

AVOIDING COUNTERPRODUCTIVE REGULATION IN CAPITAL MARKETS: A REALITY CHECK

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Executive Summary:

Prepared by ICMA¹, this paper is a response to widespread concerns that the cumulative impact of current and proposed regulatory reform² threatens to undermine core aspects of the economic functions of trading in the European repo³ and fixed income markets, and so put at risk mutually accepted policy objectives of such reform. The paper seeks to identify many of the overlaps, conflicts and inconsistencies of the various regulatory initiatives, and outlines possible consequences arising from their cumulative impact which we believe need to be debated. In order to make the proposed reforms as compatible as possible with overall public policy objectives and economic needs, initiatives need to be considered collectively so that the authorities and market participants can work to adjust and calibrate them as a whole. ICMA sees this paper as a first step in a process of open-ended engagement with policy makers and looks forward to the opportunity of engaging in subsequent discussions about the best ways in which the concerns expressed in it can most effectively be addressed.

Section A sets out the role of the repo and fixed income markets and their importance to the real economy. Section B identifies aspects of regulatory reform, sometimes by different authorities at national, regional, or international level, that are inconsistent and risk conflicts, overlap, and possible consequences which may undermine core aspects of these markets and the economic functions they perform, and so put at risk mutually accepted policy objectives.

The focus of this paper is the impact of regulation on European markets. Trading in the repo and fixed income markets is global, and this means that it is also affected by regulatory initiatives driven by international authorities. Therefore the overall review and action that is needed should be undertaken at the national, regional, and global level if investors, issuers, and other users of these markets, and hence the real economy, are to reap the full benefit.

¹ ICMA represents participants of all types - issuers, investors, and intermediaries - in international fixed income markets. As a long-standing self-regulatory organisation, setting standards and monitoring good practice in these markets, we strive to maintain high standards of market conduct that support the needs of the global economy. We support good regulation and vigilant enforcement action against malpractice. Trust between market participants is essential for effective markets and prosperity. For more information about ICMA, see www.icmagroup.org.

² Failures in self-regulatory oversight and in supervision gave rise to the need for regulatory reform in the wake of the 2008 financial crisis. Regulatory reform is an opportunity to learn from the past to get the overall policy direction right this time round, and avoid setting up systemic weakness for the future.

³ The repo market developed in the 1990s in the context of the Basel Committee on Banking Supervision's (BCBS) Basel I Accord, and with the support of European central banks, as an efficient means of assisting monetary policy with market-based management of credit risk, and of easing the flow of cash and collateral around the market.

A. Economic and public policy importance of repo and fixed income markets

Financial markets and the economic functions they support depend on smooth mechanisms to move cash and securities readily around the market from those who have them to those who need them: a crucial utility role performed by repo markets⁴. A liquid⁵ and efficient repo market is a necessary precondition for an efficient functioning bond market which, in turn, is crucial to lowering issuer costs (both government and corporate) and reducing portfolio management risks for end-investors. More broadly, the repo market promotes the more efficient use of available tradable stock for collateral management, increasing the speed and efficiency of the settlement process, and mitigating disorderly or volatile price action of narrowly held bonds. Further, the repo market is central in several ways to the operation of the banking system⁶, supporting secondary funding requirements of banks, and central banks' management of monetary policy⁷. Key functions of the repo market are outlined in more detail in the Annex.

Fixed income markets are also vital to the real economy and to economic recovery. Their importance in Europe is growing relative to bank lending, and policy makers recognise there is a need to foster this trend⁸. Secured lending and the efficient trading of fixed income securities underpin thriving financial markets.

There are however a number of threats to the liquidity, vitality, and activity of trading in the European repo and fixed income markets. These threats are partly commercial: margins are tight, and intermediaries are more cautious; liquidity and collateral are harder to come by. But threats are also posed by inconsistencies, conflicts, or overlaps among the policy measures which are being put in place to secure a more stable financial system.

We believe that many of these policy threats are unintended. Some seem to derive from a misunderstanding of the economic function and nature of the relevant market. Some result from a policy focus on reducing risk elsewhere in the system, without recognising how the risk may be transferred to other essential cogs in the machine. For the sake of the vitality of European markets and the European economy, we consider that the authorities and markets need to recognise and tackle them.

