ICMA

International Capital Market Association

QUARTERLY REPORT

ASSESSMENT OF MARKET PRACTICE AND REGULATORY POLICY

INSIDE:

AVOIDING CAPITAL MARKET FRAGMENTATION

REPO AND COLLATERAL MARKETS

TRANSITION TO RISK-FREE RATES

10 October 2019

Fourth Quarter. Issue 55. Editor: Paul Richards

ICMA
International Capital Market Association

The mission of ICMA is to promote resilient and well-functioning international and globally integrated cross-border debt securities markets, which are essential to fund sustainable economic growth and development.

ICMA is a membership association, headquartered in Switzerland, committed to serving the needs of its wide range of members. These include public and private sector issuers, financial intermediaries, asset managers and other investors, capital market infrastructure providers, central banks, law firms and others worldwide. ICMA currently has over 570 members located in 62 countries.

ICMA brings together members from all segments of the wholesale and retail debt securities markets, through regional and sectoral member committees, and focuses on a comprehensive range of market practice and regulatory issues which impact all aspects of international market functioning. ICMA prioritises four core areas – primary markets, secondary markets, repo and collateral markets, and the green and social bond markets.

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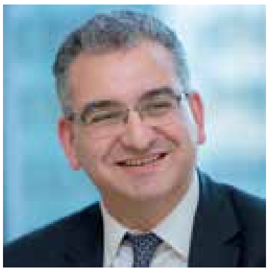

Spotlight on the repo market

By Michel Semaan

REPO

The secured financing market continues to perform its essential role as the oil in the financial markets engine.

Amidst a declining overall fixed income market revenue pool over the last few years, the repo market is large and stable and still presents three major strengths: counterparty credit risk reduction, with efficient movement of securities and cash, by contrast to unsecured funding markets; yield enhancement, with valuable revenue pick-up provision in a persistent low interest rate environment; and, most importantly, funding resilience.

Indeed, despite a reduction in outstandings by the sell side in the aftermath of the Lehman debacle, the repo market is increasing steadily in size year-on-year, as witnessed by ICMA's European repo market survey (which is now in its 18th year of data compilation and transparency provision). Actually, the repo market never stopped functioning and serving the real economy. In a period of stress, it was normal for banks to reassess their balance sheet usage and value whilst a flurry of measures was transforming the regulatory landscape.

Liquidity measures (LCR, NSFR), capital measures (LR, TLAC/MREL), tax measures (EU SRM, UK Bank Levy) and transparency measures (MiFID II/R, EMIR, CSDR, SFTR) all lead to a natural fear of unintended consequences, which I find best expressed by Richard Grasso, former Chairman and CEO of the NYSE: "There are always unintended consequences of any legislative or regulatory act taken in the heat of the battle". One can look to the 2016 year-end in the European repo market and to the recent volatility in the US repo market for examples of the unpredictability that cumulative regulation in tandem with unconventional monetary policy can engender in times of stress.

The consistently larger repo outstandings recorded by the ICMA ERCC biannual survey show us that the secured funding market is a growth area for both buy and sell-side financial actors. Furthermore, it is vitally needed. The various regulatory requirements have made that need more acute: first and foremost, we all need to optimize our collateral management by having the right collateral in the right place at the right time and in the right quality and quantity. We all need to comply with a plethora of liquidity and leverage ratios. The mere fact that we see new entrants in the global secured funding market every year highlights the pivotal role of this business line and its affirmed status of absolute "must-have" functionality within any financial institution.

Like any other fully-fledged market-making trading operation, the secured funding business has followed market trends and client focus. Prevailing low interest rates have contributed to continued lower margins in the rates space and a gradual client shift towards credit and emerging markets, as well as customized financing solutions. These bespoke structures are more widespread than ever before and range from the fairly simple extendible or evergreen format to complex repo facilities with optionality and/or various event triggers. Last but not least, automation and straight-through-processing along the front-to-back chain are consolidating their enhancements of the rates repo market and reaching credit and emerging repo markets too.

This ever-evolving market is now in the final stretches of the implementation of its dedicated transparency measure: SFTR. The ICMA ERCC is working on detailed best practice documents to supplement the guidance provided by ESMA, but it remains a challenging task. We welcome the added transparency obtained by these granular reporting requirements and are all endeavouring for an optimal and effective solution.

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Message from the Chief Executive

By Martin Scheck

The traditional summer slowdown seems to have passed us by this year. Whether one looks at the major projects in which ICMA is engaged, at the political developments currently dominating the newsflow, or at the macroeconomic and monetary policy factors impacting the capital markets, the intensity of our market practice and regulatory policy activities remains at a high level.

Against this backdrop, and despite the cost pressure on participants in all segments of the financial markets, ICMA membership grew over the summer to 575 members, which is an 18-year record high – a warm welcome to all those who have joined this year.

We lead this Quarterly Report with the Quarterly Assessment – *Brexit: Can Capital Market Fragmentation Be Avoided?* – which reviews the current status of cliff-edge risks (which have been an ongoing focus of ICMA's Brexit work) and the longer-term implications of Brexit for international capital markets.

Over 600 of you joined the members' call on the transition from IBORs to risk-free rates held on 16 September, giving a clear indication of member interest in this important and complex transition, in which ICMA is heavily involved. The call provided an opportunity for us to update members on the transition from LIBOR to risk-free rates in the bond market; bond market conventions for the adoption of risk-free rates; bond market documentation, particularly fallbacks for legacy bonds; and the transition to euro risk-free rates.

Green finance and sustainability remain high on our agenda. We have just organised a large-scale conference in Tokyo on this topic alongside the Japan Securities Dealers Association, with high-level participation from Japan and internationally. ICMA's involvement in the green and social bond market is a major discussion point for our colleagues based in Hong Kong when they visit members and regulators in Asia. National regulators in particular want to understand the latest developments in the Green and Social Bond Principles.

In Europe, ICMA's role as a member of the Technical Expert Group for the EU Action Plan on Sustainable Finance is ongoing, and there are interesting discussions within the Green Bond Principles community in connection with other types of thematic bonds – for example, Transition Bonds, which were much discussed at the GBP AGM in Frankfurt in June.

A traditional area of expertise at ICMA has been the secondary bond markets. We are nearing completion of the third ICMA study into the state and evolution of the European IG Corporate Bond Secondary Market, based on input from a wide range of buy and sell-side market participants. The study addresses the current state and expected course for market liquidity, market structure issues and highlights expected future developments. Look out for the completed study during the fourth quarter. We are also currently undertaking a similar study in Asia in conjunction with our colleagues in Hong Kong and are looking forward to publishing the results. In addition, we are conducting an impact study into the potential effects of the buy-in provisions of the coming Central Securities Depository Regulation on bond market liquidity and pricing.

Data quality and accessibility are arguably the biggest challenges arising from the implementation of MiFID II/R. Based on input from a diverse range of buy and sell-side firms and trading platforms, we were pleased to respond from a cash bond perspective to ESMA's consultation regarding a consolidated tape. Our recommendation is that a low or minimal cost consolidated tape of raw transaction data would certainly benefit the operation of the market. We also provided detailed reflections on a governance structure which would permit an appropriate level of official sector oversight – you can find more details inside and on our website.

Much of our work on repo and collateral is currently focused around the extensive new reporting requirements under the Securities Financing Transactions Regulation (SFTR). We work across the industry together with other associations to help the market ready itself for the step change in reporting requirements, and we are now running seminars and workshops to educate market participants on how they will need to comply. Whilst this is an EU Regulation, it has extra-territorial impact and so we have also delivered workshops in both Hong Kong and Singapore.

There is too much going on at ICMA to cover in this brief message. I hope you find the more detailed articles inside and on our website useful. We are always happy to discuss any aspect of our activities directly. I would like to finish by thanking all those who work so hard with us on our committees, councils and working groups, providing detailed input to keep our standards up to date and to respond to regulators. We appreciate this all the more given the many other demands on your time.

Martin Scheck
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Brexit: can capital market fragmentation be avoided?

By Paul Richards

Summary

CMF

1 The international capital markets have been facing three possible outcomes on Brexit by 31 October 2019: either (i) the UK leaves the EU with a deal by 31 October; or (ii) the UK leaves by the same date without a deal; or (iii) there is a further extension of Article 50.[1] In the absence of agreement on a deal by 31 October, or agreement on a further extension of Article 50, the default position is for the UK to leave the EU on 31 October without a deal.

2 This Quarterly Assessment does not address the pros and cons of Brexit, nor its economic impact, but focuses instead on the implications of Brexit for the fragmentation of international capital markets: both the need to avoid cliff-edge risks arising from Brexit; and the scope for regulatory and supervisory cooperation between the EU27 and the UK after Brexit.

Cliff-edge risks arising from Brexit

3 Current British Government policy is still to leave the EU Single Market in financial services when the UK leaves the EU. If the UK leaves the EU Single Market, the Single Market will become two separate markets when passporting rights between the EU27 and the UK cease: either on Brexit, if there is no deal; or at the end of the transition period after Brexit, if there is a deal. The end of the transition period specified in the original Withdrawal Agreement is the end of 2020. Following the delay in Brexit from 29 March to 31 October 2019, there is a case for extending the transition period, which could be extended until the end of 2022, if both sides agree.

4 When passporting rights cease, cliff-edge risks between the UK and the EU27 markets will arise as a result of restrictions on market access. The UK is proposing to address these cliff-edge risks through a Temporary Permissions Regime (TPR), which has been extended to the end of 2020 following the successive extensions of Article 50 from 29 March to 31 October 2019.[2] But there is no equivalent of the TPR in the EU27. While the authorities in the UK and the EU27 have made progress in addressing cliff-edge risks case by case, there are still unresolved issues, and potential gaps, and in some cases the equivalence decisions made by the EU27 are conditional and temporary, with short deadlines before they lapse. On 5 August, the European Commission stated that it would provide no further help relating to a no-deal Brexit beyond the contingency measures already agreed, and no guarantee that these contingency measures would be extended, despite the short deadlines. (See Box A.)

1. The British Government has been committed to (ii) if it cannot achieve (i). In the case of (iii), Parliament in the UK has passed a law requiring the Government to request an extension of Article 50 until at least 31 January 2020, if a Brexit deal is not agreed by 19 October (ie immediately after the European Council on 17/18 October).

2. Firms regulated by the FCA which use a passport to operate in the UK will be able to continue existing and new business in the UK while seeking full authorisation.

Box A: Addressing cliff-edge risks on a no-deal Brexit

The position on addressing cliff-edge risks in capital markets in the event of a no-deal Brexit can be summarised as follows:[3]

Memoranda of Understanding: The UK authorities have concluded new cooperation agreements with the EU markets, insurance and banking authorities, which will take effect in the event of a no-deal Brexit. These MOUs provide a framework for the sharing of confidential information, which will assist in carrying out functions; allow UK or EU-based firms to delegate or outsource certain activities to firms based in the other jurisdictions; and support future market access and equivalence decisions.

Banking: The British Government has legislated to ensure that UK households and businesses can continue to be served by EU-based banks after Brexit. EU authorities have not taken similar action. As a result, major UK-based banks are transferring their EU clients to subsidiaries in the EU so that they can keep providing services to them. The Bank of England reports that all material subsidiaries are now authorised, fully operational and trading, but that some operational risks remain, including if many clients seek to migrate to EU entities at the last minute, which could amplify any other disruption in the market.

OTC derivatives (cleared): The British Government has legislated to ensure that UK businesses can continue to use clearing services provided by EU-based clearing houses for three years from Brexit. The European Commission has provided a temporary and conditional equivalence decision for UK CCPs. ESMA has subsequently announced the recognition of three UK CCPs until end-March 2020 in a no-deal Brexit and agreed the cooperation arrangements to support this with the Bank of England. Without greater clarity on the regulatory status of UK CCPs after this date, the contracts that EU members clear with UK CCPs will need to be closed out or transferred by then. This process would need to begin by the end of 2019 and would impose significant costs on EU firms as well as potentially straining market capacity. Further action may therefore be necessary to prevent this. Ultimately, the best solution in the view of the UK authorities is for the EU to grant permanent recognition to UK CCPs.

OTC derivatives (uncleared): The British Government has legislated to ensure that EU banks can continue to perform lifecycle events on contracts they have with UK businesses. The European Commission does not intend to reciprocate in the case of UK-based banks' contracts with EU businesses. The Bank of England reports that most EU27 Member States with material uncleared derivatives activity have implemented legislative measures which seek to address this risk at national level, but the scope and effectiveness of these measures will vary between jurisdictions.

Ability of EEA firms to trade on UK trading venues: The EU's Trading Obligations require EU investment firms to trade EU-listed or traded shares, and some classes of OTC derivative, on EU trading venues. The UK will also have reciprocal trading obligations when it leaves the EU. The Bank of England considers that the EU and UK could deem each other's regulatory frameworks as equivalent, thereby mitigating risks of disruption.

Asset management: The cooperation agreements reached between the FCA, ESMA and EU NCAs enable EU asset managers to delegate the management of their assets to the UK after Brexit. The British Government has legislated for EU asset management firms to continue operating and marketing in the UK after Brexit. To continue to operate in the EU, the Bank of England reports that the largest UK asset managers have completed their establishment of EU authorised management companies.

Insurance contracts: The British Government has legislated to ensure that the insurance policies that UK households and businesses have with EU insurance companies can continue to be serviced after Brexit. The Bank of England reports that UK insurance companies continue to make good progress in restructuring their business in order to service EU liabilities after Brexit.

Increased prudential requirements: EU regulations subject EU banks' and insurance companies' non-EU exposures to stricter capital and liquidity requirements, as well as imposing some restrictions on holdings of non-EU assets. UK legislation is aligned with EU rules. Secondary legislation passed in the UK allows regulators to delay the impact for UK firms.

Personal data: The British Government has legislated to continue to allow the free flow of personal data from the UK to the EU. The European Commission has indicated that it does not intend to take similar action to ensure the free flow of personal data from the EU to the UK in a no-deal Brexit. There are risks in the event of disruption to cross-border flows of personal data from Brexit day.

Contract repapering: Progress on repapering has been gradual. The absence of repapering may have an impact on business in the EU post-Brexit. Several EU Member States have legislated to allow UK firms to continue temporarily to provide certain services in their jurisdiction following a no-deal Brexit. But these access provisions are not EU-wide, and they vary in respect of the activities and durations they cover. There is therefore uncertainty about how some of these provisions will be applied.

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3. Source: Bank of England Financial Stability Report, July 2019, and Record of Financial Policy Committee meeting, 2 October 2019; Andrew Bailey, Chief Executive of the FCA, *Preparing for Brexit in Financial Services: the State of Play:* Bloomberg, 16 September 2019.

5 Legislative preparations in the UK for Brexit also need to be completed. The UK authorities' objective is to onshore all EU legislation into law in the UK on Brexit. If a Withdrawal Agreement is reached between the EU27 and the UK, the British Government will need to secure the passage of a Withdrawal Agreement Implementation Bill to enable the Withdrawal Agreement to be ratified in the UK, and the European Parliament will need to approve the deal in the EU27. In the event of a no-deal Brexit on 31 October, it appears that there is still some outstanding legislation that needs to be approved by Parliament in the UK before 31 October;[4] and it is not yet clear whether and to what extent "in flight" EU legislation will continue to be taken into law in the UK after Brexit, in the event of no deal.

6 Market firms are in a better position to avoid cliff-edge risks if they are authorised to operate in both the EU27 and the UK.

- Most large market firms are now authorised to operate in both the EU27 and the UK. In some cases, this has involved significant one-off costs: eg in transferring staff, offices, technology, capital and financial assets from London to one or more locations in the EU27; and extra running costs from operating in two separate markets in the EU27 and the UK rather than in one Single EU Market. There are also expected to be implications for the bond, repo and collateral markets, with dealer liquidity provision being split between EU27 and UK entities.[5]
- In the case of relocation planning, the ECB reports that the majority of authorisation procedures related to the establishment of new banks or the expansion of existing banks in the euro area have been completed, and the remaining ongoing authorisation procedures are expected to be finalised before the end of October 2019.[6] However, the ECB expects banks to speed up the implementation of contingency plans for a no-deal Brexit, including: addressing operational challenges associated with transferring staff and clients; building up their local risk management capabilities and governance structures; preparing for changes in the application of prudential provisions; implementing the novation of contracts; ensuring that they have sufficient onshore capacity to access key financial market infrastructure; and adjusting their business and booking models.[7]
- The European Commission's assessment is that "firms have largely prepared for a withdrawal without an agreement, including by novating their outstanding contracts to replace UK counterparties, and that they now have to finalise their preparations in the timeframe given by these contingency measures. The Commission therefore does not consider that the adoption of additional contingency measures is necessary. It will continue to assess the situation in the markets after the withdrawal date, … taking into account in particular the framework introduced in EMIR with regard to the requirements for the recognition of third-country CCPs."[8]
- The FCA's assessment is that "firms in the UK have stepped up their preparations, the authorities in the UK have made good progress and, in the EU, authorities have mitigated risks of material disruption to cleared derivative markets by announcing temporary recognition and conditional equivalence decisions for the UK's CCPs and the regulatory framework for them, though there will need soon to be agreement to renew this arrangement."[9]
- The remaining concerns in financial markets are less about the state of preparations of large market firms than about the awareness and state of preparations of smaller firms and clients; the long lead-time needed for repapering; and the immediate market impact of Brexit taking place on a Thursday (rather than at a weekend).

7 With more time to prepare as a result of the successive extensions of Article 50 from 29 March until 31 October, capital markets should be better prepared for a no-deal Brexit. But the risks to financial stability remain. In the view of the authorities, there is still a risk of market disruption. Although, for example, the ECB considers that the adverse impact of a no-deal Brexit "is expected to be modest for the EU, on average, there are nevertheless tail risks concentrated in particular countries and banks with close links to the UK. A no-deal Brexit could cause significant

4. "We [the FCA] have been working closely with the Treasury and the Bank of England to make sure that EU financial services legislation is effectively on-shored by exit date. To date, over 50 statutory instruments have been made to achieve this. This Is most of what needs to be done on this front – only a small number of SIs remain outstanding.": Andrew Bailey, Chief Executive of the FCA, *Preparing for Brexit in Financial Services: the State of Play:* Bloomberg, 16 September 2019.

5. In addition, the European Stability Mechanism announced on 26 September that, in response to Brexit, it would use Luxembourg law for its borrowing in future instead of English law.

6. ECB Financial Stability Review, May 2019.

7. ECB: *Brexit: Stepping UP Preparations,* 15 August 2019.

8. European Commission Communication: *Finalising Preparations for the Withdrawal of the UK from the EU on 1 November 2019,* 4 September 2019.

9. Andrew Bailey, Chief Executive of the FCA: *Preparing for Brexit in Financial Services: the State of Play,* Bloomberg, 16 September 2019.

market turbulence, potentially resulting in tighter financing conditions". The Bank of England considers that "most risks to financial stability that could arise from disruption to cross-border financial services in a no-deal Brexit have been mitigated. In the absence of actions by EU authorities, some risks remain.[10]

The scope for regulatory and supervisory cooperation after Brexit

8 There is still no detail on the shape of future trade relations between the EU27 and the UK after Brexit. The Political Declaration accompanying the original Withdrawal Agreement refers to financial services only briefly and at a high level of generality, and it is not clear what the status of the Political Declaration will be if the UK leaves the EU without a Withdrawal Agreement. But the Political Declaration does state that the future relationship between the EU27 and the UK will be governed by regular arrangements regarding third countries and that both the EU and the UK are committed under the Declaration to undertake equivalence assessments and endeavour to conclude these before the end of June 2020.[11]

9 Both the EU27 and the UK will have the same rules regulating financial services after Brexit at the outset. So there should in principle be scope for the EU27 and the UK to negotiate regulatory equivalence between them. This is the EU's preferred method of negotiating market access with third countries, which the UK will become when it leaves the EU. The European Commission's position on regulatory equivalence is summarised in Box B.

10 At the G20 Summit in Osaka in June 2019, the G20 leaders stated: "We welcome the work on market fragmentation [by the FSB and IOSCO], and will address its unintended, negative effects, including through regulatory and supervisory cooperation."[12] In considering the opportunities for regulatory and supervisory cooperation between the EU27 and UK after Brexit, both the EU27 and the UK will start with almost identical rules regulating financial services. But in looking to the future, there are a number of additional considerations to take into account:

Consistency with the G20 regulatory system

11 Both the EU27 and UK regulatory and supervisory systems are intended to be consistent with the global system, overseen by the G20 and established in response to the international financial crisis. The G20 has called for "jurisdictions and regulators to defer to each other when it is justified by the quality of their respective regulatory and enforcement regimes, based on similar outcomes, in a non-discriminatory way, paying due respect to home country regulation regimes".[13] The implications are that the arrangements in the EU27 (as host) for regulatory equivalence should provide access to EU27 markets for third country-firms by relying on the rules and supervision in the home country; and that the EU27's equivalence rules should apply in the same way to firms based in the UK as to firms based in other third countries without discrimination between them.

Different legal approaches

12 Although both EU27 and UK rules are intended to be consistent with the G20, there are different ways of achieving this in different national jurisdictions. The English and Continental European legal systems have different approaches: the UK's legal approach is based on common law and developed through case law, while the EU27 system is based on codification and greater use of statute rather than regulatory rules. In the FCA's view, wholesale financial markets are more commonly found in countries with common law systems and work better in systems that base their rules and principles to a greater extent on experience.[14]

Open market access and systemic risk

13 While capital markets are global in scope and capital market integration depends on open access, capital markets are subject to regulation and supervision at national or regional level (eg at EU level). The FSB has noted that, although regulatory reforms in response to the financial crisis have been supportive of global financial integration, there are concerns that some markets may be fragmented along jurisdictional lines: "In places, such fragmentation of markets can have a positive effect on financial stability: eg by reducing the transmission of economic shocks between jurisdictions and increasing the resilience of domestic or global financial markets. But other types may reduce resilience, eg where fragmentation limits opportunities for cross-border diversification and risk management, impairs market liquidity or prevents capital and liquidity from being channelled to where it is needed in periods of stress."[15]

10. ECB Banking Supervision Risk Assessment for 2020, October 2019. Record of Bank of England Financial Policy Committee meeting, 2 October 2019.

11. This deadline may also need to be extended, if the transition period itself is extended.

12. G20 Leaders Declaration, Osaka Summit, 28-29 June 2019. See David Hiscock: *Avoiding Unnecessarily Fragmented Global Bond Markets:* ICMA Quarterly Report for the Fourth Quarter of 2019.

13. G20 conclusions, 2013.

14. Andrew Bailey, Chief Executive of the FCA: *The Future of Financial Conduct Regulation*, 23 April 2019.

15. FSB *Report on Market Fragmentation,* 4 June 2019.

Box B: The European Commission's Communication on financial services equivalence

In July 2019, the European Commission published a Communication on *Equivalence in the Area of Financial Services,* in which it states that the EU has consistently pursued the objective of strengthening the Internal (ie Single) Market in financial services through a single rulebook and a common supervisory architecture for its Member States. The Communication considers how the EU's domestic framework covers cross-border activities and exposures to risks in third countries and explains how its framework interacts with other regulatory regimes. At the very least, in the Commission's view, this means aiming to avoid conflicting requirements and reducing opportunities for regulatory arbitrage.

Both the EU and third countries draw on international standards developed jointly by the FSB, BCBS, IAIS and IOSCO, under the G20. The EU approach to third countries is based on equivalence, which depends on a positive assessment of the third-country framework so that the EU can rely on third-country rules and the work of the third-country supervisor. EU financial services law currently includes around 40 provisions which allow the Commission to adopt equivalence decisions; and the Commission has taken over 280 equivalence decisions involving more than 30 third countries.

EU equivalence policy has three objectives: (i) reconciling the need for financial stability and investor protection in the EU, on the one hand, with the benefits of maintaining open and globally integrated EU financial markets, on the other; (ii) promoting regulatory convergence around international standards; and (iii) establishing or upgrading supervisory cooperation with relevant third-country partners. In some instances, this can enable a coherent prudential regime to apply to EU banks and other financial institutions operating outside the EU, thus lowering the cost of EU firms' investments and exposures in third countries by facilitating capital management in particular.

An equivalence decision is a unilateral and discretionary act of the EU, conducted and concluded by the Commission, in accordance with EU priorities and the interests of EU financial markets. In its assessment, the Commission's focus on risk implies that, as a rule, high-impact third countries, for which an equivalence decision is likely to be used intensively by market participants, will represent a more significant set of risks which the Commission will need to address. If there were to be shortcomings or gaps in the equivalence assessment of such third countries, these would be likely to have a negative impact on financial stability or market integrity in the EU.

While equivalence decisions are unilateral and discretionary acts of the EU, they bring benefits to both the EU and its third-country partners. Some categories of equivalence decisions are taken after due consideration of the treatment that the third country affords to the EU regulatory framework, the supervisory work performed by EU authorities and the local presence of EU market participants.

Third-country regimes do not need to be identical to the EU framework, but they do need to ensure in full the outcomes as set out in that framework. As part of its discretion, the Commission may decide formally to adopt, suspend or withdraw an equivalence decision, as necessary. If withdrawn, equivalence could be restored at some subsequent time if and when all necessary conditions are met. The Commission may also grant time-limited equivalence or set conditions or limitations to equivalence decisions.

The possibilities for granting equivalence are set out in dedicated equivalence provisions included in a number of EU financial services legislative acts. There are several recent decisions relating to equivalence:

First, the amendments of the ESAs' regulations strengthen the role of those authorities in monitoring equivalence with third countries.

Second, the amendment of EMIR reinforces the supervisory framework for CCPs that provide clearing services to EU firms. Third-country CCPs that are, or are likely to become, systemic and relevant for financial stability in the EU will be subject to specific and proportionate requirements reflecting the degree of systemic risk involved. As a last resort, a third-country CCP may be required to provide services to EU firms from an entity authorised in the EU.

Third, under MiFIR, for jurisdictions where the scale and scope of the services provided is likely to be of systemic importance for the EU, equivalence can only be granted following a detailed and granular assessment by the Commission; and the role of ESMA in monitoring the activities of such firms in the EU is enhanced.

14 The EU27 is concerned to ensure as far as possible that its regulatory system is not undermined by risks affecting the EU27 arising from the activities of financial firms in third countries outside its control: in cases in which the EU27 considers that systemic risks are greatest, EU27 regulatory and supervisory oversight can be expected to be the most intense. One way in which the EU27 has sought to address this risk has been by encouraging financial market firms in the UK to relocate clearing, trading, banking, risk management and fund management from London to the EU27 by establishing subsidiaries in the EU27 and booking transactions with EU counterparties through those subsidiaries.

15 Brexit also raises a number of other important issues for capital markets in the EU27.[16]

- First, Capital Markets Union will become of greater importance for the EU27 once the UK has left the EU, as its largest financial centre. But Capital Markets Union in the EU27 is still work in progress, with different insolvency, corporate and tax laws at national level and dependence on bank lending proportionately much greater in the EU27 than in the US or the UK. Capital Markets Union also requires further steps being taken towards Banking Union: eg a common EU27 system of bank deposit insurance.
- Second, decisions by market firms to relocate from London to the EU27 have involved relocation to a number of different financial centres (eg Paris, Frankfurt, Amsterdam, Dublin and Luxembourg) rather than to a single centre. The authorities at European level (such as ESMA) will seek to ensure that different financial centres within the EU27 compete on a level playing field without scope for regulatory arbitrage between them.
- Third, there is an outstanding question about the relationship within the EU27 between the euro area and non-euro area Member States, an agreement on which was reached with the UK in February 2016, but which was subsequently abandoned after the result of the UK referendum in June 2016.

Equivalent outcomes

16 As London is a global financial centre, the UK does not intend to be a "rule taker" from the EU27 after Brexit.[17] Senior UK officials have emphasised the importance of equivalent outcomes between the EU27 and the UK (eg ensuring financial stability, market integrity[18] and investor protection) rather than the same rules.[19] After Brexit, this approach would enable the UK authorities to seek ways of improving onshored EU legislation in the UK so as to achieve the same outcome as the EU27, but in a way that is more effective in the UK.

17 It is clear that the European Commission is also concerned to achieve equivalent outcomes.[20] In addition, some EU27 regulators have indicated that new EU rules should be more flexible in future, particularly at Level 1. Without more flexibility by legislators at Level 1, it is very difficult for regulators to set technical standards for implementing them at Level 2 (eg if market conditions change). But even with a greater degree of flexibility, this does not mean that negotiations between the EU27 and the UK on equivalence would be successful without trust and reliance on both sides. And even when EU27 and UK rules are the same, the way in which these rules are supervised is critical to delivering the same outcomes.

Enhanced equivalence

18 Nor is agreement on equivalence a panacea. EU27 regulatory equivalence is currently a patchwork: EU financial services law currently includes around 40 provisions which allow the European Commission to adopt equivalence decisions, but this does not cover EU financial services regulation as a whole. Regulatory equivalence will not be complete unless it can be enhanced. It is not clear whether this will be possible, even though EU27 and UK rules will be virtually identical at the outset. UK proposals for mutual recognition of each other's regulations have been ruled out by the EU27 as a way of achieving enhancement. But there may be other ways of achieving enhancement in practice: eg through continuing exchanges of information about regulatory priorities and continuing supervisory cooperation between the authorities in the EU27 and the UK, even if this does not take legal form.[21]

16. See David Hiscock, *The Importance of Integrated Capital Markets and CMU,* ICMA, July 2019.

17. Prime Minister: "When the UK leaves the EU and after any transition period, we will leave the Single Market and the Customs Union. Although we will remain committed to world-class environmental, product and labour standards, the laws and regulations to deliver them will potentially diverge from those of the EU: Letter to the President of the European Council, 19 August 2019.

18. Ie orderly, resilient, transparent and clean markets.

19. For example, see Andrew Bailey, Chief Executive of the FCA: *The Future of Financial Conduct Regulation,* 23 April 2019.

20. Steven Maijoor, Chair of ESMA: "EU equivalence decisions taken in financial markets have been overwhelmingly outcome-based resulting in reliance on home country regulation and supervision.", June 2019.

21. Sir Jonathan Faull and Simon Gleeson: *The Capital Markets Union: Should the EU Shut Out the City of London?* CER, 2019.

19 There is also a risk that the Commission will withdraw its determination of regulatory equivalence at short notice. That could happen if EU27 and UK rules diverge after Brexit, even though the UK may argue that outcomes remain the same. One key part of the EU approach consists of more frequent monitoring and review of equivalence decisions to detect emerging differences between EU and non-EU frameworks on time.[22] For example:

- The recent Swiss case on share trading – under which the EU allowed the grant of equivalence for trading of Swiss shares in the EU to lapse rather than agree to an extension – is regarded by some market commentators as a potential precedent.
- Another potential precedent is the Commission decision at the end of July that Argentina, Australia, Brazil, Canada and Singapore no longer meet EU standards under the Credit Rating Agencies Regulation, with the result that equivalence has been withdrawn.

20 The UK will want to ensure that processes for making assessments for reviewing and, if necessary, withdrawing equivalence are predictable and work in in a similar way for both sides, drawing on the experience of other recent cases with third countries.

Conclusion

21 There is a much better prospect of an EU27/UK deal on regulatory equivalence if the EU27 and UK reach a deal on a Withdrawal Agreement with a sufficiently long transitional period thereafter than if there is a no-deal Brexit. While UK and EU27 rules would be virtually identical on Brexit, and both the EU27 and the UK would be in a position to negotiate on equivalence at the outset, a no-deal Brexit would in practice make the question of whether to negotiate into a political issue on both sides. It is not yet clear whether a no-deal Brexit would lead to a political standoff or whether it would swiftly lead to a resumption of negotiations.

Contact: Paul Richards
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22. Steven Maijoor, FESE Convention, Dublin, 4 June 2019.

Avoiding unnecessarily fragmented global bond markets

By David Hiscock

CMF

Introductory background

Fragmentation is defined as the process or state of breaking or being broken into fragments. An antonym of this is integration, which is defined as the act or process or an instance of integrating. The International Capital Market Association's (ICMA's) mission is to promote resilient well-functioning international and globally coherent cross-border debt securities markets, which are essential to fund sustainable economic growth and development. The element of integration inherent in this concept is a point that is integral to much of ICMA's work, which strives to avoid unnecessary market fragmentation and disruption given that such aspects run counter to the development of deep, liquid, efficient markets.

