ICMA

International Capital Market Association

# QUARTERLY REPORT

ASSESSMENT OF MARKET PRACTICE AND REGULATORY POLICY

INSIDE:

THE TRANSITION TO RISK-FREE RATES IN THE INTERNATIONAL BOND MARKET

RISKS OF INTERNATIONAL CAPITAL MARKET FRAGMENTATION

HOW TO SURVIVE IN A MANDATORY BUY-IN WORLD

5 July 2018

Third Quarter. Issue 50. 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 540 members located in over 60 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.

# FEATURES:

## 01:

### The transition to risk-free rates in the international bond market

*By Paul Richards*

## 02:

### Risks of international capital market fragmentation

*By David Hiscock*

## 03:

### How to survive in a mandatory buy-in world

*By Andy Hill*

# CONTENTS

# Resilient, dynamic, evolving, diverse

*By Mandy DeFilippo*

As the new Chair of ICMA, I am delighted to provide this quarter's Foreword.

Having recently returned from our 50th Anniversary Conference in Madrid, I would like to extend my thanks to all who shared their engaging and illuminating insights and points of view as keynote speakers or participants in the panel sessions, and to all who attended. Perhaps most importantly, I would like to thank everyone who worked behind the scenes to make the Conference a fitting event to celebrate ICMA's 50th birthday.

As I mentioned in my remarks at the Conference, these are exciting times to be in the capital markets. With recent regulatory changes in Europe – not least MIFID II implementation which took effect at the beginning of this year, and is still being phased in – we are seeing new dynamics emerge, new participants in the market, and changes to established ways of working. When you consider that market participants will need to make further structural adjustments as a result of additional regulatory developments, plus Brexit, it is clear that we are facing a period of enduring change – and no small degree of uncertainty – in the near term.

Against this dynamic backdrop, an organisation like ICMA is particularly relevant.

Technological developments are creating opportunities to adapt, shape and refine existing operating practices in the capital markets, including in response to new regulation. For example, in the first six months of implementation, MIFID II has been instrumental in driving trading on to exchanges, and we expect this trend to continue as the market continues to adjust. As the year progresses, increasing volumes of transactional data will become publicly available. This should start to generate greater levels of transparency in the market, and thereby have a correspondingly positive effect on secondary market liquidity. As this matures, so electronification will offer solutions for those liquid markets to perfect flow business and create additional efficiencies. Over the longer term, this trend should continue as more products are brought into scope of MiFID II.

Even so, there are challenges on the horizon.

For example, Central Securities Depository Regulation (CSDR), with its goal of harmonising the legal aspects of securities settlement and the rules of CSDs at an EU-wide level, continues to come online, and we now expect to "go live" with the Settlement Discipline component by September 2020. This next phase of implementation will require imposition of a penalty regime through fail fines and mandatory buy-ins, which risks deterring market participants from providing liquidity in repo and stock lending. ICMA has highlighted, through briefing notes and direct engagement, the risks and anticipated impacts of these new rules, and will continue to do so.

Brexit promises to feature strongly for all market participants throughout the year, requiring all market participants to review, validate and, in many cases, make changes to internal structures, processes and business flows. A significant amount of legal, technical and operational work will be required to ensure that all market activity can continue without disruption on the relevant exit date. Many of the technical details surrounding the potential transition are still being negotiated. Without full clarity on certain key aspects, the markets in Europe will be exposed to significant risks.

In each of these areas, ICMA will continue to educate and inform its members in relation to the implications of new regulatory or political developments. ICMA will also continue to involve its experts in key dialogues with regulators and others in the market, to advocate in favour of well-functioning, integrated capital markets.

Of course, there are other areas of change in the capital markets where ICMA will continue its focus. Over the past year, sustainable financing has continued to gather pace, not only in the European markets, but globally. New initiatives from the European Commission, alongside similar initiatives in Asia, have provided additional incentives for the market to continue to grow. As the custodian of the Green Bond Principles, ICMA has been at the forefront of industry-driven standard setting. Building on this, last year ICMA issued Social Bond Principles, which are intended to encourage financing of projects which provide social benefits such as housing or education. With the market for green and social financing continuing to grow, ICMA will continue the work it is doing with members to establish and adapt internationally recognized standards of market practice.

Resilient, dynamic, evolving and diverse – common adjectives which have often been used to describe the capital markets, are perhaps never more pertinent than today. Similarly, now, more than ever, ICMA, through its ongoing engagement with regulators, the dissemination of best practice protocols and thought leadership, has a crucial role to play. Not only is this an exciting time to be involved in the capital markets – it's an exciting time to be part of ICMA.

**Mandy DeFilippo** *is Managing Director, Head of Risk Management (EMEA), Fixed Income & Commodities Division, Morgan Stanley International PLC, and Chair, ICMA*

# Message from the Chief Executive

*By Martin Scheck*

As we head into the summer one could be forgiven for thinking that ICMA's activities would moderate – but so far there is no sign of that and the last three months have been exceptionally active on both the market practice and regulatory policy front, and with a number of flagship events.

We lead in the Quarterly Report with an update on the intense work being undertaken on the transition from IBORs to near risk-free rates. ICMA is part of the Sterling Risk-Free Rates Working Group, and we are chairing the Bond Market Sub-Group; we are a member of the Euro Risk-Free Rates Working Group and, in Swiss francs, a member of the Swiss National Working Group. All require considerable attention and, given the importance of this transition we are heavily deployed in this area. Our work is focused on how to ensure adoption of the new benchmark rates, how to deal with legacy issues for existing LIBOR-referenced bonds, international coordination and raising awareness. We go into more detail inside.

For many of our members operating in both the EU27 and in the UK, the uncertainties around negotiating a new trade agreement covering financial services is raising severe concerns over the possibility of "cliff-edge" effects from Brexit, either on 29 March 2019 when the UK leaves the EU, or at the end of a transition period. Responding to this, we have sent an open letter to senior political leaders in both the UK and the EU27. The intention is to raise awareness at a political level of what the authorities already well understand – namely the danger to financial service provision if there is no agreement between the UK and EU27 and the likely financial (in)stability issues as a result. We will continue to raise awareness of our members' concerns as widely as possible.

The imposition of "mandatory buy-ins" of bonds in the event of non-settlement remains a grave concern. We have long advocated that the CSD Regulation is flawed and deeply detrimental to the markets, being likely to cause market makers to withdraw liquidity and to raise costs for participants in both the cash secondary market and in the repo market which would be passed through to end-investors. But despite our best efforts the recently approved Regulatory Technical Standard is likely to lead to the imposition of mandatory buy-in in Q3 2020. We have prepared a further paper to highlight the dangers of introducing such a provision, as well as its damaging asymmetry – it is not at all clear that this was how the legislation was intended to work when it was drafted – and will use this to make our case broadly in the hope of improving the situation. But currently the future looks bleak.

Financial technology is impacting the way the markets operate and the pace of change is accelerating. Whether this results in a streamlining and electronification of existing processes or a fundamental change in the roles of the participants along the fixed income value chain, this is a major focus for ICMA across all of our business areas. The breadth of our membership puts us in a good position to bring together issuers, intermediaries, investors and technology providers to analyse developments in different sectors. Inside, readers will find a report on the most recent such roundtable, looking at technology development in primary markets.

Shifting gear, we were delighted to see so many of you at our landmark 50th Anniversary in Madrid. We are told that participants found the agenda and discussions illuminating and stimulating, and certainly the evening events seemed to "hit the spot", providing for enjoyable networking – still important despite the technological advances. Many thanks again to our sponsors and exhibitors for their support.

More recently, with the support of the Hong Kong Monetary Authority, we held the AGM and conference for the Green and Social Bond Principles in Hong Kong. With more than 1,000 registrations this was by far the largest so far – a tribute to this rapidly growing market. This was the first time the conference had been held outside Europe, reflecting the dynamism and increasing importance of Asia in embracing green finance. We took the opportunity to release the 2018 Green Bond Principles, Social Bond Principles and Sustainability Bond Guidelines, augmented by several innovations, including for the first time *Guidelines for Green, Social and Sustainability Bonds External Reviews*. Closer to home we are pleased to have been selected as a member of the European Commission's prestigious Technical Expert Group and, through this appointment, are looking forward to contributing directly to the EU Action Plan for Financing Sustainable Growth.