⁴ The important role of repo markets is highlighted in "Collateral Damage: the impact of the FTT on the European repo market and its consequences for the financial markets and the real economy", and "Supplementary Note on the Systemic Importance of Collateral and the Role of the Repo Market", 2013: <a href="http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/icma-european-repo-market-reports-and-white-papers/the-impact-of-the-financial-transaction-tax-on-the-european-repo-market/; also "Collateral Fluidity", 2012: http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/collateral-initiatives-coordination-forum/collateral-resources-cicf-participants/

⁵ In this paper we define a liquid market as one in which prices are continuously available in reasonable size and in which multiple participants can transact in their desired size over acceptably short timeframes without material adverse price impact.

⁶ Manhoman Singh (IMF) papers on collateral velocity, available at http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/collateral-initiatives-coordination-forum/collateral-resources-official-bodies/

⁷ The importance of the repo market to central banks because of their reliance on collateral and secured funding is illustrated by projects now being carried forward by the European Central Bank. Evidencing the ECB's commitment to further improving the secured financing market, it has agreed that in May 2014 it will remove existing repatriation requirements; from September 2014 the ECB will itself start to use triparty repo; and TARGET2-Securities will start to go live during 2015.

^{8 &}quot;The Economic Importance of Corporate Bond Markets", ICMA, 2013: http://www.icmagroup.org/assets/documents/Media/Brochures/2013/Corporate-Bond-Markets-March-2013.pdf

B. Examples of counterproductive, inconsistent, conflicting, or overlapping policy measures

In this section we classify the examples into three broad categories:

- (i) issues mainly affecting trading in the repo markets
- (ii) issues mainly affecting trading in the fixed income markets; and
- (iii) issues relating to legislative process

It does, however, need to be appreciated that all of these issues may have broader effects, direct or indirect, across a wider range of markets. While we have aimed to identify the main concerns for trading in the repo and fixed income markets⁹, the list of examples is not necessarily comprehensive, and does not cover some related areas, such as, for example, the fixed income primary market.

(i) Issues mainly affecting trading in the repo markets

(a) Basel Committee on Banking Supervision (BCBS) consultation on gross leverage

BCBS proposes that banks' leverage ratios should be based on the gross value of repos. However, enforceable netting agreements ensure that banks are not exposed to gross risks. A requirement to carry capital on a gross basis against a netted economic exposure would substantially harm the economic viability of the low return business of repo market making, reduce liquidity, and increase costs to market users. Gross treatment would also perversely incentivise market makers to conduct higher-margin business against riskier collateral; increase market concentration (amongst regulated entities leading to a perpetuation of "too big to fail"); contradict the push for banks to hold high quality liquid assets for liquidity buffers; undermine the flow of collateral necessary to facilitate the meeting of margin rules under the European Market Infrastructure Regulation (EMIR); and drive activity away from the regulated environment into shadow banking ¹⁰. The proposal would thus not be a solution for what it aims to address, but rather would create new problems.

(b) Basel Committee on Banking Supervision (BCBS) liquidity ratio requirements

A liquid and effective repo market is essential to banks' ability to meet new requirements for regulatory liquidity buffers to be held in high quality liquid assets. However, the liquidity ratios themselves lock up in the banks' balance sheets part of the collateral which would otherwise be available to provide liquidity to the market. The more collateral is locked up in liquidity ratios, or as margin in Central Clearing Counterparties (CCPs), the less is free to flow around the market, effectively causing a monetary contraction¹¹. Given the high policy priority of liquidity ratio control, this particular problem may be relatively intractable, but it highlights the importance of not piling up constraints on liquidity elsewhere.

(c) EU European Market Infrastructure Regulation (EMIR): CCP margins and collateral fluidity

CCPs have been given additional responsibilities, such as the clearing obligation under EMIR, which further increase the concentration of risk at the CCP and the connectedness of different markets and

⁹ A range of initiatives by the market and the authorities are designed to improve these markets, including ECB's Target2-Securities (T2S); the EU Central Securities Depositories Regulation; triparty facilitation of repos; a widened range of collateral; improvements to post-trade infrastructure and legal aspects of collateral transfer; the targeting of Giovannini barriers; and ICMAs' improvements to the buy in procedure. In parallel, there is a continuing move, partly commercial and partly regulatory, from unsecured to secured lending.