ICMA understands and supports efforts which have been made to achieve financial stability, which in overall terms is in everybody's interest. Nevertheless, ICMA is concerned that the regulatory response to the crisis has comprised a series of individually designed measures without there being an overall understanding of the way in which the pieces would fit together. Accordingly, it is very welcome that ongoing efforts are being made to evaluate impacts and is important that there be a willingness to recalibrate elements in order to try and address unintended consequences.

ICMA has been particularly concerned about impacts on the market, especially ways in which regulation has created fragmentation. Our studies have shown the importance of fixed income markets as a financing channel and drawn attention to the fact that increasing regulatory burdens, in particular tighter capital constraints on banks, have put market making activities, in both cash bonds and repos, under significant strain. This implies that a higher price should have to be paid on bond issuance in order to cover the reduced market liquidity – although this has been masked by the exceptional monetary policy measures taken by central banks which have, for important and well-intentioned reasons, continued to make available large amounts of cheap cash and thus acted to compress issuance spreads.

Overview of the recent official, international reports on market fragmentation

On 4 June 2019, the Financial Stability Board (FSB) published a report on market fragmentation and identified several areas for further work to address it. The report, delivered to G20 Finance Ministers and Central Bank Governors, focuses on instances where reducing market fragmentation might have a positive impact on financial stability, or improve market efficiency without any detrimental effect on financial stability. The report looks at some examples of financial activities where supervisory practices and regulatory policies may give rise to market fragmentation. It discusses potential trade-offs that authorities have considered between the benefits of increased cross-border activity and a need to tailor domestic regulatory frameworks to local conditions and mandates. The areas the report examines are the trading and clearing of OTC derivatives across borders; banks' cross-border management of capital and liquidity; and the sharing of data and other information internationally.

The report lays out approaches and mechanisms that may enhance the effectiveness and efficiency of international cooperation and help to mitigate any negative effects of market fragmentation on financial stability. Areas for further work to address market fragmentation focus on facilitating further analysis and discussion of approaches and mechanisms for more efficient and effective cross-border cooperation amongst authorities, including exploring ways to, where justified, enhance the clarity of deference processes in derivatives markets; and strengthen the understanding of approaches by supervisory and resolution authorities towards pre-positioning of capital and liquidity by international banks. The FSB will review progress on this further work in November 2019.

Alongside of this, also on 4 June, the Board of the International Organization of Securities Commissions (IOSCO) published a report that examines instances of regulatory-driven fragmentation in wholesale securities and derivatives markets and considers what actions regulators can take to minimise its adverse effects. This report focuses on market fragmentation that arises as an unintended consequence of financial regulation. It provides examples of market fragmentation that IOSCO members consider to be significant and potentially harmful to the oversight and supervision of financial markets.

This report also examines the progress made by IOSCO members in using deference, and the regulatory mechanisms and tools associated with this concept (eg passporting, substituted compliance, recognition/equivalence). In doing so, the report follows up on a 2015 IOSCO report on cross-border regulation and seeks to identify remaining challenges that can restrict cross-border activities.

The FSB's report on market fragmentation

The FSB observes that international cooperation and coordinated action by financial authorities have strengthened the global financial system in the aftermath of the global financial crisis, but that there are, however, concerns that some markets may be fragmented along jurisdictional lines. The FSB highlights that there are a variety of reasons for market fragmentation, not all of which are undesirable or attributable to the effects of regulation and supervision. Furthermore, effective international regulatory and supervisory cooperation is an important precondition for integrated financial markets and cross-border financial activity. Nevertheless, the FSB acknowledges that financial regulation and supervision may give rise to market fragmentation, particularly when causing frictions in financial activities that are international in nature.

The FSB recalls that the G20 has long been committed to implementing financial reforms in a way that supports an integrated global financial system. Indeed, when G20 Leaders set out the global reform agenda at Pittsburgh in 2009 they already said that "we are committed to take action at the national and international level to raise standards together so that our national authorities implement global standards consistently in a way that ensures a level playing field and avoids fragmentation of markets." More recently, in their 2018 Buenos Aires Summit Declaration, G20 Leaders stressed that "an open and resilient financial system, grounded in agreed international standards, is crucial to support sustainable growth" and reiterated that they "will continue to monitor and, if necessary, tackle emerging risks and vulnerabilities in the financial system; and, through continued regulatory and supervisory cooperation, address fragmentation".

Responsively, the 2019 Japanese G20 Presidency proposed that the FSB examine signs of market fragmentation and explore issues around market fragmentation and tools to address them, where appropriate. The report now delivered, which discusses fragmentation along geographical lines, and the planned further work, flow from this. The FSB recognises that regulatory authorities may have to consider potential trade-offs between the benefits of increased cross-border financial activity and a need to tailor domestic regulatory frameworks to local conditions. Nonetheless, market fragmentation can reduce the efficiency of global financial markets, as it may limit the breadth or increase the cost of financial services provided to end-users, and such a reduction in market efficiency may also adversely affect global financial stability, for example if it significantly impairs market liquidity.

The areas the FSB's report examines are the trading and clearing of over-the-counter derivatives across borders; banks' cross-border management of capital and liquidity; and the sharing of data and other information internationally. It includes a review of literature on this topic, a stocktake of work by standard-setting bodies (SSBs) and other international bodies, two case studies, as well as feedback from a workshop held with representatives from the private sector.

The report does not attempt to assess the significance of market fragmentation in specific areas or evaluate possible effects on financial stability or market efficiency. Instead, it discusses in general terms the potential linkages between market fragmentation and financial stability in different areas and, on this basis, lays out approaches and mechanisms that may enhance the effectiveness and efficiency of international cooperation, and help to mitigate any negative effects of market fragmentation on financial stability.

Areas for further work identified by the FSB include (i) exploring ways to, where justified, enhance the clarity of deference and recognition processes in derivatives markets; (ii) strengthening the understanding of approaches by supervisory and resolution authorities towards pre-positioning of capital and liquidity by international banks; (iii) considering ways to enhance supervisory communication and information sharing, including approaches and mechanisms to avoid future fragmentation; and (iv) considering whether there is evidence of market fragmentation with observed consequences for financial stability as part of the FSB's ongoing evaluation of the effects of too-big-to-fail reforms.

IOSCO's report on market fragmentation and cross-border regulation

Back in 2013, IOSCO established a Task Force to assist regulators with the challenges they faced in ensuring the effectiveness of domestic regulation without unduly constraining the cross-border offering of financial services or products. In 2015, this Task Force released its final report, which included a toolkit of three broad types of approaches for cross-border regulation: (i) national treatment; (ii) recognition; and (iii) passporting.

IOSCO observes that markets have continued to evolve since that time, particularly as jurisdictions continue to progress towards full implementation of the post-crisis G20 financial reforms. At the same time, there are signs of fragmentation in certain parts of the financial markets, which may undermine the effectiveness of the G20 reforms. Responsively, IOSCO established a Follow-Up Group to the 2015 Task Force (Follow-Up Group) to examine market fragmentation in wholesale securities and derivatives markets, specifically as it arises as an unintended consequence of regulation.

Among other things, this Follow-Up Group report includes a discussion on the concept of deference and how the tools identified in the 2015 Report help jurisdictions defer to one another. It considers where and how IOSCO members have used these tools since 2015 and discusses the benefits and challenges they have encountered in using them. It also explores the impact these tools may have had on market fragmentation, and members' views on the lessons that can be derived from their use. In this new report the term "deference" is used as an overarching concept to describe the reliance that authorities place on one another when carrying out regulation or supervision of participants operating cross-border. This is intended to be consistent with how deference is used by others in the context of cross-border regulation and its usage in this generic manner is not intended to refer to the legal framework of any single jurisdiction.

To inform this report, IOSCO participated in two roundtables in January 2019 and March 2019 with the public and private sector and issued a survey to its Board members about market fragmentation and their respective experiences with cross-border regulation since 2015. Among the key findings is that many regulators have become acutely aware of the risks associated with unintended market fragmentation and there has been increased collaboration and cooperation between IOSCO members to mitigate its effects. Deference between regulators through the use of cross-border regulatory tools, particularly those identified in the 2015 report, has increased significantly; bilateral arrangements in the form of MOUs are now a common tool used by regulators, particularly with respect to information exchanges; and regulators have developed novel processes to work multilaterally to the benefit of the markets they oversee.

Despite these successes, IOSCO finds that some challenges remain and considers that strengthening cooperation between regulatory authorities could further assist in addressing effects on the financial system stemming from market fragmentation. Accordingly, some potential measures that could be explored further are proposed.

IOSCO recognises that deference may not be appropriate in all circumstances but, nevertheless, believes that its use may contribute to mitigating the risk of fragmentation for global cross-border markets.

Concluding observations

Over the last decade, the G20 has consistently spoken of its commitment to the implementation of financial reforms in a way that supports an integrated global financial system and, consistent with its mission, ICMA fully supports this.

Given ICMA's expressed concerns over recent years about ways in which regulation has created fragmentation in markets, these two new detailed international examinations of the topic are a very welcome official step. They represent a detailed examination of many important aspects of the topic, show that there are ways in which progress towards integrated global markets continues to be made and serve to underscore the official commitment towards this. Nevertheless, they also recognise that more needs to be done, including as an unintended consequence of the regulatory reform process, and it will be important that further official work outlined in these reports is progressed, in a timely manner.

One of IOSCO's proposed potential measures that could be explored further is that its Affiliate Members Consultative Committee (AMCC) could prepare an evidence-based report for the IOSCO Board on an annual basis to ensure that the issue of harmful fragmentation remains a regular item on the IOSCO agenda. The AMCC is comprised of 64 IOSCO affiliate members, from across a wide range of jurisdictions, representing securities and derivatives markets and other market infrastructures, self-regulatory organizations, investor protection funds and compensation funds, as well as other bodies with appropriate interest in securities regulation. As an AMCC member, ICMA stands ready to contribute, as appropriate, to any such future AMCC report.

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Recent developments in the US repo market: a cause for concern? *By Andy Hill*

REPO

On 17 September 2019, US repo rates unexpectedly spiked 750 basis points, printing at a high of 10%. Volatility in repo rates is not in itself a reason for alarm. Repo rates, like any asset price, are a function of demand and supply, and are generally not static in healthy, functioning markets. Rather it was the size of the move that drew attention.

US money market rates had begun to edge higher on 16 September, largely as a result of increased demand in anticipation of corporate tax payments (with around $100 billion being drained from the banking system). Further pressure on reserves appears to have come from $54 billion of new Treasury issuance also settling on 16 September. It is estimated that at the same time money funds saw outflows of around $30-35 billion (due to corporate drawdowns to meet tax liabilities). All of this seems to have culminated to catch the market, and the Federal Reserve, off guard.

In general, central banks do a pretty good job of anticipating large drains on the banking system and manage reserves (usually through the repo market) to counter potential funding market dislocations caused by demand-supply imbalances. What has complicated this, however, is the unwind of quantitative easing and with this the Fed's ability to estimate the "comfortable" level of banks' excess reserves. Excess reserves have been declining in line with the post-QE contraction of the Fed's balance sheet. However, at $1.4 trillion going into the week of 16 September (see chart), the expectation may have been that banks were still holding a healthy buffer of cash that could easily absorb the outflows from the system. Based on survey data, it would seem that the estimated tipping point at which reserves become "sticky" (known as the "steep part of the curve") was around $1.2 trillion, comfortably below the current levels. But what is more difficult to estimate is the capacity for banks to recycle reserves through the repo market due to regulatory constraints (such as leverage ratio and G-SIB buffers). Separating out these two considerations is fiendishly tricky.

The Fed did respond to the sharp spike in rates on 17 September by offering $75 billion in overnight repos to primary dealers (known as "open market operations", or OMOs). However, this operation was not conducted until almost 10 am: the vast bulk of repo trading activity has taken place by the time most of us have had our first coffee of the day, and so the OMO was undersubscribed. The Fed has continued to inject temporary funds into the system on subsequent days (see chart), as well as introducing term (two-week) repos to help dampen potential further volatility over quarter-end. At the time of publication, it was not clear whether the Fed might consider implementing a more permanent solution to counter further declines in reserves (such as resuming outright asset purchases).

While perhaps the press has made too much of the episode, it nonetheless highlights two serious concerns for central bankers, both in the US and elsewhere. First, while executing QE has its challenges, unwinding QE is a far more difficult balancing act. Second, estimating the impact of regulation on banks' capacity to intermediate in the repo market is a guessing game. We should expect a lot more repo market volatility ahead.

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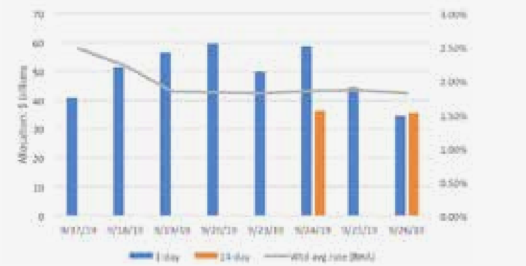
Repo Rates & Reserves

Source: ICMA analysis using Bloomberg data

Fed OMOs



Source: ICMA analysis using Federal Reserve Bank of New York data

Common Domain Model: the path to efficiency

By Ian Sloyan

REPO

Without intending it, the infrastructure supporting capital markets transactions has become incredibly complicated and resource intensive. As the markets developed, each firm established its own systems and its own unique set of representations for events and processes that occur during the life of a typical bond, loan or derivatives trade.

This disparate and duplicative infrastructure has become more complicated with the layering of additional processes – clearing, electronic trading, reporting, margining – to meet regulatory requirements.

The lack of commonality in how events and actions are described, defined and documented has led to high levels of manual intervention, and constant reconciliation is required after each step in the trade lifecycle to eliminate inconsistencies, both between counterparties and within internal systems. This is inefficient, resource intensive and costly – there is simply no commercial advantage to organizations maintaining their own representations.

In response, the International Swaps and Derivatives Association (ISDA) has developed the ISDA Common Domain Model (CDM), which establishes a set of standard representations for events and processes that occur throughout the lifecycle of a typical financial contract.

By doing so, the ISDA CDM provides a consistent, transparent and accurate blueprint of the market that can be used by all participants. This will improve efficiency and reduce the need for continual cross-checking and reconciliation. It will also promote transparency and alignment between regulators and market participants. For example, regulatory obligations, such as reporting or stress testing, could be met by specifying via code that certain CDM components or transaction data should be collected and presented in a certain way. This will drastically improve fidelity and integrity of regulatory data, removing regulatory and interpretation risk.

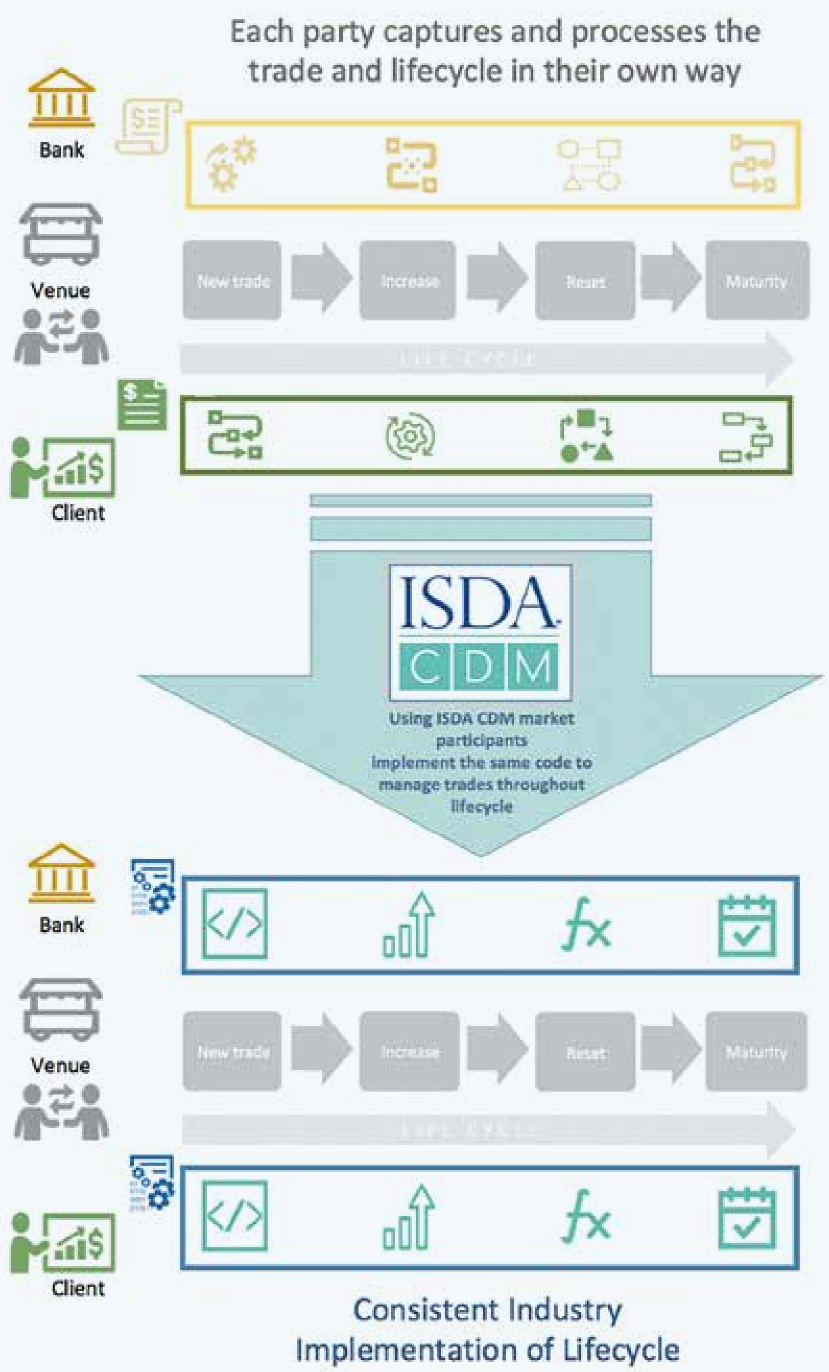
Importantly, using a common set of representations will enable firms to develop automated solutions that can be interoperable and scalable in a way that has not been achieved before. Greater interoperability between firms and platforms will help realize the full potential of new technologies like smart contracts and cloud, and will help increase automation and efficiency and reduce costs. Furthermore, the ISDA CDM will be distributed in different language formats as required by implementers to ensure consistent implementation of representations, events and processes on different technologies.

ISDA launched a full, deployable version of the ISDA CDM for interest rate and credit derivatives earlier this year, and a number of industry initiatives are now under way to implement the model. For example, the CDM has been successfully rolled out to support the UK Financial Conduct Authority, the Bank of England and participating financial institutions in testing phase two of the digital regulatory reporting pilot.

ISDA is also working with partner trade associations such as ICMA to extend the CDM to repo and securities lending markets.

In an environment of increased regulatory compliance expenses and lower returns on equity, financial institutions need to look at how they can increase efficiencies and reduce costs. Technology can provide a large part of the answer – but we need to get the foundations right first.

Ian Sloyan *is a Director for Market Infrastructure and Technology at ISDA and is leading ISDA's Common Domain Model (ISDA CDM) project.*


Each party captures and processes the trade and lifecycle in their own way
Bank
Venue
Client
New trade
Increase
Reset
Maturity
ISDA
CDM
Using ISDA CDM market participants implement the same code to manage trades throughout lifecycle
Bank
Venue
Client
New trade
Increase
Reset
Maturity
Consistent Industry Implementation of Lifecycle

Risk-free rates: bond market conventions

by Katie Kelly

RFR

Introduction

Considerable progress has already been made with the adoption of SONIA and SOFR in new public issues of FRNs over the past year and, in each market, certain market conventions have developed. These market conventions have evolved from, *inter alia*, existing conventions in the overnight index swaps market, the effective Federal Funds market and investor preference.

SONIA conventions

All recent new issues of SONIA-linked FRNs have used SONIA compounded daily in arrear for the relevant interest period. This requires observing SONIA on a daily basis over a period corresponding to an interest period, and compounding it over that period. The practice of compounding daily SONIA in arrear is consistent with the current practice in the UK swap market, which also references compounded daily SONIA in arrear. Using this convention ensures that liquidity is focused on an existing practice rather than fragmenting it by using a simple or weighted average.

A daily SONIA rate is available from the Bank of England and on licence from other providers, but market participants may need to calculate the compounded rate over the relevant period, and to reconcile it with other parties for each coupon payment. Market solutions are however emerging to facilitate this calculation.

Margin treatment: All recent new issues of SONIA-linked FRNs have added the margin for the interest period to the compounded SONIA rate for the same period (ie the margin itself is not compounded). This is a relatively straightforward method of constructing and calculating the coupon, and makes it easier for all parties to independently verify the coupon amount.

Lag period mechanism: Interest on SONIA-linked FRNs is paid on each interest payment date, which falls at the end of each interest period – so far, so usual. However, a certain number of days is required before the interest payment date to ensure that operationally, the payments flow smoothly (involving the issuer, the Calculation Agent, the Paying Agent and the ICSDs); this includes calculating, agreeing and reconciling the SONIA rate and the coupon payments, and making the actual coupon payments to the accounts of investors on the interest payment date.

In order to accommodate this period of time required from the operations point of view, the period over which SONIA is observed begins a number of London Banking Days before the relevant interest payment date and ends a number of London Banking Days before the next following interest payment date. In the SONIA market, this has consistently been 5 London Banking Days. So in respect of each interest period, the SONIA rate is observed (and compounded) each day over a period which corresponds to that interest period *in terms of number of days in the interest period*, but does not match the actual period itself.

This lag period mechanism most closely matches practice in the derivatives market, which operates with a lag period for settlement, with future interest accrual from trade date to settlement date being reflected in *traded* prices. The mechanism also ensures that the parties know the coupon amount *before* the interest payment date even though the rate is retroactive, and captures *all* rate changes over a period which corresponds to the interest period in terms of number of days.

The Working Group on Sterling Risk-Free Reference Rates has released a discussion paper on SONIA Market Conventions. In the resulting *Statement from the Working Group and Summary of Responses*, the RFR Working Group stated that the 5 day lag period is "viewed as sensible by the Working Group. …. It balances the need to capture realised movements in SONIA with a suitable period to complete operational processes." The RFR Working Group also considered that the 5 day lag period "has minimal convexity impact", so making it easier to estimate the change between the bond price and the yield.

SOFR conventions

It is also important to consider the SOFR conventions. Overnight SOFR has been used in the US FRN market. But there have so far been two main differences in market

> **The most important thing is that the different markets understand the different conventions and coalesce around one set.**

conventions between SONIA in the UK and SOFR in the US: whereas compounding has been used in the SONIA market, simple averaging has been used in the SOFR market; and whereas a lag mechanism has been used in the SONIA market, a series of different mechanisms has been used in the SOFR market.

Predominantly, the mechanism which has been used in the SOFR market is the lockout, which operates such that interest is fixed for the last few (typically, 4) days of the interest period at the previous day's rate. That fixed rate is then applied for the final 4 days of the interest period. The *actual realised* 4 rates are not used at all: ie they do not roll over and are therefore not used in the calculation of the rate for the next following interest period.

Although this lockout mechanism ensures that the parties know the coupon amount before the interest payment date, it is not a feature in the UK market. And because the rate for the last 4 days is disregarded, the upside and/or downside of any potential volatility over those last 4 days in each interest period will also be disregarded.

Some recent SOFR-linked FRNs have used compounded SOFR with a 5 day lag, and one has used compounded SOFR with a 2 day lag. (In that particular case, the issuer was also the Calculation Agent and thus efficiencies were able to be made in terms of the timing of the operational steps.)

In addition, some recent SOFR-linked FRNs have used another mechanism, where interest is paid 2 days after the end of the interest period (except for the final interest payment, which uses a 2 day lookback mechanism that assumes the SOFR rate stays the same for those 2 days). With this mechanism, other than for the final interest payment on maturity, neither a lag nor a lockout is necessary so that the SOFR observation period and the corresponding interest period are exactly aligned.

Convergence of conventions

Papers have been released by the RFR Working Group in the UK, by the ARRC in the US and by the FSB, each of which sets out the various conventions which have been used in the respective markets, and considers the opportunities for future international alignment between them. The RFR Working Group have stated that "while there appears to be a basis for consistent conventions across SONIA products based on existing conventions, further work could be done to achieve the call for alignment across jurisdictions".

Alignment between the different conventions *in terms of compounded average versus simple average* is an ambition on the part of the various working groups and authorities: according to the ARRC's and FSB's User's Guides, "from an economic perspective, compound interest is the more correct convention", and the ARRC's Floating Rate Notes Working Group has expressed a preference for compounded SOFR.

It is not yet clear whether the lockout mechanism, the lag mechanism, or the payment delay mechanism will be adopted in the US SOFR-linked FRN market, and if the lag were adopted, what the standard number of days in the lag would be (2 days, 5 days or other).

But ultimately, details such as the number of days in the lag are not necessarily the focus; the most important thing is that the different markets understand the different conventions and coalesce around one set – such as using compounding instead of simple averaging, and using a lag mechanism, as opposed to a lockout. Whether or not they do so remains to be seen.

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Euro risk-free rate reform

By David Hiscock

RFR

From EONIA to €STR

On 14 March 2019, the private sector Working Group on Euro Risk-Free Rates endorsed recommendations to market participants regarding the transition from the euro overnight index average (EONIA) to the euro short-term rate (€STR), which was previously adopted by the working group as the preferred new near-risk free rate for the euro area.

Among other things, the working group recommended that market participants gradually replace EONIA with €STR for all products and contracts, making €STR their standard reference rate and making certain adjustments to their IT systems. In order to give market participants sufficient time to transition to €STR, the working group recommended that EONIA's administrator, the European Money Market Institute (EMMI), modify the current EONIA methodology to become €STR plus a fixed spread – for a limited period of time – based upon a recommended spread calculation methodology. EMMI was also requested to engage with the relevant authorities to ensure that EONIA, under its evolved methodology, complies with the EU Benchmarks Regulation (the BMR).

Finally, the working group recommended a methodology for calculating a forward-looking term structure based on €STR derivatives markets, that could be used as a fallback in EURIBOR-linked contracts. The working group is analysing further both backward and forward-looking approaches as potential fallbacks for EURIBOR, acknowledging work being done in other currency areas as well as by ISDA, which has announced its intention – following the start of the publication of the €STR – to consult on determining a fallback for EURIBOR-linked derivatives contracts.

EMMI consulted on these working group recommendations for EONIA, with the results of that consultation being released on 31 May. EMMI confirmed that the EONIA methodology would change to €STR plus a spread as from 2 October 2019 and that EONIA was intended to be discontinued on 3 January 2022.

Concurrently, the ECB announced that it had calculated the spread between €STR and EONIA, based on the methodology as recommended by the working group and adopted by EMMI, for the recalibration of the EONIA methodology as of 2 October and until its discontinuation by EMMI. On the basis of daily EONIA and pre-€STR data, from 17 April 2018 to 16 April 2019, the ECB has calculated this spread as 0.085% (ie 8.5 basis points).

Subsequently, on 16 July, the private sector Working Group on Euro Risk-Free Rates published a set of *Recommendations on the Legal Action Plan* for the transition from EONIA to €STR.

Among other things, the working group recommended €STR plus a fixed spread of 8.5 basis points as the EONIA fallback rate for all products and purposes. Market participants, whenever feasible and appropriate, should consider avoiding entering into new contracts referencing EONIA, in particular new contracts maturing after 31 December 2021 – as EONIA will cease to exist directly after that date. For existing contracts referencing EONIA and maturing after December 2021, market participants should consider replacing EONIA as a primary rate as soon as possible or embed robust fallback clauses. In those cases where new contracts still reference EONIA and mature after December 2021, or fall within the scope of the BMR, market participants should include robust fallback provisions.

Additionally, for the purpose of enhancing transparency, new contracts signed before October should ideally include clarification that the EONIA methodology would change as of 2 October and that, unless otherwise agreed by the parties, references in contracts to EONIA shall be understood to be references to EONIA as changed. Following public consultation on the legal action plan and the feedback received from the market, the working group also provided two templates for EONIA discontinuation fallback language for new cash products – market participants may use the wording and tailor it to take into account the terms and conditions for each particular asset class and the legal requirements of each governing law and relevant European jurisdiction.

When considering these recommendations, it is important to keep in mind that many provisions of the BMR have been in application since 1 January 2018. These provisions include Article 28(2), which states that supervised entities that use a benchmark "shall produce and maintain robust written plans setting out the actions that they would take in the event that a benchmark materially changes or ceases to be provided. Where feasible and appropriate, such plans shall nominate one or several alternative benchmarks that could be referenced to substitute the benchmarks no longer provided, indicating why such benchmarks would be suitable alternatives. The supervised entities shall, upon request, provide the relevant competent authority with those plans and any updates and shall reflect them in the contractual relationship with clients." Where the "use" of a benchmark falls within scope of this provision of the BMR, supervised entities therefore need to be satisfied that they do indeed have such robust written plans in place.

As a next step, on 19 August, the private sector Working Group on Euro Risk-Free Rates published a report containing a set of *Recommendations Addressing the Impact of the Transition from EONIA to €STR*. These recommendations take an operational and valuation perspective, taking into account EONIA's wide use as a reference rate and as a collateral remuneration and cash flow discounting rate. The report analyses the various financial products and processes affected by the transition, covering secured (eg repos) and unsecured (eg current accounts) cash products, securities (eg CP and CDs), investment funds, derivatives and models referencing EONIA.

The report urged market participants to prepare for two key phases of transition: first, the change in EONIA's publication time from 19:00 CET on day T to 09:15 CET on the next business day, T+1, which stemmed from the change in EONIA's methodology as of 2 October (representing transactions executed on 1 October 2019) – as determined by EMMI and alongside the instigation of €STR; and second, the discontinuation of EONIA on 3 January 2022.

Regarding the change in EONIA's publication time, the working group encourages market participants, among other things:

- to screen their inventory of affected transactions and system environments to assess the modifications needed;
- to design a communication strategy geared towards internal and external stakeholders; and
- in certain cases, to consider adjusting the default settlement time.

Regarding the transition period until EONIA is discontinued, the working group recommended, among other things:

- that, before the end of 2021, market participants actively transition floating rate options referencing EONIA to €STR floating rate options;
- that CCPs align their discounting switch dates as much as possible to transition from an EONIA discounting regime to a €STR discounting regime, and set the discounting switch date as early as possible – preferably towards the end of the second quarter of 2020; and
- that market participants introduce all necessary modifications in order to be able to issue, buy, trade and manage new securities indexed to the €STR and avoid issuing new securities indexed to EONIA with maturities going beyond the transition period.

The full report provides the detailed set of recommendations and underlying analyses, which include some market best practices agreed by ICMA's European Repo and Collateral Council in relation to the practicalities of the EONIA to €STR transition for non-cleared repo markets. The working group's recommendations are not legally binding but do provide guidance to market participants preparing for the transition from EONIA to the €STR. A further report focused on risk management implications of the transition from EONIA to €STR, and of the inclusion of fallbacks for EURIBOR based on a €STR-based term structure methodology, is being prepared for publication by the working group.

Following on from a first event in November 2018, the second roundtable on euro risk-free rates was hosted by the ECB, in Frankfurt, on 25 September 2019. It focused on providing information to market participants on how to transition from EONIA to the €STR; and included panel sessions and speeches by various speakers.

EURIBOR

Finally, turning to the topic of EURIBOR, on 6 May 2019, EMMI announced that it had applied to the Belgian Financial Services and Markets Authority (FSMA) for authorisation under the BMR. As a subsequent step, EMMI started transitioning panel banks from the current EURIBOR methodology to the new hybrid methodology on which it had earlier consulted the market, with a view of finishing the process before the end of 2019. In support of all this, EMMI has adopted a governance framework establishing the requirements and principles related to the provision of the EURIBOR benchmark under the hybrid methodology.

Subsequently, on 3 July, it was announced that EMMI had been duly granted authorisation for the administration of EURIBOR by the FSMA. With this recognition under the BMR confirmed and the EURIBOR methodology reformed, EU authorities anticipate that the use of EURIBOR will persist for the foreseeable future.