**Martin Scheck**
martin.scheck@icmagroup.org

# The transition to risk-free rates in the international bond market

*By Paul Richards*


## Summary

The purpose of this Quarterly Assessment is to bring ICMA members up-to-date with developments relating to the transition from Interbank Offered Rates (IBORs) to near Risk-Free Rates (RFRs), particularly in the international bond market referencing term LIBOR. The Quarterly Assessment begins by setting out the problem with LIBOR and the proposal to introduce RFRs as the alternative to LIBOR. It then examines the transition to RFRs in the international bond market, focusing on the adoption of RFRs; issues arising from the conversion of legacy transactions; coordination between different markets and different jurisdictions internationally; and the task of raising awareness of the transition to RFRs. It concludes by setting out ICMA's role.


## The problem with LIBOR

1 In a speech in July last year, the Chief Executive of the UK Financial Conduct Authority (FCA) said that the FCA would no longer intend to use its powers to persuade or compel banks to submit contributions for LIBOR after the end of 2021; and would not in any case be in a position to compel banks to submit contributions indefinitely under the EU Benchmarks Regulation.[1] There are three related reasons why there has been a problem with LIBOR:

2 The first reason why there has been a problem with LIBOR is that the underlying structure of financial markets has changed since the financial crisis. As the Governor of the Bank of England has explained: "LIBOR has not kept up with market developments. LIBOR is meant to measure the short-term unsecured funding costs of banks. But the reality is that, since the financial crisis, LIBOR really has become the rate at which banks do not lend to each other. Bank funding markets have changed enormously. Banks no longer take sufficient short-term wholesale deposits to form the basis for a robust transaction-based LIBOR benchmark. As a result, LIBOR is overly reliant on expert judgment rather than actual transactions. And global markets remain overly reliant on LIBOR, a benchmark that may not exist beyond 2021. That reliance is neither desirable nor sustainable."[2]

3 The second reason why there has been a problem with LIBOR relates to the implications for financial stability. As the President of the Federal Reserve Bank of New York has stated: "The essential problem with LIBOR is the inherent fragility of its "inverted pyramid", where the pricing of hundreds of trillions of dollars of financial instruments rests on the expert judgment of relatively few individuals, informed by a very small base of unsecured interbank

1. Andrew Bailey, Chief Executive of the FCA: *The Future of LIBOR,* 27 July 2017.

2. Mark Carney, Governor of the Bank of England: *Staying Connected:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

transactions. So, despite efforts to improve LIBOR in recent years – and there undoubtedly have been important changes that have strengthened its administration and governance – the lack of underlying market liquidity for nearly all currencies and maturities remains a problem, and there is no obvious solution."[3]

4 The third reason why there has been a problem with LIBOR relates to the scope for manipulation. As the Chair of the European Securities and Markets Authority has said: "The globally most relevant interbank interest rates benchmarks, like LIBOR and EURIBOR, were unregulated and their methodologies and governance allowed manipulation on a scale rarely seen in the financial sector."[4]

## Risk-free rates as the alternative to LIBOR

5 To avoid the problems associated with manipulation of LIBOR in the past and the financial stability risks arising from LIBOR in the future, the authorities want financial markets to transition from the IBORs (eg LIBOR) to near Risk-Free Rates (RFRs). It is estimated that contracts with a total notional value of over $370 trillion are referenced to the IBORs:[5] these are mainly in the derivatives markets; but the cash markets in the form of loans and bonds, representing the real economy, constitute a significant proportion of the overall total.

6 RFRs have been chosen in the UK (SONIA), US (SOFR), Switzerland (SARON) and Japan (TONAR), and the choice of an RFR is currently being considered in the euro area.[6] All the RFRs are overnight rates. Some are secured (like SOFR in the US) and some unsecured (like SONIA in the UK). In the UK, the choice of SONIA has three main benefits over LIBOR: it represents conditions in a deep underlying market; its design is robust to future changes in money markets because, if necessary, SONIA's data inputs can evolve; and it is a better reflection of the general level of interest rates than LIBOR, which is affected by fluctuations in the perceived credit quality of banks.[7]

7 A common objective is to make the RFRs as robust as possible. For this purpose, robustness is measured primarily by the volume of observable transactions.[8] The authorities want to prevent a repetition of the main problem with LIBOR: banks submitting quotes have had to rely on expert judgment owing to an insufficient volume of observable transactions. In the UK, one of the main advantages of reformed SONIA (as from 23 April 2018) is that the average daily volume is three times larger than the SONIA rate it has replaced.[9]

8 Interest rate benchmarks are now regulated by the European Benchmarks Regulation (BMR), which originally entered into force in June 2016, and will apply fully from January 2020. Globally, the BMR is the only binding set of rules covering all types of indices. It governs the provision as well as the use of benchmarks by supervised entities in the EU, including those provided in third countries. Under the BMR, the most significant interbank interest rate benchmarks – EONIA, EURIBOR and LIBOR – are critical benchmarks supervised by supranational colleges.[10]

9 To make the transition from IBORs to RFRs work well, the authorities and market participants need to work together. Risk-Free Rate Working Groups have been set up in all the five main IBOR jurisdictions. ICMA is involved in the Risk-Free Rate Working Group in the UK (working with the Bank of England and the FCA); the Euro Risk-Free Rate Working Group (organised by the ECB, ESMA, the European Commission and the FSMA); and the Swiss National Working Group (chaired by the Swiss National Bank and ZKB).

10 The authorities recognise that the cash markets – ie loans and bonds – need to be represented in the RFR Working

3. William Dudley, President of the Federal Reserve Bank of New York: *The Transition to a Robust Reference Rate Regime:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

4. Steven Maijoor, Chair of ESMA: *Towards Benchmark Stability and Integrity:* ICMA Annual Conference, Madrid, 31 May 2018.

5. ISDA, AFME, ICMA, SIFMA and SIFMA Asset Management Group: *IBOR Global Benchmark Survey 2018 Transition Roadmap*, February 2018.

6. No decision has yet been taken about a euro RFR to replace EONIA by the end of 2019, but the ECB has announced its intention to use the statistical data it has been collecting to publish an unsecured euro overnight rate (ESTER) by October 2019.

7. See Mark Carney, Governor of the Bank of England: *Staying Connected:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

8. William Dudley, President of the Federal Reserve Bank of New York: "[SOFR] is entirely transaction-based, and the underlying market is robust, with current daily volume of more than $700 billion. (By comparison, unsecured three-month US-dollar wholesale borrowing totals roughly $1 billion per day.)": *The Transition to a Robust Reference Rate Regime:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

9. Mark Carney, Governor of the Bank of England: *Staying Connected:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

10. See Steven Maijoor, Chair of ESMA: *Towards Benchmark Stability and Integrity:* ICMA Annual Conference, Madrid, 31 May 2018.

Groups, and not just the derivatives markets. In the UK, for example, new Sub-Groups have been formed to cover loans – chaired by LMA – and bonds, chaired by ICMA. The Bond Market Sub-Group is representative of the sterling bond market as a whole, including public sector, corporate sector and financial sector issuers, asset managers and investors, banks involved in the primary and secondary markets, four law firms (working together), and trade associations with an interest, with the FCA and Bank of England providing the Secretariat.

## The transition to risk-free rates in the international bond market

11 In the international bond market, LIBOR is used as a reference in floating-rate notes (FRNs), securitisations and also capital securities, where LIBOR is used to reset an earlier fixed rate coupon to a floating rate at the end of a fixed period of time. In each case, the key issues that need to be addressed relate to: the adoption of RFRs in new bond issues; the conversion of legacy transactions; coordination between cash and derivatives markets and between different IBOR jurisdictions; and the need to raise awareness in the market of the proposed change.

### (i) Adoption of RFRs in new bond issues

12 Some progress has already been made towards the adoption of RFRs in the derivatives market, starting with the choice of overnight RFRs. Adoption of RFRs also represents a challenge in the cash markets. The bond market in the UK currently references term LIBOR, with a floating rate which is normally reset for periods of three or six months in advance:

- One option is to replace term LIBOR in new bond market transactions with a forward-looking term rate derived from the RFR. A forward-looking term derivative of the RFR would be the nearest RFR-based equivalent to forward-looking term LIBOR. Interest payments would be known in advance. There would be only one main change: from an interbank offered rate to a risk-free rate, which is economically not the same. But forward-looking term RFRs might take a considerable period of time to develop; and they would not be as robust as overnight RFRs, at least for some time, as the volume of observable transactions would be lower.
- Another option is to replace term LIBOR with a backward-looking RFR, compounded daily in arrears.[11] As the RFRs are overnight rates, which have the largest volume of observable transactions, this option would mean that bond markets would reference more robust rates than forward-looking rates derived from RFRs, and bond market conventions would be similar to those already used in the swap market. But under a backward-looking RFR, interest payments on term transactions would not be known in advance, and users would need to make two changes: a change from a forward-looking rate to a backward-looking rate as well as a change from an interbank offered rate to a risk-free rate. For some market participants, making the change to a backward-looking rate would take time and cost money. But at the end of June, the EIB successfully launched a new GBP 1 billion five-year FRN referencing backward-looking SONIA, compounded daily in arrears.
- A third option is for the market to be offered a choice between forward-looking and backward-looking rates, though this might split liquidity between them. Some market participants may also be reluctant to spend time and money preparing for backward-looking rates first in the expectation that they may be able to use forward-looking term RFRs, if and when they become sufficiently robust, later.