¹⁰ ICMA response to BCBS consultation on Leverage Ratio Framework and Disclosure Requirements: http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/erc-contributions/

¹¹ See papers referenced in footnote 6.

their participants. This is especially the case where a single CCP clears across multiple markets. Hence the legislation has introduced a new point of vulnerability to systemic failure. Policies for CCP resolution and recovery should therefore be a priority.

CCP clearing highlights a further tension between competing and conflicting objectives. Alongside the policy imperative to improve the safety and stability of the OTC markets, a second key objective is to retain, preserve, and enhance market liquidity in the secured interbank lending market. However, the shift to CCP clearing increases the amount of collateral tied up in margin at CCPs, exacerbating a potential collateral scarcity which threatens the liquidity and smooth operation of the repo market. The regulatory drive to central clearing has also highlighted the sensitivity of the market to margin levels charged by CCPs, the potential for disincentives to central clearing if margin levels increase, and the scope for correlations between different CCPs' margin calls to exacerbate the impact of collateral squeezes in the event of major market movements. In addition, there is an emerging concern about "wrong way risk" in particular with an overconcentration of CCP cleared sovereign bonds, that needs further regulatory attention.

Various measures, by the market and by the authorities, can help mitigate collateral scarcity and boost collateral fluidity. We can increase the overall pool of available high quality collateral assets, for example by putting in place procedures to support the efficient use of loans as financing collateral. And we can increase the efficiency of existing collateral assets by removing barriers to their use, for example the triparty settlement interoperability MoU, signed in July 2013¹³, to remove the split of collateral liquidity that currently exists between Clearstream and Euroclear.

(d) EU European Market Infrastructure Regulation (EMIR), and BCBS and International Organisation of Securities Commissions (IOSCO) recommendations: Bilateral collateralisation

EMIR provides that non-cleared OTC derivative transactions must be appropriately margined. BCBS and IOSCO have published final recommendations which inform the basis for setting these margin requirements. Whilst estimates vary, the amounts of incremental margin required by this new international standard are extremely large, and so would drain liquidity and collateral from the market. It is true that much of the margin will be in the form of cash, but this nevertheless implies increased volumes of secured funding transactions and the passage of risk to banks in the form of collateral placed to cover the cash raising. So a different form of concentration risk arises similar to the one in CCPs described in the previous section.

(e) Financial Stability Board (FSB) and European Commission development of policy on shadow banking

Repo is not, as commonly alleged, inherently an unstable "shadow banking" tool, but rather a means of allowing existing lending to be conducted more efficiently, widely used by banks for funding, and particularly vital when unsecured term markets are closed¹⁴. The repo market plays a part in 'shadow banking' operations, but its different characteristics and its vital role in many other markets mean it is not a shadow banking function itself. Broad controls designed to limit the use of repo on the assumption that it is just a shadow banking tool would correspondingly impair the repo market's economic and public policy usefulness.

¹² For example, the risk that a bank's exposure in a national CCP is collateralised with that country's sovereign debt, thereby potentially adding to the overall risk, rather than diversifying it.

¹³ http://www.icmagroup.org/assets/documents/Media/Press-releases-2013/European-organisations-aim-to-boost-triparty-reposettlement-interoperability-by-2015---15-July-2.pdf

¹⁴ See papers referenced in footnote 6.

(f) Financial Stability Board (FSB) consultation on mandatory minimum haircuts for repos

It is necessary to understand that repos involve full title transfer: the absolute legal exchange of assets for cash. The associated repurchase agreement is a distinct legal obligation. Repo thus differs from the pledging of assets. While haircuts are sensible from a risk perspective, market participants' flexibility to agree their level plays an important part in the efficiency, liquidity, and commercial viability of the repo market. An overly onerous policy of fixing mandatory minimum haircuts (either by setting the level too high, or the scope too broadly) would undermine this flexibility, sucking liquidity out of the market, contrary to the policy intention of maintaining liquidity, and paradoxically forcing market participants to seek other, less regulated sources of liquidity. Thus it is important that the FSB's current consultation does not lead to a significant shift from the balanced approach its consultation currently proposes.

