delivering party. This would reduce the number of buy-ins required to remedy settlement fails, particularly where multiple settlements are contingent on a single (failing) settlement. This is typically the case in long indirect clearing chains, making client clearing prohibitively expensive and, in doing so, undermining enhanced access to client clearing. This is consistent with Recital (19) of the CSDR and Recital (34) of the Regulatory Technical Standards. It also addresses the issue of chain fails referred to in Article 7.10 last paragraph of the CSDR, for which no adequate solution had been found.

We can estimate the impact of pass-ons on buy-in costs by considering how many fewer buy-ins are likely to occur. Start with ISD7+ %, of those what proportion are chained transactions and of the chains, how long is each one on average. If 50% of ISD7+ fails are chained and an average chain length of 4 trades, then that gives 50% no chain (which remain), and 50%/4=12.5% from chains, so 50%+12.5%= 62.5% of ISD7+ costs remain. Thus pass-ons could reduce costs by 37.5%.

Please see cross-industry CSDR pass-on proposal in the AFME and ICMA responses.

***The scope of the buy-in regime and the exemptions applicable should be clarified***

As explained above, our institution does not support the introduction of a mandatory buy-in regime. We strongly believe that settlement efficiency can be achieved by introducing a tailored and phased-in penalty regime and replacing the mandatory regime by a discretionary one, therefore allowing the buyers to initiate buy-ins at their discretion and when they deem it economically efficient.

However, if policy makers decide to go ahead with the mandatory regime as determined in Article 7 of the CSDR despite the negative effects outlined in this paper, then policy makers should carefully consider the scope of buy-ins, and include exemptions for certain instruments and transaction types.

Indeed, for a number of financial instruments, forcing the buyer to initiate a buy-in could be more detrimental and would add an additional layer of complexity and unnecessary additional costs for the buyer*.* We note the following examples:

* **Physically settled derivatives instruments:**

We support the ISDA-FIA position with regards to the application of the mandatory buy-in regime to physically settled derivatives instruments. Derivative transactions already have existing and tailored fall backs built-in within their contracts to appropriately deal with counterparty credit risk and settlement fails. These contractual provisions are well understood by expert market participants and reflect the commercial agreement between the parties to the trade. Therefore, forcing a mandatory buy-in regime on these contracts would be disruptive and undermine those commercial arrangements. Forcing a mandatory buy-in regime on top of the existing fall backs would also add confusion and will require a burdensome and very costly re-papering exercise of existing contracts to take place with very little benefits for the buyers. For derivatives trades which would require the physical settlement of in scope financial instruments, we should leave it to the receiving trading party to determine whether from a legal and a commercial point of view it makes sense for a buy-in process to be added to the contract as one of the fall back options on top of other already existing fall backs.

In the cleared space, the existing framework for deliveries settlements is already well disciplined and tightly governed through a well-established CCP framework of timings and penalties and there is no practical need to change that. Outright delivery failures are a rare event and appropriate deterrents are already in place. Hence we believe there is no rationale for the introduction of a mandatory buy-in regime for cleared derivatives.

* **Margin transfers:**

We do not believe that the transfer and settlement of in scope financial instruments by way of margin transfers, both for cleared and uncleared derivatives, is intended to be covered by the mandatory buy-in regime. In case policy makers decide to go ahead with the current mandatory buy-in regime, we would therefore welcome clarification that margin transfers will be exempted from the regime.

As stated in the ISDA-FIA and AFME responses, which our institution fully supports, the mandatory buy-in regime under CSDR aims to reduce settlement fails by establishing a “compulsory enforcement of the original agreement”, intended to result in the delivery by the failing party and receipt by the receiving party. However, that is never the intention of a margin transfer, the inherent purpose of which is to mitigate credit risk arising from an exposure created by an underlying trade rather than the actual transfer of the collateral asset. Introducing a mandatory buy-in regime to capture failures of the transfer of in scope financial instruments which are transferred for collateralisation purposes would for that reason not make sense.

Mandating a buy-in in this situation would equally be counterproductive to the collateral receiver as it would increase its exposure to the failing party and the receiving party will remain uncollateralised until the buy-in is completed.