13 In the meantime, new bonds are still being issued referencing LIBOR with maturities beyond the end of 2021 (ie the date after which the availability of LIBOR is no longer guaranteed). If LIBOR were no longer available, the terms of many existing FRNs would result in the interest rate becoming fixed at the most recent LIBOR rate for the issue concerned, though alternatives have been used in some recent cases. A fixed rate fallback was originally designed in case LIBOR was temporarily unavailable. It was not designed with a view to the permanent cessation of LIBOR.

14 Users of the bond market need to be aware of the risks involved in issuing, hedging, selling and buying new bond issues referencing LIBOR with maturities beyond 2021, in case LIBOR ceases to be available after that date. Sell-side firms may need to consider the suitability of selling such products to certain investors and the duty of care they owe to their customers. It is also important to find a new workable fallback for any new LIBOR transactions in place of current fallback provisions.[12]

### (ii) Conversion of legacy bonds

15 In the cash markets, conversion of legacy bonds would be more complex than converting derivatives. Indeed, in the derivatives market, ease of conversion was one of the reasons in the UK for choosing SONIA as the preferred RFR in place of

11. A margin (or spread) would be added, but not compounded. This would make it as easy as possible for a table of compounded rates to be published each working day for market use.

12. See the letter to ISDA from the Financial Stability Board Official Sector Steering Group (OSSG) Co-Chairs, Sub-Group on Contractual Robustness, 18 April 2018: "ISDA should develop a methodology for fall backs in the 2006 ISDA Definitions that could be used in the absence of suitable term rates. We strongly suggest that the ISDA Sub-Group focuses on calculations based on the overnight rates selected by the RFR working groups."

LIBOR.[13] Unlike the derivatives market, which uses protocols to amend large volumes of contracts, protocols are not – and may not be able to be – used in the bond market. In general, amending the terms of bond issues requires bondholder consent. The threshold for bondholder consent is generally set at a high level (sometimes 100%), so it would be very difficult, time-consuming and expensive to obtain bondholder consent to make the changes that would be necessary for conversion. The outcome could not be guaranteed, without legislative intervention, which would need to be coordinated across different jurisdictions internationally.

16 The problem with conversion does not so much arise in the case of short-dated legacy bond issues, which will mature while LIBOR continues to be available, as long as they can continue to be hedged effectively in the meantime: ie if the bond is referenced to LIBOR, but the associated derivative is referenced to an RFR. But it is much more of a problem in the case of longer-dated bond issues, which are due to mature after the date when LIBOR may no longer be available, and many of which are likely to fall back to a fixed rate in those circumstances.

17 In addition, there is a question about whether a credit adjustment spread would need to be applied as a result of the replacement of LIBOR (which includes bank credit risk) by RFRs (which do not). Any such credit adjustment spread would need to treat both issuers and investors fairly, so as to avoid the risk of creating winners and losers.

18 The task of converting legacy bond issues from LIBOR to RFRs will grow in scale, so long as new issues continue to reference LIBOR, unless there are changes to documentation in the meantime to make conversion easier, including provision for a new fallback. And if LIBOR continues to exist after 2021 in whatever form, it is likely that LIBOR will continue to be used as the reference for legacy bonds, even if the fallback provisions have been modified on new transactions. This is because current fallback provisions will not be triggered unless or until LIBOR ceases to be available.

## (iii) International coordination

19 There is agreement that international coordination is needed between the bond markets and the derivatives markets during the transition from the IBORs to RFRs, as new bond issues are frequently hedged in the derivatives market. It would also help if there is international coordination across products both in agreeing fallbacks on new contracts referencing RFRs, in case LIBOR ceases to be published, and in setting the triggers under which the fallbacks would be used.

20 In addition, coordination is important between the different IBOR jurisdictions. The authorities already work together through the Official Sector Steering Group of the Financial Stability Board.[14] There are some differences between plans for the use of RFRs in different IBOR jurisdictions. As regards timing, RFRs have already been chosen in the US and the UK, but in the euro area work is still being undertaken on choosing its RFR. And there are some differences of approach: some overnight RFRs are secured and some unsecured; it is not yet known whether term RFRs in some jurisdictions will be forward-looking while RFRs in other jurisdictions will be backward-looking; and in the UK, term LIBOR is due to be replaced by SONIA, whereas in the euro area it is not yet clear whether EURIBOR will be reformed or whether it will need to be replaced. However, the question is how much these differences matter, given that the underlying direction of travel towards risk-free rates is the same in all jurisdictions.

## (iv) Raising awareness

21 The level of awareness of the proposed transition from the IBORs to RFRs has grown, but market preparations are still at an early stage, particularly in the cash markets. So market forums and other forms of market communication are needed to raise awareness of the practical steps that market firms need to take. For example, at the 50th ICMA AGM and Conference in Madrid at the end of May, ICMA arranged a panel of senior officials representing the Bank of England, FCA, European Central Bank, Federal Reserve and Swiss National Bank to explain to members why the transition to RFRs is important, and to discuss how it is proposed that the transition will work and what market firms need to do to prepare.[15] In addition to forums for market participants, it is also important for market firms to reach out to their own customers, including retail customers.

13. Francois Jourdain, Chair of the Sterling RFR Working Group: "The Group's debate on the preferred RFR was vibrant and considered, but ultimately a key deciding factor for many members was speed of implementation, since no transition of the Overnight Indexed Swap (OIS) market would have been required if SONIA was chosen.": Record of Roundtable on Sterling RFRs: 6 July 2017, NatWest Markets, London.

14. The OSSG is chaired by Andrew Bailey, Chief Executive of the FCA, and Jerome Powell, Chair of the Federal Reserve Board. In addition, the Bank of England, Bank of Japan, Swiss National Bank, European Central Bank, European Commission, ESMA and FSMA and many other official institutions are involved.

15. ICMA Conference Panel video Madrid, 31 May 2018

## Preparations by individual firms

The President of the Federal Reserve Bank of New York has said that "the transition away from LIBOR represents a significant risk event for firms of all sizes, and they should actively manage this transition through their existing frameworks for identification, management and mitigation of risk. Supervisors should continue to support this objective by ensuring that all firms are aware of the transition and that LIBOR-related issues are being addressed in a way that is commensurate with a firm's exposures and risks. More broadly, the official sector will continue to push market participants to take all necessary steps to mitigate the risks to financial stability from a disorderly transition."[16]

The *IBOR Global Benchmark Transition Report* [17] has set out a checklist containing some of the key steps that firms can already undertake. They include:

- *IBOR transition programme:* appoint a senior executive to manage a multi-year IBOR transition programme; establish a robust governance structure for the programme; allocate budget and confirm staffing needs; establish programme workstreams; and initiate internal stakeholder education.
- *Exposure to IBORs:* develop an inventory of products, financial instruments and contracts linked to IBORs; quantify the exposure to IBORs across core business lines and products; calculate financial exposure anticipated to roll off prior to 2019, 2020 and 2021; evaluate operations by assessing the impact on processes, data and technology; and implement reporting to monitor exposure to IBORs throughout the transition period.
- *Contractual issues:* review existing contracts and assess current fallback provisions by product and contract type; determine required repapering and client outreach; and work with trade associations and others on fallback provisions, contract disclosures and good practices.
- *Communication strategy:* define a communication strategy to begin educating clients on benchmark reform; and identify other external dependences (eg technology vendors) needed in transition planning.
- *Transition roadmap:* review OSSG and RFR working group publications, and transition and other available information; determine required infrastructure and process changes to support the transition to RFRs; and develop an implementation route map.