(g) EU Central Securities Depositories Regulation (CSDR) Proposal

In the context of an EU securities market which lacks a harmonised infrastructure framework, the ICMA secondary market cash securities trading rules, which provide flexibility in the buy-in procedure to be followed in the event of a transaction fail, are based on sound principles. Mandatory buy-in by Central Clearing Counterparties (CCPs), CSDs, and trading platforms, as proposed in CSDR, would make the procedure more rigid, paradoxically reducing liquidity in the market, and thus risking an increase in the rate of fails. This is particularly the case if mandatory buy-in should come to be applied in the repo context, rather than the efficient, flexible mini-close-out provided for in the GMRA¹⁵. The reason for this is the fact that the proposed mandatory penalty for fails would exceed the expected return on making the repo market facility available, hence discouraging liquidity provision. So, at the current time, it is preferable to continue to allow fixed income market participants the right to buy in through a variety of mechanisms, and to leave the decision to buy in to the disappointed recipient rather than mandating it.

As previously explained by the Giovannini Report, many EU settlement fails are due to the inadequate CSD patchwork in the EU sustained by lack of competition and a disconnected CSD infrastructure, work on which is already in hand, and should continue to be a focus for policy attention. An important element of this work should be to better identify why fails are occurring and fix the underlying problems in the EU market infrastructure. Once this is done, if there is evidence of persistent failure and malpractice, policy makers should then consider imposing mandatory penalties. In the meantime, authorities and markets should encourage imaginative ways of managing fails, including bond borrowing facilities, and other mechanisms such as the "phantom bonds" used by some EU sovereigns. The essence of these methods is to supplement market liquidity with flexible facilities to ease the pressure of temporary scarcity of the bonds in question. Analysis of the problem should take account of the increasing demand for collateral, considering how commercial and regulatory pressures to collateralise could create collateral scarcity, and related factors such as the effect on collateral flow of central banks drawing securities into their own balance sheets and out of the market.

(h) EU proposed Banking Resolution and Recovery Directive (BRRD)

One example of powers the BRRD proposes is to be able to impose a short stay on collateral holders' ability to close out repo contracts under master netting agreements and another is a power to transfer contracts. We fully understand and share BRRD's focus on ensuring an effective basis for resolution and recovery of banks (and similar proposals regarding other systemically important entities, including market infrastructures such as CCPs) without calling on the public purse. Nevertheless, such

¹⁵ The Global Master Repurchase Agreement (GMRA) [http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/global-master-repurchase-agreement-gmra/] is the most predominantly used standard master agreement for repo transactions in the cross border repo market.

mechanisms to override well-established contractual rights risk damaging the effectiveness of the repo market as they may be perceived to increase the risk faced by collateral holders and can jeopardise the enforceability of important netting rights. Some jurisdictions have already started implementing similar domestic measures. The case of the UK illustrates the care that needs to be taken to ensure that adequate protections are in place, to mitigate the risks that implementing such powers can create. The original provisions of the UK Banking Act had to be modified through a statutory Safeguards Order, in order to avoid disruption to the enforceability of repo netting under UK law.

(i) Reports on asset encumbrance by the European Banking Authority (EBA) and the BIS Committee on the Global Financial System

The full legal exchange of assets which occurs in GMRA documented repos ensures that at all times market participants have clear ownership of a broadly equivalent amount of assets. The nature of this process needs to be carefully considered when discussing the topic of encumbrance, as the risks being assumed are quite different from those in techniques such as pledging ¹⁶. Some suggest that repo represents an asset encumbrance which might need to be limited, for example by limiting the extent to which the same asset can be used in a chain of repo transactions. Such an approach would however risk further constraining the available pool of scarce collateral, when demand for short-term collateralised financing transactions is rising. Constraining market participants' ability to finance by repo as a result of limitations on asset encumbrance that do not reflect the economic and legal reality of the funding method would limit their flexibility to tap different sources of finance, and needlessly drive up their cost of funding, hence undermining their financial strength and stability.