In addition, as rightly pointed out by ISDA and the FIA, we believe that the carve out in Article 7(4)(b) of the CSDR (operations composed of several transactions where the timeframe of those operations is sufficiently short and renders the buy-in process ineffective), should also apply to margin transfers given that margin calls are usually made on a daily basis and initial margin requirements must be recalculated every 10 business days at most. The above arguments apply to the transfer of in scope financial instruments by way of margin both in the cleared and non-cleared space.

* **Securities financing Transactions:**

SFTs, including securities lending, should be out of scope and the current exemption for SFT’s below 30 days should be extended to cover all SFT’s irrespective of their term, i.e. including evergreen transactions and SFT’s above 30 days. These should be excluded on the basis that SFTs are already widely utilised as an efficient mechanism to reduce settlement failures in the cash market. In addition to this benefit, SFTs are an essential element in liquidity generation. Any limitation introduced by a mandatory buy-in regime would adversely impact this market benefit and the overall efficiency of EU securities markets.

We therefore believe that, if policy makers are going to go ahead with the mandatory buy-in regime then it is important to ensure that settlement fails arising in the context of physically settled derivatives, margin transfers and SFTs should be out of scope of the a mandatory buy-in regime.

***Buy-in Agents:***

We believe that the mandatory obligation to appoint a third-party buy-in agent should be removed from the CSDR. Whether policy makers decide to keep the mandatory buy-in regime or change it to a discretionary buy-in regime, we believe it is important to provide the buyer with flexibility on how it wants to execute the buy-in and whether it wants to use a buy-in agent or not.

We also note that, so far, only one buy-in agent has emerged in the market. That agent is therefore operating in a non-competitive environment. It is inappropriate to force buyers to use that agent in all circumstances as this could expose the buyers to risks and be very costly for the buyers. The fact that there is only one buy-in agent so far is also a clear illustration that the current mandatory buy-in regime is not fit for purpose. In addition, we also note that the buy-in agent’s role may not improve the likelihood of settlement as the agent will still rely on sourcing liquidity from existing providers who may have been unsuccessful in the first instance to source the inventory.

However, if policy makers decided to keep the mandatory buy-in regime and force buyers to use a buy-in agent, then the current drafting should be clarified.  One of the key challenges with the current drafting is the requirement for the buy-in agent to have no conflicts of interest.  This is a very high bar to satisfy as an appropriately qualified buy-in agent is quite unlikely to have no conflicts of interest at all with other market participants in every case and is not really consistent with the way conflicts are addressed in other regulatory areas.  It would be more consistent to clarify that the appointing party needs to take appropriate steps in identify, manage and mitigate any conflict of interest. Other established principles in other conflicts of interest rules (e.g. MiFID) provide an appropriate framework to assess and address any conflict of interest.

***The asymmetry in the reimbursement for changes in market prices should be eliminated:***

The CSDR mandatory buy-in regime has a unique feature, which is the fact that there is an asymmetric treatment in the way the payments are made between the trading parties such that payments are only allowed in one direction from the seller to the buyer. Our institution strongly believes that the asymmetry in the reimbursement for changes in market prices should be eliminated. It is essential that the price component of both the buy-in and the cash settlement (“cash compensation”) differential can be settled symmetrically between the trading parties. When the price of a buy-in is greater than the price of the original trade, the corresponding difference should be paid to the buyer by the original failing seller. However, when the buy-in price is lower than the price of the original trade, the price differential should be paid by the buyer to the seller (and not in the opposite direction as it is currently mandated under CSDR level 1).

The elimination of the asymmetry is an important element which will help minimize risks to the selling party, to improve predictably of economic outcomes, to avoid incentivizing adverse behaviour of trading parties, and to facilitate a pass-on mechanism.

***The need to adjust the language on the respective roles and obligations of settlement agents vs trading parties, and the adjustment of Article 25 of the Settlement Discipline RTS:***

The CSDR mandatory buy-in regime refers to ‘participants’, which are presumed to be settlement participants such as custodians and clearing banks, while buy-ins are the enforcement of an obligation between trading parties.