## ICMA's role

22 The transition from the IBORs, including LIBOR, to RFRs is a considerable challenge. The authorities and the market will need to work together in order successfully to achieve the changeover without market disruption. In the process, the international bond market needs to be heavily involved. On behalf of its members, ICMA is playing an important role:

- by participating in the RFR Working Groups in the UK, the euro area and Switzerland;
- by arranging opportunities to raise market awareness about the transition to RFRs through ICMA committees and working groups, market forums and other forms of communication;
- by using the ICMA Quarterly Report and conference calls to communicate with members about the transition to RFRs;
- by keeping the ICMA webpage on international benchmark reform and the transition to RFRs up-to-date with relevant official and ICMA material; and
- at the request of ISDA, and in conjunction with AFME, SIFMA and SIFMA AMG, by supporting the global benchmark survey on the transition to RFRs undertaken by EY.[17]

**Contact: Paul Richards**
paul.richards@icmagroup.org

16. William Dudley, President of the Federal Reserve Bank of New York: *The Transition to a Robust Reference Rate Regime*: Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

17. EY with ISDA, AFME, ICMA, SIFMA and SIFMA AMG: *IBOR Global Benchmark Transition Report,* June 2018.

# Identifying and addressing the risks of international capital market fragmentation

*By David Hiscock*

ICMA is concerned that public officials, regulators and many market participants may not fully understand just quite how important integrated international capital markets are. Hence ICMA wishes to raise awareness of this and encourage all concerned to avoid unnecessary fragmentation of markets and to act positively to mitigate any lack of integration, wherever possible.

The mission of ICMA is to promote resilient and well-functioning international debt capital markets, which are necessary for economic growth. Consistent with this mission, for 50 years ICMA has encouraged open and integrated capital markets across national borders. A great deal of progress has been made towards integration over that period, both by the authorities and by the users of the international capital markets themselves.

But now there are also countervailing pressures for international capital market fragmentation. Open and integrated international capital markets are under threat from political and economic pressures for protectionism and fragmentation in a number of ways. While there has been a very significant increase in real economic growth during the long period of globalisation, real growth has been much slower during the economic recovery from the 2007-09 international financial crisis than in preceding periods of economic recovery.

Although globalisation has reduced inequalities between countries – eg between China, India and the West – it has increased inequality within countries, particularly in the West. To many people, globalisation has become associated with striking inequalities in income and wealth, low wages and insecure jobs. Open markets have so far created more new jobs than the old ones they destroy, but they are not popular when the public is worried about job security – eg as a result of competition from cheap imports, foreign labour and technological innovation.

It is not yet clear how strong these pressures for international capital market fragmentation will be. But there are fragmentation risks. In Europe, they arise from Brexit and, to some extent, from persistent doubts about the future composition of the euro area. At global level, they include: risks of regulatory divergence (eg between the EU and US) in future; risks in cases in which regulatory equivalence is incomplete at present; ring-fencing; gold-plating; extra-territoriality; and risks of "one-size-fits-all" regulation. There are also risks arising from fragmentation of market liquidity, home bias in investment and an unlevel playing field for competition.

While it is not possible reliably to estimate these costs and risks, international capital market fragmentation clearly adds costs for users and carries risks for financial stability. To raise awareness of why this matters, in April 2013, ICMA published *Economic Importance of the Corporate Bond Markets*, which is a capital markets research paper prepared for policy makers. The paper is about why corporate bond markets are so important for economic growth, for investors, for companies, and for governments, around the world; and why it is therefore essential that laws and regulations that affect them avoid any unintended adverse consequences that could inhibit those markets.

At the heart of ICMA's work to continue to strengthen the core areas of the international capital market over recent years, there has been a focus on the importance of market liquidity and collateral fluidity. So long as they are resilient, deep and liquid markets are inherently better able to strongly perform their economic function. Accordingly, it follows that ICMA's efforts to promote more efficient markets includes seeking to remove barriers to their smooth cross-border functioning and seeking to resist the imposition or emergence of changes which would lead to unnecessary market fragmentation or disruption.

One of the consequences of new regulation since the financial crisis has been to increase the costs for banks in making markets. Alongside this, corporate bond markets are less liquid now than they were previously, particularly for smaller buy-side firms. Also, in the sovereign bond market, there is a close link between bond, CDS and repo market liquidity (collateral fluidity) – and repo dealer balance sheets have shrunk, while QE has accentuated collateral scarcity by taking securities from the market. And, on top of international capital market fragmentation pressures, the markets must now also contend with widening spreads and rising interest rates.

If international capital markets fragment there will be detrimental consequences, such as:

- added financing costs for corporate and government end-users, weakening their financial position and increasing the likelihood of defaults:
  - borrowers' bond financing costs increase, as investor demand is reduced responsive to lower liquidity and smaller pools of investors for each market fragment; and
  - financial institutions need to hold more capital and more liquid assets if they have to operate under a number of divergent regulatory regimes rather than under a single regime, restricting their capacity to lend and/or increasing the cost of loans they make.
- risks for financial stability:
  - divergent regulatory regimes lead to regulatory arbitrage between them; and
  - financial institutions face greater risk of non-performing loans and increases in their own financing costs, hence undermining their profitability and longer-term sustainability.

In light of this, the task of preventing fragmentation of international capital markets and taking initiatives to help increase their integration is not just of interest for the users of markets but is also demonstrably in the interests of policy makers and those they represent.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

**So long as they are resilient, deep and liquid markets are inherently better able to strongly perform their economic function.**

# How to survive in a mandatory buy-in world

*By Andy Hill*


## Summary

This article gives an overview of the CSDR mandatory buy-in regime, set to come into play in the European fixed income (and equity) markets in 2020, and provides guidance on how to avoid falling victim to its potential traps and more unusual characteristics. The "tips" provided are *not* ICMA recommendations. They highlight the potentially adverse behavioural incentives arising from the design of CSDR buy-ins. ICMA believes that now is a good time for policy makers and regulators to reconsider the implementation and consequences of CSDR mandatory buy-ins.


## Introduction

The concept of mandatory buy-ins in the OTC (non-centrally cleared) bond markets has been an emotive topic since it was first proposed in the lead up to CSD Regulation[1] (CSDR) in 2014. Its inclusion in the final Regulation, as well as its unorthodox design, left the market both dismayed and baffled. The anticipated consequence of the mandatory buy-in regime would be to alter radically secondary market structure and behaviour, and how liquidity is provided within the EU, particularly for less liquid securities such as corporate bonds, SME securities, and emerging markets.[2] The side-effects would be increased market risks and costs for a whole range of market participants, reduced liquidity, and increased market instability; all of which seem to run counter to the intended goals of the regulation.[3] Many, including ICMA, thought that the mandatory buy-in framework was too impractical in its scope and too fundamentally flawed in its design to be implemented, and that it would eventually be abandoned. But in May 2018 the European Commission finally adopted the Regulatory Technical Standards (RTS), originally submitted by ESMA in February 2016. The EU Council and European Parliament have three months to scrutinize the details, before it is published in the *Official Journal*. The CSDR Settlement Discipline (SD) package, including mandatory buy-ins, will then come into force 24 months later, likely to be September 2020, and will impact all transactions settled on EU regulated ICSDs and CSDs, with the potential for wider extraterritorial scope.[4]

It appears that the seriousness of the market's concerns with respect to the likely impacts on market functioning and stability have not yet been fully appreciated by many regulators and policy makers. Fortunately, there is still time.

## What is a buy-in?

Buy-in mechanisms have existed for decades and are a well understood and widely utilised tool for managing settlement risk. Essentially, in the event of a settlement fail, they provide

1. (EU) No 909/2014

2. The buy-in regime will apply to transactions that settle on EU regulated CSDs and ICSDs.

3. Whilst never explicitly stated, it is broadly understood that the intended purpose of the mandatory buy-in regime is to improve settlement efficiency by reducing the number and length of market fails. ICMA is unaware of any research or analysis that suggests that settlement fails in the European fixed income market are common, or that their occurrence is problematic from either an investor protection or a market efficiency and stability perspective.

4. Article 25 of the RTS requires members of EU CSDs, CCPs, and trading venues to have in place contractual arrangements with their relevant counterparties to enforce the buy-in requirements throughout the settlement chain, including in all jurisdictions to which parties in the settlement chain belong. In other words, the rules of EU CCPS and trading venues are expected to include the CSDR buy-in mechanism regardless of where the member is located or where the transaction is settled.

a buyer of securities the contractual right to source the securities elsewhere (usually for guaranteed delivery),[5] cancel the original trade, and settle between the two original counterparties any differences arising from the net costs of the original transaction and the buy-in transaction. This ensures that the economics of the original transaction are preserved, and that neither party is inadvertently disadvantaged or advantaged as a result of the buy-in. It has to be remembered that buy-ins are not a "penalty mechanism",[6] they are a contractual remedy to provide for physical settlement of a trade.