(j) EU Member States' Proposal for a Financial Transaction Tax (FTT)

The proposed FTT would harm European financial markets, in particular repo markets, and so damage European financial markets and the European economy more generally ¹⁷. It would discourage liquidity and collateral provision in the secondary market, increase volatility, and contradict the general thrust of prudential policy to control credit and liquidity risk by increasing collateralisation of transactions and secured deposits. Banks' reduced access to cash in an illiquid repo market would perpetuate their dependence on central bank funding. The short-term, low-margin, high-volume character of the market means that even the purportedly low rate of FTT suggested would have these effects.

FTT would undermine efforts to limit operational risk and accelerate securities settlement. Running counter to policy efforts to encourage more companies to diversify their funding sources, the FTT would disrupt capital raising, limiting the market's ability to support economic recovery. It would be more difficult to put in place required liquidity buffers and meet other prudential requirements. FTT would undermine the European Market Infrastructure Regulation's (EMIR) drive for OTC derivative trading to migrate to CCPs. Since investors' lending to the real economy depends on accurate pricing, effective mobilisation, and smooth movement of collateral, the friction introduced by FTT would undermine capital financing by companies and banks, as well as the distribution of government securities and conduct of monetary policy. The added friction in European markets would damage their attractiveness relative to third country markets.

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^{16 &}quot;Shadow Banking and Repo", 2012: and "Haircuts and initial margins in the repo market", 2012: http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/icma-european-repo-market-reports-and-white-papers/shadow-banking-and-repo/

¹⁷ See the papers referred to in footnote 4.

(ii) Issues mainly affecting trading in the fixed income markets

(a) EU Markets in Financial Instruments Directive review (MiFID II)

In finalising the revision of MiFID, and in associated detailed implementing legislation and standards, it will be essential to fashion rules suitably calibrated to the needs of users of markets in different types of fixed income instrument. Much of the discussion on market structure and transparency has focused on the balance between trading venue and OTC trading with a focus on equity and derivative markets, seeking to resolve tensions between different models of market conduct and regulation among the Member States. There has been a welcome recognition, particularly in the "non-equity" markets, of the need to provide exemptions and special rules to accommodate and maintain liquidity in secondary fixed income markets. It will be important to maintain this progress towards a tailored and risk-specific regime that maintains the liquidity and efficiency of these markets.

(b) EU Short Selling Regulation (SSR)

The objective of eliminating short selling has had the unintended effect of drying up liquidity in secondary bond markets. This is because, in falling markets, firms that are committed to provide two-way prices would be forced to lose money. Further, a restrictive approach to the market-making exemption has reduced investors' choice between modes of trading, such as OTC dealer markets, over and above automated electronic markets, that may better meet different investment needs. In assessing the effect of other measures, it is important to consider that SSR is already impinging on the liquidity of the markets.

(c) EU Central Securities Depositories Regulation (CSDR) Proposal, and Short Selling Regulation (SSR): Settlement discipline

Consistency is needed in the treatment of settlement discipline in the proposed CSDR, which covers all asset classes; and SSR, which applies only to equities and government bonds. We believe that the European authorities plan to remove inconsistencies by extending the CSDR approach to cover SSR as well.

(d) European Banking Authority's proposed standards for reporting asset encumbrance

Reporting will form an essential basis for regulatory assessment of encumbrance levels. Practical difficulties, both for firms' reporting systems and for regulators' ability to use the information accurately, arise from overlapping or mixed reporting requirements on subordination, liquidity capabilities, contingent encumbrance and recovery plans¹⁸.

(e) IOSCO review of Prudential Standards for the securities sector

Some inconsistencies of treatment arise as a result of the fact that, whereas BCBS's standards are developed for large internationally active banks, they are applied in the EU to all banks and to securities firms as well. IOSCO's review is an important opportunity to review how BCBS standards are applied in the securities trading context, and to ensure that European securities firms are not disadvantaged economically by the European interpretation and application of BCBS standards to them.

¹⁸ ICMA response to the EBA on asset encumbrance reporting: http://www.icma-group.org/assets/documents/Regulatory/Other-projects/Response-to-EBA-on-Asset-Encumbrance-19-June-2013.pdf

(f) EU European Market Infrastructure Regulation (EMIR), MiFID II, and CSDR: Access to market infrastructure

For low transaction costs and liquid markets, it is important that market participants have access to consistently regulated competitive clearing and settlement infrastructures. Today the EU continues to suffer from the fact that there is not a single EU capital market. Recent developments in EMIR, MiFID II, and CSDR provide good examples of considered and comprehensive policy development among multiple measures that accommodates the needs of market users. It will be important to ensure, as these separately negotiated measures develop, that the overall regime for access to market infrastructure remains consistent and coherent across them.