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Summary of practical initiatives by ICMA

The practical initiatives on which ICMA has been engaged over the past quarter, with – and on behalf of – members, include the following:

Brexit

1 ICMA's role and approach to Brexit can be summarised as follows:

- ICMA's role is to encourage efficient and integrated capital markets, which are necessary to support economic growth.
- ICMA's approach has been to focus on the potential impact of Brexit on international capital markets, particularly the need to address and avoid cliff-edge risks which arise when passporting rights between the EU27 and the UK cease.
- ICMA is not lobbying for any particular financial centre. ICMA's members are based in London, the EU27 and more broadly.
- ICMA has been discussing capital market preparations for Brexit with members through its main ICMA Market Practice and Regulatory Policy Committees and reporting to the Board.
- ICMA is keeping in contact with the authorities in the UK, the EU27 and the euro area.
- ICMA is cooperating with other trade associations by sharing information, wherever possible.
- ICMA is keeping members up-to-date on Brexit by giving them regular assessments through the ICMA Quarterly Report and conference calls.
- ICMA has posted on its website for members an ICMA Brexit FAQ, focusing on ICMA's own documentation.
- ICMA is keeping its Brexit webpage up-to-date, both with its own work, and also with electronic links to key documents published by the authorities in the EU27 and the UK, and with links to the webpages of law firms and others.

Capital Markets Union (CMU)

2 On 26 July, ICMA published a short briefing paper on *The Importance of Integrated Capital Markets and CMU*. This gives some high-level observations on the importance of making progress to fulfil the objectives of CMU in a way which allows the EU to achieve better outcomes in a highly competitive global environment, and on the incremental complexity introduced by Brexit. The paper also outlines why ICMA considers that there is a big opportunity to fully exploit the synergies between each of the CMU, the Sustainability Action Plan and the FinTech Action Plan.

The transition to risk-free rates

3 ICMA participates in the RFR Working Groups in the UK, the euro area and Switzerland; and ICMA is chairing the Bond Market Sub-Group in the UK, working with the FCA and Bank of England, and is in regular contact with the equivalent group in the US Alternative Reference Rates Committee (ARRC), which is working with the Federal Reserve. A detailed account of ICMA's work is given in the Quarterly Assessment on *The Transition to Risk-Free Rates in the Bond Market* on pages 8-14 of the ICMA Quarterly Report Third Quarter 2019. Over 600 members joined the ICMA members' call on the transition to risk-free rates on 16 September, and a further call was held on 24 September for ICMA's Asia-Pacific region.

Primary markets

4 *Public sector issuers:* The Public Sector Issuer Forum (PSIF) met at the EBRD in London on 17 June to discuss the European Distribution of Debt Instruments (EDDI) initiative, introduced by the ECB and the ESM. The next meeting of the PSIF is at the World Bank in Washington on 17 October.

5 *EDDI:* On 9 July, on behalf of all its member constituencies, ICMA responded to the ECB's consultation on EDDI, identifying the issues that need to be addressed for its successful implementation.

6 *Prospectus Regulation:* ICMA is working with members on implementation of the new Prospectus Regulation regime (including consequential revisions to the ICMA Primary Market Handbook) and considering potential disclosure requirements related to ESG.

7 *Key information documents:* ICMA has responded to a Czech consultation proposal to require a key information document for all bond offerings (including vanilla bonds for professional investors only).

8 *Deal announcements and new issue processes:* ICMA is facilitating industry discussions on the format of deal announcements and, in the Asia-Pacific area, on new issue processes.

9 *Post-trade:* ICMA is working on the primary market implications of various emerging post-trade initiatives, including: EDDI; the ECB AMI-SeCo Collateral Management Harmonisation Task Force (CMH-TF) consultation on corporate action harmonisation; and potential reforms to the ICSD syndicated closing process following CSDR implementation.

10 *Primary markets technology mapping directory:* ICMA has reviewed its mapping of existing and emerging platforms and technology solutions in primary markets, which was initially launched in December 2018. The new version was published on 18 September 2019. The purpose is to help inform ICMA members and thereby create greater transparency.

11 *Primary Market Forum:* ICMA is currently planning the organisation of its next Primary Market Forum, which will be hosted by The London Stock Exchange in London on 14 November.

Secondary markets

12 *ICMA SMR&R:* ICMA is consulting members, on an ongoing basis, on the impact of MiFID II/R and other proposed new EU regulations on the ICMA Secondary Market Rules & Recommendations (SMR&R), and has established a dedicated working group to review the ICMA SMR&R. In particular, the working group will look to revise the ICMA buy-in rules in light of the new CSDR requirements.

13 *CSDR:* As the November 2020 date of implementation for the contentious mandatory buy-in obligations under the Central Securities Depository Regulation (CSDR) approaches, ICMA is engaged in a number of important related initiatives. These include:

- updating the ICMA buy-in rules (part of the ICMA Secondary Market Rules & Recommendations) to create a legal framework and market best practice to support compliance for ICMA members;
- working with ESMA to address a number of technical challenges in the Regulation (such as asymmetrical payments of the buy-in and cash compensation differential); and
- working with the industry to design a workable pass-on mechanism to enhance the CSDR buy-in framework.

This is part of ICMA's broader work to create a contractual framework and market best practice (through the ICMA buy-in rules) to support implementation of and compliance with the new regulatory requirements. ICMA is also undertaking a new market impact study, updating the previous analysis published in 2015. ICMA plans to publish the new report in Q4 2019.

14 *Corporate bond secondary market:* ICMA is nearing completion of its research for the third ICMA study into the state and evolution of the European IG corporate bond secondary market. Intended to update on the seminal 2016 report, the new study seeks to address three key questions: (i) What is the current state and expected course for market liquidity? (ii) How is the structure of the market evolving? (iii) What are the expectations for future market developments? ICMA plans to publish the new report in Q4 2019.

15 *MiFID II/R data quality:* ICMA has established a MiFID II/R Data Quality Task Force which has identified key challenges and provided practical solutions relating to MiFID II/R post-trade data. The objective of the Task Force is to work with ESMA and the European Commission in improving the existing data structures and systems in a cost-effective way.

16 *MiFID II/R consolidated tape:* ICMA's Consolidated Tape Working Group and Task Force (part of ICMA's MiFID II/R Data Workstream), involving the buy side, sell side, trading venues and data providers, have submitted a response to ESMA's consultation on cost of market data and consolidated tape. While the consultation focuses specifically on the development of a consolidated tape for equity products, ICMA views this as a valuable opportunity to highlight market considerations with respect to a consolidated tape for EU bond markets, which, in many respects, are quite distinct from those of equities. The ICMA response was submitted by the deadline on 6 September.

17 *Brexit Technical Working Group:* ICMA has established a technical working group to focus on the practicalities of Brexit relating to the secondary bond and repo markets in the EU27 and the UK.

18 *ICMA Secondary Markets Newsletter:* ICMA has launched a new Secondary Markets Update which provides a quick summary of ICMA's current initiatives and workstreams, pertinent news and regulatory updates affecting the secondary bond markets. It is to be published every two months.

Repo and collateral markets

19 *SFTR:* ICMA's European Repo and Collateral Council (ERCC) has submitted a detailed response to ESMA's consultation on draft *Guidelines in relation to Securities Financing Transactions Regulation (SFTR) Reporting* under Articles 4 and 12. The response was prepared based on feedback from the ERCC's SFTR Task Force, which brings together more than 600 individuals from over 100 member firms, including sell side, buy side, market infrastructures and service providers, leading the industry's implementation effort in relation to repo. The response form itself was submitted alongside two further documents prepared by the Task Force previously: a list of SFTR sample reports, as well as detailed overview table on the reporting of repo lifecycle events.

20 *SFTR workshops:* In the run-up to the implementation of the SFTR in the EU in 2020, ICMA has organised a number of workshops. The most recent workshop in London was on 13 September. Two workshops in Asia briefed members on the implications for Asia-Pacific fixed income markets. The workshop in Singapore on 3 September was hosted by SGX and the one in Hong Kong on 4 September by Bloomberg.

21 *Transition from EONIA to €STR in the repo market:* The ICMA ERCC has published guidelines on repo market best practice with respect to the transition from EONIA to €STR to be followed from 1 October 2019. The ECB announced in March that it would start publishing the €STR as of 2 October 2019, reflecting the trading activity of 1 October 2019. The finalised guidelines will be included in the *ICMA ERCC Guide to Best Practice in the European Repo Market.*

22 *Common Domain Model:* ICMA is cooperating with ISDA to extend the development of the Common Domain Model (CDM) to include repo and, by extension, outright bond transactions: a single, common digital representation of securities trade events and lifecycles intended to enhance standardisation and facilitate interoperability across firms and platforms. The development of the CDM for all financial markets and securities will be critical in creating cross-industry efficiencies, while easing the development and adaptation of new technologies.

23 *ECB AMI-SeCo:* The ERCC is represented on the ECB's Advisory Group on Market Infrastructure for Securities and Collateral (AMI-SeCo) and is playing an active role on its Collateral Management Harmonisation Task Force (CMH-TF). In response to a CMH-TF consultation on a set of harmonisation standards in relation to corporate actions, ICMA has submitted informal high-level considerations focusing on primary market-related concerns, based on input from ICMA's Primary Market Practices Committee.

24 *Balance sheet netting and T2S:* The ERCC has raised concerns about the possibilities for balance sheet netting in T2S and is coordinating an industry discussion on this topic with the relevant accountancy experts. In this context, ICMA will be hosting a meeting between ERCC members, experts from the major accountancy firms and T2S experts from the ECB in order to lead the discussion towards a positive conclusion.

25 *FinTech mapping for repo and cash bonds:* The FinTech Working Group of the ERCC has conducted a review of the FinTech mapping directory for repo and cash bond operations to ensure it is up-to-date. The revised mapping is available on ICMA's website.

Sustainable markets

26 *TEG:* Following the publication in March 2018 of the European Commission's Action Plan on Sustainable Finance, the Technical Working Group on Sustainable Finance (TEG) was established in June 2018. ICMA, with the support of the GBP SBP Excom, was nominated on the TEG, which has held monthly working group and plenary meetings since its inception. On 18 June 2019, the TEG published reports and guidelines relating to its four key deliverables: EU Taxonomy for sustainable activities; EU Green Bond Standard; EU climate benchmarks and benchmarks' ESG disclosures; and guidelines on the disclosure of environmental and social information. ICMA has produced an overview and comments on these reports.

27 *Usability of the EU Taxonomy:* ICMA responded to the second EU consultation primarily from the perspective of the Green Bond Principles (GBP). ICMA continues to support a taxonomy that would determine environmental sustainability and be complementary to the existing GBP project categories and other green taxonomies. There are concerns, however, such as on the usability for the project-based approach of green, social and sustainability bonds, as well as the practicality of the proposed "Do No Significant Harm" (DNSH) criteria.

28 *ESMA guidance on CRA disclosure:* ICMA responded to this ESMA consultation primarily from the perspective of the Corporate Issuer Forum. Support was expressed for more and better disclosure on unsolicited ratings in credit rating agencies' press releases, and for efforts to improve the quality and consistency of ESG-related disclosures in credit ratings and outlooks.

29 *Sustainable finance in emerging markets:* ICMA responded to the IOSCO consultation on sustainable finance in emerging markets and the role of securities regulators.

30 *Green Bond Index:* The GBP SBP ExCom has responded to Bloomberg Barclays MSCI Green Bond Index consultation.

Asset management

31 *AMIC Executive Committee:* On 4 October, the Asset Management and Investor Council (AMIC) Executive Committee held its latest meeting, in London. The meeting included a discussion regarding AMIC priorities; an update on the work of the AMIC's Risk Management Working Group, which is currently focused on fund liquidity; a debate to help finalise a short AMIC position paper on ELTIFs; an initial discussion on the contemplated EU Ecolabel for funds, and updates on Brexit and IBOR transition. The next AMIC Executive Committee meeting is scheduled for 28 November.

32 *ESMA consultation on short termism*: On 29 July, the AMIC submitted a response to ESMA's consultation on possible short-term pressure from the financial sector on corporations. AMIC refutes the idea that short termism is a prevalent bias of asset managers and calls for a regulatory framework which can further foster capital allocation towards sustainable and long-term assets. ICMA also subsequently participated in ESMA's associated, 16 September, workshop on short termism.

33 *Risk requirements for funds:* Over the past few years, AMIC and EFAMA have published joint reports on the legislative requirements and market-based tools available to manage liquidity risk in investment funds in Europe; leverage in investment funds; and systemic risk in asset management, focusing on liquidity stress testing in investment funds. These have formed the basis for a number of subsequent responses to regulators. The AMIC is continuing to examine the best ways in which to further this process of working to ensure that there is a well-informed debate regarding any potential imposition of additional risk requirements for funds.

34 *AMIC conference:* The next AMIC Conference, which will be hosted by BlackRock in London on 27 November, is currently being organised. The conference will feature Tatyana Panova, DG FISMA, as a keynote speaker on the topic of CMU, followed by panel discussions led by industry practitioners on the development of the STS securitisation market; the pension gap, PEPP and the effect of negative interest rates; and the possibility of an EU Ecolabel for funds.

FinTech in capital markets

35 *FinTech meetings with regulators:* ICMA held meetings with the Bank of England on 11 July and with BaFin on 12 September to discuss FinTech and related legislative and regulatory developments.

36 *ECB FinTech Task Force:* ICMA, through the ERCC Ops FinTech Working Group, continues to be represented on the ECB's Harmonisation Steering Group's FinTech Task Force, a sub-group of the AMI SeCo, following the renewal of its mandate. ICMA contributes, for example, to the mapping exercise of post-trade technology solutions, as well as discussions on tokenisation of securities.

37 *IOSCO FinTech Network:* ICMA, an affiliate member of IOSCO, is represented on the IOSCO FinTech Network, and is participating in two workstreams on distributed ledger technology (DLT) and lessons learnt from innovation. The purpose of the network is to share information and practices with respect to FinTech in an informal manner.

38 *ICMA FinTech Forum:* On 25 June in London, ICMA held its inaugural FinTech Forum: *How is Technology Shaping International Fixed Income Markets?* The event brought together a broad range of market participants across the whole value chain of international debt capital markets (including issuers, investors, intermediaries and market infrastructure providers) as well as regulators.

Other meetings with central banks and regulators in Europe

39 *ICMA Regulatory Policy Committee (RPC):* Rich Fox, Head of Markets Policy at the FCA, joined the ICMA RPC meeting in London on 26 September for a discussion.

40 *ICMA/ECB meetings:* A small ICMA delegation, including Board members and chairs of ICMA Committees, had a series of meetings with the ECB in Frankfurt on 30 September.

41 *Official groups:* ICMA continues to be represented, through Martin Scheck, on the ECB Bond Market Contact Group and on the ESMA Securities and Markets Stakeholder Group; through Nicholas Pfaff on the European Commission Technical Expert Group on Sustainable Finance; and through Charlotte Bellamy on the Consultative Working Group on ESMA's Corporate Finance Committee.

42 An updated draft of the ICMA regulatory grid is available on a password-protected webpage on the ICMA website.

Primary Markets

by Ruari Ewing

MiFID II/R product governance and PRIIPs

The second quarter edition of this Quarterly Report referenced ICMA's 15 March response to the German Ministry of Finance's consultation on MiFID II/R (with the primary market coverage essentially referencing ICMA's report on *MiFID II and the Bond Markets: The First Year* published on 6 December 2018).

On 27 August, the German Ministry of Finance published a consequent position paper, *Necessary Amendments and Revisions to Investor Protection Provisions in MiFID and PRIIPs*, which notes generally that its "findings did not reveal the need for a comprehensive review", though proposes some near-term action and some subsequent work.

More specifically regarding MiFID II/R product governance, the paper:

- as a near-term focus, suggests that a periodic review for simple financial instruments should not be required since such "instruments (eg plain vanilla bonds, shares) used for corporate financing do not change their structure or payment profile during their life cycle" and such a review "does not lead to additional benefits for clients"; and
- in the medium term, notes questions as to whether the product governance regime is "needed at all" and so proposes some analysis as to the regime being "simplified or revoked" (notably in light MiFID's suitability requirements).

Regarding the PRIIPs regime's scope (including make wholes) and in the near term, the paper notes reduced retail availability due to the European Commission's "current interpretation regarding the scope of PRIIPs" (see the Commission's 14 May reply to the ESAs' 19 July 2018 letter requesting clarification of the PRIIPs regime's scope) and proposes bonds "should not become packaged products simply by adding a make-whole clause" and that it should be made clear that the PRIIPs regime does not apply to "plain vanilla corporate bonds, including bonds with a make-whole clause (eg bonds with the amount repayable directly linked to an interest rate index)."

For now, in a parallel development, BaFin stated (in a 19 September non-binding English translation of a 22 August Guidance Notice) that its administrative practice is to treat corporate bonds as packaged under the PRIIPs regime *inter alia* where they include a "redemption at make-whole" feature (as the amount repayable is subject to fluctuations because of exposure to reference values, albeit only in certain circumstances, namely in the case of early redemption). The translation also states that, exceptionally, BaFin would not treat linking the amount repayable to an interest rate index (such as EURIBOR or LIBOR) as packaging under PRIIPs (by analogy with deposits that are explicitly excluded).

Regarding costs and charges and performance scenarios, the German Ministry of Finance paper notes that the MiFID and PRIIPs provisions on client information (notably on costs) should be harmonised "to avoid a misleading duplication" and that the performance scenarios provisions "lead to misleading presentations" for some products (with manufacturers "forced to add written comments that the presentation should be disregarded").

Distinctly, ICMA responded on 26 September to a Czech Ministry of Finance 23 August consultation relating to the National Strategy for the Development of Capital Market in the Czech Republic 2019-2023. The response warns, in light of the current debate about PRIIPs' dampening impact on retail access to bond markets, that introducing a key information document for all bond offerings (not just packaged retail products) seems likely to be severely detrimental to the existing debt capital markets in the Czech Republic, let alone their future development.

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> **ESMA considers it important to assist affected entities in preparing for the entry into force of the disclosure technical standards.**

Asset-Backed Commercial Paper

On 17 July, ESMA published several additional resources to assist market participants in the implementation of its draft technical standards on disclosure requirements for the EU Securitisation Regulation (SR). First, ESMA has updated its SR Q&As clarifying different aspects of the draft disclosure technical standards, including how some specific fields in the templates should be completed. ESMA will continue to update this Q&A on the SR in the coming months, where necessary.

Second, in line with its implementation statement published on 13 November 2018, ESMA has published a set of reporting instructions and XML schema for the templates set out in its draft technical standards on disclosure requirements (the XML schema also correct several typos) – some of which relate specifically to ABCP securitisation. As set out in Article 4 of ESMA's draft disclosure implementing technical standard, reporting of data (ie information covered under the templates) for all securitisations must be done using XML. Finally, to accompany the XML schema, ESMA has also published a set of validation rules, which prohibit the submission of certain combinations of information that are logically incoherent.

ESMA is providing these updated Q&As, XML schema and validation rules in advance of several disclosure-related delegated acts that are due to be adopted by the European Commission. This is a deviation from ESMA's standard practice, because ESMA considers it important to assist affected entities in preparing for the entry into force of the disclosure technical standards, given the specific nature of the transition provisions set out in the SR. ESMA considers that these XML resources are, for example, an important input for an originator, sponsor or SSPE that has been designated to make information about a securitisation available via a securitisation repository as well as for a prospective securitisation repository that may be preparing to apply for registration to ESMA.

These published resources are subject to change should the actual delegated acts adopted by the European Commission contain changes that need to be reflected in the present documents; and the content of each of these published items does not signal that the final delegated acts adopted by the Commission, based on ESMA's submitted draft technical standards, will necessarily be identical to the provisions in ESMA's submitted draft technical standards. Furthermore, ESMA reserves the right to further adjust or update the Q&As, XML schema and validation rules at any time.

Circulated on 23 September, AFME's *Second Quarter 2019 Securitisation Data Report* shows that European ABCP issuance was €149.9 billion in the second quarter of 2019. This is a moderate decline of 5.4% versus the prior quarter and a strong increase 37.0% versus the same quarter in the prior year; and except for the prior quarter is more than in any other quarter in the past decade. Multi-seller conduits (99.4% of total), particularly from France (68.1% of total) and Ireland (29.4%), continue to dominate as the largest issuance category in the ABCP market.

In order to provide a comprehensive package of clarifications for market participants, ESMA has developed a set of Q&A, most recently updated on 17 July, based on stakeholder feedback and questions on the disclosure technical standards received by ESMA. These cover many technical issues on how to complete template fields and aim at providing guidance to market participants seeking further context that may be helpful for their future expectations of how to comply with these RTS/ITS. Nevertheless, they are being provided in advance of the adoption of the disclosure RTS/ITS being finalised for adoption by the European Commission and, consequently, are subject to possible changes.

ESMA's website also provides a, gradually growing, list of the STS notifications it has received. Thus far the public transactions have all been non-ABCP transactions and, where applicable, have involved verification given by either one of two firms, Prime Collateralised Securities and STS Verification International. However, of the 13 private transactions on ESMA's list by end-September, 10 are reported as being ABCP transactions in respect of trade receivables.

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Primary markets technology mapping directory

ICMA published in September the second edition of its primary markets technology mapping directory which compares the key features and capabilities of 28 technology solutions (up from 22 in December last year) that are available to automate all or part of the process of issuing debt securities. Building on ICMA's work in primary bond markets, the directory's purpose is to keep ICMA members informed about what platforms and technology solutions are available in a rapidly expanding competitive marketplace.

This unique mapping exercise includes new technology solutions, as well as new features of previously included solutions. It explains at what stage of the issuance process they can be used and whether they are aimed at underwriters, investors, issuers or others and also provides information on the scope of debt instruments covered and to what issuance methods the technology solutions apply. The directory also includes emerging platforms using distributed ledger technology which have conducted live pilots.

This initiative complements ICMA's mappings of Electronic Trading Platforms as well as FinTech solutions for repo and cash bond operations.

Whilst the mapping directory currently covers 28 technology solutions, it does not constitute an exhaustive list of providers in the market. Relevant providers that are not yet covered by the mapping directory and wish to join are very welcome to do so.

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Masala Bonds: recent developments and outlook

by Joywin Mathew

Background

Borrowing by Indian entities from the overseas market or "External Commercial Borrowings" (commonly referred to as "ECBs"), is regulated by the Reserve Bank of India (RBI) and is governed by the various rules specified by the RBI.

In 2015, the RBI issued regulations (the "Rupee Bond Guidelines") which allowed Indian issuers to raise funding through the issuance of rupee-denominated debt instruments – which are now widely referred to as "Masala Bonds". Further to the Rupee Bond Guidelines, a market has developed for Masala Bonds with a wide variety of issuers from India accessing the international fixed income markets. With the aim of further easing the regulatory constraints relating to ECBs, the RBI revised the framework for ECBs and Masala Bonds in March and July 2019 (the "ECB Framework").

The ECB Framework now divides ECBs into two categories - foreign currency denominated ECB and Indian rupee-denominated ECB (which also includes Masala Bonds). This article outlines some key features of Masala Bonds and the recent changes brought about by the ECB Framework for issuance of Masala Bonds.

Features of Masala Bonds

Issuers: The ECB Framework now allows a greater universe of issuers to issue Masala Bonds. Eligible issuers under the ECB Framework include all entities eligible to receive foreign direct investment (FDI), port trusts, units in special economic zones, specialised financial institutions such as small industries development bank of India (SIDBI) and the Export Import Bank of India, and registered units engaged in micro-finance.

Minimum maturity: The ECB Framework generally prescribes a minimum maturity of three years with prepayment (whether voluntary or mandatory) possible only after the three years from the date of issuance. The ECB Framework however prescribes different minimum maturities, specific categories of issuers and their use of proceeds.

Underwriting: Overseas branches or subsidiaries of Indian banks can act as an arranger and/or underwriter for Masala Bond issuances. However, underwriting by overseas branches or subsidiaries of Indian banks for issuances by Indian banks is not allowed.

Structure: The Masala Bonds should also be "plain vanilla bonds". Whilst there is no clear definition available as to what would constitute a "plain vanilla bond", the expectation is that any note issuance which would have the characteristics of a structured bond issuance may not fall within the definition of "plain vanilla bonds".

Pricing: The maximum amount which can be borrowed by an entity by issuance of Masala Bonds is USD750 million (approximately INR50 billion). Any increase in the issue size beyond USD750 million in a financial year will require the prior approval of the RBI. In relation to the pricing of Masala Bonds the ECB Framework provides that the all-in costs of an issuance should be capped at prevailing yield of Government of India securities of corresponding maturity plus a 450 basis point spread.

In addition to the all-in cost ceiling, the rate of conversion that will apply between the Indian rupee and the foreign currency in which the Masala Bond will settle and trade will be the prevailing rate at the time any payment is being made on the bonds – thereby shifting the currency risk onto the investors. This feature will have consequences on pricing as investors will want to factor any hedging cost into the price of Masala Bonds.

Tax treatment: Consistent with the tax treatment of bonds issued by Indian issuers, a withholding tax of 5% is applicable to interest income.

Use of proceeds: The proceeds of a Masala Bond issue can be used by the issuer for all purposes *except for*:

- real estate activities (including acquisition of land) except development of integrated townships or affordable housing projects;
- investment in capital markets (including domestic Indian equity investments);
- activities otherwise prohibited under the existing foreign direct investment regulatory framework; and
- on-lending to other entities for the purposes of any of the preceding restricted uses.

Additionally, issuance proceeds from issuance of Masala Bonds cannot be utilised for working capital purposes, general corporate purposes or repayment of rupee loans unless the borrowing fulfils certain minimum maturity requirements or if it is from offshore shareholders which again will be subject to minimum maturity requirements.

RBI approval: The ECB Framework currently does not set out any requirement for prior approval of the RBI for issuances of Masala Bonds. However, if any requirements set out under the ECB Framework are not met with, prior approval from the RBI will be required before the issuance can go ahead.

Markets and listing venues: Masala Bonds can only be issued in a jurisdiction and can only be subscribed by a resident of a country (i) which is a member of Financial Action Task Force (FATF) or a FATF-Style Regional Body or (ii) whose securities market regulator is a signatory to the International Organization of Securities Commission's (IOSCO's) Multilateral Memorandum of Understanding (MOU) or to bilateral MOU with the SEBI for information sharing arrangements and (ii) should not be a country identified in the public statement of the FATF as a jurisdiction having anti-money laundering or terrorism financing deficiencies or a jurisdiction that has not made sufficient progress in addressing those deficiencies.

As for listing, increased investor visibility and the accompanying benefits via price discovery are the reasons which inform an issuer's decision to list at a particular venue. Almost all Masala Bonds issuances have been listed on the International Securities Market of the London Stock Exchange and the Singapore Stock Exchange.

Trends and outlook for Masala Bonds

Masala Bonds have been adopted by a variety of issuers. The types of issuers who have accessed funding via Masala Bonds from the international debt capital markets include corporates, quasi-sovereign entities such as the National Highways Authority of India and state level entities such as the Kerala Infrastructure Investment Fund Board. Factors such as a shortfall in supply of credit onshore and a trend towards diversification of funding sources by borrowers in India are expected to encourage more issuers to access the international fixed income markets in this manner. Issuances would also be encouraged by increased investor appetite for better yields from the emerging markets. At the time of writing this article, more than 50 issuances of Masala Bonds have taken place raising more than USD5 billion[1] (INR equivalent) from the international debt capital markets.

With the Government of India acting to ease the liquidity shortage in India, it is expected that the requirements for ECBs would be further liberalised. It is expected that Masala Bonds will remain attractive for investors seeking an opportunity to participate in one of the fastest growing economies.

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Please note that Indian regulations do not permit foreign law firms to advise on Indian law and this article is not to be construed to be legal advice, including in relation to matters relating to Indian laws.

1. Source: London Stock Exchange.

Secondary Markets



by Andy Hill, Elizabeth Callaghan and Gabriel Callsen

CSPP *redux:* a new ECB stimulus package

As widely expected, the Governing Council of the European Central Bank announced a new round of monetary stimulus at its meeting of 12 September 2019. The easing package included a cut in the central bank deposit facility rate from -0.40% to -0.50%, a two-tier system for reserve remuneration (with a portion of banks' excess reserves being subject to 0%), adjustments to the modalities of the Targeted Long-Term Repo Operations (TLTRO III), and a restart of asset purchases. The changes to the deposit rate and tiering will apply from the start of the seventh reserve maintenance period on 30 October 2019. Asset purchases will resume on 1 November 2019.

The Asset Purchase Programme

The Asset Purchase Programme (APP) will target monthly net purchases of €20 billion and is expected to run "for as long as necessary". The ECB has not specified splits between the various APP programmes and is likely to include both public assets, under the Public Sector Purchase Programme (PSPP) and private assets, under the Covered Bond Purchase Programme (CBPP3), Asset-Backed Securities Purchase Programme (ABSPP), and Corporate Sector Purchase Programme (CSPP). It may be that the ECB wishes to keep its options open, but commentators broadly expect purchases to be mostly under the revived PSPP. The Governing Council also announced that, in line with an earlier adjustment to the PSPP, it would be possible under the CBPP3, ABSPP, and CSPP to purchase bonds with yields below the deposit facility rate, effective immediately.

Corporate bond purchases

With respect to the CSPP, while the ECB has not specified a target for corporate bond purchases, the current expectation is for net monthly purchases in the region of €2-€2.5 billion. Feedback from ICMA members suggests concern over the impact of a new round of corporate bond purchases on secondary market liquidity and valuations.

Applying the same criteria for the previous CSPP, the estimated universe of eligible bonds for purchases is in the region of €760 billion nominal value. Given the ECB's existing holdings of around €180 billion, and a cap on holdings of 70% of nominal outstanding of individual ISINs, this would suggest that a pool of just over €400 billion bonds is available for purchase. However, taking into account issues with low liquidity or concentrated holdings, the true investible pool is likely to be somewhat smaller.

In terms of reactions to the ECB's announcement, corporate credit spreads had largely discounted the resumption of the CSPP. As illustrated by the iTraxx Main 5-year index (see chart), investment grade corporate bond spreads had been tightening since the start of the summer, and by the time of the ECB's September meeting were nearing historic lows, and significantly tighter than at the cessation of the programme in December 2018.

ICMA will continue to monitor the impacts of the CSPP2 on corporate bond market efficiency and liquidity, and through its Secondary Market Practices Committee will remain in close touch with both sell-side and buy side members active the European corporate bond markets, as well as the ECB.

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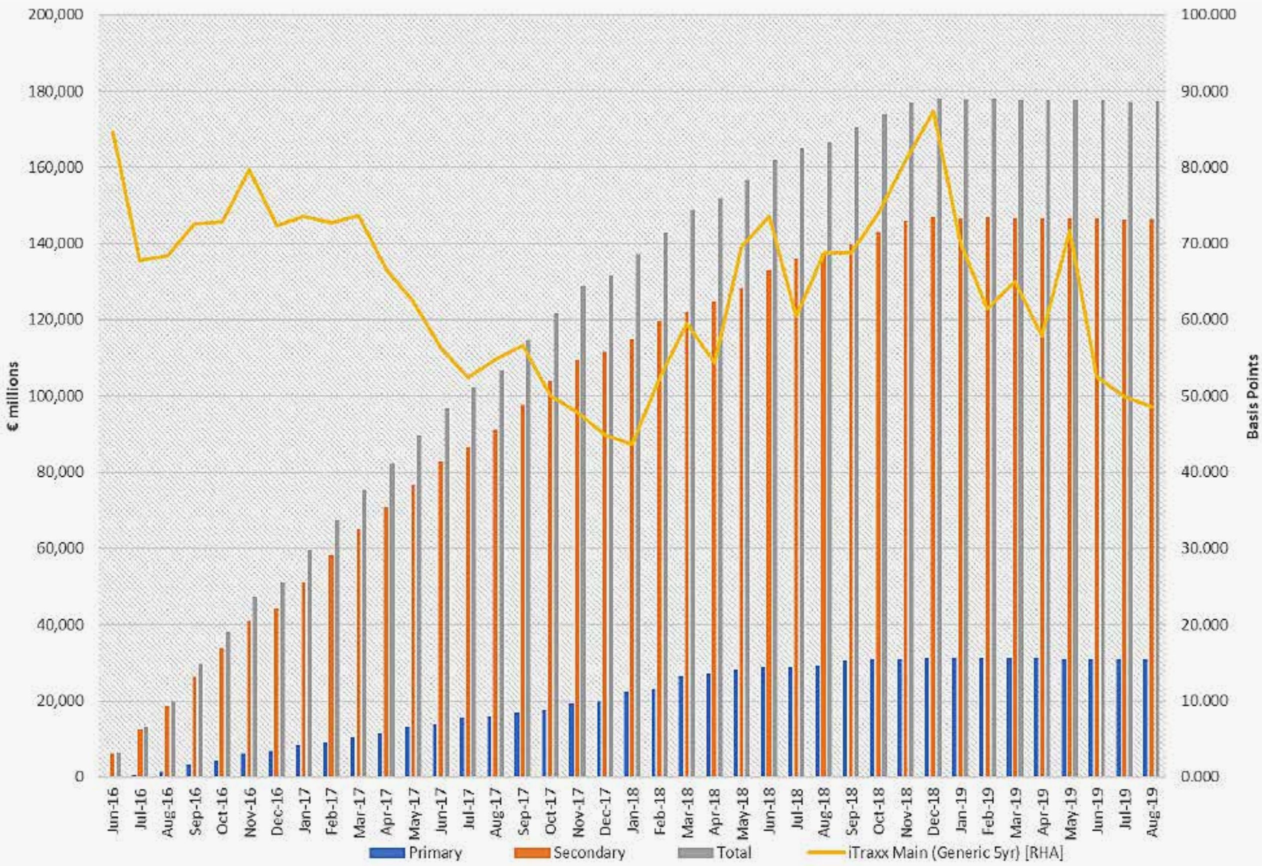
CSPP Cumulative Purchases and iTraxx Main



Source: ICMA analysis using ECB and Bloomberg/Markit data

MiFID II/R: ESMA guidance in the third quarter of 2019

In the third quarter of 2019, the European Securities and Markets Authority (ESMA) issued further guidance in relation to MiFID II/R. The following briefing is designed to provide a non-exhaustive summary of selected guidance impacting market structure and fixed income trading, notably: (i) release of new version of ESMA's FIRDS, (ii) liquidity assessments of bonds for Q2 2019 for transparency purposes, (iii) publication of data for the systematic internaliser calculations for bonds, (iv) pre-trade transparency requirements and hedging exemptions for pre-arranged transactions, (v) further ESMA guidance including best execution reporting, and the treatment of constant maturity swaps for transparency purposes, (vi) MiFID II/R and Brexit: ESMA response to European Commission on annual review of RTS 2 transparency requirements.