Importantly, the settlement of the "buy-in differential" can go either way. So, in the case that the buy-in is executed at a price below the original transaction price, a payment is made by the non-defaulting buyer to the defaulting seller. While intuitively this may seem odd at first, as we will see, it would lead to some very strange outcomes and incentives if buy-ins were not designed this way.

It should be noted, however, that in most cases, the failing seller who is on the receiving end of the buy-in will incur a cost. Sometimes a significant cost. This has nothing whatsoever to do with the original transaction price, but rather it is the difference between the buy-in price and the current market price at the time of the buy-in, also known as the "buy-in premium". As buy-ins are usually executed for guaranteed delivery, this tends to come at a premium to normal "best efforts" market levels. Buy-ins also have a signaling effect, particularly for less liquid securities, with holders of the underlying security temporarily marking-up their offers to capitalize on the fact that there is a "distressed buyer" in the market. It is this difference, between the buy-in price and the market price post buy-in, that the bought-in party will bear when the original transaction is canceled, and they find themselves with a long position that must be sold or at least marked-to-market.[7] When commentators talk about being bought-in as an expensive "experience", this is what they are referring to.

Other standard features of buy-ins include the appointment of a buy-in agent: an independent third party (usually a market maker in the security being bought-in), who is appointed by the non-defaulting buyer to source the securities for guaranteed delivery, execute the buy-in, and sell the securities on to the original buyer. Buy-in agents are often able to charge a spread for their service, which will become part of the overall buy-in cost, and so passed back to the original defaulting seller through the buy-in differential payment process. Recently, however, the ICMA Buy-in Rules, which are the longest established and most widely used buy-in mechanism in the international cross-border fixed income markets, removed the need to appoint a buy-in agent, as it was becoming increasingly difficult to find firms willing to act in this capacity, particularly with markets becoming less liquid and more challenging and riskier to transact in.[8]

A "pass-on" mechanism is another important feature of buy-in frameworks, and is particularly helpful in markets, such as bond markets, where securities are traded frequently between a number of different parties creating settlement chains, and where a single fail by the original seller can lead to multiple fails throughout the chain, ending with the ultimate buyer. Where a party is failing on an onward sale as the result of an inward failing purchase, should they receive a buy-in notification they can pass on the buy-in to the other side of their failing trade. In this way a buy-in can be passed on through an entire chain until it lands on the desk of the original failing party. This mechanism enables a single buy-in to settle an entire chain, avoiding multiple buy-ins and the market instability and extreme volatility that this could cause. Again, differential payments are made throughout the chain (in either direction), ensuring that everybody in the chain is restored to the same economic position they would have been in had the original trade settled. Any other outcome for parties in the chain would seem inequitable at best, and extraordinary at worst.

Importantly, buy-in mechanisms, at least in non-centrally cleared markets, are usually discretionary. As already stated, they are a contractual remedy available to non-defaulting parties to be used at their discretion. This allows the non-defaulting party firstly a degree of tolerance in terms of when their counterparty makes good on their settlement (which can be an important consideration in sourcing liquidity), and

5. "Guaranteed delivery" can be interpreted in many different ways, but it is generally understood to mean that the seller commits to making delivery on the agreed settlement date, and the buyer has the right to cancel the trade and/or pass on any resulting costs in the event of a fail. In most cases the seller will own the securities and be in a position to make good delivery without relying on any contingent transactions (such as having to recall a repo).

6. CSDR also provides for 'cash penalties' in the event of a settlement fail, which add to the economic cost already incurred by failing delivering parties. Cash penalties are considered to be effective in low or negative interest rate environments, when the normal cost of failing is low.

7. Or, in the case of a short sale, restored to flat, with the same economic outcome.

8. See: Circular to members No. 2 of March 2017: Amendments to the ICMA secondary market rules & recommendations related to buy-ins and sell-outs

> **The buy-in mechanism under CSDR is very different to more standard OTC market buy-in processes.**

secondly the ability to optimize the timing of the buy-in. The purpose of a buy-in is simply to ensure delivery of securities (there is normally no economic gain from executing a buy-in), and so it may be important to time the buy-in execution to avoid spates of illiquidity (say over a holiday period) or periods of extreme volatility (when the buy-in process becomes more difficult).

Critically, the discretionary nature of buy-ins also ensures that the pass-on mechanism can work effectively. Transactions in a settlement chain are rarely all for the same settlement date, particularly in bond markets where principal intermediaries regularly hold positions for more than one day before trading out of them. With a discretionary buy-in framework, the respective settlement dates of the individual transactions are relatively irrelevant, since the incentive to issue a buy-in will always lie with the final party in the chain and not with the intermediaries. Thus, it is they that will usually start the buy-in process and determine the buy-in date for the whole chain. If buy-ins have to be executed on or within a mandated number of days of the original fail, this pass-on mechanism no longer works, since there will need to be a separate buy-in related to each original settlement date in the chain. As we will soon see.

It is also worth mentioning that buy-in mechanisms utilised by CCPs tend to work slightly differently to conventional OTC (non-cleared) buy-in mechanisms. Usually, CCP settlement rules will provide for a buy-in to be executed against a failing member fairly quickly, and not necessarily equitably. But this is in the context of managing mutualized risk and usually with respect to highly liquid securities. Also, settlement chains become less relevant, since transactions are netted to the point of a single failing member. So, a very different set of dynamics, risks, and considerations to the world of non-centrally cleared bond markets.

## The CSDR mandatory buy-in framework

The first distinguishing characteristic of the CSDR mandatory buy-in framework is that it is "mandatory". Rather than the buy-in mechanism being a discretionary contractual remedy to help non-defaulting parties manage their settlement risk, CSDR imposes a legal obligation to execute a buy-in. What is more, the original Regulation (referred to as the Level 1) specifies the time period following the intended settlement date (ISD) within which the buy-in process must be initiated and settled. The point at which the mandatory buy-in must be initiated (known as the "extension period") is four business days (which in the RTS is applied to equities classified as "liquid" under MiFIR), but this is increased to seven business days "where a shorter extension period would affect the smooth and orderly function of the financial markets concerned" (in the RTS this is applied to everything else, including all fixed income securities). However, given the design of the CSDR buy-in framework, in many scenarios the optimal time to initiate the buy-in process will be as soon at the trade fails (ISD+1), regardless of any impact this may have "on the smooth and orderly function of the market". But more on that later. Similarly, the regulation requires that the buy-in is executed and settled within similar time frames (four days for liquid equities, and seven days for everything else). Again, in many, if not most, cases, executing sooner would seem to be better.

For reasons already explained, having a mandated period for when the buy-in must be initiated and in which it is completed is not particularly helpful from the perspective of the non-defaulting party, who may have good reasons for wishing to have control over the optimal timing of any buy-in, either to increase the chances of the buy-in being successful, or to ensure that their liquidity providers continue to show them attractive prices (or any prices) in the future.

The second distinguishing characteristic of the CSDR mandatory buy-in framework is an asymmetry in the way the buy-in differential payment is settled between the original parties. Furthermore, this appears to be the result of a drafting error in the original Level 1 Regulation. Article 7 of CSDR, which outlines the mandatory buy-in design, apparently mixes up the direction of payment between the seller and the buyer in the event that the original transaction price is higher than the buy-in execution price. Ordinarily this would be paid by the non-defaulting buyer to the defaulting seller, but the regulation has it going in the opposite direction. As this is a Level 1 matter (and already in law), it cannot be changed (without introducing new legislation), so the pragmatic "solution" was for the European Commission's legal team to work with ESMA to try to find a workaround in the (Level 2) RTS. This was not possible, and the best they could come up with was an equally problematic compromise. According to the Level 2, if the buy-in price is higher than the original transaction price, the payment goes in the right direction (ie from the defaulting seller to the non-defaulting buyer), but in the event that the buy-in price is lower than the original transaction price, the differential "shall be deemed paid". In other words, there is no payment. As we will see, this is critical for how the buy-in mechanism works, the risks borne by all counterparties, the economic outcomes it generates, and the incentives to initiate and execute buy-ins as quickly as possible, as well as the need to initiate multiple buy-ins across transaction chains.

Another controversial and rather unique feature of the original Level 1 buy-in mechanism is that the legal onus to initiate and execute the buy-in process does not necessarily fall on the non-defaulting party (ie the trading level entity), but potentially on the relevant "CSD participant" (ie the non-defaulting party's settlement agent or custodian bank), the relevant trading venue, or the actual CSD itself. When it became clear from the subsequent Level 2 consultation that CSDs are not in a position to initiate or manage buy-ins, that trading venues have no obvious means of knowing which trades have settled or not, let alone execute buy-ins, and that settlement agents and custodian banks would need to start asking for margin to protect against the risks created by the regulation, the RTS were amended to look more like a standard "trading level" buy-in mechanism: with CSDs, trading venues, and participants no longer required to manage the buy-in process, and instead obliged to be part of some complex and unwieldy reporting and monitoring process, as well as incorporating the buy-in requirements into their rules and contractual arrangements.