(iii) Issues relating to legislative process

(a) Project management of legislative development

Examples cited in this paper highlight the potential for better project management in the development of public policy and legislative proposals. Overall policy intentions need to be clear and consistent and to guide both the development of particular measures and the way they interact with each other. Consultation, feedback, and articulation of final policy need to precede legislative drafting. Clarity of agreed policy objectives and legal drafting expertise needs to inform all stages of legislative development.

Imprecise generalisations should be avoided: particularly relevant to repo and fixed income markets is the widespread use of the term "non-equities" to cover a wide range of different product markets and market practice and policy needs which a single label cannot cater for in the way that "equities" can for shares.

There is a need for consistency of policy approaches in the light of the economic needs of users of the market: for example, SME growth markets and government bonds rightly enjoy favoured treatment, but it may be appropriate to extend similar treatment to other equally or less liquid instruments, such as many corporate bonds.

As part of an assessment of processes used for regulatory development, we perceive that it is important to recognise that regulation within the European Single Market necessarily involves a complex set of different dimensions of compliance (regulation and market rules or standards; interaction of different and potentially overlapping, competing, and contradictory requirements, either within or between jurisdictions; different layers of requirements for different markets and types of client and counterparty interaction). Recognition of these dimensions would assist measured consideration of how best to mitigate the complexity and avoid undesirable complications and inconsistencies. The complexity of interactions highlights the need for realistic implementation deadlines to be set within an overall context that allows enough time for market participants to develop systems for implementation.

(b) Consistency of national application

Continuing enforcement attention should be given to addressing unhelpful inconsistencies in regional and national implementation of internationally agreed policy, where they exist. In some circumstances, for example to take account of differences in national law or to accommodate the legitimate choice of market participants, differences are legitimate, valid, and necessary. The focus should therefore be on inconsistencies which harm competition or financial stability.

C. Conclusion

ICMA considers that in order to deliver policy objectives and maintain the consistency and momentum of regulatory reform, policy makers, central banks, regulatory authorities, and market participants need to work collectively to identify and resolve the undesirable inconsistencies that we have identified in Section B.

Authorities and markets need to consider each measure individually on its own merits. But it is also necessary to consider how these measures and proposals, and perhaps other relevant policy initiatives, interact together.

Both of these analyses, and the consequent actions, need to be informed by a collective understanding as to how far the problems identified can be solved at regional or national level, or whether they may need to be addressed by global institutions.

Authorities and markets may need bold and imaginative solutions, combining regulation with non-regulatory market discipline, to achieve practical, consistent, and directed policy that can help to limit future weaknesses as well as to avoid repeating past failures, and so support mutually accepted objectives of consistent and sustained regulatory reform, financial stability, and renewed growth.

Recognising that this paper has focused on identifying concerns regarding the need to avoid counterproductive regulation in capital markets, ICMA looks forward to the opportunity of engaging with policy makers in order to consider further the ways in which these concerns can most effectively be addressed without undermining the important objectives of financial regulatory reform.

Annex:

Key functions of the repo market

The repo market is pivotal to the efficient functioning of financial markets. A liquid and efficient repo market is a necessary precondition for an efficient functioning bond market which, in turn, is crucial to lowering issuer costs (both government and corporate) and reducing portfolio management risks for end-investors. More broadly, the repo market promotes the more efficient use of available tradable stock for collateral management, increasing the speed and efficiency of the settlement process, and mitigating disorderly or volatile price action of narrowly held bonds. Key functions of the repo market are outlined below.

Low-cost, widespread access to funding

Repo represents a source of low cost funding which, because of its collateralised nature, can (a) extend more easily to counterparties that have limited access to unsecured funding; and (b) can be used to secure longer term funding than typically is on offer in unsecured markets.