MiFID II/R: Q3 2019

Overview of selected ESMA guidance:

24 September: Update of ESMA's FIRDS

1 August: Liquidity assessments for individual bonds by ISIN for Q2 2019

1 August: Completeness indicators related to bond liquidity data

1 August: SI calculations for bonds

29 July: Q&As on MiFIR data reporting

12 July: Q&As on transparency topics

12 July: Q&As on market structures topics

11 July: Q&As on investor protection and intermediaries topics

Overview of selected ESMA guidance in relation to Brexit:

24 September: ESMA response to European Commission on annual review of RTS 2 transparency requirements

(i) Release of new version of ESMA's Financial Instrument Reference Database (FIRDS)

On 24 September 2019, ESMA announced that a new version of its Financial Instrument Reference Database (FIRDS) had been released on 23 September 2019. It was stated that "the updated version of the system includes new XML schemas v1.1.0 that are now the only version accepted by the system and updates to the CFI [Classification of Financial Instruments] validation rules. The latest versions of the reporting instructions, XML schemas and validation rules are available on ESMA website." *Note:* The CFI code in FIRDS impacts the liquidity assessments of bonds and other instruments in the Financial Instruments Transparency System (FITRS) database.

(ii) Liquidity assessments of bonds for Q2 2019 for transparency purposes

On 1 August 2019, ESMA announced that the quarterly liquidity assessment for bonds under MiFID II/R had been made available through FITRS in XML format and the FITRS interface. Accordingly, 594 bonds were deemed liquid in Q2 2019. The liquidity assessments are applicable from 16 August 2019 until 15 November 2019. However, ESMA stated that "additional data and corrections submitted to ESMA may result in further updates within each quarter, published in ESMA's FITRS, which shall be applicable the day following publication."

(iii) Publication of data for the SI calculations for bonds

On 1 August 2019, ESMA released the data for the systematic internaliser (SI) calculations for bonds, equity and equity-like instruments. "More specifically, ESMA has published the total number of trades and total volume over the period January-June 2019 for the purpose of the systematic internaliser (SI) calculations". The list of ISINs released by ESMA comprises 333,459 bonds and 22,961 equity and equity-like instruments.

"The results are published only for instruments for which trading venues submitted data for at least 95% of all trading days over the six-month observation period. The data publications also incorporate OTC trading to the extent it has been reported to ESMA."

Investment firms were required to perform an internal assessment against the data provided by ESMA, and if in scope of the SI regime, comply with relevant SI obligations from 15 August 2019. Further information on the SI regime and calculations are available on ESMA's website.

(iv) Pre-trade transparency requirements and hedging exemptions for pre-arranged transactions

On 12 July 2019, ESMA provided further guidance on pre-trade transparency requirements for pre-arranged transactions in relation to the hedging exemption under Article 8(1) of MiFIR. ESMA supplemented the existing Q&A by clarifying that "pre-arranged transactions may benefit from the hedging exemption under Article 8(1) of MiFIR subject to meeting the following conditions: at least one of the counterparties to the transaction is a non-financial counterparty, the transaction is in derivative instruments, and the transaction has to have as a result reducing risks directly relating to the commercial activity or treasury financing activity of the non-financial counterparty or of that group."

Furthermore, ESMA stated that "according to Article 8(1) of MiFIR the hedging exemption applies to "derivative transactions". ESMA is therefore of the view that the hedging exemption may only be used for the formalisation of pre-arranged derivative transactions and is not applicable to orders or quotes." Further details can be found in section 5 on pre-trade transparency waivers (questions 11 and 11a) in the Q&A document.

(v) Further ESMA guidance and Q&A updates

Other topics addressed in Q&A updates released on 11 July 2019 relate to technical reporting requirements for best execution purposes by execution venues (section 1, question 25). More precisely, the Q&A addresses the "classification of financial instruments under RTS 27 if ESMA has not published any calibrated market sizes such as large in Scale (LIS) or size specific to the instrument (SSTI)". With respect to transparency reporting requirements, ESMA provided further clarifications on 12 July 2019 on the treatment of constant maturity swaps (section 4, question 18). Furthermore, ESMA published on 1 August 2019 the quarterly completeness indicators related to bond liquidity data submitted by trading venues.

(vi) MiFID II/R and Brexit: ESMA response to European Commission on annual review of RTS 2 transparency requirements

On 24 September 2019, ESMA published its response "to the European Commission (EC) regarding the Annual Review of RTS 2. RTS 2 requires ESMA to submit annual reports to the EC assessing the operation of some transparency thresholds for bonds and derivatives. The letter outlines that ESMA and the EC agree that it is not advisable to perform the annual review of RTS 2 in the course of 2019 due to the remaining uncertainties around a potential no-deal Brexit. ESMA reiterates however its intention to perform the annual review of RTS 2 by 30 July 2020."

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A cash bond consolidated tape in Europe

Why is it important?

In cash bond markets in Europe today, there is a need for a consolidated tape. A cash bond consolidated tape (CT) should be the cash bond "golden source" for reliable, trustworthy, good quality post-trade data. The market could benefit from such a consolidated tape.

With a fixed income consolidated tape, there could be multiple benefits for industry participants such as tools for investors for robust transaction cost analysis (TCA) and improving best execution analysis. The CT could also provide trading venues and data providers with a source of reliable raw data to enrich their products and services. A cash bond CT would put the end-investor first. The greatest benefit of a European cash bond CT is the protection it would provide for smaller or retail investors who may not have (or be able to have) access to several systems or the ability to pay for an aggregator. Finally, a European CT promotes a unified view across European cash bond markets for all market participants, large or small, professional or retail, making Europe more competitive and facilitating the goals of the CMU initiative.

This summer ESMA published a consultation paper asking for responses to questions surrounding market data costs and a consolidated tape. While the ESMA consultation paper (CP) primarily focused on equities, the ICMA Consolidated Tape Taskforce (Taskforce) responded solely in relation to cash bonds.

The Taskforce members welcomed the efforts of ESMA to investigate how a consolidated tape may look in the future with respect to its governance and the model used, and the opportunities a consolidated tape could present for the markets.

The Taskforce response was based on a consensus view from a varied group of ICMA Taskforce members, representing 12 firms from the buy side, sell-side, trading venue and data provider communities. These 12 firms are part of an ICMA wider Consolidated Tape Working Group of 63 member firms (17 buy side firms, 31 sell-side firms, 10 trading venues and 4 data providers). ICMA considered there was a unique value in conveying a broad view from across the industry.

The Taskforce decided against commenting on commercially sensitive questions in relation to cash bonds and focused instead on questions relating to CT scope, governance, operation and model, data quality, venues' obligation to provide post-trade data, and finally on ensuring that the cash bond CT should be viewed as the "golden source" for post-trade raw bond data. The Taskforce did not address any MiFID II/R transparency issues in the response on the grounds that any CT cash bond solution should abide by appropriate MiFID II/R post-trade deferrals as set out there.

The following represents a summary of ICMA's MiFID II Data Workstream, CT Taskforce response to ESMA's consultation on "the development in prices for pre- and post-trade data and on the post-trade consolidated tape (CT) for equity instruments". Again, the Taskforce response is solely from a cash bond perspective.

Fixed income and equities: different market structures and different challenges

By responding to ESMA's CP, the Taskforce hoped to provide ESMA with a better understanding of the need for a consolidated tape in the cash bond market and the unique problems that a CT for cash bonds would solve.

While equities and bond markets share a few challenges – such as fragmentation of infrastructure and an unlevel playing field, benefitting only those who can afford to pay for data – it is widely understood that their ecosystems are profoundly different. One only has to view the asset classes' market structure and protocols to see the differences: order book vs. RFQ, OTC or MTF/OTF vs. local exchanges. There are approximately 33 times more listed bonds than listed equities.

The drivers for a CT in these markets also differ due to differing market structures (eg equity exchanges). A CT for equities addresses speed and the prevention of arbitrage opportunities, while in fixed income a CT would provide transparency and an overview of the market. Both are important and not a case of "either/or".

Cash bond market participants need a true consolidated picture of the market that is reliable, accessible and trustworthy. Reliable post-trade data provides the tools by which professional and retail market participants can make informed and therefore better decisions, enabling best execution.

Highlights from ICMA's response to ESMA's CT consultation paper

Scope: The purpose of a CT is to have a meaningful view of where, when and how all price-forming and non-price forming (eg constituents of a package trade) trades occurred. Scope is critical. The CT should be a centralised source of consolidated raw data: price, direction, venue, date, time of execution, reported date and time (taking into account current publication and deferral obligations under MiFID II/R), cancel or correction. Once there is a consolidated view of prices in the CT, the CT provider (CTP) could then derive yields and add those yields as another data item in the CT (noting that yield, rather than price, is a fundamental data point in the relative valuation of bonds and comparative analysis of best execution).

Governance is key if the CT is to be managed effectively. The CTP contract should be awarded by either the Commission or ESMA to a third party. The CTP should then be supervised by a "governance panel" made up from member(s) from: ESMA and/or the Commission, the investor community, liquidity provider community, trading venue community, the non-trading venue data vendor community and from the retail community. This is to enable the CT to have industry expertise working alongside regulatory know-how, to the benefit of Europe's cash bond markets. The CT fee model should be low or minimum cost to industry participants.

Operation and model: The Taskforce believed the CT provider day-to-day operations should be awarded to a firm with a high level of data management experience, as well as related knowledge of the asset class (eg cash bonds). The CT provider contract should be awarded for no less than five years. This is to allow whoever is awarded the contract sufficient time to recoup any development costs. The firm awarded the contract should also have robust conflict-of-interest rules in place.

Publication of trades should be as soon as technically viable (as set out in MiFID II/R/RTS[1]), unless the trade qualifies for a deferral of publication under MiFID II/R's post-trade transparency obligations. In addition, it is essential that the responsibility for data feed provision be changed from the "CTP's obligation to obtain", to "venue's obligation to provide" to the CTP. However, ESMA may find it useful to consider commercial incentives for the various data contributors, which are providing data to the CT.

Of note, the CT must not be structured in a way that prevents other market participants, including venues, investors, and data vendors, from offering third-party commercial services around data reporting or using the CT data to offer third-party commercial services. Innovation should be rewarded.

Data quality: The Taskforce believed the CP response process provided an opportunity to assess how existing data standard choices may be contributing to data quality and impacting the necessary actions to fix the problems. This includes issues relating to ESMA's own data services, such as FIRDS and FITRS. Further suggestions were cited in the response such as imposing Association of National Numbering Agencies (ANNA) as the sole source for Classification of Financial Instruments (CFIs). Please see ICMA's response to ESMA's CP for further detail.

The Taskforce also considered it may be useful for ESMA to explore and analyse FINRA's bond consolidated tape in the US, TRACE (looking at its successes and failures). Experience with TRACE in the US shows the benefits of a consolidated tape for the cash bond market, being an example of how available data, with a process that is clearly set out, can be delivered for market participants, resulting in a better understanding of trading activity and execution costs across the US market.

Brexit: After Brexit, a cash bond CT is still valuable as a tape of record. The Taskforce preference was and is to encourage an industry (virtual) "trading time zone-dependent" consolidated tape. With this in mind, the Taskforce suggests the CTP should not be prevented from offering a service that incorporates individual CTs, comprising non-EEA and UK bonds (using appropriate country flags [Swiss flag, UK flag etc].

The Taskforce would like to stipulate, even if a (virtual) "trading time zone-dependent" CT was not feasible and the CT only consolidated EU27 transactions (where firms had to separately "bolt on" UK transactions as such), given the fragmentation across the EU27, an EU27 CT would be valuable to the market.

ICMA and next steps for a European cash bond consolidated tape

While ESMA's consultation addresses equities, the Taskforce believed it was important to put forward a presentation on how a consolidated tape would clearly benefit cash bond markets. The Taskforce went further to suggest that consolidated tape development paths should be parallel and not sequential (equities and fixed income development teams should develop relevant CTs at the same time). It is important that ESMA understands that an equity consolidated tape (which is solving for different problems and has a different operational market structure) should not be used as a precedent for a cash bond consolidated tape. TRACE should be the precedent to analyse.

With this in mind, ICMA's CT Working Group has appointed a Taskforce to draft a discussion paper for the European Commission, to cover in much more detail the ground covered in the ESMA CP: scope, governance, operation, model and data quality. However, the detailed discussion paper will go into much more detail regarding data quality and standards, pricing models and also an in-depth analysis of the US cash bond consolidated tape, TRACE (pros and cons).

Meetings are already taking place to present early ICMA findings in relation to a cash bond consolidated tape with Commission officials. More information regarding an EU consolidated tape will be released in due course.

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1. RTS 2, Article 7 (4): Post-trade information shall be made available as close to real time as is technically possible and in any case: (a) for the first three years of application of Regulation (EU) No 600/2014, within 15 minutes after the execution of the relevant transaction; (b) thereafter, within 5 minutes after the execution of the relevant transaction.

CSDR settlement discipline: mandatory buy-ins

ICMA remains in ongoing discussions with ESMA and the European Commission with respect to a number of questions regarding the application of CSDR mandatory buy-ins and is hopeful that much needed Level 3 guidance will be provided to the market soon.

Mandatory buy-ins

Resolving the buy-in/cash compensation asymmetry: ICMA is hoping that the asymmetry in the price differential payment process in CSDR, related to both buy-ins and cash compensation, can be "fixed" through contractual arrangements between trading parties (such as by using the ICMA buy-in rules).[2] This will be essential to ensure that both sellers and lenders of securities do not face additional undue risks as the result of what appears to be an error in the Level 1 Regulation.

Applying the buy-in framework to securities financing transactions (SFTs): ICMA would expect that open-SFTs (and "open-like" SFTs) are deemed out of scope of the mandatory buy-in regime on the basis that either party can effectively terminate such transactions with less than 30 business days' notice (in most cases only one business day is required). ICMA is also recommending that basket SFTs (including triparty and delivery-by-value structures) are also deemed out of scope, even if the transactions are termed for 30 business days or longer. This is on the basis that attempting to buy-in multiple, substitutable securities underlying such transactions is impractical.

Finding buy-in agents: ICMA is concerned that it may be difficult for firms to appoint buy-in agents, particularly within the tight timeframes for buy-ins prescribed by the CSDR. Appointing willing buy-in agents is a challenge in today's international bond markets, and this is the reason for ICMA's revision to its buy-in rules in 2017 which allows initiating firms to execute the buy-in (or sell-out) themselves, within specific criteria protecting that failing party.

The feedback from ESMA seems to confirm that the Level 2 Regulation is quite specific in that a buy-in agent must be appointed by the initiating party (in the case of transactions not cleared by a CCP) as part of the buy-in process, and so parties cannot execute the buy-in themselves.

Utilising pass-ons: Pass-on mechanisms, such as under the ICMA buy-in rules, allow for a single buy-in to settle an entire failing transaction chain, and are therefore important from both a market efficiency and stability perspective. CSDR does not provide for a pass-on, however the regulatory recitals suggest that pass-ons may be possible. ICMA is currently holding the pen for a cross-industry initiative to design a potential pass-on mechanism to complement CSDR, which will be put to the regulators for consideration. The proposed mechanism would apply to all security types. It is important to note that for a pass-on mechanism to work, the asymmetry in the buy-in and cash compensation processes will need to be resolved.

Updating the ICMA buy-in rules

Once there is some clarity on these and a number of other critical issues related to the application of the CSDR buy-in framework, ICMA will, in consultation with its members, look to update its buy-in rules to provide a contractual framework and market best practice to support compliance with, and implementation of, CSDR. This will be effective from the date of application of CSDR settlement discipline, which is expected to be in November 2020.

Members interested in learning more about ICMA's work on CSDR settlement discipline, in particular the application of mandatory buy-ins, may wish to join ICMA's CSDR Settlement Discipline Working Group.

CSDR mandatory buy-in impact study

Following its 2015 bond market impact study, ICMA is conducting a more granular study to ascertain market awareness, preparedness, concerns, and expected impacts on bond market pricing and liquidity. The survey-based study targets sell-side and buy side trading desks, as well as repo and securities lending desks. The results of the impact study will be published in a publicly available report in Q4. The objective of the report will be to provide useful market intelligence as firms finalise their preparations and develop business strategies for implementation in late 2020, to underpin ICMA's ongoing advocacy work related to Level 3 guidance, and to inform ICMA's review of its buy-in rules to support implementation and provide market best practice. Firms wishing to participate in the survey can find the relevant links on the ICMA CSDR-SD webpage.

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2. The ICMA buy-in rules are part of the ICMA Secondary Market Rules & Recommendations which apply automatically between ICMA members transacting in international securities.

Other secondary market regulatory developments

FDIC simplifies and tailors the final "Volcker Rule"

On 20 August 2019, the Board of Directors of the Federal Deposit Insurance Corporation (FDIC) approved an interagency final rule to simplify and tailor requirements relating to Section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, commonly known as the "Volcker Rule." The Volcker Rule generally prohibits banking entities from engaging in proprietary trading and from owning or controlling hedge funds or private equity funds.

According to the FDIC announcement, the final rule will:

- tailor the rule's compliance requirements based on the size of a firm's trading assets and liabilities, with the most stringent requirements applied to banking entities with the most trading activity;
- retain the short-term intent prong of the "trading account" definition from the 2013 rule only for banking entities that are not, and do not elect to become, subject to the market risk capital rule prong;
- replace the rebuttable presumption that instruments held for fewer than 60 days are covered under the short-term intent prong with a rebuttable presumption that instruments held for 60 days or longer are not covered;
- clarify that banking entities that trade within internal risk limits set under the conditions in this final rule are engaged in permissible market making or underwriting activity;
- streamline the criteria that apply when a banking entity seeks to rely on the hedging exemption from the proprietary trading prohibition;
- limit the impact of the rule on the foreign activities of foreign banking organizations; and
- simplify the trading activity information that banking entities are required to provide to the agencies.

Upon its publication in the Federal Register, the final rule will have an effective date of 1 January 2020, and a compliance date of 1 January 2021. However, a banking entity may voluntarily comply, in whole or in part, with the changes to the rule prior to 1 January 2021.

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Recent secondary market research

Chatterjee et al., 2019, Ownership structure and the cost of debt: Evidence from the Chinese corporate bond market

Drawing upon evidence from the Chinese corporate bond market, the researchers study how ownership structure affects the cost of debt for firms. Their results show that state, institutional and foreign ownership formats reduce the cost of debt for firms. The benefits of state ownership are accentuated when the issuer is headquartered in a province with highly developed market institutions, operates in an industry less dominated by the state or during the period after the 2012 anti-corruption reforms. Institutional ownership provides the most benefits in environments with lower levels of marketization, especially for firms with low credit quality. The evidence sheds light on the nexus of ownership and debt cost in a political economy where state and private firms face productivity and credit frictions. It is also illustrative of how the market environment interacts with corporate ownership in affecting the cost of bond issuance.

ECB, 2019, Regulating the doom loop

Euro area governments have committed to break the doom loop between banks and sovereigns. But policy makers disagree on how to treat sovereign exposures in bank regulation. The researchers' contribution is to model endogenous sovereign portfolio reallocation by banks in response to regulatory reform. Simulations highlight a tension between concentration and credit risk in portfolio reallocation. Resolving this tension requires regulatory reform to be complemented by an expansion in the portfolio opportunity set to include an area-wide low-risk asset. By reinvesting into such an asset, banks would reduce both their concentration and credit risk exposure.

Bank of England, 2019, Securities settlement fails network and buy in strategies

In the context of securities settlement, a trade is said to fail if on the settlement date either the seller does not deliver the securities or the buyer does not deliver funds. Settlement fails may have consequences for the parties directly involved and for the system as a whole. Chains of fails, for example, could lead to gridlock situations and large volume of fails can affect the liquidity and smooth functioning of financial markets. In this paper, the researchers consider UK Government bonds (gilts) and UK equities settlement data to examine the determinants of settlement fails and to explore the network characteristics of chains of settlement fails with the aim of identifying an optimal strategy to conduct a buy in process that could resolve cascades of fails.

OFR, 2019, The effects of the Volcker Rule on corporate bond trading: evidence from the underwriting exemption

Using a novel within-dealer, within-security identification strategy, the paper examines intended and Unintended effects of the Volcker rule on covered firms' corporate bond trading using dealer identified regulatory data. The researches use the underwriting exemption to isolate the Volcker rule's effects separate from other post-crisis changes in bank regulation and broader trends in market liquidity. The research finds no evidence of the rule's intended reduction in the riskiness of covered firms' trading in corporate bonds. It finds significant adverse liquidity effects on covered firms' corporate bond trading with 20-45 basis points higher costs for customers even for roundtrip trades of shorter duration. These effects do not appear to be transitional. The Volcker rule appears to have increased the cost of the liquidity provided by covered firms and has not decreased the liquidity risk exposure of covered firms. Finally, the Volcker rule has decreased the market share of covered firms. Customers appear to be trading more with non-bank dealers, who are exempt from the Volcker rule but also lack access to emergency liquidity support at the Fed's discount window.

Bank of England, 2019, Credit default swaps and corporate bond trading

Using regulatory data on CDS holdings and corporate bond transactions, the study provides evidence for a liquidity spillover effect from CDS to bond markets. Bond trading volumes are larger for investors with CDS positions written on the debt issuer, in particular around rating downgrades. The research uses a quasi-natural experiment to validate these findings. It also provides causal evidence that CDS mark-to-market losses lead to fire sales in the bond market. It instruments for the prevalence of mark-to-market losses with the fraction of non-centrally cleared CDS contracts of an individual counterparty. The monthly corporate bond sell volumes of investors exposed to large mark-to-market losses are three times higher than those of unexposed counterparties. Returns decrease by more than 100 basis points for bonds sold by exposed investors, compared to same-issuer bonds sold by unexposed investors. The findings underline the risk of a liquidity spiral in the credit market.

Bank of England, 2019, Resilience of trading networks: evidence from the sterling corporate bond market

The paper studies the network structure and resilience of the sterling investment-grade and high-yield corporate bond markets. Using proprietary, transaction-level data, first it analyses the key properties of the trading networks in these markets. The study finds that the trading networks exhibit a core-periphery structure where a large number of non-dealers trade with a small number of dealers. Consistent with dealer behaviour in the primary market, the study finds that trading activity is particularly concentrated for newly issued bonds, where the top three dealers account for 45% of trading volume. Second, the research tests the resilience of these markets to the failure or paralysis of a key dealer, or to bond rating downgrades. It finds that whilst the network structure has been broadly stable and the market broadly resilient around bond downgrades over its 2012-2017 sample period, the reliance on a small number of participants makes the trading network somewhat fragile to the withdrawal of a few key dealers from the market.

ECB, 2019, Tracing the impact of the ECB's Asset Purchase Programme on the yield curve

The researchers trace the impact of the ECB's Asset Purchase Programme (APP) on the sovereign yield curve. Exploiting granular information on sectoral asset holdings and ECB asset purchases, they construct a novel measure of the "free-float of duration risk" borne by price-sensitive investors. They include this supply variable in an arbitrage-free term structure model in which central bank purchases reduce the free-float of duration risk and hence compress term premia of yields. They estimate the stock of current and expected future APP holdings to reduce the 10-year term premium by 95 basis points. This reduction is persistent, with a half-life of five years. The expected length of the reinvestment period after APP net purchases is found to have a significant impact on term premia.

Banco de España, 2019, Is market liquidity less resilient after the financial crisis? Evidence for US Treasuries

The paper analyses the market liquidity level and resilience of US 10-year Treasury bonds. Having checked that five indicators show inconclusive results on the liquidity level, the researchers fit a bivariate CC-GARCH model to evaluate its resilience, that is, how liquidity reacts to financial shocks. According to the results, spillovers from liquidity volatility to returns volatility and vice versa are more intense after the crisis. Further, the volatility persistence of both returns and liquidity becomes lower after the crisis. These results are consistent with the existence of more frequent short-lived episodes of high volatility and more unstable liquidity that is more prone to evaporation.

More research and papers related to secondary bond market liquidity and dynamics can be found in the online ICMA Bond Market Liquidity Library, including academic, market and regulatory publications.

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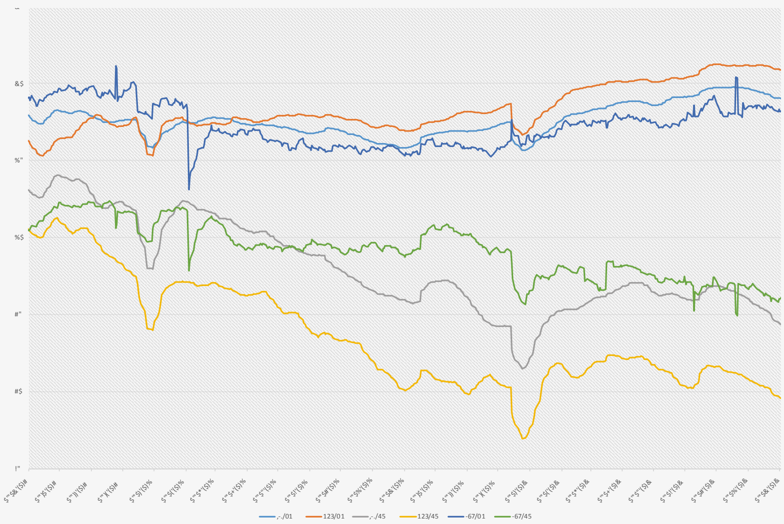
ICE Data Services Corporate Bond Market Liquidity Tracker

September 2019

Liquidity Tracker



Source: ICE Data Services

Commentary

As discussed in previous Quarterly Reports, corporate bond market liquidity appears to show a sharp decline in Q1 2018, which largely correlates with the US led sell-off in global credit markets. But IG liquidity remained relatively rangebound throughout 2018 followed by a drop at year-end. Subsequently, liquidity levels rebounded swiftly in Q1 2019, and continued to improve steadily before tailing off in Q3 2019.

EUR and GBP, but also USD HY liquidity, however, shows a fairly steep decline throughout 2018 followed by a marked drop at year-end. Liquidity levels recovered throughout Q1 2019, before following a downward trend, with the exception of a brief rebound between Q2 and Q3.

While it is difficult to attribute causality, a possible explanation for the deterioration in EUR HY liquidity could be the announcement of the wind-down of the ECB's Corporate Sector Purchase Programme (CSPP). Although HY is not in scope of the purchase programme, the sector has benefited from a "portfolio rebalancing" effect. Rate hikes in the US, widening CDS spreads and falling equities markets appear furthermore to have had a knock-on effect on reduced EUR and GBP liquidity. However, a then stable outlook on monetary policy and tightening CDS spreads seem to have countered this effect in Q1 2019. Meanwhile, the continued economic uncertainty arising from Brexit, global geopolitical tensions and a "flight-to-quality" appear to have had a continued adverse impact on HY liquidity throughout Q2 and Q3 2019. Liquidity in GBP HY, a segment dominated by UK retailers, appears to be particularly impacted by Brexit uncertainty and continued to underperform in Q3 2019. Looking ahead, it remains to be seen to what extent the Federal Reserve's decision to lower its interest rates in July for the first time in a decade and the ECB's announcement in September to relaunch its Asset Purchase Programme will impact corporate bond market liquidity.

ICE Liquidity Trackers

ICE Liquidity Trackers are designed to reflect average liquidity across global markets. The ICE Liquidity Trackers are bounded from 0 to 100, with 0 reflecting a weighted-average liquidity cost estimate of 10% and 100 reflecting a liquidity cost estimate of 0%. The ICE Liquidity Trackers are directly relatable to each other, and therefore, the higher the level of the ICE Liquidity Tracker the higher the projected liquidity of that portfolio of securities at that point in time, as compared with a lower level. Statistical methods are employed to measure liquidity dynamics at the security level (including estimating projected trade volume capacity, projected volatility, projected time to liquidate and projected liquidation costs) which are then aggregated at the portfolio level to form the ICE Liquidity Trackers by asset class and sector. ICE Data Services incorporates a combination of publicly available data sets from trade repositories as well as proprietary and non-public sources of market colour and transactional data across global markets, along with evaluated pricing information and reference data to support statistical calibrations.

Repo and Collateral Markets

by Andy Hill and Alexander Westphal

REPO

SFTR implementation

Helping members to implement the extensive reporting requirements under the EU's Securities Financing Transactions Regulation (SFTR) continues to be a key priority for ICMA's ERCC and its members who are heavily engaged in the ERCC's dedicated SFTR Task Force which brings together representatives from over 120 firms across the whole market spectrum. As the initial reporting go-live in April 2020 is approaching, a lot of work still lies ahead. However, much time and effort is being spent to get firms ready for the reporting go-live, both within the industry and the regulatory community. And this work is making steady progress.

Following the finalisation of the SFTR technical standards earlier this year, ESMA is now fully focused on important additional implementation guidance that they are mandated to provide, the so-called Level 3 measures. This includes detailed Reporting Guidelines and Q&As. On 27 May, ESMA published a first draft of the Guidelines for public consultation. This consultation was obviously a key focus for the SFTR Task Force over the summer. The final ERCC response was submitted to ESMA by the deadline on 29 July, following extensive discussion with members. Alongside the detailed response, the ERCC also shared with ESMA an overview for the reporting of repo lifecycle events and the latest version of SFTR sample reports that the group has been developing over the past months.

In its response, the ERCC provided feedback on a number of critical questions. One issue that has raised particular concerns is ESMA's proposed approach in relation to issuer LEIs. The issuer LEI is a mandatory reporting field under SFTR, despite the fact that at a global level there are still significant gaps in the availability of issuer LEIs. The issue has been highlighted by the FSB itself in the recent *Thematic Review on Implementation of the Legal Entity Identifier*, which found that in aggregate only 55% of securities issued in the FSB jurisdictions currently have an LEI code. Analysis from member firms based on their internal systems indicate a similar gap. Given these figures, it is clear that a fallback solution is needed. However, so far ESMA has been very reluctant to provide any relief, also encouraged by the MiFIR precedent where the strict "no LEI, no trade" approach led to a last-minute rush by market participants to obtain LEIs. The ERCC and other stakeholders have clearly stressed the fundamental differences between both regimes (issuers are not counterparties) and the potentially severe market implications in terms of availability of collateral and market liquidity of a strict approach on this question.

One issue that has raised particular concerns is ESMA's proposed approach in relation to issuer LEIs.

In terms of next steps, ESMA is currently reviewing the draft Guidelines in light of the consultation feedback received and has promised to deliver the final Guidelines in early Q4. From an industry perspective, timing remains a key challenge. With only six months left until reporting go-live firms are under pressure to conclude the necessary IT system developments and start industry testing as soon as possible in order to get ready in time for the April 2020 deadline.

While waiting for the final Guidelines, the ERCC continues to develop its detailed industry best practices which will complement the regulatory framework. Together with members of the SFTR Task Force, the ERCC has developed over the past months an extensive Annex to the existing Repo Best Practice Guide focused specifically on SFTR Reporting. The Annex itself is complemented by further best practice documents that aim to guide firms and ensure consistency across the industry.