One more key element of the CSDR buy-in framework that needs to be highlighted is its provision for a mandatory cash compensation settlement, in the event that the buy-in cannot successfully be executed. By way of comparison with other OTC buy-in mechanisms, the ICMA Buy-in Rules allow for the buy-in process to run indefinitely, again at the discretion of the non-defaulting party, although they provide that the parties can negotiate a cash settlement should they wish. Furthermore, the initiator can cancel the buy-in at any time and re-initiate the process at their own discretion. The CSDR mandatory buy-in provisions allow for a second attempt at the buy-in, but then cash compensation is mandatory. As with the buy-in price differential settlement, payment of the reference price differential is also asymmetric to the detriment of the original seller.[9]

Other features worthy of mention are: while CCPs are expected to comply with the buy-in framework, it is not possible to issue a CCP with a buy-in; most securities financing transactions are exempt from buy-ins (ie if they have a term of less than 30 business days); the buy-in process requires the appointment of a buy-in agent (or, potentially, the use of a buy-in auction); and that while there is no specific pass-on process outlined in the RTS, it is not precluded (although, as we will see, a pass-on mechanism does not really work for the CSDR framework). Finally, while CSDR applies to transactions settled on EU regulated (I)CSDs, given the international cross-border nature of many markets it is almost certain to have extraterritorial impacts and complications.

### How to survive in a CSDR mandatory buy-in world?

As becomes clear, the buy-in mechanism under CSDR is very different to more standard OTC market buy-in processes, such as the ICMA Buy-in Rules. What also becomes apparent is that this is likely to have significant impacts on market structure and behaviour, as well as increasing risks for both liquidity providers and investors. With this in mind, below are five helpful "tips" to survive in a world with CSDR mandatory buy-ins.[10]

### Tip 1: only buy for guaranteed delivery

Investors usually buy securities with a view to owning them. While taking physical delivery is desirable, it may be the case that for less liquid securities some degree of tolerance with respect to delayed settlement is necessary, especially if the intention is to obtain the exposure desired and to execute close to fair market value. Investors also buy securities for a particular reason or mandate, targeting a specified maturity and risk profile, and usually with the intention of holding these as long-term investments. Furthermore, they do not necessarily buy securities in isolation, and often it will be a part of a package including other securities, such as IRS, futures, CDS, an FX-swap, or a short position in a similar security.[11]

In the case of a fail, investors may be indifferent to the that fact that they are mandated to initiate a buy-in, so long as the buy-in is successful. If the buy-in is not successful, say because they are forced to initiate the buy-in process at a suboptimal time or in a highly illiquid security, then the buy-in will result in cash compensation, which is far from ideal.[12] As well as having little or no control over the reference price used to settle the differential period (one can only hope that it is close to or higher than where their books are marked),[3] they

9. Cash compensation is based on a reference price (the determination of which being loosely outlined in the RTS), whereby only the price differential is paid between the parties, but the original transaction (and delivery of securities) is effectively cancelled.

10. ICMA would like to emphasise that the "tips" are not recommendations, rather they are intended to illustrate the adverse behavioural incentives arising from the design of the CSDR mandatory buy-in framework.

11. In the case of corporate bonds, for instance, investors are usually interested in the credit spread of underlying investments, rather than the total return (or yield).

12. In the event that the buy-in is unsuccessful, the non-defaulting party has the option to "defer" the buy-in for one more attempt. However, if the second attempt is unsuccessful, cash compensation is mandatory.

13. The reference price for cash compensation is to be determined by: (i) the closing price on the most relevant market in terms of liquidity; (ii) the closing price on the venue with the highest turnover of the relevant security; or (iii) an approved, pre-agreed methodology between the parties.

may also be left having to unwind any related cash, derivative or FX positions, and so paying the bid-ask spread on these, as well as any related "slippage" costs.[14]

The only way to ensure that you receive the securities you are purchasing, and to avoid the risks and inconvenience associated with cash compensation, is to pay up for guaranteed delivery.

### *Tip 2: never sell short*

The efficient functioning of most bond markets relies on market makers and other liquidity providers to stand ready to show offers in securities that they do not hold, and more so in recent years as increased capital costs have made holding trader inventory uneconomic. When market makers sell short in this way, they will look to borrow the securities in the repo or securities lending market,[15] hedge their interest rate and possibly credit risk, and look to trade out of their position at the earliest practical opportunity (which could be hours, days, weeks, or even months later, depending on liquidity). Of course, there is always the risk of a settlement fail (say if the repo market is thin), which exposes the seller to the potential risk of a buy-in. In a mandatory buy-in regime, the chances of being bought-in increase significantly.

As already explained, buy-ins can be expensive, due to the buy-in premium. But due to the asymmetry in the CSDR mechanism for settling the buy-in (or cash compensation) differential, the associated risks and costs are further compounded. Given that the buy-in or cash compensation differential is deemed paid when the buy-in or reference price is below the original transaction price, this is the economic equivalent of any seller of securities writing a free at-the-money put option which becomes active in the event of a buy-in.[16] In effect, the differential between the buy-in price and the original transaction price becomes an additional loss for the failing seller, and a windfall profit for the buyer. The economics of the original trade are not restored, as with conventional buy-ins, but rather they are distorted at the expense of the seller and for the benefit of the buyer. The further the buy-in price is below the original transaction price, the bigger the distortion in favour of the buyer to the detriment of the seller.

For liquidity providers to protect themselves from this risk, the first line of defense is to price-in the asymmetry, and effectively to ensure that any market offer reflects the value of the "CSDR put". However, the most effective way to protect yourself is to never sell anything that you do not hold. And by "hold", that means pre-funded, in your "box", and ready to deliver. For instance, you may want to think carefully before offering out securities that you own but have loaned on repo.[17] Which leads neatly to Tip 3.

### *Tip 3: think twice before lending out securities*

Bond market liquidity is reliant on the ability to recycle holdings through the repo and securities lending markets, which enables market makers and other liquidity providers to support offers in securities that they do not hold. Many buy-side and sell-side firms lend their securities, either directly or through agent lending programmes. This not only generates incremental revenues from their holdings, but it also helps to support market liquidity for these securities.

There is a risk associated with lending securities. In less liquid markets, securities are generally loaned on an open basis, meaning that the holders can recall them at short notice (term markets in credit repo vanished along with the introduction of Basel III capital requirements).[18] This is particularly important when the holder sells a security being loaned, since they will need it back to make good the delivery on their sale. In the event that the securities are not returned on time, they face the risk of being bought in. There are usually provisions under their repo or lending agreements to remedy the failing repo or loan, but contractually these are very different to a buy-in, both in terms of timing and substance. While it may be possible to pass on the cost of a resulting buy-in through the repo or lending termination provisions, it may not, particularly when the buy-in price is very different to the market price. However, in a market where buy-ins are discretionary and relatively seldom, this risk is largely considered to be manageable.

Under the CSDR regime, the risk of lending securities increases exponentially. While most securities financing transactions (SFTs) are directly exempt from mandatory buy-ins (considered a plus from the perspective of general collateral management), this does not help you if you lend out your securities and do not get them back in time to settle a subsequent outright sale. If you are hit with a mandatory buy-in, you are unable to pass this on to your failing repo counterparty and will have to rely on your

14. Slippage costs are those arising from executing at prices away from fair market value. The risk of slippage increases in less liquid markets.

15. In the case of sovereign bonds, Short Selling Regulation requires a 'good' repo locate before dealers can sell short.

16. A put option is an option contract giving the owner the right, but not the obligation, to sell a specified amount of an underlying security at a specified price within a specified time frame. "At the money" means that an option's strike price is identical to the price of the underlying security. In other words, the seller of securities gives the buyer the option (for free), in the event of a fail, to buy the securities at a lower price if market prices fall and make a profit in comparison to the original transaction price.

17. This will not apply to triparty repo transactions, where the bonds being loaned cannot be used to repo on as 'specifics', and are generally considered to be re-callable.