Bond Market Liquidity Regulator

Liquidity support is hugely important to the efficient functioning of bond markets, which are typically less liquid than equity or foreign exchange markets. For issuers (both corporate and government), good liquidity lowers interest payments: for end-investors, it reduces the cost of managing portfolio risk. The repo market acts as a bond market liquidity regulator of sorts, responding to shortages of bonds by automatically raising the return offered to bondholders for releasing scarce stock into the market, and lowering the return when excess demand has been satiated. Aside from directly supporting bond market liquidity through regulating the amount of tradable stock, this function provides important guidance to issuers about liquidity conditions across their respective bond maturity curves. Many regular issuers (governments, supranational and larger corporates) appreciate the value in supporting liquidity across their respective maturity curves, and the information from liquid repo markets enables them more efficiently and cost effectively to protect the liquidity of their bond curves. The role repo plays in helping to iron out short-term demand-supply imbalances in the bond market contributes to more stable valuations of government debt and smoother, more consistent yield curves, which are essential for the accurate pricing of other financial instruments, and thus the efficient allocation of capital by financial markets. In this way, repo also acts as a force against disorderly market conditions that can occur if the tradable supply of a particular bond is held with a very small number of investors, and thus "squeezed".

Primary Dealer Support

Primary dealers are significantly exposed to market risks through their role in allowing end-investors to trade against their balance sheets in all market conditions, which provides crucial liquidity support to bond markets. Repo plays a very important role, both in facilitating their ability to manage this risk and in lowering their operational costs. In particular, the repo market allows primary dealers to post continuous bids and offers without having to hold large inventories of stock. In addition, the repo market enables primary dealers to manage more efficiently the significant market risk their balance sheets are exposed to, both because of their commitments to post continuous bids and offers across the yield curve and their support for primary issuance. For example, a primary dealer underwriting the syndication of a new issue may sell a bond of equivalent risk, borrowed from the repo market, in order to protect its downside and ultimately lower the cost of its insurance to the issuer.

Additional Benefits to Bond Holders

Repo markets allow natural holders of bonds to extract additional value from otherwise inactive inventory holdings of bonds. This enhancement of the value that can be extracted from bond holdings tends to raise their demand and ultimately tends to lower issuer interest costs.

Support for Central Bank Liquidity Management

The collateral management framework necessary to support this market also indirectly provides support to central bank liquidity management, which is largely effected through repo, as it uses the same framework. Central bank repo feeds seamlessly into the commercial repo market.

Hedging and Pricing Derivatives

An active repo market is an absolute prerequisite for liquid markets in derivative instruments. The use of repo to fund long positions and cover short positions in underlying securities is fundamental to the hedging and pricing of derivatives, which are the essential tools of risk management for both financial intermediaries and end-users of the financial markets, including official debt and reserve management agencies.

Preventing Settlement Failures

Repo plays a critical role in supporting the day-to-day operational efficiency of securities markets by allowing issues to be borrowed in order to ensure timely onward delivery, where short positions have arisen unintentionally, usually because of unexpected lags between inward and outward deliveries of securities, infrastructure frictions or the tight supply of particular issues.

Permitting Faster Settlement Times

The role of repo as a means of borrowing securities has been, and will continue to be, crucial in allowing settlement periods to be shortened in order to reduce systemic risk in securities settlement systems. Faster settlement leaves less time for delivery problems to be corrected and therefore requires an efficient source of securities borrowing to prevent delivery failures. The European Commission is proposing that standard bond settlement periods in the EU should be compressed from T+3 to T+2.

Collateral Management

Trading in the repo market is key to the valuation and management of collateral, and allows collateral resources to be more fully mobilised and efficiently allocated. Collateral management is becoming ever more important. Demand for collateral for use in payments and settlement systems, as well as in the exchange-traded and OTC derivatives markets, is being compounded by regulatory pressure on market users to hold larger liquidity reserves and make greater use of (collateralised) CCPs. At the same time a loss of confidence in some sovereign debt is creating uncertainty over the future supply of high-quality collateral.

Allowing More Efficient Employment of Capital

The global economic impact of the increasing regulatory risk capital charges introduced since the 1980s was mitigated by the more efficient use of capital that was allowed by the underlying shift from unsecured to secured financing. The capital efficiency of repo will become even more important in the future as regulators increase capital charges and impose new liquidity requirements.