Underlying this is the assumption that every trade is a settlement and vice versa, and that trading parties acts as settlement participants, which is incorrect. Settlement participants are not party to the trading agreements, and are in no position to enforce the obligations of the sellers to deliver the securities to the buyers or to enforce the buy-in provisions upon their clients.

In addition, changing the settlement service contracts as per Article 25 of the CSDR Regulatory Technical Standard (RTS) to enforce the provisions of the SDR would require an enormous amount of contractual negotiations, without any clear benefits, and risks further confusing the roles of different parties.

We therefore support the position of AFME and AGC to correct the language in Article 7 to refer to trading parties where appropriate, and amend Article 25 of the CSDR SDR regime to remove the obligation to amend settlement bank servicing contracts to ensure the enforceability of the SDR regime upon their clients. It could be contemplated to have a disclosure requirement for settlement participants to their clients of the obligations imposed upon them according to Article 7 of the CSDR, without going as far as a contract change.

**Question 35.1: Please explain your answer to Question 35, describing all the potential impacts (e.g. liquidity, financial stability, etc.) and providing quantitative evidence and/ or examples where possible.**

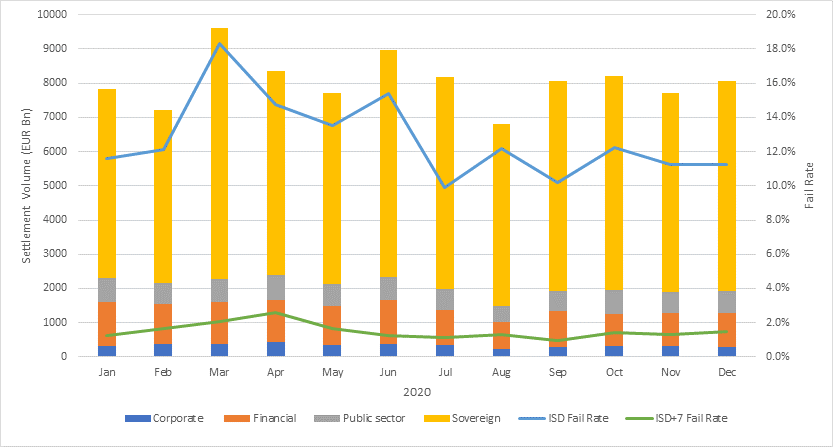
As explained in question 34, we strongly believe that the introduction of a mandatory buy-in regime in the EU will have a significant negative effect on the market in terms of reduced liquidity, increase bid-offer spreads and increase costs to end investors.

**DATA ANALYSIS - CORPORATE BONDS:**

In this section, we try to illustrate how the pricing of trades by market makers will change due to the introduction of a mandatory buy-in regime – see Box 1 below - where we have modelled potential pricing impacts of mandatory buy-ins. We used our institution EMEA corporate bond data as an example.

In addition, we note the data analysis undertaken by Euroclear which looks at data for every month of 2020 and shows that the covid-19 crisis has led to increased rates of settlement fails, therefore suggesting that the expected negative effects of mandatory buy-ins will be magnified in time of market stress (see graph 2 below). The results vary both between asset classes (Government, Corporate, Emerging Markets bonds).

**Graph 2:**



Source: Euroclear Data – graph put together by AFME.

Box 1 – Market Makers pricing model – credit bonds

The introduction of a mandatory buy-in regime is expected to increase the bid-offer spreads such that market makers are compensated for the expected costs of the buy-in which will automatically be initiated after 7 days in case of a fail. Before making a price on a trade that might fail for more than 7 days the market maker will need to consider, if this trade does fail beyond 7 days, what is the expected cost of the buy-in in that case. The market maker will need to consider how often he expects trades to go to buy-in on aggregate, and finally how many trades have a meaningful risk of resulting in a buy-in. The total expected cost of all buy-ins will then be spread across the full set of trades the market maker is at risk of being bought-in on.