18. See ICMA, 2017, *The European Credit Repo Market: the cornerstone of corporate bond market liquidity*

repo termination provisions. The greater the probability of being bought in, the bigger this risk. Again, the asymmetry in the buy-in payment process significantly compounds your risk.[19]

Given the risks associated with not getting securities back in time to settle any sales, and the fact that revenues from securities lending are relatively incremental, the conclusion is that lending securities in a CSDR mandatory buy-in world becomes much riskier. The close-out provisions in repo and lending agreements could provide some protection, but only to the extent that they are executed immediately and that the replacement securities can be sourced for guaranteed delivery to ensure settlement of the onward cash sale.

### *Tip 4: buy-in immediately – do not wait*

In the non-mandatory buy-in world, buy-ins are relatively seldom. This is largely due to the fact that the vast majority of fails are settled pretty quickly, normally by ISD+2. For reasons already explained, there is very little to be gained from issuing a buy-in immediately, and it is generally more efficient to allow some time for your counterparty to make good on their delivery. However, this general rule becomes more ambiguous in a mandatory buy-in word. Remember, conventional buy-in mechanisms do not seek to change the economics of the original trade or of linked transactions. But the design of the CSDR mandatory buy-in framework, in many circumstances, *will* change the original economics of trades, and so the behavioural incentives of all involved parties.

Think of the buyer who is failed to in a falling market. As the buyer is potentially long a put that is moving deeper into the money (ie it becomes more valuable the further the market price falls), they will no longer want the trade to settle, as they now face a potential windfall from the mandatory buy-in asymmetry. This also means that they will have no incentive to utilize a standard, symmetrical buy-in mechanism, such as the ICMA Rules, and so will wait in the hope that the mandatory buy-in process is triggered at the end of the extension period.[20]

But there is another twist to this anomaly. As described earlier, under standard buy-in mechanisms, parties in failing transaction chains have no incentive to issue a buy-in, since they will simply wait to pass-on any buy-in that comes their way. Hence, one buy-in to settle an entire chain. But not with mandatory buy-ins.

First, as already explained, you may have no choice other than to issue a buy-in if your purchase and sale are for different settlement dates. Under a discretionary buy-in model, the incentive to start the buy-in process will always lie with the receiving counterparty at the end of the chain. And it is they that determines the buy-in execution date for the entire chain, regardless of the different settlement dates of the transactions that make up that chain. If buy-ins have to be executed within a specified time line, this no longer works, and buy-ins will be triggered at each settlement date across the chain.

Second, even if you can isolate settlement chains to those that happen to have the same settlement date for each transaction (however unlikely that this is), the pass-on mechanism, in most cases, still will not work. If you are part of a chain (with a purchase and a sale) that fails, due to the CSDR buy-in asymmetry, if the eventual buy-in price is below your original transaction prices, your trades will effectively be canceled and any profits you generated will be lost; even though you are not the cause of the failing chain. It is the economic equivalent of being short a put-spread.[21]

Therefore, if you are technically flat, with a purchase and a sale, and the purchase fails, alarm bells should start ringing that you run the risk of both trades being canceled and with it any realized profits (or losses) being wiped out. If the current market is close to or below the original transaction prices, this risk increases significantly. The optimal way to protect yourself is to ensure that you can settle your onward sale, and this means not waiting for a pass-on, but instead initiating a buy-in against your failing purchase, and as quickly as possible (ISD+1) to increase the chances of getting the securities you now desperately need.[22] Ideally, you also want to use a market standard, conventional buy-in mechanism that does not have the CSDR asymmetry (such as an ICMA buy-in), for added protection.

Ironically, if you happened to lose money in this intermediation capacity (ie your sale price was lower than your purchase price), then the optimal scenario is not to issue a buy-in, but rather to wait in the hope that the CSDR buy-in at the end of the chain is executed at a lower price, which would mean that your trades, and realized losses, are quite literally wiped out.

So, while it was probably not the intention of the original drafters of CSDR mandatory buy-ins, different parties will have different motivations either to issue conventional buy-ins immediately or to wait for a mandatory buy-in to be triggered. In most cases, parties in a settlement chain will want to issue a conventional buy-in immediately, rather than wait for a pass-on, while the

19. If the market falls and you incur a loss due to the 'CSDR put', it is highly unlikely that this additional market loss can be claimed back through any conventional repo or securities lending termination provision.

20. It is not clear whether the non-defaulting party can initiate the mandatory buy-in within the extension period, but in a falling market their incentive to exploit the free option would lead to earlier execution than the end of the extension period in order to minimize the risk of the original trade settling and therefore not receiving the windfall profits.

21. A (vertical) put spread is an option strategy whereby the risk taker is simultaneously long and short two put options with the same expiry but different strike prices (in the case the strike being the prices at which the intermediary bought and sold).

22. ICMA Buy-ins can be initiated as soon as ISD+1

last non-defaulting party in the chain will want to wait for the mandatory buy-in (particularly in a falling market).

### Tip 5: where possible, avoid settling on EU regulated CSDs (as well as EU trading venues and CCPs)

CSDR applies to all trading parties settling transactions on EU regulated CSDs and ICSDs and, potentially, to all transactions executed on EU trading venues or cleared through EU CCPs, regardless of the CSD jurisdiction.[23] Thus, one way to avoid many of the risks and economic anomalies of its mandatory buy-in regime is, wherever possible, try to settle your trades on non-EU CSDs, as well as avoiding EU trading venues and CCPs that incorporate the CSDR buy-in mechanism in their rules. For global bonds it seems inevitable that a two-tiered market will evolve, depending on where trades are settled (EU and non-EU), with liquidity and better pricing being heavily skewed in favour of non-EU settlement systems and trading venues. Intermediaries operating across both EU and non-EU CSDs will face significant additional risk as result of the asymmetric differential payment mechanism under CSDR, particularly where they are settling sales on EU (I)CSDs.

One mooted solution is for entities that operate across both EU and non-EU CSDs, in particular liquidity providers, to try to mitigate the risks arising from the CSDR mandatory buy-in regime by asking their non-EU counterparties to sign contracts that effectively externalize the CSDR buy-in framework. But this is not straight forward. It seems highly unlikely that a non-EU entity settling their trades outside of the EU would want, or possibly even be able, to sign-up to a buy-in framework with an asymmetric process for differential payments or that resulted in an automatic cash compensation outcome.

Thus, entrenched fragmentation between EU and non-EU capital markets would seem to be another likely outcome of the CSDR mandatory buy-in regime; something that both EU and non-EU issuers with access to global capital markets will also want to consider.

### Conclusion

The design of CSDR mandatory buy-ins, from its mandatory nature, to its asymmetric differential payment, to the enforced cash compensation remedy, creates a variety of largely unanticipated outcomes, incentives and behaviours that are likely to have a profound impact on European securities markets, in particular for less liquid markets such as corporate bonds, SME securities, and emerging markets. In a worst-case scenario, it could lead to multiple buy-ins being executed at the first sign of a fail, creating extreme market volatility and increased instability.

The tactical solution seems to be the prompt use of market-based buy-in mechanisms, such as the ICMA Buy-in Rules,[24] initiated and executed within the CSDR extension period, so avoiding the additional risks and economic uncertainties of a mandatory buy-in. Similarly, buy-ins related to repo and securities lending fails could in theory be avoided with the swift execution of existing contractual close-out provisions (assuming that the securities can still be sourced). This at least could help resolve some of the issues and anomalies arising from the CSDR asymmetry, and may even help with extraterritorial harmonization in the case of globally recognized and utilized contractual remedies.[25] But even while this would be helpful, it will still not tackle the more intrinsic challenges created by the CSDR mandatory buy-in regime. For example, settling chains with a single buy-in will be challenging, particularly where there is an incentive for the non-defaulting party at the end of the chain to wait for the mandatory buy-in process to be triggered.

Without addressing the more fundamental problems in the Level 1 (including the mandatory requirement itself), the likely outcome will be that liquidity providers in both the cash and repo markets will reprice for the additional risk in more liquid securities and withdraw liquidity altogether for less liquid markets.[26] In other words, a transition to a guaranteed delivery, essentially "long-only" market, except for the most liquid instruments. The impacts that this will have for secondary market liquidity and efficiency should also be viewed in terms of the broader economic consequences, not only for investors, who will face greater risks and higher costs, but also for issuers, in particular corporates, SMEs, and smaller sovereign nations, who could face higher funding costs in the primary market as a result of diminished secondary market liquidity.

Perhaps now is a good time for policy makers and regulators to reconsider the consequences of CSDR mandatory buy-ins, assess the potential costs and risks to market participants, and ask themselves if this is consistent with the objective of efficient, resilient financial markets. Settlement efficiency is important, but the CSDR mandatory buy-in framework is not the answer.