Another important aspect is education. Since July, ICMA has held a number of technical workshops on SFTR. The full-day workshops aim to provide participants with an in-depth understanding of the practicalities of SFTR reporting, including the key SFTR requirements as well as the ERCC's best practice recommendations. More information about upcoming SFTR workshops is available on the ICMA events page. For more information on the ERCC's work in relation to SFTR, please visit ICMA's SFTR webpage or contact us by email.

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REPO

Other repo and collateral regulatory developments

FSB adjusts implementation timelines for its policy recommendations to address financial stability risks in securities financing transactions

On 19 July 2019, the Financial Stability Board (FSB) announced adjustments to the implementation timelines for its recommendations on securities financing transactions (SFTs), specifically those related to minimum haircut standards for non-centrally cleared SFTs. The FSB has decided to adjust the implementation timelines for its recommendations related to minimum haircuts standards for non-centrally cleared SFTs, including those related to quantitative standards (ie the framework of numerical haircut floors). For example, the implementation timelines for the policy recommendations related to the framework of numerical haircut floors will be extended to January 2022 (instead of end-2018) for bank-to-non-bank transactions and to January 2024 (instead of end-2019) for non-bank-to-non-bank transactions. The implementation timelines for other recommendations remain unchanged.

Basel Committee and IOSCO agree to one-year extension of the final implementation phase of the margin requirements for non-centrally cleared derivatives

On 23 July 2019, the Basel Committee and IOSCO agreed to extend by one year the final implementation of the margin requirements. With this extension, the final implementation phase will take place on 1 September 2021, at which point covered entities with an aggregate average notional amount (AANA) of non-centrally cleared derivatives greater than €8 billion will be subject to the requirements. To facilitate this extension, the Basel Committee and IOSCO also will introduce an additional implementation phase whereby as of 1 September 2020 covered entities with an AANA of non-centrally cleared derivatives greater than €50 billion will be subject to the requirements. The Basel Committee and IOSCO have agreed to this extended timeline in the interest of supporting the smooth and orderly implementation of the margin requirements which is consistent and harmonised across their member jurisdictions and helps avoid market fragmentation that could otherwise ensue.

EBA advises the European Commission on the implementation of the final Basel III framework

On 5 August 2019, the European Banking Authority (EBA) published its advice on the implementation of Basel III in the EU, which includes a quantitative analysis of the estimated impact based on data from 189 banks, and a set of policy recommendations. This work responds to the European Commission's call for advice in May 2019.

As part of its advice to the Commission, the EBA also published *Policy Advice on the Basel III Reforms on Securities Financing Transactions*. The EBA makes two specific recommendations with respect to SFTs.

Recommendation SFTs 1: Basel III post-crisis reforms on the calculation of the exposure values of SFTs except the minimum haircut floors framework

The EBA supports the introduction in the EU of the Basel III post-crisis reforms affecting the calculation of exposure values of counterparty credit risk exposures stemming from SFTs with the exception of the introduction of the minimum haircut floors framework for SFTs discussed in Recommendation SFTs 2 (see below).

The EBA concluded, on the basis that the qualitative feedback received from institutions did not highlight substantial issues, and that the quantitative impacts resulting from the above revisions for calculating exposure values for counterparty credit risk (CCR) of SFTs do not appear to indicate unintended effects, it is considered appropriate to proceed with the implementation of the proposed revisions, with a view to ensuring alignment with the BCBS standards and meeting the objectives of the reforms

Recommendation SFTs 2: Introduction of the minimum haircut floors framework for SFTs

The EBA shares the cautious stance taken by the ESMA and the European Commission on the introduction of numerical haircut floors for SFTs, and recommends at this stage to withhold the implementation in the EU of the minimum haircut floors framework for SFTs in the capital framework as designed in the Basel III post-crisis reforms standards. In addition, if numerical haircut floors for SFTs were to be introduced in the EU, the EBA is of the view that this should occur via market regulation, but only after further analyses and recommendations are provided by market authorities and systemic risk authorities.

In particular the EBA is concerned that any implementation of rules related to SFTs, including the haircut floors, should occur in a consistent and simultaneous fashion across jurisdictions, to ensure a level playing field in the global SFT markets and prudential treatment for relevant market participants. The EBA suggest that it would be supportive of alternative applications of the haircut framework, if this was internationally consistent, but that it would not support implementing the framework in the EU if it would create an uneven playing field with SFT markets in other jurisdictions.

Minimum haircut floors and non-cash-collateral

In line with a longstanding advocacy point of the ERCC, the EBA also offers an interpretation of the provision in the December 2017 Basel III Revisions that would provide an exemption to the haircut floors in the case where banks borrow securities against non-cash collateral, provided the collateral cannot be re-used, and which would be consistent with the 2015 FSB framework. The EBA's proposed read of the relevant Basel III provision (paragraph 183) is:

Banks' counterparties that lend securities (to the bank) are exempted from the haircut floors on collateral upgrade transactions – or securities borrowing/lending transactions against the pledging of other securities as collateral, rather than cash – if they (ie the banks' counterparties) are unable to re-use, or provide representations that they do not and will not re-use, the securities received as collateral against the securities lent.

In its discussion of stakeholder feedback with respect to the haircut floors, the EBA cites the December 2018 GFMA and ICMA Repo Market Study which raises this issue.

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Recent repo and collateral research

REPO *IMF, 2019, Pledged collateral market's role in transmission to short-term market rates*

In global financial centres, short-term market rates are effectively determined in the pledged collateral market, where banks and other financial institutions exchange collateral (such as bonds and equities) for money. Furthermore, the use of long-dated securities as collateral for short tenors—or example, in securities-lending and repo markets, and prime brokerage funding—impacts the risk premia (or moneyness) along the yield curve. In this paper, the researchers deploy a methodology to show that transactions using long dated collateral also affect short-term market rates. The results suggest that the unwind of central bank balance sheets will likely strengthen the monetary policy transmission, as dealer balance-sheet space is now relatively less constrained, with a rebound in collateral re-use.

ECB, 2019, Behind the scenes of the beauty contest: window dressing and the G-SIB framework

This ECB working paper illustrates that systemically important banks reduce a range of activities at yearend, leading to lower additional capital requirements in the form of G-SIB buffers. The effects are stronger for banks with higher incentives to reduce the indicators, and for banks with balance sheet structures that can more easily be adjusted. The observed reduction in activity may imply

> **The EBA shares the cautious stance taken by the ESMA and the European Commission on the introduction of numerical haircut floors for SFTs.**

an overall underestimation of banks' systemic importance as well as a distortion in their relative ranking, with implications for banks' ability to absorb losses. Moreover, a reduction in the provision of certain services at year-end may adversely affect overall market functioning.

Bank of England, 2019, Liquidity transformation, collateral assets and counterparties

The study investigates how counterparties' characteristics, and the collateral they use, interact with their demand for liquidity in the Bank of England's (BoE) operations. Between 2010 and 2016 there was regular usage of two BoE facilities: Indexed Long-Term Repos (ILTR) and the Funding for Lending Scheme (FLS). Using BoE proprietary data, the researchers show that participation in ILTR is not skewed towards riskier counterparties, and is instead consistent with safe counterparties using the facilities to meet their liquidity needs. Collateral assets used for FLS are less liquid, since almost all assets are loan portfolios. Riskier and larger institutions are more likely to pre-position collateral in the FLS, but these counterparties do not subsequently draw upon FLS more than others do. Overall, the study points to no systemic misincentives; rather banks react to incentives in the manner intended by the policy objectives. The results support the view that the central bank can provide market liquidity without absorbing undue risks onto its balance sheet.

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REPO

Multilateral tool for upgrading the GMRA

In 2013, ICMA published the 2011 Global Master Repurchase Agreement Protocol (Revised) (the Protocol), enabling adhering parties to upgrade certain terms of older versions of the Global Master Repurchase Agreement (the GMRA), without the need to bilaterally amend their documentation. This tool was developed at the request of ICMA member firms who were keen to enjoy the benefits of using the improved default and close out provisions of the GMRA 2011, as well as having the ability to make other useful amendments to existing documentation.

The key benefits of using the Protocol are as follows:

- administratively efficient multilateral mechanism for upgrading documentation;
- ability to amend LIBOR references in GMRA 1995 and GMRA 2000;
- ability to improve flexibility afforded to non-defaulting party in relation to default calculation;
- menu based approach to amendments.

Since the publication of the Protocol there has been some limited adherence by firms and since the efficiency of this mechanism is positively correlated to the level of adherence, ICMA hopes to see more firms signing up. The Protocol is accessible on the ICMA website, adherence is free and open to all firms (ICMA member firms and non-member firms). A list of adhering parties is available on the ICMA website. If you have questions relating to adherence or to the Protocol more generally, please contact protocolservices@icmagroup.org

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Triparty repo in China's interbank bond market

By Zhang Yashuang, Head of Research & Statistics Department, Shanghai Clearing House, and Ricco Zhang, Director, Asia Pacific, ICMA

REPO

In October 2018, the People's Bank of China announced that it will launch triparty repo in China's interbank bond market. Shanghai Clearing House (SHCH) plans to launch General Collateral (GC) repo transactions in cooperation with China Foreign Exchange Trade System (CFETS), the trading platform for China's interbank bond market. As a qualified central counterparty (CCP) and a central securities depository (CSD) recognized by the People's Bank of China, SHCH will be responsible for providing CCP clearing services and collateral management services for GC repo transactions.

China's bond repo markets

China's bond repo market includes two types of repo, under pledge and title transfer arrangements, and is comprised of two trading venues, the interbank bond market and the exchange bond market. Pledged repo and the interbank bond market are the largest components. In 2018, the trading volume of repo transactions in China's bond market amounted to RMB986 trillion (USD141 trillion), of which pledged repo accounted for 98%. The interbank bond market repo accounted for 77%.

The interbank market operates with two CSDs offering two transaction settlement mechanisms. SHCH, as one of the CSDs (and the only CCP) for the interbank market, provides either gross trade-by-trade clearing and settlement, or CCP clearing. The other CSD for the interbank market, China Central Depository & Clearing Co., Ltd. (known as CCDC), provides gross trade-by-trade clearing and settlement services for trading participants.

Repo transactions in the exchange bond market include three types: "standard" bond repo, agreement repo and triparty repo. Standard bond repo uses anonymous bidding and a CCP clearing mechanism, and allows individual investors to participate as the reverse repo party. Agreement repo uses bilateral price inquiry and a gross trade-by-trade clearing and settlement mechanism. The main difference between triparty repo and agreement repo is that the China Securities Depository & Clearing Co., Ltd. (known as CSDC), as the CSD for the exchange bond market, provides specialized collateral management services for triparty repo transactions.

Following the People's Bank of China's announcement, SHCH and CCDC will cooperate with CFETS to launch triparty repos in the interbank market. In the future, repo transactions in China's interbank bond market will demonstrate a diversified landscape, including GC repo, triparty repos based on gross trade-by-trade clearing and settlement mode, bilateral repos with CCP clearing, as well as bilateral repos based on gross trade-by-trade clearing and settlement mode.

China interbank market triparty repo mechanisms

GC repo[1] is a triparty repo which adopts a CCP clearing mechanism. In a GC repo transaction, a financing repo party submits eligible bonds as collateral to its special pledge account at SHCH. SHCH then calculates the repo quota for the financing repo party and transfers the information to CFETS on a daily basis. GC repo transactions are carried out within the limit of the repo quota. SHCH provides collateral management and CCP clearing services for the trading participants.

The market includes several mechanisms to facilitate operational efficiency, including:

- *Special pledge accounts.* SHCH opens a special pledge account for each GC repo investor and maintains a one-to-one correspondence with its original bond account.

1. In Europe, GC repo is a wider market concept and does not require triparty or CCPs.

The investor can transfer the bonds of the bond account into or out of the pledge account through the client system of CFETS or SHCH.

- *Calculation of repo quota*. The value of bonds in each special pledge account is converted into a corresponding value of general collateral according to specified algorithms, and the repo quota is calculated based on the value of general collateral for each pledge account.
- *Confirmation of repo quota*. When a financing repo party initiates a GC repo transaction in the business system of CFETS, the due settlement amount of the transaction shall be checked not to be higher than the repo quota of the financing repo party, so as to make sure that the amount of collateral is sufficient.
- *Collateral matching and mark-to-market*. SHCH selects the pledged bonds from the special pledge account to complete the match, so as to maintain the one-to-one correspondence and sufficient pledge between each transaction and the pledged bonds. In the duration of the transaction, the value of the pledged bonds is marked-to-market daily so as to detect possible arrears, and the financing repo party shall be required to submit additional collateral so as to make up for the shortfall in pledge value.

SHCH acts as the CCP for GC repo and takes on delivery risk after novation in order to ensure safety of the repo transaction; in addition, SHCH also acts as a CSD for GC repo and provides specialized collateral management services.

Risk management mechanisms

GC repo has designed several risk prevention mechanisms to effectively identify, monitor and prevent the risk of pledged bonds. The clearing members of SHCH, which are selected prudently, are the first line of defence for counterparty credit risk. In addition to setting the scope and corresponding haircut, SHCH also sets differentiated discount rates for special pledge accounts according to creditworthiness of a specific clearing member in order to control leverage levels. Qualified institutional investors that are not clearing members can only participate in GC repo through one of the clearing members.

As now extended to the interbank bond market, GC repo has also made many specific mechanism innovations. For example, first, GC repo adopts a DVP delivery mechanism. Second, legal correspondence between each repo transaction and its pledged bond is clear, which avoids legal uncertainty in case of default disposal. Last but not least, repo rates in the interbank market are prominent as benchmark rates in terms of acceptance, functions and characteristics, and extreme abnormal rates are very rare. Also, in terms of business process, SHCH will cooperate with CFETS to conduct real time novation in GC repos, to facilitate smooth transition between pre-trade and post-trade segments.

Overseas institutional investor participation in GC repo transactions

At present, overseas investors, central banks, sovereign wealth funds, as well as RMB clearing banks and participating banks, are eligible to participate in China's interbank bond repo transactions. If these investors are bond CCP clearing members of SHCH, they can apply to participate in GC repo transactions directly. If they are not clearing members, they can participate in an indirect way as clients through general clearing members. With the further opening up of China's bond market and the improvement of market arrangements, it is expected that more types of overseas investors will be eligible to participate in China's bond repo market and in GC repo transactions at an appropriate time.

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Green, Social and Sustainability Bond Markets




by Nicholas Pfaff, Valérie Guillaumin, Ozgur Altun and Berit Lindholdt-Lauridsen

Market outlook for green, social and sustainability bond issuance in 2019

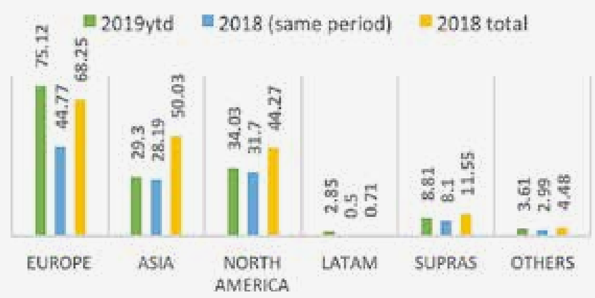
Green, social and sustainability (GSS) bond supply continues to expand considerably with the market expectations pointing to year-end numbers between USD210-240 billion for 2019. In this respect, the green bond issuance as well as social and sustainability bonds issuance have seen 37% and 64% growth in volume respectively, compared with the same period in 2018.

GSS Bond Evolution ($bn)

Source: ICMA (based on Environmental Finance Database)

Regionally, green bond issuance continues to be dominated by European issuance with a growing momentum where the region has seen almost 68% year-on-year increase already surpassing the total issuance of 2018. Supply from Asia and North America is in line with last year's track while LATAM has started to signal an increasing interest with issuance to date representing a fourfold increase (in volume) over the total in 2018.

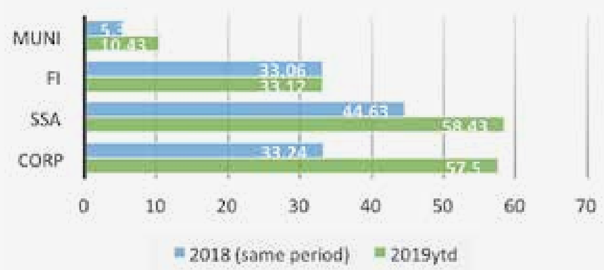
GB Issuance by Regions ($bn)



Source: ICMA (based on Environmental Finance Database)

As for the sectoral breakdown, green bond supply from corporates and SSAs has grown remarkably year-on-year, ie by 73% and 31% respectively. Issuance from FIs has been very close to volume in 2018 for the same period.

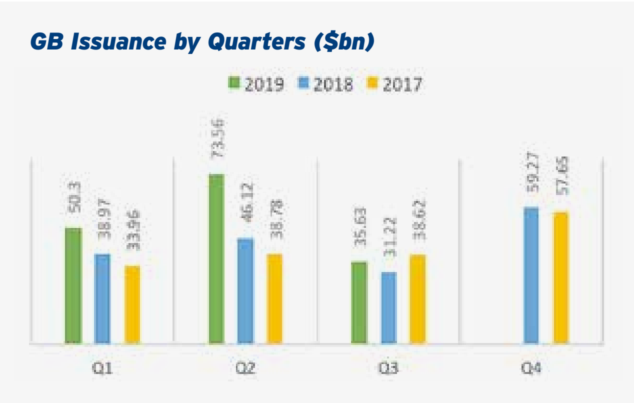
GB Issuance by Sectors ($bn)



Source: ICMA (based on Environmental Finance Database)

Green, social and sustainability bond issuance in Q3 2019

Green bond issuance slowed over Q3, but with volume at USD35.36 billion was still nearly 15% above the comparable period in 2018. The social and sustainability bond issuance volume was USD7.58 billion.



Source: ICMA (based on Environmental Finance Database)

Important transactions have come to the market during Q3:

- On the SSA front, the Kingdom of Belgium and the Republic of France tapped their existing green bonds by EUR779 million and EUR1.676 billion, respectively. KfW issued five green bonds totalling USD-equivalent 3.61 billion (focused on renewable energy and energy efficiency). In July, EIB issued a GBP 800 million 5-year Climate Awareness Bond (use of proceeds, renewable energy and energy efficiency). IBRD issued five different sustainability bonds (each in different currencies: CNY, MXN, RUB, CAD, and USD) amounting to over USD1.5 billion with use of proceeds including healthcare, education, food security and renewable energy). In September, LBBW priced their inaugural social bond EUR500 million 8-year (targeting affordable basic infrastructure and access to essential services) (Source: SG). Also, EBRD priced its inaugural "Climate Resilience Bond" (USD 700 million 5-year) where use of proceeds are exclusively earmarked for projects of climate-resilient infrastructure, climate resilient business and commercial operations, climate resilient agricultural and ecological systems. NIB also priced a EUR500 million 7-year GB in September (use of proceeds, renewable energy, energy efficiency, green buildings, public transport, wastewater management).
- On the corporate front, green bond issuance over the quarter amounted to USD12.4 billion while social and sustainability bond issuance was USD3.21 billion. The following table summarises the benchmark green bond issuances from corporates during the quarter:

Issuer	Country	Issuance Amount*	Eligible Green Project Categories
CGNPC	China	0.60	Renewable Energy
Prologis	US	0.51	Renewable Energy, Green Buildings, Energy Efficiency
Ferrovie	Italy	0.78	Clean Transportation
Greenko	India	0.95	Renewable Energy
EnBW	Germany	1.11	Renewable Energy, Energy Efficiency, Clean Transportation
Public Service Company of Colorado	US	0.55	Renewable Energy
Porsche AG	Germany	1.12	Green Buildings, Clean Transportation
E.on	Germany	1.66	Renewable Energy, Energy Efficiency, Clean Transportation
EDP	Portugal	0.66	Renewable Energy

*Environmental Finance Database; *In USD billion*

- For financial institutions, the total volume of green bonds issued by FIs was USD-equivalent 7.89 billion in Q3 2019. China Industrial Bank (USD equivalent of 2.9 billion) and Société Générale (EUR1 billion 10-year and four GBs issued in CNY totalling USD-equivalent of 522 million) were the main contributors to the FI numbers, while Raiffeisen Bank International priced a EUR750 million 7-year GB (use of proceeds, renewable energy, energy efficiency, green buildings, clean transportation, water and wastewater management) in September. Assicurazioni Generali, the Italian insurance company, priced its inaugural green bond (EUR750 million 11 year) also in September and became the first European insurance company to issue a GB (use of proceeds: green buildings, renewable energy (electricity and heat production), energy efficiency, clean transportation, sustainable water management, recycling, re-use & waste management) (Source: EF and SG).
- Social and sustainability bond issuance totalled USD7.58 billion in Q3. In addition to the sustainability bond issuances of IBRD (see above), some other benchmark issuances came from Sun Life Financial (CAD750 million 10-year), Shinnan Bank (USD500 million 11-year) and Standard Chartered (EUR500 million 8-year). CaixaBank also priced its inaugural social bond EUR1 billion 5-year (use of proceeds: affordable basic infrastructure, access to essential services and employment generation) during this quarter.

Notable transactions

Looking to wider developments in sustainable finance, Enel, the Italian energy company, launched on 6 September 2019 a "General Purpose SDG Linked Bond" by placing a USD1.5 billion bond on the US market. The bond issue, intended to meet Enel's ordinary financing needs, is linked to the group's ability to achieve, by the end of 2021, a percentage of installed renewable generation capacity (on a consolidated basis) equal to or greater than 55% of total consolidated installed capacity departing from today's figure of 45.9%. The operation has been structured as a single tranche issue of 1.5 billion US dollars paying a rate of 2.650% maturing in September 2024. The issue price has been set at 99.879% and the effective yield at maturity is equal to 2.676%.

The specificity of the bond is that the interest rate mechanics are linked to the achievement of the renewable generation capacity target. In other words, the interest rate will remain unchanged to maturity subject to achievement of the sustainability target indicated above as of 31 December 2021. If that target is not achieved, a step-up mechanism will be applied, increasing the rate by 25 basis points starting from the first interest period.

It is important to note that the structuring of this innovative Enel transaction draws from precedents in the loan markets and especially the Sustainability Linked Loan Principles (SLLP). The SLLP were published in March 2019 by the Loan Market Association, together with LSTA and APLMA, and with the support of ICMA. Sustainability linked loans are loan instruments and/or contingent facilities which typically incentivise through pricing the borrower's achievement of ambitious, predetermined sustainability performance objectives.

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Looking to wider developments in sustainable finance, Enel, the Italian energy company, launched on 6 September 2019 a "General Purpose SDG linked Bond".

European Action Plan on Sustainable Finance

Background

The European Commission established the Technical Working Group on Sustainable Finance (TEG) in June 2018 following the publication in March 2018 of the *Action Plan on Sustainable Finance*. ICMA, with the support of the GBP SBP Executive Committee, was nominated on the TEG following a highly selective process. The TEG published on 18 June 2019 reports and guidelines relating to its four key deliverables on which ICMA has provided a summary review with comments. The TEG's mandate has been extended until the end of 2019 and continues its work especially with respect to the Taxonomy, the EU Climate Benchmarks and the EU Green Bond Standard.

This paper provides an update on these workstreams from ICMA's perspective. It also provides in Table 1 an update on the parallel EU legislative initiatives on sustainable finance that are under way, reflecting the Commission's legislative proposals of May 2018.

Taxonomy

The report on the *EU Taxonomy for Sustainable Activities* published in June 2019 sets out the basis for a future EU Taxonomy in legislation (See Table 1). The TEG held a subsequent call for feedback on this report from 3 July until 16 September 2019. ICMA with the GBP Executive Committee provided a response to the consultation.

As for background, the Taxonomy report provides for technical screening criteria for 67 activities that can make a substantial contribution to climate change mitigation across the sectors of agriculture, forestry, manufacturing, energy, transportation, water and waste, ICT and buildings. Almost all activities have also been assessed for identifying the risk of significant harm to other environmental objectives. The report also provides for a methodology, worked examples for evaluating a substantial contribution to climate change adaptation and gives investors further guidance and case studies to prepare for using the Taxonomy.

Our feedback through this consultation focused especially on usability issues raised by the Taxonomy for the green, social and sustainability bond market. We continue to emphasize that this market operates by identifying sustainable projects rather than activities, and that as a result green, social and sustainability projects need to be reframed within these proposed activity categories which is neither automatic nor necessarily straightforward (eg when projects pertain to multiple activities). The project approach also allows for a multi-dimensional approach to environmental benefits, including an analysis of the supply chain and the end use, and a greater "differentiability" of eligibility.

We also express concerns relating to the applicability of the proposed "Do No Significant Harm" (DNSH) criteria. Issuers of green bonds will indeed likely be concerned about the potential legal liability/litigation risks of attesting DNSH, especially outside the EU. The proposed DNSH requirements also involve quantitative thresholds based on EU legislation as proposed (Art. 14) and may therefore be challenging for issuers with activities and/or projects largely based outside of the EU.

The GBP SBP requires issuers to transparently communicate their process for project selection including "any other process applied to identify and manage potentially material environmental and social risks associated with the projects". This is more appropriate for issuers of green, social and sustainability bonds and is applicable regardless of the geography of the underlying investments/projects.

We suggest therefore in our feedback an alternative process-based approach for DNSH methodology. We recommend implementing DNSH criteria at the issuer level and not the project level, ie issuers must demonstrate that they have the right ESG policies in place to mitigate DNSH risks.

With the respect to the status of the Taxonomy legislative proposal, the Council's proposal on the mandate for negotiations with the European Parliament was approved In September 2019 by MS representatives. The Presidency compromise text (Addendum) has created some controversy by, for example, potentially allowing as "environmentally sustainable" nuclear energy. It also defers the entry into force of the Taxonomy for mitigation and adaptation activities to end-2022 from 2020.

EU Green Bond Standard

The report on the EU Green Bond Standard proposes that the Commission creates a voluntary, non-legislative EU Green Bond Standard. It requires: (i) alignment with EU Taxonomy; (ii) publication by the issuer of a Green Bond Framework confirming among others the voluntary alignment of green bonds issued with the EU GBS; (iii) mandatory reporting on use of proceeds (allocation report) and on environmental impact (impact report); and (iv) mandatory verification of the Green Bond Framework and of the allocation report by an external reviewer.

On this final point, the TEG recommends that external verifiers are formally accredited and supervised. The TEG argues that the most suitable European authority to design and operate such an accreditation regime for verifiers would be the European Securities and Markets Authority (ESMA). As this will take time, the TEG calls for the set-up of an interim registration process for external verifiers of green bonds, for a transition period of approximately three years, in close cooperation with the European Commission. ICMA is actively reviewing with other key market stakeholders how it can contribute to the establishment of such an interim registration process.

We also express concerns relating to the applicability of the proposed "Do No Significant Harm" (DNSH) criteria.

Benchmarks

The TEG report on *EU Climate Benchmarks and Benchmarks' ESG Disclosures*, published in June 2019, recommends a list of minimum standards for the methodologies for the EU Climate Transition Benchmark (EU CTB) and an EU Paris-Aligned Benchmark (EU PAB). The report's recommendations aim to address perceived risks of greenwashing, and include disclosure requirements to improve transparency and comparability of information across benchmarks, not only regarding climate-related information but also on a variety of ESG indicators.

In parallel with the release of the climate benchmarks report a six weeks call for feedback was launched. With the benefit of the feedback received, the TEG is expected to publish the final version of the report early in Q4 2019.

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Update on EU legislative and regulatory Initiatives on Sustainable Finance

Initiative	Current Status	Comments
Taxonomy Regulation	The progress report on political discussions under the Romanian Presidency was published on 24 June 2019. On 25 September 2019, MS Representatives approved the Council's on the mandate for negotiations with EP.	Changes proposed by EP as its first position in March 2019: (i) lifecycle and value chain assessments to be taken into account for the technical criteria as well as the "no significant harm"; (ii) disclosure of the relevant information allowing firms offering financial products to establish whether the pre projects they offer qualify as environmentally sustainable investment pursuant to the criteria under the Taxonomy Regulation. In June 2019, the Council discussions during the Romanian Presidency resulted in a compromise text aimed at (i) better involvement of MSs in the Platform on Sustainable Finance going forward; (ii) extension of the Taxonomy's scope to cover transition activities; and, (iii) clarification of the interaction between the Taxonomy Regulation and the Regulation on sustainability related disclosures (below). In September 2019, the Council's proposal on the mandate for negotiations with EP was approved by MS representatives. The Presidency compromise text (Addendum) potentially allows nuclear energy to be classified as "environmentally sustainable" and also defers the entry into force of the Taxonomy for mitigation and adaptation activities to end-2022 from 2020.
Amendments to Benchmark Reg. (2016/2341)	First reading by the European Parliament completed on 26 March 2019, expected to be approved by the Council without amendments as per the political agreement of 25 February 2019.	Benchmark categories/terminology in the European Commission's proposal were revised to: (i)EU Climate Transition Benchmark, which aim to lower the carbon footprint of a standard investment portfolio and which is targeting companies that follow a measurable, science-based "decarbonisation trajectory" by end-2022; (ii)EU Paris-aligned benchmarks, having more ambitious goals to select components that contribute to attaining the 2°C reduction set out in the Paris climate agreement.
Regulation on sustainability-related disclosures in financial services sector	The European Parliament's position after first reading (adopted on 18 April 2019) to be approved by the Council without amendments.	Applicable to (among others); investment firms and credit institutions providing portfolio management, AIFM, UCITS management companies. The European Parliament adding definitions for "sustainability risks" (defined with reference to the materiality of the negative impact on the investment) and "sustainability factors" (defined with reference to environmental, social and employee matters, human rights, anti-corruption and bribery matters). The European Parliament also extended the scope of applicable transparency requirements in order to cover (among others): (i) potential adverse impacts of investments decisions on sustainability factors (Art.3 gamma); (ii) interaction between remuneration policies and the integration of sustainability risks; and (iii) the promotion of environmental or social characteristics in pre-contractual disclosures (Art 4a).
Various Delegated Acts and Amendments to respective ESMA guidelines	European Commission's request on 24 July 2018 for technical advice from ESMA and EOIPA. Following the regulators' input, the European Commission will take these delegated acts further.	Public Consultations took place for amendments to various delegated under MiFID II, UCITS/AIFMD, Solvency II and Insurance Distribution Dir and on amendments to ESMA guidelines on product suitability and press releases as part of CRA disclosures. EIOPA and ESMA published their final reports in response to the technical advice on sustainability of the European Commission on 30 Apri. ESMA's technical advice on sustainability considerations in the credit rating market and its final guidelines on disclosure requirements applicable to credit ratings were published on 18 July.

Launch of ICMA's Sustainable Finance Coordination Committee

On 17 September 2019, ICMA launched its Sustainable Finance Coordination Committee (SFCC) with an inaugural meeting in London. This newly established committee brings together various ICMA committees and constituencies (ie AMIC, CIF, FIIF, LDC, PMPC and RPC) with a growing interest in sustainable finance and the Steering Group of the GBP SBP Executive Committee. The SFCC is designed to:

- provide a forum for discussing sustainable finance developments;
- provide a wide platform for ICMA regulatory responses and dialogue on sustainability-related topics;
- liaise with the Global Green Finance Council to further leverage cooperation among leading financial industry associations; and
- provide input into specific cross-cutting sustainability related deliverables.

During the inaugural meeting, various points on the future workflows and projects of the SFCC were discussed. It was underlined that there was an increasing legislative and regulatory focus on sustainable finance as evidenced by the profusion of consultations from the European Commission and the ESAs, as well as national regulators and authorities in Europe and internationally.

The SFCC is also already considering two important market guidance documents focused respectively on sustainable finance definitions and international policy and market best practices.

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New York Climate Finance Week

ICMA participated actively in events around New York City's Climate Week, one of the world's largest climate related events. It is run in coordination with the UN and includes a specific focus on green and climate finance.

Representing ICMA, Berit Lindholdt-Lauridsen was a panellist at the Environmental Finance conference, *ESG in Fixed Income Featuring the Green Bonds Americas Conference 2019*, on September 17. The debate around "Transition Bonds" was a key topic that came up during the discussion on taxonomies and standards ("Taxonomies and standards – ensuring they work together to encourage maximum investment and issuance") involving, in addition to Berit Lindholdt-Lauridsen, Erin Bigley (AllianceBernstein), Sarah Thompson (RBC), and Olga Emelianova (MSCI), and, as moderator, Charlotte Peyraud from CACIB.