The below costs components will be taken into consideration by the market maker when considering the cost of a buy-in when one occurs:

* **Mark-to-market price impact**: This is the movement in the mid-market price level of the bond between the time the trade takes place and the buy-in is executed. The bonds that will most likely end up being bought-in are the bonds that can’t easily be found i.e. the bonds with a supply considerably below demand. In these conditions prices rise. A mandatory buy-in will most likely occur when the price of the bond has gone up. A discretionary buy-in on the contrary would allow the receiving party to decide at which point to exercise the buy-in.
* **Buy-in offer spread:** This is the additional amount above the current mid-market level that is required to incentivise the holders of the bonds to sell their bonds to satisfy the buy-in. Buy-ins occur when the original seller is struggling to find the bonds on the market. Therefore, once a buy-in is enforced, the participant who has been bought-in will need to incentivize sellers in the market who were not previously willing to sell to now do so, which is going to cost a higher bid-offer.
* **Buy-in agent:** There is a mandatory obligation under the CSDR to appoint a third-party buy-in agent when a buy-in has been initiated. The cost of the buy-in agent also has to be taken into consideration when pricing the trades**.**
* **Impact on Repo and securities lending market:** The lenders of bonds might become less inclined to lend, to reduce the risk that they get bought in if they sell securities on loan which cannot be recalled on time (see the ISLA and ICMA submissions for more info). In order to avoid this, they might reduce the amount of bond lending they engage in. In time of stress, this effect will be amplified as lenders would want to have the ability to sell holdings at short notice to raise cash liquidity and the amount they will be willing to lend will be further reduced.

Our pricing model shows how prices might be affected depending on the different types of scenarios considered. In our model we have assumed that all fails are from non-inventory sales, which is defined in this context as a trade where the market maker does not have the inventory or cannot source the stock at the point of trade.

The analysis shows that in time of normal market conditions, which is using data from November 2020, with inputs of normal fail rates, low market volatility and normal short sales percentages, a mandatory buy-in regime would increase the mid-offer price by 21 cents or 59%.

However, in times of market stress such as the covid-19 crisis (using data from March 2020), where higher fail rates, higher market volatility and lower short sales percentages have been seen, a mandatory buy-in regime would increase the mid-offer price by 146 cents or 291%. As expected, the impact of a mandatory buy-in will be pro-cyclical. i.e. when liquidity reduces and bid-offer is larger, the additional pricing will increase, driving up buy-in costs and further reducing market liquidity, generating a negative feedback loop. This is most prevalent for less liquid bonds, where bonds with a wider starting bid-offer will need a larger premium.

However, it is important to note that the likely impact of mandatory buy-ins driven by the worsening offering prices, is the risk of the trades not taking place at all, i.e. that buyers will not want to buy securities at the elevated price level, further reducing market liquidity.

We have not been able so far to estimate this quantitatively though we expect this to be significant. One way this impact could be estimated would be to ask request for quote (RFQ) platforms for data on the likelihood of a trade occurring on a given RFQ for various price responses e.g. if all prices are 5c worse the platform expects 80% of enquiries to end in a trade vs. 100% for pricing in line with expectations. We estimate that of the 15%-20% of trades which are short sales, 50% of those are at risk of ISD7+ failure and 50% of those might not occur, thus 4%-5% of trade volume could cease to occur as a first order effect.

Due to the negative feedback liquidity loop – which is the multiplicative impact of one trade not happening, since if a sale is not made, then the subsequently required purchase will not happen. We observe this liquidity feedback loop every time there is a minor bank holiday or a slow Monday/Friday morning trading session – the final impact on volumes is likely to be multiples of 5%. This negative feedback loop is most likely to occur in times of large market volatility, such as the one witnessed in March 2020 at the height of the covid-19 induced market crisis.

1. ‘The introduction of the TMPG fails charge for U.S Treasure Securities’, Federal Reserve Bank of New York (RRBNY), Economic Policy Review/ October 2010; page 64 [↑](#footnote-ref-2)
2. ‘The introduction of the TMPG fails charge for U.S Treasure Securities’, Federal Reserve Bank of New York (RRBNY), Economic Policy Review/ October 2010; page 67 [↑](#footnote-ref-3)