The Sustainable Investment Forum North America 2019 on 25 September attracted 450 sustainable investment professionals. Kim Thomassin (CDPQ), said in a fire-side chat with Berit Lindholdt-Lauridsen, ICMA, on Sustainable Finance in Canada: "Finance won't be able to solve climate change alone, but it has a huge role to play."

It is also notable that during Climate Week a group of investors launched the Net-Zero Alliance. The members of the alliance with more than US$2.4 trillion in assets, have committed to carbon-neutral investment portfolios by 2050. The founding members are Allianz, Caisse des Dépôts, La Caisse de dépôt et placement du Québec (CDPQ), Folksam Group, PensionDanmark and Swiss Re, and recently Alecta, AMF, CalPERS, Nordea Life and Pension, Storebrand and Zurich.

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Asset Management

by David Hiscock, Bogdan Pop and Arthur Carabia

Short termism

ESMA published, on 24 June, a consultation on *Undue Short-term Pressure on Corporations from the Financial Sector*, which relates to the European Commission's action plan on sustainable finance. In this survey, ESMA points to six heterogenous factors which could lead to potential short termism: the investment strategy and horizon of asset managers, the current level of non-financial reporting, fair value accounting, the current level of institutional investors' engagement with investee companies, the remuneration of fund managers and short-selling of CDSs.

In its response, published on 29 July, ICMA's Asset Management and Investors Council (AMIC):

- Refuted the idea that short termism is as a prevalent bias of asset managers. How asset managers hold any asset is a function of how long clients stay with a product but generally asset managers tend to hold assets for the long-term based on their analysis of a company's prospects and underlying performance. It was also raised that, as part of their fiduciary duty, asset managers are pursuing sound corporate governance practices at the level of investee companies to protect and enhance the long-term economic value of their clients' assets.
- Confirmed that of some elements of the regulatory framework identified by ESMA may indeed contribute to undue short termism: investment horizon and possibilities for institutional clients are indeed very dependent on regulations (accounting (eg IFRS 9), prudential (eg Solvency 2)). Investors and therefore asset managers could become even more long-term oriented if some key regulations could be amended in a positive way. The fact that asset managers are also continuously assessed against market benchmarks can sometimes challenge their ability to take a longer-term view and tolerate periods of underperformance even by firms in which they fundamentally believe.
- Strongly disagreed with ESMA's suggestion that remuneration rules and CDS short-selling are factors or indicators of short termism. Remuneration rules for asset managers were very recently adopted by the co-legislators (involving ESMA itself) and are set to align interests between fund managers and investors in the long term. Likewise, net sell CDS positions held by UCITS funds are not to be attributed to short termism. This indeed may be to address the issue of scarcity or mispricing in the bond market. ICMA/AMIC had the opportunity to further explain our views on this specific topic during a meeting organised by ESMA on 16 September.

By December 2019, ESMA will deliver a report to the European Commission based on its findings, who will consider potential follow-up actions.

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Fund liquidity

Public policy debate after Woodford

Following the suspension of the Woodford Equity Income Fund, the Bank of England announced in its July 2019 Financial Stability Report a review, conducted jointly with the UK FCA, on redemption terms and liquidity management tools used by open-ended funds. Alex Brazier, Executive Director for Financial Stability at the Bank of England, confirmed the approach in a speech, delivered on 2 September: "As yet, this general solution [alignment between redemptions terms and underlying assets] hasn't been translated by the relevant regulators into specific global rules. So, in July, the Bank of England and the FCA announced that we will assess how funds' redemption terms might be better aligned with the liquidity of their assets. That will include assessing the effectiveness of liquidity tools that are already used and the cost and benefits of aligning the redemption terms with the typical time it takes to sell a fund's assets. (…) We'll report on our progress in our regular Financial Stability Reports."

While indicating in a letter to Lord Myners that it sees merit in having more stringent liquidity rules, the FCA also mentioned the difficulty of moving ahead unilaterally as most UCITS funds sold in the UK are established in the rest of the EU. It therefore remains unclear whether the Bank of England/FCA review could result in material and substantial changes for investment funds.

At international and EU level, securities regulators are being cautious regarding potential changes to the current framework. Following the Bank of England's July report stating that the international body had failed to the address the FSB's recommendation that funds' assets and investment strategies should be consistent with their redemption terms, IOSCO reacted: "[our] recommendations do, in fact, provide a comprehensive framework for regulators to deal with liquidity risks in investment funds, as explained below." At the same time, IOSCO confirmed its intention to "conduct a robust assessment exercise beginning in 2020 which will review how the 2018 *Liquidity Risk Management Recommendations* have been implemented in practice". In an interview given to the FT, Steven Maijoor, the Chair of ESMA stressed that: "We need to be careful about the suggestion that UCITS has to be changed [in response to the problems that have emerged at Woodford Investment Management]. It is important to emphasise that UCITS already establishes the principle that funds must be able to comply, at any time, with the obligation to redeem investors upon request."

ESMA's measures on micro- and macro-stress tests for investment funds

Alongside this policy debate, ESMA is continuing to further enhance and converge fund liquidity practices in the EU via three recent measures: (i) the guidelines on liquidity stress tests for money market funds (MMFs); (ii) the guidelines for investment funds' liquidity stress tests; and (iii) its first sector-wide stress test.

First, as required by the MMF Regulation, ESMA has issued, on 19 July, guidelines establishing common reference parameters for MMF stress test scenarios including: liquidity levels, credit and interest rate risk, redemptions levels, widening/narrowing of spreads among indexes to which interest rates of portfolio securities are tied and macro-economic shocks. The guidelines and calibration are expected to be updated at least every year considering the latest market developments.

Second, ESMA also released the final version of its guidelines on liquidity stress tests which apply fully to UCITS and leveraged close-ended AIFs, and partially to MMFs (paragraphs 16 to 24 and 74 to 81). The guidelines, which aim at converging liquidity stress tests' practices, feature provisions on the design of liquidity stress test models and scenarios, guidance for the stress tests on both the asset and liability sides, governance principles, frequency of the stress tests, reporting, and the use of the outcome.

While concerned about the short implementation deadline (30 September 2020), we were pleased to see that several recommendations formulated by AMIC were taken on board in the final version of the guidelines: (i) the principle-based approach is overall confirmed, allowing tailored liquidity stress tests; (ii) reverse stress tests and aggregated stress tests across funds are not mandatory but instead should be conducted when appropriate; and (iii) the required frequency remains on an annual basis, although more frequent stress tests are recommended when possible. AMIC will continue to ask regulators to provide more support to asset managers to overcome the challenge of data availability on the liability side, in order to improve the stress tests' models through better profiling of underlying investor types.

Third, following FSB 2017 recommendations, ESMA issued, on 5 September, the results of its first sector-wide stress test simulation for bond funds. ESMA has applied a redemption shock (weekly redemption ranging from 5-10% of NAV) to a sample of around 6,600 UCITS funds (€2.5 billion NAV) investing primarily in fixed income instruments ("since they are the more likely to face a liquidity mismatch than equity funds") and classified into five categories (High-Yield (HY), Emerging Market (EM) bond, euro fixed income, global fixed income and mixed funds).

The simulation concludes that: "overall most funds are able to cope with such extreme but plausible shocks, as they have enough liquid assets to meet investors' redemption requests. However, pockets of vulnerabilities are identified, especially for HY bond funds. Under the severe but plausible assumptions of our simulations, up to 40% of HY bond funds could experience a liquidity shortfall (…)." Looking at the impact of asset liquidation on the market, ESMA states that "overall price impact is limited for most asset classes, as sales by funds are only a fraction of aggregate trading volumes. However, for asset classes with more limited liquidity, such as HY bonds and EM bonds, fund sales could have a material impact, ranging from 150 to 300 basis points, and generate material second round effects."

It is important to highlight that the results do not induce ESMA to recommend any policy/regulatory changes or definitive conclusion but are rather intended to inform asset managers and supervisors of the potential need for mitigating actions, including the use of liquidity management tools which are not taken into consideration for the purpose of the simulation. While ESMA points out that this report could be used by regulators to simulate stress situations for different segments of the fund industry, it also acknowledges in conclusion that the "modelling choices have had material impact on the results obtained". AMIC is therefore collecting views from members on the methodology used by ESMA and will consider if helpful improvements can be suggested.

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ELTIF review

The ELTIF Regulation, which entered into application on 9 December 2015, is aimed at creating a new brand of fund available for both retail and professional investors to invest in long-term assets. Despite a favourable political context (ie the Investment Plan for Europe and the CMU) and the fact that the industry welcomed this initiative, only a very limited number of ELTIFs have been launched so far.

Among AMIC members, who oversee over €17 trillion worth of assets, including asset classes which could be eligible for ELTIFs, only two members are known to have launched an ELTIF fund. Given the slow development of this market, ESMA has not yet set up the dedicated fund database initially required by the ELTIF Regulation. With the applicable Delegated Regulation only published on 23 March 2018, it can be easily understood why there were no immediate launches. But after 18 further months, we still have not seen much progress.

We believe the need for investment into long-term assets has not decreased and that ELTIFs could still be instrumental to facilitate investment into smaller companies and infrastructures, including sustainability projects which are the priority of the new president of the European Commission. In this context, we believe that the review clause (June 2019) should be used to address perceived shortcomings of the ELTIFs model and find possible ways to reinvigorate this label to the benefit of the European economy.

While remaining respectful of the need to provide the right degree of control to satisfy legitimate concerns, such as investor protection, AMIC is currently identifying recommendations regarding points of improvement to facilitate the take-up of ELTIFs and significantly boost their contribution towards the financing of much needed longer-term investment.

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MiFID II/R research unbundling

From 3 January 2018, MiFID II/R required asset managers with EU interests to pay for research separately from execution services, and either charge clients transparently or pay for research themselves.

Before its implementation, industry participants were vocal on how the new rules would have a negative impact on research coverage of small and medium-sized enterprises (SMEs) and how this unintended consequence would go against the European Commission's CMU plan to improve access to market-based finance for SMEs.

This concern led the European Commission to task Risk Control, in December 2018, to undertake a major analysis of the impact of MiFID II/R rules on investment research. According to the tender, the study will carefully examine the effects of MiFID II/R research payment rules on SME research and fixed income investment research, and in particular their impact on the amount and quality of research. It is interesting to note that the Commission asked for this impact assessment relatively early, with a tender for this being published in June 2018. Normally, an impact assessment would be undertaken after a slightly longer period of time following the entry into force of new legislation. This report is expected to be published by the end of October. This study is important, as depending on the findings the European Commission may consider adjustments to the unbundling rules in the future.

National Competent Authorities have also started to look into the implementation and consequences of the new rules. The French Autorité des Marchés Financiers announced, on 11 July, that they have launched a study on the impact of the new rules governing research funding introduced by MiFID II/R, quoting changes to the market economy of research and in particular the issue of low SME coverage by analysts.

On 19 September, the UK FCA issued the results of a multi-firm review of the unbundling reforms. According to the findings, the new rules have steered the market towards the intended outcomes and benefit consumers. They find that, due to most firms having absorbed the research costs themselves, the saving benefits investors directly. Most importantly, their findings suggest that most buy side firms can still access the research they need, with no evidence of material reduction in coverage of SMEs. However, the FCA notes that research valuation and pricing are still evolving and a market for separately priced research is still emerging – which explains the wide range of sell-side research pricing levels.

The FCA also found a material reduction, of around 20%-30%, in the budgets firms set for externally produced equity research, which is in line with the findings of the *AMIC Survey on FICC Research Unbundling 2018*, issued in November last year. The FCA noted several reasons behind this reduction: a more targeted approach by the buy side, with fewer and more focused analyst meetings; high competition, which drove down the costs for written material; and most firms making the effort to better understand how they use their research, to improve cost discipline.

Other observations made in the review findings include that too low pricing by sell-side research providers may have an adverse impact on competition, under-charging for corporate access could be problematic and that the sell side should not just be "price-takers". The FCA indicated that there will be further thematic work on the topic over the next two years.

Lastly, on the back of this review the FCA took the opportunity to clarify some points of uncertainty that have been previously flagged by the industry. For example, the FCA clarified that trade association events can be treated outside the inducements framework as members pay their own fees to attend such events, and so they can be considered as a membership benefit.

Looking beyond the EU, on 9 July, the US House of Representatives passed a Bill, known as *Improving Investment Research for Small and Emerging Issuers Act*, requiring the Securities and Exchange Commission to study the provision of investment research into small issuers including emerging growth companies. Among the issues the study will consider are: demand for research by institutional and retail investors; the availability of research in terms of number and types of providers; the volume of research over time; competition in the research market; costs of such research as well as conflicts of interest in the production and distribution process. In addition, the study will consider the effects of concentration and consolidation on fund managers, including the size of fund managers and how this relates to the demand for research, and will also examine the impact of different payment mechanisms on research. It is difficult not to see the connection between this study and the MiFID II/R rules in the EU.

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Other buy side regulatory developments

On 5 July, EIOPA announced the establishment of its Expert Practitioner Panel on the Pan-European Personal Pension Product (PEPP). It is important to deliver on the forthcoming PEPP Regulation's policy perspective to design a PEPP that exhibits high quality product features around information provision, risk-mitigating techniques and a cost cap for the basic PEPP, the feedback and support from practitioners. With the insights of the Expert Practitioner Panel, EIOPA intends to develop superior solutions and smart policy advice that incentivises financial innovation for the benefit of the European consumers. The objectives of the Expert Practitioner Panel on PEPP are to: (i) inform EIOPA's policy work; (ii) test policy proposals; and (iii) act as sounding board supporting EIOPA delivering on its mandate.

On 16 July, ESMA launched a public consultation on draft guidelines on performance fees under the UCITS Directive. ESMA's draft guidelines aim to harmonise the way in which performance fees can be charged to the UCITS and its investors while ensuring common standards of disclosure, as current practices vary among EU Member States. ESMA is seeking stakeholders' feedback on its proposals as well as on whether the principles set out in the guidelines should also be applied to AIFs marketed to retail investors. The proposed guidelines follow a mapping exercise ESMA conducted in 2018 among NCAs, which analysed the current national practices for key aspects of performance fees, revealing a lack of harmonisation among EU jurisdictions.

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Buy side oriented research

Published on 1 July, *Long-Term Returns in Distressed Sovereign Bond Markets: How Did Investors Fare?* is an IMF staff working paper, which investigates the perception that sovereign debt restructurings inflict large losses to bondholders. However, many bonds feature high coupons and often exhibit strong post-crisis recoveries, so to account for these aspects the authors analyse the long-term returns of sovereign bonds, during 32 crises since 1998, taking into account losses from bond exchanges as well as profits before and after such events. They show that the average excess return over risk-free rates in crises with debt restructuring is not significantly lower than the return on bonds in crises without restructuring. Returns differ considerably depending on the investment strategy – investors who sell during crises fare much worse than buy-and-hold investors or investors entering the market upon signs of distress.

On 17 July, the ESRB published the *EU Non-Bank Financial Intermediation Risk Monitor 2019* (*NBFI Monitor*, previously called the *Shadow Banking Monitor*), which covers data up to end-2018. This is the fourth issue in an annual series that contributes to the monitoring of a part of the financial system that has grown in recent years and now accounts for around 40% of the EU financial system. The report identifies several key risks and vulnerabilities:

> **Investors who sell during crises fare much worse than buy-and-hold investors or investors entering the market upon signs of distress.**

- risk-taking, liquidity risk and risks associated with leverage among some types of investment funds and other non-bank financial institutions;
- interconnectedness and the risk of contagion across sectors and within the non-bank financial system, including domestic and cross-border linkages; and
- activities-related risks – procyclicality, leverage, and liquidity risk – created through the use of derivatives and SFTs.

These risks and vulnerabilities are assessed using an entity-based monitoring framework which considers both investment funds and other financial institutions, such as financial vehicle corporations, security and derivative dealers and financial corporations engaged in lending. The analysis is complemented by an activity-based assessment considering risks and vulnerabilities in SFTs and derivatives markets which are used across entities and where risks can arise from the use and re-use of financial collateral. The *NBFI Monitor* includes four boxes that focus on the role of investment funds in EU commercial real estate markets; insights from new data reported under the EU AIFMD; risks from the growing market for leveraged loans; and interdependencies in CCP clearing in the EU derivatives markets. Finally, further work is required to address remaining data gaps and improve risk assessments by developing metrics to measure liquidity, leverage and interconnectedness.

On 22 July, EIOPA published a discussion paper on *Methodological Principles of Insurance Stress Testing*, for comment by 18 October, which sets out methodological principles and guidelines required for the conduct and assessment of an EU-wide stress test exercise with the aim to enhance EIOPA's methodology for bottom-up supervisory stress testing. These principles and guidelines will be the toolbox to facilitate both the design and execution phase of future EIOPA stress test exercises. The discussion paper is part of a broader process to enhance EIOPA's stress testing framework. In this context, EIOPA will work on other stress testing related issues such as the assessment of liquidity positions under adverse scenarios, assessment of the vulnerabilities towards climate-related risks and potential approaches to multi-period stress tests.

On 26 July, EIOPA published its updated *Risk Dashboard* based on the first quarter 2019 Solvency II data. The results show that the risk exposures of the EU insurance sector remain overall stable, with macro and market risks now at a high level. This is due to a further decline in swap rates and lower returns on investments in 2018, which put strain on those life insurers offering guaranteed rates. The low interest rate environment remains a key risk for the insurance sector. Credit risks continue at medium level with broadly stable CDS spreads for government and corporate bonds. Profitability and solvency risks increased due to lower return on investments for life insurers observed in year-end 2018 data. Solvency capital requirement ratios are above 100% for most undertakings in the sample even when excluding the impact of the transitional measures.

Published on 29 July, *Insurers' Investment Strategies: Pro- or Countercyclical?* is an ECB staff working paper. Traditionally, insurers are seen as stabilisers of financial markets that act countercyclically by buying assets whose price falls. Recent studies challenge this view by providing empirical evidence of procyclicality. This paper sheds new light on the underlying reasons for these opposing views. The authors model predicts procyclicality when prices fall due to increasing risk premia, and countercyclicality in response to rises in the risk-free rate. Using granular data on insurers' government bond holdings, they validate these predictions empirically. Their findings are intended to contribute to the current policy discussion on macroprudential measures beyond banking.

Published on 12 August, *Role of Cross Currency Swap Markets in Funding and Investment Decisions* is an ECB staff occasional paper. A US dollar funding premium in the EUR/USD cross currency swap market has been in existence since 2008. Whilst there are many reasons behind this dislocation, since 2014 the divergence in monetary policy between the euro area and the US has played a growing role. This paper aims at exploring and gaining more insight into the role the Eurosystem's expanded Asset Purchase Programme (APP) has had in guiding investment and funding decisions and its influence on the cross-currency basis. The downward pressure on yields, exerted by the APP, has made euro assets less attractive and has led investors to search for yield abroad. At the same time, the decline in yields and tighter credit spreads have attracted US corporate issuers to the euro market in search of cheaper funding costs. These cross-border flows from issuers and investors have played a strong role in driving the US dollar funding premium.

The purpose of this study is to gauge whether these changing trends in cross-border flows have implications for the implementation of the Eurosystem's APP. Beyond the structural increase in the US dollar funding premium described above, a cyclical component has led to an amplification of the premium over balance sheet reporting dates, due to new bank regulations. This paper also analyses the behaviour of euro area banks in cross currency swap markets over balance sheet reporting dates, using the money market statistical reporting dataset in order to discern whether the increase in the US dollar funding premium at these specific points in time has an adverse impact on the transmission of monetary policy.

On 24 September, ESMA highlighted that a study included in its latest *Trends, Risks and Vulnerabilities* (TRV) report looks at the exposure of investment funds to the market for leveraged loans and collateralised loan obligations (CLOs), and finds that the EU fund industry's exposure remains limited at this stage at €130 billion (less than 1% of EU fund industry net assets). This study is the first carried out using actual data from the relevant sector, combining regulatory data with commercial databases to ensure a more complete view of the market.

The surge in the issuance of leveraged loans and CLOs is an indication of how market-based finance can supplement bank credit to finance the real economy. At the same time, the deterioration of underwriting standards coupled with low spreads point to a potential underpricing of risk. Average credit ratings of outstanding leveraged loans have recently deteriorated, and simulations carried out by ESMA show that model uncertainty can impact the credit ratings of CLOs, potentially triggering forced sales from some types of investors. Looking ahead, ESMA will review the quality of the rating process methodologies for CLOs, with a view to ensuring these are robust.

On 27 September, ESMA highlighted its study of the performance of active equity funds as compared to passive equity funds, ETFs and relevant benchmarks. The study, included in the latest TRV report finds that actively managed funds have in past years underperformed, in net terms, both passive equity funds and equity ETFs, as well as their own benchmarks, primarily due to the large impact of ongoing costs. The share of passive investing in the equity fund market segment has been increasing materially, however active equity UCITS still accounted for about 75% of the overall market in 2018.

Over the last few years, the top 25% of actively managed equity UCITS outperformed those that were managed passively both before and after costs. However, as the composition of the group of the top 25% changes over time, there is limited opportunity for investors to pick consistently outperforming actively managed equity UCITS. Going forward, ESMA will continue to look at the topic of costs and charges in line with its investor protection mandate, working in collaboration with national competent authorities aiming to harmonise the situation for investors across the EU.

On 30 September, ESMA highlighted its study, included in its latest TRV report, on the use of derivatives by UCITS equity funds. This study finds that the tendency, and frequency, of these funds to trade derivatives is explained to a large extent by asset managers characteristics, such as fund family and fund family size. Over time, cash inflows as well as currency risk seem to have a significant influence, which suggests that derivatives are used for transaction costs or risk reduction purposes. The analysis included in this study provides new insight into the type of derivatives that are traded by UCITS equity funds, why some of them trade derivatives whilst others do not, what makes some more active traders and to what extend the trading in derivatives is a reaction to daily changes in the market. UCITS equity funds mainly use forward contracts on currencies (80% of trades) and futures or options on equities (26%).

To coincide with the launch of IOSCO's *World Investor Week 2019*, on 30 September, the IOSCO Board published the *Core Competencies Framework on Financial Literacy*, to assist members, investor education providers and other stakeholders in their efforts to develop and implement investor education initiatives. The Framework provides guidance to users on the content of investor education programs and indicates which areas could be assessed as part of an evaluation strategy. It encourages users to build investors' competences based on the following seven areas: (i) basic investing principles and concepts; (ii) investment product attributes; (iii) buying/selling process of investment products; (iv) owning investment holdings; (v) investor rights and responsibilities; (vi) behavioural biases related to investing; and (vii) investment scams and frauds.

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International Regulatory Digest


by David Hiscock and Alexander Westphal

G20 financial regulatory developments

Under the auspices of the French G7 Presidency, G7 Finance Ministers and Central Bank Governors met, in Chantilly, on 17-18 July. They reaffirmed the importance of their close cooperation to address the current and future economic and financial challenges and committed to work together for a more inclusive, equal and sustainable economic model. Ministers and Governors discussed more specifically ways to: (i) continue to address current risks in the global economy and the financial system to support strong, sustainable, balanced and inclusive growth that generates widespread prosperity; (ii) accelerate the work to tackle new challenges, including most importantly making the international tax system fairer, addressing the competition challenges that are raised by the digitalization of the economy, and advancing the agenda on climate and green finance; and (iii) ensure that the benefits of growth are more widely shared, fighting inequalities within countries as well as between advanced and developing countries.

Published on 30 July, *The Long Shadow of the Global Financial Crisis: Public Interventions in the Financial Sector* is an IMF staff working paper, in which the authors track direct public interventions and public holdings in 1,114 financial institutions, over the period 2007-17 in 37 countries, based on publicly available information. They use aggregate official data to validate this new dataset and estimate the fiscal impact of interventions, including the value of asset holdings remaining in state hands at end-2017. Direct public support to financial institutions amounted to $1.6 trillion ($3.5 trillion including guarantees), with larger amounts allocated to lower capitalized and less profitable banks.

The authors find that, as of end-2017, only a few countries had fully divested the initial support they provided during the crisis, but public holdings were divested faster in better capitalized, more profitable, and more liquid banks, and in countries where the economy recovered faster. In countries where the government stake remained high relative to the initial intervention, private investment and credit growth were slower, financial access, depth, efficiency, and competition were worse, and financial stability improved less.

Published on 9 August, *Bank Lobbying: Regulatory Capture and Beyond* is an IMF staff working paper, in which the authors discuss whether and how bank lobbying can lead to regulatory capture and have real consequences through an overview of the motivations behind bank lobbying and of recent empirical evidence on the subject. Overall, their findings are consistent with regulatory capture, which lessens the support for tighter rules and enforcement. This in turn allows riskier practices and worse economic outcomes.

In the view of the authors of the IMF staff working paper, the evidence provides insights into how the rising political power of banks in the early 2000s propelled the financial system and the economy into crisis. While these findings should not be interpreted as a call for an outright ban of lobbying, they are seen to point in the direction of a need for rethinking the framework governing interactions between regulators and banks. Enhanced transparency of regulatory decisions as well as strengthened checks and balances within the decision-making process would go in this direction.

As interest rates fell, the amount of debt with negative yields reached record highs.

What progress has been made towards ensuring that systemic financial institutions are resolvable, and what are the remaining impediments? Are authorities sufficiently prepared to deal with failures, and how can crisis simulation exercises help build that capacity? Are current crisis management frameworks adequate in the face of emerging and future risks? What are the challenges of designing effective resolution regimes for small and emerging banking markets? These and other questions were tackled at the FSI - IADI conference on crisis management, resolution and deposit insurance, which took place in Basel on 4-5 September. This was the ninth conference in the series, bringing together over 170 officials from supervisory and resolution authorities, central banks and deposit insurers.

The latest *BIS Quarterly Review* was published, on 22 September. Trade and monetary policy dominated market developments during the last quarter. The prospect of higher trade tariffs reversed the early-year rally in equity and credit markets. Central banks' willingness to loosen monetary policy contributed to a recovery, but this was short-lived as a renewed focus on trade and weakening economic activity kindled risk aversion. Amid this uncertainty, yield curves in major economies inverted in August, which was seen in some quarters as signalling a growing risk of recession. However, other indicators painted a more mixed picture. As interest rates fell, the amount of debt with negative yields reached record highs. Feature articles include analyses which show that banks' exposures to non-bank financial institutions have increased in recent years and that the risk posed by G-SIBs has diminished.

On 23 September, in the face of worsening climate crisis, the UN Climate Action Summit 2019 announced the delivery of new pathways and practical actions to shift global response into higher gear. The Summit is designed to showcase government, business, and civil society efforts to increase their commitments under the Paris Agreement and many countries used the Summit to demonstrate next steps on how by 2020 they will update their nationally determined contributions with the aim to collectively reduce emissions by at least 45% by 2030 and prepare national strategies to achieve carbon neutrality by mid-century.

In respect of climate finance, the Asset Owner Alliance, a group of the world's largest pension funds and insurers, will immediately start to engage with companies in which they are investing to ensure they decarbonize their business models; and the International Development Finance Club, a leading worldwide group of 24 national and regional development banks, announced for the first time a quantitative target of mobilizing $1 trillion by 2025, including an increasing share for adaptation and resilience.

Alongside all this, the World Economic Forum's Sustainable Development Impact Summit, on 23-24 September, explores four themes: transforming markets; accelerating climate action; financing sustainable development; and mobilizing action for inclusive societies.

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Regulatory reforms in the Chinese financial market

by Yanqing Jia

Removal of investment quota restrictions for QFII and RQFII

On 10 September 2019, China's State Administration of Foreign Exchange announced the decision to abolish the investment quota restrictions for Qualified Foreign Institutional Investors (QFII) and Renminbi Qualified Foreign Institutional Investors (RQFII), two of the channels for foreign investors to access the Chinese onshore market. With this change, all channels through which foreign institutional investors can participate in the onshore bond market – QFII and RQFII, CIBM Direct, and Bond Connect – are free of any investment quota limits.

China interbank bond market: bond trading settlement cycle extended to T+3 for overseas institutional investors

On 23 August 2019, China Foreign Exchange Trade System (CFETS), China Central Depository & Clearing (CCDC) and Shanghai Clearing House (SHCH) jointly published the *Notice on Extension of Bond Settlement Cycle for Overseas Institutional Investors* (OIIs). Effective from 23 August 2019, it allows OIIs to choose from T+0, T+1, T+2 or T+3 settlement at their own discretion for bond trades, where T+3 is the new option. As long as one of the two settling parties is an OII, the trade can be settled in T+3. Applicable types of trades are spot bond trading, pledged repo, outright repo, and bond lending and borrowing.

This new rule provides more convenience and flexibility for international investors to arrange securities and cash for bond trades and to track relevant indexes, considering different time zones and business days. It aims at facilitating international investor participation in the Chinese fixed income market and encouraging inclusion of Chinese bonds in global indexes.

State Council measures to promote internationalisation of the Chinese market

On 20 July 2019, the Office of Financial Stability and Development Committee under China's State Council announced 11 measures to promote further opening of the Chinese financial market:

- allow foreign-funded institutions to conduct credit rating business with all types of bonds in the China interbank bond market and exchange bond market;
- encourage overseas financial institutions to participate in setting up and investing in the wealth management subsidiaries of commercial banks;
- allow overseas asset management institutions to co-establish foreign-controlled wealth management companies together with subsidiaries of Chinese banks or insurance companies;
- allow overseas financial institutions to invest in setting up or holding stakes in pension fund management companies;
- support foreign capital to establish wholly owned or hold stakes in currency brokerage companies;
- remove the shareholding limits on foreign holding in life insurance companies by 2020, one year earlier than originally planned;
- allow foreign ownership in insurance asset management firms to exceed 25%;
- relax the entry requirements of foreign insurance companies, cancel the requirement of minimum 30-year operational history;
- remove shareholding limits on foreign ownership of securities, fund management and futures companies by 2020, one year earlier than originally planned;
- allow foreign institutions to obtain type-A lead underwriting licences in the interbank bond market;[1] and
- further facilitate foreign institutional investors in investing in the interbank bond market.

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1. The "type-A" licence covers all types of debt financing instruments. Foreign institutions with a "type-B" licence are only allowed to do lead underwriting business within a restricted scope (including lead underwriter for onshore bonds issued by foreign entities).

European financial regulatory developments

EU Finance Ministers met, on 9 July in Brussels, with the Finnish Minister of Finance, Mika Lintilä, chairing the meeting. At this meeting, the Ministers held a discussion on the EU's own resources and potential new sources of revenue in view of the multi-annual financial framework package for 2021-2027; and the Council adopted the country-specific recommendations that will conclude the European Semester exercise for 2019. Finland presented its priorities for its Presidency term in the area of economic and financial affairs. Over the course of its Presidency, Finland will have the following priorities: (i) enhanced action on climate change; (ii) more robust and well-functioning financial markets; (iii) simplification of economic policy coordination; (iv) simple and effective taxation; (v) maximising the added value of the European financial architecture for development; and (vi) EU budget with sound financial management.

All of the European Parliament's 20 standing committees and two subcommittees held their constitutive meetings, on 10 July, to elect their chair and vice-chairs. A committee bureau (chair and up to four vice-chairs) is elected for a two-and-a-half-year mandate. Committees deal with legislative proposals, appoint negotiating teams to conduct talks with EU ministers, adopt reports, organise hearings and scrutinise other EU bodies and institutions. For the Committee on Economic and Monetary Affairs (ECON) Roberto Gualtieri (S&D, IT) was reappointed as Chair. Four ECON Vice-Chairs were appointed, namely Ludek Niedermayer (EPP, CZ); Stéphanie Yon-Courtin (Renew Europe, FR); Derk Jan Eppink (ECR, NL); and José Gusmão (GUE/NGL, PT). Subsequently, on 16 September, following Roberto Gualtieri's appointment as the Italian Minister of Finance, Irene Tinagli (S&D, IT) was elected by acclamation as Chair of ECON.

On 5 August, responding to a call from the Commission, the EBA published its advice on the implementation of Basel III in the EU, which includes a quantitative analysis of the estimated impact based on data from 189 banks. The final Basel III package includes the introduction of a higher degree of risk sensitivity in the standardised approaches to measure credit and operational risks, and constraints to internal modelling by banks where undue variability of model outcomes was observed in the past.

This impact assessment shows that the full implementation of Basel III will increase the minimum capital requirement (MRC) by 24.4% on average. This increase in capital requirements will imply an aggregate shortfall in total capital of about €135.1 billion (€91.1 billion in terms of CET1). The majority of the capital impact occurs in large globally active banks, while the impact on medium-sized banks is limited to 11.3% in terms of MRC, leading to a shortfall of €0.9 billion, and on small banks to 5.5% MRC with a €0.1 billion shortfall. These results should be read in conjunction with a set of conservative assumptions underlying the assessment, mainly the lack of any adjustment carried out by banks or authorities in response to the implementation of Basel III. The BCBS has recently made targeted revisions to the FRTB, which is not assessed in this report.

Alongside of this analysis, four EBA policy advice reports were published giving detailed policy recommendations relating to specific areas of the Basel III framework.

- First, in the area of credit risk all the newly agreed revisions should be implemented in the EU, maintaining a prudential framework based on external ratings and the loan-splitting approach to exposures secured by real estate. This report also recommends that no EU-specific supporting factors for SME and infrastructure lending exposures are retained.
- Second, in the area of SFTs all the newly agreed revisions should be implemented in the EU, except for the minimum haircuts floor framework where further analysis is considered to be necessary.
- Third, in the area of operational risk the new Standardised Approach (SA) should be implemented. The SA should be based on the institution-specific historical loss component for larger institutions to maintain a risk-sensitive approach and, for the same reason, smaller institutions may be allowed to also use the historical loss component on a case-by-case basis. The EBA advises the Commission to consider a phase-in period for the SA.
- Finally, the output floor should be introduced and, where applicable, should be used to compute all capital requirements, including EU-specific requirements such as the systemic risk buffer. The output floor should be applied at all levels of consolidation.

On 9 August, the EBA published 12 indicators and updated the underlying data from the 36 largest institutions in the EU, whose leverage ratio exposure measure exceeds €200 billion. This end-2018 data contributes to the internationally agreed basis on which a smaller subset of banks will be identified as G-SIIs, following the final assessments from the BCBS and the FSB. The EBA, acting as a central data hub in the disclosure process, will update this data on a yearly basis and will provide a user-friendly platform to aggregate it across the EU.

On 28 August, the EBA published its annual update on EU banks' funding plans and asset encumbrance, which helps EU supervisors assess the sustainability of banks' main sources of funding. The results of the funding plans assessment show that banks plan to increase debt issuances over the next 3 years, in particular unsecured debt instruments. The asset encumbrance report shows a stability of the overall weighted average asset encumbrance ratio in 2018, which is positive for the funding structure of the banking sector.

On 10 September, President-elect Ursula von der Leyen presented her team and the new structure of the next European Commission. The new College will have eight Vice-Presidents, responsible for the top priorities in the Political Guidelines. They will steer the Commission's work on the most important overarching issues, such as the European Green Deal, a Europe fit for the digital age, an economy that works for people, protecting the European way of life, a stronger Europe in the world and a new push for European democracy. Executive Vice-President Valdis Dombrovskis will coordinate the work on an economy that works for people and be the Commissioner for financial services, supported by the DG for Financial Stability, Financial Services and CMU.

Among other things, President von der Leyen's mission letter to Valdis Dombrovskis says: "Your task over the next five years will be to preserve and improve financial stability, protect savers and investors and ensure the flow of capital to where it is needed.

- I want you to focus on completing the Banking Union, notably by finalising the common backstop to the Single Resolution Fund and agreeing on a European Deposit Insurance Scheme.
- You should speed up the work towards a CMU to diversify sources of finance for companies and tackle the barriers to the flow of capital. You should explore ways to make cross-border investments easier, to improve the supervisory system and to better harmonise insolvency and tax proceedings.
- I want you to develop a green financing strategy to ensure that we can direct investment and financing to the transition to a climate-neutral economy. You should work with our partners to lead global efforts to scale up sustainable financing.
- I want you to put forward a FinTech Strategy to support new digital technologies in our financial system.
- You should ensure a common approach with Member States on cryptocurrencies to ensure we understand how to make the most of the opportunities they create and address the new risks they may pose.
- To support our economic sovereignty, I want you to develop proposals to ensure Europe is more resilient to extraterritorial sanctions by third countries. I want you to ensure that the sanctions imposed by the EU are properly enforced, notably throughout its financial system."

Eurogroup and informal ECOFIN meetings took place in Helsinki, on 13 and 14 September. During the Eurogroup meeting, euro area Finance Ministers held a thematic discussion on the quality of public finances and exchanged views on initiatives to boost the transparency of the Eurogroup. Following the mandate received by EU leaders at the Euro Summit in June, the Eurogroup in inclusive format focused on pending issues of the Budgetary Instrument for Convergence and Competitiveness for the euro area.

The informal ECOFIN meeting kicked off, in the presence of Finance Ministers and Central Bank Governors, with a discussion on the resilience of financial market infrastructure to cyber-attacks and hybrid threats. This was followed by an agenda point on rebooting the EU's CMU Agenda during the next institutional cycle, and identifying ways to foster the cross-border integration of European capital markets. Subsequently, Ministers took stock of the functioning of the current EU fiscal rules, including the presentation of a report by the chair of the European Fiscal Board. They also discussed the tools at their disposal to take enhanced action on climate change. In a separate but related debate, ministers exchanged views and experiences on the role of energy taxation in climate change mitigation and in reducing emissions – following on from the evaluation of the current EU energy taxation directive, published by Commission services. Vice-President Dombrovskis commented on both the first and second informal ECOFIN sessions.

On 27 September, the EBA made available its *2020 Work Programme*, which includes a description of the EBA's objectives for 2020, expected results and main outputs. The EBA's work for 2020 covers 37 activities which address six strategic areas: (i) supporting the development of the risk reduction package and the implementation of the global standards in the EU; (ii) providing efficient methodologies and tools for supervisory convergence and stress testing; (iii) moving towards an integrated EU data hub and a streamlined reporting framework; (iv) making AML a real priority for the EU; (v) contributing to the sound development of financial innovation and sustainability; and (iv) promoting an operational framework for resolution. There are also two horizontal priorities for EBA policy work, ensuring effective cooperation with third countries and improving a culture of good governance in financial institutions.

On 1 October, ESMA published its *2020 Work Programme*, setting out its priorities and areas of focus for the next 12 months in support of its mission to enhance investor protection and promote stable and orderly financial markets. The key issue facing

ESMA in 2020 is the implementation of its new mandates, and enhanced role, in areas including direct supervision, supervisory convergence, investor protection, relations with third countries, sustainability and technological innovation. This follows the conclusion of the ESAs' Review, which will involve changes to its mission from 2020, and EMIR 2.2., where ESMA will build its capacity to supervise third country CCPs and further promote convergence for EU CCPs.

In line with its Strategic Orientation 2016-20, ESMA will continue to focus on supervisory convergence, identifying areas for improved consistency of supervisory outcomes across the EU including ensuring standardised, high-quality data and will intensify work on using its data and quantitative analysis across all its activities. Finally, one key uncertainty for 2020 is the UK's withdrawal from the EU and ESMA continues to prepare for both a no-deal Brexit scenario, where it will focus on managing the immediate risks and issues, and the scenario where a withdrawal agreement is in place.

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Macroprudential risk

Published on 2 July, *Macroprudential Stress Test of the Euro Area Banking System* is an ECB staff occasional paper, which presents an approach to a macroprudential stress test for the euro area banking system, comprising the 91 largest euro area credit institutions across 19 countries. The approach involves modelling banks' reactions to changing economic conditions. It also examines the effects of adverse scenarios on economies and the financial system as a whole by acknowledging a broad set of interactions and interdependencies between banks, other market participants, and the real economy. The authors' results highlight the importance of the starting level of bank capital, bank asset quality, and banks' adjustments for the propagation of shocks to the financial sector and real economy.

On 4 July, the ESRB released the 28th issue of its *Risk Dashboard*, which is a set of quantitative and qualitative indicators of systemic risk in the EU financial system, and published a report of its General Board's 34th regular meeting, held on 27 June. The General Board continues to highlight financial market repricing, as well as balance sheet vulnerabilities of EU financial institutions and indebtedness, as the main risks to financial stability in the EU in the context of a weaker economic growth outlook; and also considered the medium-term risks related to vulnerabilities in the EEA residential real estate sector. The General Board exchanged views on a range of systemic risks and vulnerabilities related to non-bank financial intermediation, including those related to interconnectedness, liquidity and leverage. Furthermore, the General Board discussed the key results from the ESRB workshop on the second-round effects from the banking sector stress test.

Also, on 4 July, the EBA published its *Risk Dashboard*, which summarises the main risks and vulnerabilities in the EU/EEA banking sector. The Risk Dashboard includes for the first time IFRS 9 related data on asset quality and banks' fair valued positions, as well as information about their sovereign exposures. Together with the Risk Dashboard, the EBA published the results of its Risk Assessment Questionnaire (RAQ), which includes banks' and market analysts' expectations for future trends and developments. Among other things, the profitability of EU/EEA banks has not improved and remains a key challenge for the sector; and banks expect profitability to remain subdued, with only about 25% expecting an improvement in the next 6-12 months.

On 11 July, the Bank of England published the July 2019 edition of its *Financial Stability Report* and record, which set out the FPC's view on the stability of the UK financial system and what it is doing to remove or reduce any risks to it. The conclusion of the Governor's opening press conference remarks says that, in summary, "The core of the UK financial system is ready for Brexit, whatever form it takes. Moreover, the system would continue to serve UK households and businesses even if worst-case disorderly Brexit occurred at the same time as a global slowdown triggered by a trade war. The FPC is monitoring and addressing the impact of significant structural changes that could give rise to medium and longer-term risks, including:

- tackling vulnerabilities in open-ended funds as they grow in importance, so that they support growth but minimise risks to financial stability;
- closely monitoring the necessary transition away from LIBOR; and
- developing the first exercise globally that will fully integrate climate scenarios with stress testing technologies to help the private sector manage financial stability risks from climate change and the transition to a carbon-neutral economy.

By addressing such risks to financial stability in the near, medium and longer terms, the FPC is doing its part to promote the good of the people of the United Kingdom."

Alongside of this, the Bank also published its 2019 H1 *Systemic Risk Survey Results*, which present the results of a survey conducted by the Bank in the period between 22 April and 16 May. This finds that confidence in the stability of the UK financial system over the next three years has increased, and that the perceived

> **The profitability of EU/EEA banks has not improved and remains a key challenge for the sector.**

probabilities of a high-impact event in the UK financial system over both the short and medium term have decreased. UK political risk remained the most cited risk to the UK financial system; and also remains, by a considerable margin, the most frequently cited number one source of risk. Geopolitical risk and cyber-attack were the second and third most cited risks respectively. Considering the most challenging risks to manage as a firm UK political risk was cited as the most challenging, for the seventh consecutive survey, with cyber-attack remaining the second most cited risk in this category.

Published on 12 July, *System-wide Stress Simulation* is a Bank of England staff working paper. The authors present a model for assessing how the UK's system of market-based finance might behave under stress. The core of this model is a set of representative agents, which correspond to key sectors of the UK's financial system. These agents interact in asset, funding (repo), and derivatives markets and face a range of solvency and liquidity constraints on their behaviour. The authors model generates "tipping points" such that, if shocks are large, or if headroom relative to constraints is small, lower asset prices can cause solvency/liquidity constraints to bind, resulting in forced deleveraging and large endogenous illiquidity premia. They illustrate such an outcome via a stress scenario in which a deteriorating corporate sector outlook coincides with tighter leverage limits at key intermediaries. Their findings highlight the key role played by broker-dealers, commercial banks, investment funds and life insurers in shaping these dynamics.

Published on 17 July, *Macroprudential Policy at the ECB: Institutional Framework, Strategy, Analytical Tools and Policies* is an ECB staff occasional paper, which describes how the financial stability and macroprudential policy functions are organised at the ECB. Financial stability has been a key policy function of the ECB since its inception, while macroprudential policy tasks were later conferred on the ECB by the Single Supervisory Mechanism Regulation. The paper describes the ECB's macroprudential governance framework in the new institutional set-up. After reviewing the concept and origins of systemic risk, it reflects on the emergence of macroprudential policy in the aftermath of the financial crisis, its objectives and instruments, as well as specific aspects of this policy area in a monetary union such as the euro area.

The ECB's responsibilities required new tools to be developed to measure systemic risk at financial institution, country and system-wide level. The paper discusses selected analytical tools supporting financial stability surveillance and assessment work, as well as macroprudential policy analysis at the ECB. The tools are grouped into three broad areas: (i) methods to gauge the state of financial instability or prospects of near-term systemic stress, (ii) measures to capture the build-up of systemic risk focused on country-level financial cycle measurement and early warning methods, and (iii) the ECB stress testing framework for macroprudential purposes.

On 23 July, the NGFS published a technical supplement, *Macroeconomics and Financial Stability: Implications of Climate Change*, to the April 2019 NGFS Comprehensive report. This supplement provides an overview of existing approaches for quantitatively assessing climate-related risks and identifies key areas for further research. It also sets out a menu of options for central banks and supervisors to assess the risks. Going forward, the NGFS plans to publish additional technical documents to better equip central banks and supervisors with appropriate tools and methodologies to identify, quantify and mitigate climate risks in the financial system. This will include publishing further details on the NGFS transition scenarios and guidelines on scenario-based climate risk analysis.

Published on 26 July, *Monetary Policy, Macroprudential Policy and Financial Stability* is an ECB staff working paper, which re-examines from a theoretical perspective the role of monetary and macroprudential policies in addressing the build-up of risks in the financial system. The authors construct a stylized general equilibrium model in which the key friction comes from a moral hazard problem in firms' financing that banks' equity capital serves to ameliorate. Tight monetary policy is introduced by open market sales of government debt, and tight macroprudential policy by an increase in capital requirements. The authors show that both policies are useful, but macroprudential policy is more effective in fostering financial stability and leads to higher social welfare.

The eighth *Annual Report of the ESRB*, covering the period between 1 April 2018 and 31 March 2019, was published, on 29 July. As usual, the

This report identifies a deteriorating outlook for the asset management industry and continued very high market risk.

ESRB closely monitored the sources of systemic risk in the European financial system and in the economy. The four main risks identified are the same as last year, with the repricing of risk premia in global financial markets being the most prominent one, followed by persistent weaknesses in balance sheets of EU banks, insurers and pension schemes, debt sustainability challenges in EU sovereign, corporate and household sectors and, finally, vulnerabilities in the investment fund sector and risks from shadow banking activities. This is considered to be particularly relevant against a backdrop of policy uncertainties and faster-than-expected moderation of economic growth.

Published on 16 August, *Liquidity Ratios as Monetary Policy Tools: Some Historical Lessons for Macroprudential Policy* is an IMF staff working paper, which explores what history can tell us about the interactions between macroprudential and monetary policy. Based on numerous historical documents, the authors show that liquidity ratios similar to the LCR were commonly used as monetary policy tools by central banks between the 1930s and 1980s. They build a model that rationalizes the mechanisms described by contemporary central bankers, in which an increase in the liquidity ratio has contractionary effects, because it reduces the quantity of assets banks can pledge as collateral. This effect, akin to quantity rationing, is found to be more pronounced when excess reserves are scarce.

Published on 26 August, *A Monitoring Framework for Global Financial Stability* is an IMF staff discussion note, which describes the conceptual framework that guides assessments of financial stability risks for multilateral surveillance, as currently presented in the IMF's Global Financial Stability Report. The framework emphasizes consistency in measuring financial vulnerabilities across countries and over time and offers a summary statistic to quantify aggregate financial stability risks. The two parts of the empirical approach – a matrix of specific vulnerabilities and a summary measure of financial stability risks – are distinct but highly complementary for monitoring and policymaking.

Published on 30 August, *Optimal Macroprudential Policy and Asset Price Bubbles* is an IMF staff working paper. An asset bubble relaxes collateral constraints and increases borrowing by credit-constrained agents. At the same time, as the bubble deflates when constraints start binding, it amplifies downturns. The authors show analytically and quantitatively that the macroprudential policy should optimally respond to building asset price bubbles non-monotonically depending on the underlying level of indebtedness. If the level of debt is moderate, policy should accommodate the bubble to reduce the incidence of a binding collateral constraint. If debt is elevated, policy should lean against the bubble more aggressively to mitigate the pecuniary externalities from a deflating bubble when constraints bind.

Published on 4 September, *Spillovers of Funding Dry-ups* is a BIS staff working paper, in which the authors uncover a new channel for spillovers of funding dry-ups. The 2016 US money market fund (MMF) reform exogenously reduced unsecured MMF funding for some banks. The authors use novel data to trace those banks to a platform for corporate deposit funding. They show that intensified competition for corporate deposits spilled the funding squeeze over to other banks with no MMF exposure. These banks paid more for deposits, and their pool of funding providers deteriorated. Moreover, their lending volumes and margins declined, and their stocks underperformed. The authors' results suggest that banks' competitiveness in funding markets affect their competitiveness in lending markets.

On 10 September, ESMA published its second *Trends, Risks and Vulnerabilities* (TRV) report for 2019. This report identifies a deteriorating outlook for the asset management industry and continued very high market risk. Recent trade tensions have triggered renewed volatility, and concerns over a no-deal Brexit remain key risk drivers for the second half of 2019. Investors are facing very high market risk, as they navigate an environment of potentially inflated asset valuations, subdued economic growth prospects, and flattening yield curves. Changed monetary policy expectations may boost their risk appetite and reignite search-for-yield strategies, leaving investors vulnerable to volatility episodes and abrupt shifts in market sentiment.

Credit risk and liquidity risk remain high, with isolated events highlighting pockets of risk in the asset management industry. While the level of credit risk is stable, the deteriorating quality of outstanding corporate debt, the growth in leveraged loans and CLOs should warrant the attention of public authorities. As a result, ESMA's risk outlook for the asset management sector has deteriorated. In this edition of the TRV, ESMA also looks in more detail at three vulnerabilities facing the financial markets:

(i) leveraged loans and CLOs;

(ii) performance and cost of active and passive EU equity UCITS; and

(iii) use of derivatives by UCITS equity funds.

This TRV report is split into two parts with the statistical annex published as a separate document. Also accompanying the report is the third *Risk Dashboard* for 2019.

On 12 September, the ESAs published their latest report on *Risks and Vulnerabilities in the EU Financial System*, which shows that the EU's banking, insurance, pensions and securities sectors continue to face a range of risks. This report highlights the following risks as potential sources of instability:

- uncertainties around the terms of the UK's withdrawal from the EU;
- persistently low interest rates, which combined with flattening yield curves, put pressure on the profitability and returns of financial institutions, incentivise search-for-yield strategies and increase valuation risks; and
- transition to a more sustainable economy and ESG related risks, leading to possible challenges to the viability of business models with high exposures to climate sensitive sectors.

On 16 September, the ECB published its latest semi-annual *Macroprudential Bulletin*, providing insight into their ongoing work in the field of macroprudential policy and thereby contributing to greater transparency and fostering broader discussion on key macroprudential issues. This issue focuses on the development of the sectoral macroprudential framework, as well as the impact of countercyclical capital requirements on bank lending and the broader economy.

It includes three articles: the first discusses the advantages and shortcomings of the sectoral application of the countercyclical capital buffer for addressing sectoral systemic risks; the second explores the relevance of sectoral cross-border credit provided via foreign branches or direct cross-border lending in the SSM area; and the third estimates the impact of countercyclical bank capital requirements on bank lending and the economy.

Published on 17 September, *Macroprudential Policy Spillovers and International Banking - Taking the Gravity Approach* is an ESRB staff working paper. The author studies how the effects of nationally implemented macroprudential policy spill across borders via international lending. For a set of 157 countries, she estimates a gravity model applied to international banking where the use of different macroprudential policy measures enter as friction variables. Her findings support the existence of cross-border spillovers from macroprudential policy. Moreover, she finds that the overall effect from more macroprudential regulation is highly dependent on the income group of the countries in which banks operate – the effect is of opposite sign for advanced and for emerging economies. She argues that the difference may tell of banks having more opportunities for regulatory arbitrage in emerging market economies.

The fourth ESRB annual conference was held, on 26-27 September, in Frankfurt. Mario Draghi, Chair of the ESRB, gave the welcoming remarks at the start of the conference, noting that over the course of the past eight years macroprudential policy "has evolved from an idea that mostly existed on paper into policy instruments that have been widely implemented. Europe is now better placed to prevent or mitigate risks to financial stability than it was in the run-up to the global financial crisis. Yet there is still unfinished business: analytical tools to assess systemic risk need to be enhanced; macroprudential instruments to prevent or mitigate systemic risk need to keep pace with the evolution of the financial system; and the policy framework needs to be further developed."

The conference also featured keynote speeches from Andrea Enria, Chair of the ECB Supervisory Board, on the future of stress testing, and Theresa Payton, President and CEO, Fortalice Solutions; Co-Founder, Dark Cubed, on cybersecurity and its potential implications for systemic risk, together with panel discussions on the future of financial services; experiences with macroprudential policies; the role of non-banks in the economy and the financial system; and regulatory reforms of the financial system – are we done yet? Additionally, the winner of the *2019 ESRB Research Prize*, in memory of Ieke van den Burg, was formally awarded the prize and presented the winning research.

Published on 27 September, *The Riskiness of Credit Allocation and Financial Stability* is and IMF staff working paper, in which the authors explore empirically how the time-varying allocation of credit across firms with heterogeneous credit quality matters for financial stability outcomes. Using firm-level data for 55 countries over 1991-2016, they show that the riskiness of credit allocation helps predict downside risks to GDP growth and systemic banking crises, two to three years ahead. Their analysis indicates that the riskiness of credit allocation is both a measure of corporate vulnerability and of investor sentiment. Economic forecasters wrongly predict a positive association between the riskiness of credit allocation and future growth, suggesting a flawed expectations process.

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Credit rating agencies

On 15 July, ESMA published amended enforcement decisions regarding Nordea Bank, Svenska Handelsbanken, SEB and Swedbank. ESMA, in June 2018, fined five banks €495,000 each and issued five public notices for negligently infringing the EU CRA Regulation by issuing credit ratings without being authorised by ESMA to do so. Four of the five banks appealed against ESMA's decisions in 2018 to the Board of Appeal of the European Supervisory Authorities (BoA).

In February 2019, while upholding all the infringements, the BoA accepted the banks' claim that they had not acted negligently given the very unusual circumstances of the banks' practice and while applying the high standard of care required of the banks. Based on this decision, ESMA has now decided that the only appropriate supervisory measure in the four banks' cases consisted of public notices regarding the banks' infringements and that no fine will be imposed, in accordance with CRAR.

On 18 July, ESMA published its technical advice on sustainability considerations in the credit rating market and its final guidelines on disclosure requirements applicable to credit ratings. ESMA, in its advice, has assessed the level of consideration of ESG factors in both specific credit rating actions, and the credit rating market in general. It found that, while CRAs are considering ESG factors in their ratings, the extent of their consideration can vary significantly across asset classes, according to each CRA's methodology. However, given the specific role that credit ratings have in the EU regulatory framework for the purposes of assessing credit risk, it would be inadvisable to amend the EU CRA Regulation to explicitly mandate the consideration of sustainability characteristics in all rating assessments. Instead, ESMA proposes that the European Commission assesses whether there are sufficient regulatory safeguards in place for other products that will meet the demand for pure sustainability assessments.

The guidelines on disclosure requirements for credit ratings are intended to improve the overall quality and consistency of CRAs' press releases related to their rating activity. The guidelines:

- provide detailed guidance as to what CRAs should disclose when they issue a credit rating – this will ensure a better level of consistency in terms of the critical information included in CRAs' press releases; and
- require greater transparency around whether ESG factors were a key driver of the credit rating action – this will allow the users of ratings to better assess where ESG factors are affecting credit rating actions.

On 29 July, the Commission announced that it had for the first time repealed existing decisions for Argentina, Australia, Brazil, Canada, and Singapore, as these jurisdictions could no longer meet the standards set by the EU CRA Regulation after its amendment in 2013. The countries decided, after discussions with the Commission, not to implement the necessary legislative adjustments given the limited scale of activity to be covered. Separately, the Commission has extended existing equivalence decisions in the field of CRAs for Hong-Kong, Japan, Mexico and the United States.

On 2 July, ESMA announced its withdrawal of the CRA registration of Moody's Investors Service EMEA Limited (MIS EMEA - UK), following from an official notification sent to ESMA by MIS EMEA – UK, on 24 April, of its intention to renounce its registration as a CRA under the conditions set out in Article 20(1)(a) of the EU CRA Regulation. This renouncement follows another notification that MIS EMEA - UK had ceased all its regulatory activity and had transferred its rating activity to other affiliated MIS CRAs based in the EU, namely in Germany, France and UK. The registration withdrawal is part of Moody's group's contingency plans related to Brexit.

On 5 July, ESMA announced its withdrawal of the CRA registration of the French Beyond Ratings S.A.S. This withdrawal decision follows the official notification to ESMA by Beyond Ratings, on 31 May, of its intention to renounce its registration under the conditions set out in Article 20(1)(a) of the EU CRA Regulation. ESMA confirms that Beyond Ratings has effectively stopped its rating activities.

With these latest changes, the total number of CRAs registered in the EU is 28 CRAs – amongst which four operate under a group structure, totaling 18 legal entities in the EU, which means that the total number of CRA entities registered in the EU is 42. In addition, there are four CRA's certified in accordance with the EU CRA Regulation.

The most recent update to ESMA's Q&A on the application of the EU CRA Regulation was published on 18 December 2018.

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RFR International interest rate benchmark reforms

On 2 July, the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks released a public consultation, for comment by 30 September, on interest rate benchmark reform, *Public Consultation on the Appropriate Choice and Usage of Japanese Yen Interest Rate Benchmarks*. This public consultation document is intended to outline the outcome of past discussions in the Committee about interest rate benchmark reform, and then solicit comments from a wide range of relevant parties on the future structure of JPY interest rate benchmarks.

On 15 July, Andrew Bailey, Chairman of the FCA, delivered a speech in New York in which he highlights that transition from LIBOR has made good progress across derivatives and securities markets, with transition in loan markets being a key next step; and sets out the benefits to borrowers of the move to risk-free interest rate benchmarks. He also clearly states an expectation that LIBOR panels will dwindle or disappear after end-2021 and that firms must be able to run their business without LIBOR from this date; and should already act to reduce the stock of legacy LIBOR contracts.

On 29 July, the European Commission announced that it had adopted equivalence decisions, published in the EU's *Official Journal* the following day, for financial benchmarks administered in Australia and Singapore. These decisions recognise that the administrators of certain interest rates and foreign exchange benchmarks in Australia and Singapore are subject to legally binding requirements which are equivalent to the EU requirements set out under the EU Benchmarks Regulation (BMR).

On 30 July, ISDA published a statement summarizing the preliminary results of a supplemental consultation on adjustments that would apply to fallback rates in the event certain interbank offered rates (IBORs) are permanently discontinued. The supplemental consultation was launched in May and set out options for spread and term adjustments if fallbacks are triggered for derivatives referencing US dollar LIBOR, Hong Kong's HIBOR and Canada's CDOR. Feedback was also sought on a proposed fallback for Singapore's SOR following a permanent cessation of US dollar LIBOR, given US dollar LIBOR is currently used as an input to calculate the Singapore rate.

On 31 July, the Board of IOSCO published the *Statement on Communication and Outreach to Inform Relevant Stakeholders Regarding Benchmarks Transition*, which seeks to inform relevant market participants of how an early transition to RFRs can mitigate potential risks arising from the expected cessation of LIBOR. IOSCO wishes to raise awareness of the impact of LIBOR's likely cessation and the need for relevant stakeholders to transition from the widely used USD LIBOR to RFRs – particularly to the new US Secured Overnight Financing Rate (SOFR). This Statement is important for all market participants that have significant exposure to the USD LIBOR benchmark through, for example, the trading of financial instruments and other arrangements that reference this benchmark directly. It is also relevant to participants that reference another rate which, in turn, uses USD LIBOR as an input for its calculation.

On 1 August, the Alternative Reference Rates Committee (ARRC) released the *Secured Overnight Financing Rate (SOFR) Floating Rate Notes (FRNs) Conventions Matrix*. The Matrix identifies considerations relevant to using SOFR in new FRNs and supplements the ARRC's spring paper, *A User's Guide to SOFR*. The Matrix is accompanied by the *SOFR FRNs Comparison Chart*, which outlines conventions already being used in the market. Both documents were developed to help market participants as they consider issuing or investing in a SOFR-based FRN and may be updated or supplemented periodically.

On 7 August, the Working Group on Sterling RFRs made available a statement on referencing SONIA in new contracts, and published a summary of key findings from the discussion paper on SONIA Conventions. In particular, many respondents cited a desire for close alignment across derivatives and cash markets. To support this, the Working Group have outlined important considerations when issuing new contracts and where adoption of consistent conventions can support standardised documentation and help build liquidity in SONIA referencing products.

On 9 August, ISDA published a statement summarizing the preliminary results of a consultation on pre-cessation issues for LIBOR and certain other IBORs. The consultation on pre-cessation issues was launched in May and sought comment on how derivatives contracts should address a regulatory announcement that LIBOR or certain other IBORs categorized as critical benchmarks under the BMR are no longer representative of an underlying market.

On 18 September, ISDA published its consultation on the final parameters for benchmark fallback adjustments, for comment by 23 October. Based on the results ISDA will then make the relevant adjustments to the 2006 ISDA Definitions to incorporate fallbacks for new IBOR trades. A protocol will also be published to enable market participants to include fallbacks within legacy IBOR contracts if they choose to. Both the amended Definitions and the protocol are expected to be finalised by the end of this year, with implementation in 2020.

On 19 September, the ARRC published a practical implementation checklist to help market participants transition to using SOFR. The information in this checklist may be especially helpful

Early transition to RFRs can mitigate potential risks arising from the expected cessation of LIBOR.

for market participants that have not fully started taking the steps needed to transition away from LIBOR. The points in this checklist are designed as steps that firms can consider when transitioning, as opposed to a plan for them to strictly follow; and should be modified according to firms' size and volume of LIBOR exposures, among other factors.

On 24 September, the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) announced the publication of its Working Group on Financial Markets (WGFM) report *Study on the Implications of Financial Benchmark Reforms*. This report provides a brief overview of the three areas of financial benchmark reforms: (i) LIBOR discontinuation; (ii) EU BMR; and (iii) reform of local benchmarks, in the EMEAP region. It summarises the results of the WGFM survey and the discussion among EMEAP members and private financial institutions, as well as identifies risk scenarios and proposes some policy recommendations for EMEAP members' consideration.

Decision of the EEA Joint Committee No. 190/2019, of 10 July 2019, was published in the EU *Official Journal*, on 12 September. This amends the EEA Agreement to incorporate the BMR.

On 11 July, ESMA issued an update of its Q&As on the BMR. The new Q&As provide clarification on the commodity benchmark definition; and the contribution to the euro short-term rate (€STR). The purpose of this document is to promote common supervisory approaches and practices in the application of the BMR. The content of this document is aimed at competent authorities under the BMR to ensure that in their supervisory activities their actions are converging along the lines of the responses adopted by ESMA. It also provides guidance to market participants by providing clarity on the BMR requirements.

ESMA is publishing registers of administrators, with over 50 now duly registered, and third country benchmarks, with in excess of 80,000 benchmarks now duly registered, in accordance with Article 36 of the EU BMR. ESMA has also published a table showing which are the applicable EEA competent authorities that comply, or intend to comply, with ESMA's Guidelines on non-significant benchmarks.

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OTC (derivatives) regulatory developments

On 12 July, ESMA published a public statement addressing the misalignment between the scope of counterparties subject to the EMIR clearing obligation (CO) and those subject to the MiFIR derivatives trading obligation (DTO). Following the entry into force of EMIR Refit, on 17 June, some counterparties are exempted from the CO while still being subject to the DTO. ESMA's statement addresses the possible implementation challenges that this misalignment creates for counterparties exempted from the CO. In addition, ESMA clarifies the application date of the DTO for those counterparties impacted by the modified application date of the CO under EMIR Refit. ESMA's statement addresses two areas:

- clearing and trading obligations for small financial counterparties and non-financial counterparties; and
- date of application of the trading obligation for financial counterparties (FC) which are in Category 3 and subject to the CO.

The statement advises National Competent Authorities (NCAs) not to prioritise their supervisory actions in relation to the DTO towards counterparties exempted from the CO following the entry into force of EMIR Refit. Additionally, for financial counterparties (FC) in Category 3 which are subject to the CO, the date of application of the DTO should be the same as the new date of application of the CO as amended by EMIR Refit. This date of application should hence be four months following the notification from FC to ESMA and NCA as required under EMIR Refit, rather than 21 June 2019.

On 22 July, ESMA published its annual peer review report on the overall supervision of EU CCPs by NCAs, which focused on the effectiveness of NCAs' supervisory practices to assess CCPs' compliance with EMIR's requirements on collateral and funding arrangements. Overall, the review found that NCAs' supervisory activities on CCPs' collateral and funding arrangements, is satisfactory. However, the review found that the use by NCAs of quantitative metrics to assess the liquidity and low market risk of collateral was quite limited.

While, regarding funding arrangements, the degree of convergence on the basic conditions that identify committed credit and repo lines is in general high, different supervisory practices apply for pre-arranged funding arrangements involving repos and liquidity generation from outright sales of securities. The report also identifies several best practices and considerations to further enhance supervisory convergence with respect to CCPs' collateral and liquidity arrangements. On the functioning of the colleges, ESMA acknowledges the efforts of chairing NCAs to meet the expectations and best practices highlighted in past peer reviews in this area. ESMA will follow up on the report's findings to identify, where relevant, the most appropriate tools to further enhance supervisory convergence.

In view of ESMA's statutory role to build a common supervisory culture by promoting common supervisory approaches and practices, ESMA has established a process for adopting Q&A documents which relate to the consistent application of EMIR. The first version of ESMA's EMIR Q&A document was published on 20 March 2013, with the most recent update having been published on 2 October.

EMSA's list of CCPs authorised to offer services and activities in the EU, in accordance with EMIR, was last updated on 19 September; its list of third-country CCPs recognised to offer services and activities in the EU was last updated on 26 July; but its (non-exhaustive) list of CCPs established in non-EEA countries which have applied for recognition has not been updated since 24 January. ESMA's *Public Register for the Clearing Obligation* under EMIR has not been updated since 6 December, while its public register of those derivative contracts that are subject to the trading obligation under MiFIR was last updated on 3 October.

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Market infrastructure

ECB: Advisory Groups on market infrastructure

The latest meeting of AMI-SeCo, the ECB's Advisory Group on market infrastructure for securities and collateral, was held on 4 July in Frankfurt. The AMI-SeCo brings together senior experts from banks and market infrastructures to feed into the different important ECB initiatives in relation to market infrastructure, including T2S, the Eurosystem's common settlement platform. The ICMA ERCC is represented in the group through Nicholas Hamilton, chair of the ERCC Operations Group. At their latest meeting, AMI-SeCo members received an update from ESMA and the Commission on the latest developments in relation to post-trade regulation and reviewed progress made in relation to the ECB's market infrastructure projects, including ECMS, the consolidation of the TARGET2 (T2) and TARGET2-Securities (T2S) platforms as well as the recent EDDI proposal (all covered in more detail below). Members also received updates on the latest status of T2S operations and reviewed progress in relation to collateral management harmonisation, which remains a particular focus area (see below). Under this agenda item, AMI-SeCo members endorsed updated versions of the detailed harmonisation standards on triparty collateral management, corporate actions and CSD billing processes, as well as a related Monitoring Framework for the implementation of the standards. A full summary of the meeting as well as a number of related presentations are available on the AMI-SeCo webpage. The next AMI-SeCo meeting will be held in November.

ECB: Collateral management harmonisation

The ongoing work in relation to collateral management harmonisation remains a key priority for AMI-SeCo. This work is coordinated by a dedicated Task Force on Collateral Management Harmonisation (CMH-TF), which includes several members of the ERCC Operations Group, who have been actively contributing to the different CMH-TF work streams. Since its launch in early 2017, the main focus of the CMH-TF has been on three specific areas of harmonisation: (i) triparty collateral management, (ii) corporate actions, and (iii) CSD billing. On all three issues detailed harmonisation standards have been developed by the CMH-TF and endorsed by AMI-SeCo. These had been identified as an important pre-condition for the Eurosystem Collateral Management System (ECMS) which is scheduled to go live in November 2022. The ECMS is being developed by the ECB as a central funding tool for corporate treasurers in relation to central bank liquidity and will replace the current fragmented framework based on national systems.

The latest, 14th meeting of the CMH-TF was held on 23 September. With the three sets of harmonisation standards now finalised, the focus is shifting to their implementation, for which the underlying AMI-SeCo National Stakeholder Groups (NSGs) will play a key role. Furthermore, CMH-TF members are also turning to new areas for potential harmonisation. A number of relevant topics have been identified and the CMH-TF is setting up expert groups to assess each of them in turn. The experts will focus on the following areas: (i) bilateral collateral management, including operational frictions and the need for improving the collateral mobility, (ii) triparty collateral management, in particular questions related to the development of a single triparty model, (iii) asset servicing and (iv) taxation processes. In this context, the CMH-TF will also consider developments in relation to settlement cut-off times. The ERCC was tasked to update a previous survey on this topic undertaken in 2014, which served as a basis for an ECB report. The updated survey was circulated to ERCC members in July. The responses received are currently being analysed and the outcome will be presented to the CMH-TF later this year.

ECB: Other market infrastructure-related initiatives

Apart from the ECMS and related harmonisation activities, the ECB continues to work on a number of other important initiatives in the area of market infrastructure. One of these is a project to consolidate TARGET2 (T2) and TARGET2-Securities

(T2S) platforms. The project aims to consolidate and optimise the provision of the related services, replacing T2 with an RTGS system and optimising liquidity management across all TARGET services. The new consolidated platform will be launched in November 2021. The ECB's latest update to AMI-SeCo provides a detailed view on the current status of the project.

All the different ECB managed platforms, including T2, T2S, ECMS as well as the new TARGET Instant Payment Settlement service (TIPS), will be linked through a single access point for users, the Single Market Infrastructure Gateway (ESMIG). On 8 July, the ECB announced that concessions to develop market infrastructure connectivity services for the ESMIG have been granted to SIA-COLT and SWIFT, who will develop the related services by 2021.

A more recent addition to the list of the ECB's infrastructure initiatives is the European Distribution of Debt Instruments (EDDI) proposal. On 28 May, the ECB launched a public consultation on the EDDI initiative, the main aim of which is to create a centralised hub within T2S, operated by the Eurosystem, to issue debt securities. EDDI would sit on top of the domestic CSDs that participate in T2S. The stated objective of EDDI is to create a single pan-European, neutral and harmonised channel for the issuance and initial distribution of debt securities in central bank money. ICMA submitted a response to the consultation which was coordinated across the different stakeholder groups within the Association.

A more detailed summary of all the ECB's market infrastructure initiatives, along with a detailed update on T2S settlement operations and figures is included in the T2S Annual Report 2018, which was published on 31 May 2019.

ECB: Market contact groups

The latest meeting of the Bond Market Contact Group (BMCG) was held on 12 June in Frankfurt. The agenda included a review of recent bond market developments, introduced by Mediobanca. Members also discussed developments in sustainable and responsible investing. This included two presentations, an update by Muzinich & Co and a view from an insurance investment perspective delivered by Allianz. A second focus of the meeting was on the ongoing transition of risk-free rates and IBOR reform. The discussion was introduced jointly by Blackrock and Commerzbank. In addition, the ECB also updated members on the next steps in relation to the transition to €STR as new euro risk-free rate. The meeting was closed by ECB Executive Board Member Benoit Coeuré, who reflected on the effects of APP reinvestments on euro area bond markets. The next meeting of the BMCG, in which ICMA is represented through its CEO Martin Scheck, is scheduled for 20 November.

The latest meeting of the Money Market Contact Group (MMCG) was held on 24 September. A focus of the meeting was on monetary policy transmission, a topic that ECB Vice-President Luis De Guindos elaborated on during his welcome address to the group. Documents are now also available from the previous MMCG meeting which was held on 25 June. Among those are a number of interesting presentations in support of the different agenda items, including on market expectations for ECB monetary policy measure, the impacts of negative interest rates, as well as a focused discussion on the impacts of prudential regulation on the repo market. The next quarterly meeting of the MMCG is scheduled for 3 December.

ESMA: Post-trading

As reported in more detail in the repo and collateral section, ESMA is working on detailed implementation guidance in relation to SFTR, including important Reporting Guidelines which will complement the technical standards published earlier this year. On 27 May, a first draft of the Guidelines was published for public consultation. By the deadline on 29 July, ESMA received 41 responses which they are currently reviewing. The final Guidelines are expected to be published in Q4 this year, only a few months ahead of the initial reporting go-live date in April 2020.

On 22 July 2019, ESMA published its annual peer review report on EU CCPs' supervision by National Competent Authorities (NCAs). The report focused on the effectiveness of the NCAs' supervisory practices to assess CCP compliance with EMIR requirements on collateral and funding arrangements. While the practices were found to be satisfactory, the review also notes the limited use by NCAs of quantitative metrics to assess the liquidity and low market risk of collateral.

Following the entry into force of the EMIR review (so-called EMIR Refit), ESMA is reviewing its existing Q&As to align them, where necessary, with the updated requirements. This has led to a number of changes to the document and additional questions. The latest version of the EMIR Q&As was published on 15 July.

Equally important is ESMA's work in relation to CSDR. This includes the important work in relation to settlement discipline and mandatory buy-ins (see secondary markets section for more details), but also covers all the other aspects of the Regulation. Besides technical standards and Guidelines, ESMA maintains a detailed Q&A document on CSDR which continues to evolve. The latest version was published on 2 October, now covering 20 questions.

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FinTech in International Capital Markets

by Gabriel Callsen

FinTech regulatory developments

IMF: Cybersecurity risk supervision

On 24 September 2019, the IMF published the paper, *Cybersecurity Risk Supervision*. This paper highlights the emerging supervisory practices that contribute to effective cybersecurity risk supervision, with an emphasis on how these practices can be adopted by those agencies that are at an early stage of developing a supervisory approach to strengthen cyber resilience. Financial sector supervisory authorities the world over are working to establish and implement a framework for cyber risk supervision. Cyber risk often stems from malicious intent, and a successful cyber attack - unlike most other sources of risk - can shut down a supervised firm immediately and lead to systemwide disruptions and failures. The probability of attack has increased as financial systems have become more reliant on information and communication technologies and as threats have continued to evolve.

BIS: Embedded supervision: how to build regulation into blockchain finance

On 16 September 2019, the BIS published the paper, *Embedded Supervision: How to Build Regulation into Blockchain Finance*. The spread of distributed ledger technology (DLT) in finance could help to improve the efficiency and quality of supervision. This paper makes the case for embedded supervision, ie a regulatory framework that provides for compliance in tokenised markets to be automatically monitored by reading the market's ledger, thus reducing the need for firms to actively collect, verify and deliver data. After sketching out a design for such schemes, the paper explores the conditions under which distributed ledger data might be used to monitor compliance. To this end, a decentralised market is modelled that replaces today's intermediary-based verification of legal data with blockchain-enabled data credibility based on economic consensus. The key results set out the conditions under which the market's economic consensus would be strong enough to guarantee that transactions are economically final, so that supervisors can trust the distributed ledger's data. The paper concludes with a discussion of the legislative and operational requirements that would promote low-cost supervision and a level playing field for small and large firms.

BIS: Suptech applications for anti-money laundering

On 29 August 2019, the BIS Financial Stability Institute released the paper, *Suptech Applications for Anti-Money Laundering*. Suptech, or the use by financial authorities of data collection or advanced data analytics tools enabled by innovative technologies, seems more advanced in the field of anti-money laundering (AML) and combating the financing of terrorism (CFT). In particular, AML/CFT authorities need suptech-enabled advanced data analytics tools to analyse large volumes of information at their disposal. AML/CFT authorities are in general pursuing similar advanced data analytics tools, such as network analysis, natural language processing, text mining and machine learning. These tools increase their ability to detect networks of related transactions, to identify unusual behaviours and, in general, to transform significant amounts of structured and unstructured data into useful information that contributes to their respective processes. Efficiency gains seem to be the number one benefit of advanced data analytics tools, which could help capacity-constrained AML/CFT authorities. However, the use of these innovative technologies gives rise to a number of challenges, including computational capacity constraints and data privacy and confidentiality issues. This paper aims to explore the various data analytics tools used by authorities tasked with AML/CFT responsibilities, as well as their practical experiences in using such tools.

ECB: In search for stability in crypto-assets: are stablecoins the solution?

On 29 August 2019, the ECB released the paper, *In Search for Stability in Crypto-assets: Are Stablecoins the Solution?* Stablecoins claim to stabilise the value of major currencies in the volatile crypto-asset market. This paper describes the often complex functioning of different types of stablecoins and proposes a taxonomy of stablecoin initiatives. To this end it relies on a novel framework for their classification, based on the key dimensions that matter for crypto-assets, namely: (i) accountability of issuer, (ii) decentralisation of responsibilities, and (iii) what underpins the value of the asset. The analysis of different types of stablecoins shows a trade-off between the novelty of the stabilisation mechanism used in an initiative (from mirroring the traditional electronic money approach to the alleged introduction of an "algorithmic central bank") and its capacity to maintain a stable market value. While relatively less innovative stablecoins could provide a solution to users seeking a stable store of value, especially if legitimised by the adherence to standards that are typical of payment services, the jury is still out on the potential future role of more innovative stablecoins outside their core user base.

ECB: Understanding the crypto-asset phenomenon, its risks and measurement issues

On 8 August 2019, the ECB published as part of the ECB Economic Bulletin, Issue 5/2019 the article *Understanding the Crypto-asset Phenomenon, its Risks and Measurement Issues*. It discusses the crypto-asset phenomenon with a view to understanding its potential risks and enhancing its monitoring. First, it describes the characteristics of the crypto-asset phenomenon, in order to arrive at a clear definition of the scope of monitoring activities. Second, it identifies the primary risks of crypto-assets that warrant continuous monitoring – these risks could affect the stability and efficiency of the financial system and the economy – and outlines the linkages that could cause a risk spillover. Third, the article discusses how, and to what extent, publicly available data allow the identified monitoring needs to be met and, by providing some examples of indicators on market developments, offers insights into selected issues, such as the availability and reliability of data. Finally, it covers selected statistical initiatives that attempt to overcome outstanding challenges.

EBA: Report on regulatory perimeter, regulatory status and authorisation approaches in relation to FinTech activities

On 19 July 2019, the EBA published the findings of its analysis on the regulatory framework applicable to FinTech firms when accessing the market. The Report illustrates the developments on the regulatory perimeter across the EU, the regulatory status of FinTech firms, and the approaches followed by competent authorities when granting authorisation for banking and payment services. The national regulatory status of FinTech firms with innovative business models or delivery mechanisms shows two developments: (a) the shift from non-regulated to regulated activities – notably payment initiation services and account information services now being subject to PSD2; and (b) the ancillary/non-financial nature of the services provided by FinTech firms not subject to any regulatory regime, with the exception of crowdfunding and to some extent activities related to crypto-assets. The EBA findings show few national legislative developments that could potentially create an EU unlevelled playing field. On crowdfunding, the EBA takes note of the Commission's Proposal for Regulation on crowdfunding service operators. On crypto-asset related activities, the Report refers to the EBA January Report on crypto-assets and the follow-up actions.

IMF: The rise of digital money

On 15 July 2019, the IMF published the paper, *The Rise of Digital Money*. This paper marks the launch of a new IMF series, Fintech Notes. Building on years of IMF staff work, it will explore pressing topics in the digital economy and be issued periodically. The series will carry work by IMF staff and will seek to provide insight into the intersection of technology and the global economy. The Rise of Digital Money analyses how technology companies are stepping up competition to large banks and credit card companies. Digital forms of money are increasingly in the wallets of consumers as well as in the minds of policymakers. Cash and bank deposits are battling with so-called e-money, electronically stored monetary value denominated in, and pegged to, a currency like the euro or the dollar. This paper identifies the benefits and risks and highlights regulatory issues that are likely to emerge with a broader adoption of stablecoins. The paper also highlights the risks associated with e-money: potential creation of new monopolies; threats to weaker currencies; concerns about consumer protection and financial stability; and the risk of fostering illegal activities, among others.

ESMA report on the licensing of FinTech firms across Europe

On 12 July 2019, ESMA published a *Report on the Status of Licencing Regimes of FinTech Firms* across the EU. The report is based on two surveys conducted by ESMA since January 2018, which gathered evidence from national competent authorities (NCAs) on the licensing regimes of FinTech firms in their jurisdictions. The Surveys confirmed that NCAs do not typically distinguish between FinTech and traditional business models in their authorisation and licensing activities since they authorise a financial activity and not a technology. ESMA's key findings from the surveys are: (i) The primary area where regulatory gaps and issues have been identified by NCAs and where FinTech firms do not fit neatly within the existing rules is related to crypto-assets, ICOs and DLT. (ii) The Surveys also identified the need for greater clarity around the governance and risk management processes associated with both cyber security and cloud outsourcing. (iii) There is a direct link and interdependencies between the innovation facilitators and authorising approaches for innovative FinTech business models. (iv) Finally, there is an ongoing discussion as to the need for an EU wide holistic crowdfunding regime, particularly for crowdfunding based on non-MiFID II instruments.

EBA: Assessment of impact of FinTech on payment institutions' and e-money institutions' business models

On 8 July 2019, the EBA published a thematic *Report on the Impact of FinTech on Payment Institutions' (PIs) and Electronic Money Institutions' (EMIs) Business Models*. This Report points out the EBA's key observations on PIs' and EMIs' strategies and business model changes, in particular focusing on the current trends and drivers, the different approaches to FinTech, including their interaction with BigTech firms, and the level of implementation of innovative technologies. […] Based on the EBA's observations, most PIs and EMIs are adapting their business models to cope with the competitive pressure and embrace PSD2 changes. Most institutions are keen to expand their products and services and enter new markets by (i) leveraging on cross-border services, (ii) requesting a licence to become a credit institution or third party provider (TPP), and/or (iii) embracing the new services provided under the PSD2. […]

With BigTech firms posing a potential threat to the sustainability of PIs' and EMIs' business models, institutions are planning to focus on strengthening customer loyalty in a potential increased participation of BigTech firms. The outlook of the payments sector is quite positive in terms of revenues and profitability, with an overall expectation for increased customer base and new or revamped products, accompanied by an increase in internal FinTech developments and IT spending.

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ICMA Capital Market Research

ICMA Briefing: The Importance of Integrated Capital Markets and CMU
Published: 26 July 2019
Authors: David Hiscock, ICMA

A Comparative Review of Practices and Procedures in the Russian and International Primary Debt Capital Markets
Published: 5 June 2019
Authors: ICMA/NFA Joint Report

ICMA ERCC Briefing Note: The European repo market at 2018 year-end
Published: 15 January 2019
Author: Andy Hill, ICMA

ICMA AMIC/EFAMA Report on Liquidity Stress Tests in Investment Funds 2019
Published: 8 January 2019
Authors: ICMA/EFAMA Joint Report

The GFMA and ICMA Repo Market Study: Post-Crisis Reforms and the Evolution of the Repo and Broader SFT Markets
Published: 17 December 2018
Authors: ICMA/GFMA Joint Report

MiFID II/R and the bond markets: the first year
Published: 6 December 2018
Editor: Andy Hill, ICMA

Adopting International Practices of Bond Trustee Arrangements in China
Published: 5 December 2018
Authors: ICMA/NAFMII joint publication

ICMA Discussion Paper: CSDR Mandatory Buy-ins and Securities Financing Transactions
Published: 3 October 2018
Author: Andy Hill, ICMA

ICMA Briefing: Regulatory approaches to FinTech and innovation in capital markets
Published: 7 September 2018
Author: Gabriel Callsen, ICMA

The Asia-Pacific Cross-Border Corporate Bond Secondary Market: A Report on the State and Evolution of the Market
Published: 30 August 2018
Authors: Andy Hill and Mushtaq Kapasi, both ICMA

How to Survive in a Mandatory Buy-in World
Published: 26 June 2018
Author: Andy Hill, ICMA

The European Corporate Single Name Credit Default Swap Market: A Study into the State and Evolution of the European Corporate SN-CDS Market
Published: 15 February 2018
Authors: Andy Hill and Gabriel Callsen, both ICMA

ICMA ERCC Briefing Note: The European Repo Market at 2017 Year-End
Published: 15 January 2018
Author: Andy Hill, ICMA

The Panda Bond Market and Perspectives of Foreign Issuers
Published: 19 October 2017
Authors: ICMA/NAFMII Joint Report

Market Electronification and FinTech
Published: 3 October 2017
Author: Gabriel Callsen, ICMA

Use of Leverage in Investment Funds in Europe
Published: 19 July 2017
Authors: AMIC/EFAMA Joint Paper

European infrastructure finance: a Stock-Take
Published: 13 July 2017
Authors: ICMA/AFME Joint Paper

The European Credit Repo Market: The Cornerstone of Corporate Bond Market Liquidity
Published: 22 June 2017
Author: Andy Hill, ICMA

Closed for Business: A Post-Mortem of the European Repo Market Break-Down over the 2016 Year-End
Published: 14 February 2017
Author: Andy Hill, ICMA

Diary 2019

DATE	
21 November *Register*	## Networking events **ICMA Future Leaders: How do banks and their employees stay relevant in this rapidly changing industry? London, 21 November** Join us for this ICMA Future Leaders networking event featuring an industry leader from an incumbent bank and one from the fintech sector looking at how innovation is changing banking and how this is affecting careers. **Hosted by:** Baker McKenzie.
	Save the date for the ICMA Women's Network event on Gender lens investing. London on 20 November.
	## ICMA Workshops
14 October *Register*	**SFTR - repo reporting in practice, Paris, 14 October** ICMA is offering a one-day workshop on the practical aspects of reporting of repo transactions which will be required under the EU Securities Financing Transactions Regulation (SFTR). **Hosted by:** Crédit Agricole Corporate & Investment Bank
14-15 October *Register*	**Introduction to green bonds, London, 14-15 October** This two-day course from ICMA provides a thorough and practically oriented introduction to the essentials of green bonds, introducing the underlying market drivers, the evolving regulatory framework and the main features of the green bond product and market based on the Green Bond Principles.
24-26 October *Register*	**Repo and securities lending under the GMRA and GMSLA, London, 24-26 October** Examines how repo and securities lending transactions operate within the framework provided by the Global Master Repurchase Agreement (GMRA) and the Global Master Securities Lending Agreement (GMSLA) and highlights the issues that need to be addressed by users. These two separate but increasingly overlapping master agreements are the essential underpinnings of the cross-border repo and securities lending markets.

Contact: events@icmagroup.org

Diary 2019

DATE	ICMA Conferences
14 November *Register*	**The 13th ICMA Primary Market Forum, London, 14 November** The ICMA Primary Market Forum, in its 13th year, gathers issuers, syndicate banks, law firms and investors to discuss market trends and practices, regulatory developments and the overall outlook for the primary debt capital markets. **Hosted by:** London Stock Exchange Group
15 November *Register*	**European Repo and Collateral Council General Meeting, Brussels, 15 November** The ERCC's General Meetings are open to anyone with an interest in repo and collateral. The agenda will cover a wide range of relevant topics, including the ERCC's extensive work on the implementation of the Securities Financing Transactions Regulation (SFTR) and Central Securities Depositories Regulation (CSDR), ahead of their application in 2020. **Hosted by:** euroclear
15 November *Register*	**ICMA Asset Management and Investors Council (AMIC) Conference, London, 27 November** The Asset Management and Investors Council (AMIC) is ICMA's forum for the international asset management industry and the global investor community. This event will feature a keynote presentation on CMU by Tatyana Panova, Head of Unit, Capital Markets Union, DG FISMA, European Commission. **Hosted by:** BlackRock

Courses 2019

ICMA Executive Education

Study for an ICMA Diploma in Financial Markets Operations

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Start your diploma pathway straightaway by registering for the Securities Operations Foundation Qualification (SOFQ) in Brussels on 13-15 November.

For more information please email education@icmagroup.org.

Book now for these ICMA Executive Education Courses

Securitisation – An Introduction
London, 14 - 15 October 2019

ICMA Fixed Income Certificate (FIC)
Amsterdam, 21 - 25 October 2019

Financial Markets Foundation Qualification (FMFQ)
London, 06 - 08 November 2019

ICMA Primary Market Certificate (PMC)
London, 11 - 15 November 2019

Securities Operations Foundation Qualification (SOFQ)
Brussels, 13 - 15 November 2019

ICMA Operations Certificate Programme (OCP)
Brussels, 18 - 22 November 2019

Securities Lending & Borrowing - Operational Challenges
London, 18 - 19 November 2019

Fixed Income Portfolio Management
London, 21 - 22 November 2019

Portfolio Construction
London, 25 November 2019

Contact: education@icmagroup.org

ABCP	Asset-Backed Commercial Paper
ABS	Asset-Backed Securities
ADB	Asian Development Bank
AFME	Association for Financial Markets in Europe
AI	Artificial Intelligence
AIFMD	Alternative Investment Fund Managers Directive
AMF	Autorité des marchés financiers
AMIC	ICMA Asset Management and Investors Council
AMI-SeCo	Advisory Group on Market Infrastructure for Securities and Collateral
APP	ECB Asset Purchase Programme
ASEAN	Association of Southeast Asian Nations
AuM	Assets under management
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BMCG	ECB Bond Market Contact Group
BMR	EU Benchmarks Regulation
bp	Basis points
BRRD	Bank Recovery and Resolution Directive
CAC	Collective action clause
CBIC	ICMA Covered Bond Investor Council
CCBM2	Collateral Central Bank Management
CCP	Central counterparty
CDS	Credit default swap
CFTC	US Commodity Futures Trading Commission
CGFS	Committee on the Global Financial System
CICF	Collateral Initiatives Coordination Forum
CIF	ICMA Corporate Issuer Forum
CMU	Capital Markets Union
CNAV	Constant net asset value
CoCo	Contingent convertible
COP21	Paris Climate Conference
COREPER	Committee of Permanent Representatives (in the EU)
CPMI	Committee on Payments and Market Infrastructures
CPSS	Committee on Payments and Settlement Systems
CRA	Credit rating agency
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CSD	Central Securities Depository
CSDR	Central Securities Depositories Regulation
DCM	Debt Capital Markets
DMO	Debt Management Office
D-SIBs	Domestic systemically important banks
DVP	Delivery-versus-payment
EACH	European Association of CCP Clearing Houses
EBA	European Banking Authority
EBRD	European Bank for Reconstruction and Redevelopment
ECB	European Central Bank
ECJ	European Court of Justice
ECOFIN	Economic and Financial Affairs Council (of the EU)
ECON	Economic and Monetary Affairs Committee of the European Parliament
ECP	Euro Commercial Paper
ECPC	ICMA Euro Commercial Paper Committee
EDDI	European Distribution of Debt Instruments
EDGAR	US Electronic Data Gathering, Analysis and Retrieval
EEA	European Economic Area
EFAMA	European Fund and Asset Management Association
EFC	Economic and Financial Committee (of the EU)
EFSF	European Financial Stability Facility
EFSI	European Fund for Strategic Investment
EFTA	European Free Trade Area
EGMI	European Group on Market Infrastructures
EIB	European Investment Bank
EIOPA	European Insurance and Occupational Pensions Authority
ELTIFs	European Long-Term Investment Funds
EMDE	Emerging market and developing economies
EMIR	European Market Infrastructure Regulation
EMTN	Euro Medium-Term Note
EMU	Economic and Monetary Union
EP	European Parliament
ERCC	ICMA European Repo and Collateral Council
ESAs	European Supervisory Authorities
ESCB	European System of Central Banks
ESFS	European System of Financial Supervision
ESG	Environmental, social and governance
ESM	European Stability Mechanism
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETF	Exchange-traded fund
ETP	Electronic trading platform
EU27	European Union minus the UK
ESTER	Euro Short-Term Rate
ETD	Exchange-traded derivatives
EURIBOR	Euro Interbank Offered Rate
Eurosystem	ECB and participating national central banks in the euro area
FAQ	Frequently Asked Question
FASB	Financial Accounting Standards Board
FATCA	US Foreign Account Tax Compliance Act
FATF	Financial Action Task Force
FCA	UK Financial Conduct Authority
FEMR	Fair and Effective Markets Review
FICC	Fixed income, currency and commodity markets
FIIF	ICMA Financial Institution Issuer Forum
FMI	Financial market infrastructure
FMSB	FICC Markets Standards Board
FPC	UK Financial Policy Committee
FRN	Floating-rate note
FRTB	Fundamental Review of the Trading Book
FSB	Financial Stability Board
FSC	Financial Services Committee (of the EU)
FSOC	Financial Stability Oversight Council (of the US)
FTT	Financial Transaction Tax
G20	Group of Twenty
GBP	Green Bond Principles
GDP	Gross Domestic Product
GFMA	Global Financial Markets Association
GHOS	Group of Central Bank Governors and Heads of Supervision
GMRA	Global Master Repurchase Agreement
G-SIBs	Global systemically important banks
G-SIFIs	Global systemically important financial institutions
G-SIIs	Global systemically important insurers
HFT	High frequency trading
HMRC	HM Revenue and Customs
HMT	HM Treasury
HQLA	High Quality Liquid Assets
HY	High yield
IAIS	International Association of Insurance Supervisors
IASB	International Accounting Standards Board
IBA	ICE Benchmark Administration
ICMA	International Capital Market Association
ICSA	International Council of Securities Associations
ICSDs	International Central Securities Depositaries
IFRS	International Financial Reporting Standards
IG	Investment grade
IIF	Institute of International Finance
IMMFA	International Money Market Funds Association
IMF	International Monetary Fund
IMFC	International Monetary and Financial Committee
IOSCO	International Organization of Securities Commissions
IRS	Interest rate swap
ISDA	International Swaps and Derivatives Association
ISLA	International Securities Lending Association
ITS	Implementing Technical Standards
KfW	Kreditanstalt fűr Wiederaufbau
KID	Key information document
KPI	Key performance indicator
LCR	Liquidity Coverage Ratio (or Requirement)
L&DC	ICMA Legal & Documentation Committee
LEI	Legal Entity Identifier
LIBOR	London Interbank Offered Rate
LTRO	Longer-Term Refinancing Operation
MAR	Market Abuse Regulation
MEP	Member of the European Parliament
MiFID	Markets in Financial Instruments Directive
MiFID II/R	Revision of MiFID (including MiFIR)
MiFIR	Markets in Financial Instruments Regulation
MMCG	ECB Money Market Contact Group
MMF	Money market fund
MOU	Memorandum of Understanding
MREL	Minimum requirement for own funds and eligible liabilities
MTF	Multilateral Trading Facility
NAFMII	National Association of Financial Market Institutional Investors
NAV	Net asset value
NCA	National competent authority
NCB	National central bank
NPL	Non-performing loan
NSFR	Net Stable Funding Ratio (or Requirement)
OAM	Officially Appointed Mechanism
OJ	Official Journal of the European Union
OMTs	Outright Monetary Transactions
ORB	London Stock Exchange Order book for Retail Bonds
OTC	Over-the-counter
OTF	Organised Trading Facility
PCS	Prime Collateralised Securities
PMPC	ICMA Primary Market Practices Committee
PRA	UK Prudential Regulation Authority
PRIIPs	Packaged Retail and Insurance-Based Investment Products
PSEs	Public Sector Entities
PSI	Private Sector Involvement
PSIF	Public Sector Issuer Forum
QE	Quantitative easing
QIS	Quantitative impact study
QMV	Qualified majority voting
RFQ	Request for quote
RFRs	Near risk-free rates
RM	Regulated Market
RMB	Chinese renminbi
RPC	ICMA Regulatory Policy Committee
RSP	Retail structured products
RTS	Regulatory Technical Standards
RWA	Risk-weighted asset
SBBS	Sovereign bond-backed securities
SEC	US Securities and Exchange Commission
SFT	Securities financing transaction
SGP	Stability and Growth Pact
SI	Systematic Internaliser
SMEs	Small and medium-sized enterprises
SMPC	ICMA Secondary Market Practices Committee
SMSG	Securities and Markets Stakeholder Group (of ESMA)
SARON	Swiss Average Rate Overnight
SOFR	Secured Overnight Financing Rate
SONIA	Sterling Overnight Index Average
SPV	Special purpose vehicle
SRF	Single Resolution Fund
SRM	Single Resolution Mechanism
SRO	Self-regulatory organisation
SSAs	Sovereigns, supranationals and agencies
SSM	Single Supervisory Mechanism
SSR	EU Short Selling Regulation
STS	Simple, transparent and standardised
T+2	Trade date plus two business days
T2S	TARGET2-Securities
TD	EU Transparency Directive
TFEU	Treaty on the Functioning of the European Union
TLAC	Total Loss-Absorbing Capacity
TMA	Trade matching and affirmation
TONA	Tokyo Overnight Average rate
TRs	Trade repositories
UKLA	UK Listing Authority
VNAV	Variable net asset value

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