**Contact: Andy Hill**
andy.hill@icmagroup.org

23. See footnote 4

24. It seems likely that the ICMA Rules will need to be modified ahead of September 2020 with this in mind.

25. It is highly unlikely, for instance, that non-EU entities will feel comfortable agreeing to asymmetric buy-ins, or the consequential losses arising from these, being passed on from their EU counterparties.

26. This was largely borne out by the results of ICMA's impact study on the CSDR mandatory buy-ins for fixed income markets, conducted in 2015.

# 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 *Brexit cliff-edge risks:* On 22 June, ICMA published an open letter to senior political leaders in the EU27 and the UK on *Brexit: Cliff-Edge Risks in International Capital Markets.*

## Primary markets

2 *Public sector issuers:* The Public Sector Issuer Forum met at the EBRD in London on 18 June, with participation from the Bank of England and the FCA, to discuss international benchmark reform and the transition from IBORs to risk-free rates; and sovereign bond-backed securities.

3 *Transition from IBORs to risk-free rates:* ICMA's work on the transition from IBORs to risk-free rates is summarised in the Quarterly Assessment above.

4 *MiFID II/R implementation in primary markets:* Taking account of the implementation of MiFID II/R and PRIIPs at the beginning of 2018, ICMA has continued to discuss with the ICMA Primary Market Practices Committee and Legal & Documentation Committee the implications for the primary markets of the MiFID II/R regime for product governance, justification for allocations, inducements, and the PRIIPs regime.

5 *Prospectus Regulation:* The ICMA Prospectus Regulation Working Group has discussed ESMA's Technical Advice to the European Commission on Level 2 measures, and ICMA has contacted both the Commission and ESMA to note some concerns for the bond market.

6 *Private placements:* ICMA held a webinar for ABNR Counsellors at Law (Indonesia) on 25 April on private placements, and presented to the Belgian Association of Corporate Treasurers on 26 April on private placements as a source of funding.

7 *Electronification in primary markets:* An ICMA roundtable, bringing together investors, issuers, syndicates, law and technology firms, was held on 8 May to discuss trends and developments from a technology and innovation perspective, and identify the direction of travel in fixed income primary markets.

## Secondary markets

8 *MiFID II/R regional workshops:* Following a series of ICMA workshops in the autumn of 2017 on the implications of MiFID II/R for fixed income trading, ICMA has held post-implementation workshops in London and Vienna, Hong Kong and Singapore. Further workshops are planned.

9 *ICMA SMR&R:* ICMA is consulting members on the impact of MiFID II/R and other proposed new EU regulations on the ICMA Secondary Market Rules & Recommendations (SMR&R). Following the meeting of the ICMA Secondary Market Practices Committee on 3 May, ICMA has established a dedicated working group to review the ICMA SMR&R.

10 *Electronic Trading Council:* The Electronic Trading Working Group and Platform Working Group have been combined to form the Electronic Trading Council (ETC), a technical working group under the umbrella of the ICMA Secondary Market Practices Committee. The inaugural meeting was held on 18 April. The ETC focuses on electronic trading and the role of technology in the evolving structure of fixed income secondary markets.

11 *CSDR-SD:* In the expectation that the proposed RTS for CSDR Settlement Discipline (including mandatory buy-ins) will be accepted by the co-legislators in the coming months, the SMPC intends to establish a dedicated working group focused on implementation and advocacy issues related to CSDR-SD. ICMA participated in a trade association meeting with ESMA on 5 June on the CSDR.

12 *Asian corporate bond liquidity study:* ICMA has been researching the state and evolution of the Asian corporate bond markets, as an extension of its work on the European markets. A separate report is due to be published soon.

13 *Electronic trading platform (ETP) mapping directory:* In light of the evolving market structure resulting from MiFID II/R, ICMA has reviewed and updated the ETP mapping directory, which includes new types of trading venues such as Organised Trading Facilities, but also information networks and order management systems.

## Repo and collateral markets

14 *Basel III:* The ICMA European Repo and Collateral Council (ERCC) responded on 12 April to the European Commission's exploratory consultation on the finalisation of Basel III. The response flags the importance of European repo and collateral markets and evidences the stresses they are facing; and it accordingly then highlights that great care should be taken to fully assess the way in which further measures, particularly regarding haircuts, are calibrated.

15 *PTRRS:* Together with ISDA, the EBF and ISLA, on 10 April, ICMA published a white paper on the benefits of post-trade risk reduction services (PTRRS) as a crucial risk management tool.

16 *Legal opinions:* The 2018 updates to the ICMA GMRA legal opinions which support the Global Master Repurchase Agreement (GMRA), were published on 11 April. The 2018 opinions cover the use of the GMRA in over 60 jurisdictions worldwide. This considerable body of legal work is made available to ICMA members as a part of their membership of the Association. As announced on 20 March, ICMA will be discontinuing coverage of the GMRA 1995 in the ICMA GMRA legal opinions from 2019 onwards.

17 *ERCC Committee meetings:* In addition to regularly scheduled meetings, the ICMA ERCC Committee held a meeting with the ISLA Board, on 15 May, and with the IMF, on 21 May.

18 *SFTR implementation:* ICMA is continuing to help members to implement the EU Securities Financing Transaction Regulation (SFTR), through the ERCC SFTR Task Force.

19 *TARGET2-Securities:* On 4 May, ERCC sent a private letter to the ECB to provide comments in the context of the ongoing T2S pricing review.

20 *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 and the related workstreams.

21 *FinTech mapping:* ICMA's FinTech mapping directory, which includes more than 100 technology solutions for repo and cash bond operations, is being kept up-to-date on the ICMA website.

## Asset management

22 *Covered bond legislation:* The ICMA Asset Management and Investors Council (AMIC) Covered Bonds Investor Council (CBIC) approved a position on the recently released EU legislation on European covered bonds. The CBIC welcomed the legislative initiative but warned that in some places the text risks lowering the high standards that investors have come to expect in covered bonds. The CBIC position paper develops some of the areas, such as eligible assets or extendable maturities, where investors would like to see more clarity and stricter criteria to ensure investor protection is upheld.

23 *STS Securitisation:* The European Commission finally issued a proposal to amend the Solvency II Delegated Act with regard to capital calibrations for STS securitisation. The AMIC Securitisation Working Group considers Solvency II reform crucial to the success of STS securitisation. ICMA has co-signed a letter with AFME and other European trade associations calling for more ambitious Solvency II reform, which was published on 6 June.

24 *Fund delegation:* The AMIC Executive Committee has approved the launch of a stand-alone AMIC position paper on fund delegation to emphasise the importance of the current fund delegation model to the European asset management industry.

25 *Fund liquidity:* The European Systemic Risk Board published a recommendation on liquidity and leverage risks in investment funds on 14 February. The AMIC Fund Liquidity Working Group has assessed the paper and prepared an internal analysis. The recommendation is sufficient cause for concern to justify an AMIC paper with regard to the on-going review of the ESRB to ensure a greater role for securities regulators and consultation with industry.

## Green, social and sustainable bond markets

26 *European Commission Action Plan on Sustainable Finance:* The Commission's Action Plan, published on 8 March, follows many of the High Level Expert Group's recommendations, including an EU Green Bond Standard and a Sustainability Taxonomy, as well as greater emphasis on sustainability as part of investor duties.

27 *European Commission Technical Expert Group on Sustainable Finance:* Nicholas Pfaff has been appointed to represent ICMA on the European Commission Technical Expert Group on Sustainable Finance, supported by the GBP Executive Committee.

28 *France's Green Evaluation Council:* ICMA has been nominated as an observer on the Evaluation Council of France's green sovereign bond and is represented by Nicholas Pfaff. The Evaluation Council will define the specifications and schedule for evaluation reports on the environmental impact of France's green sovereign bond.

## Other meetings with central banks and regulators

29 *ICMA Regulatory Policy Committee:* Verena Ross, Executive Director of ESMA, joined the ICMA Regulatory Policy Committee in Paris on 15 June for a discussion on regulatory developments.

30 *Presentation to the FCA on bond markets:* On behalf of ICMA, Ruari Ewing, Charlotte Bellamy and Andy Hill gave a presentation to FCA officials on 20 June on international bond markets.

31 *Official groups:* ICMA continues to be represented, through Martin Scheck, on the ECB Bond Market Contact Group; through René Karsenti, on the ESMA Securities and Markets Stakeholder Group; through Godfried De Vidts on the ECB Macroprudential Policies and Financial Stability Contact Group, and on the Consultative Working Group to ESMA's Secondary Markets Standing Committee, and through Charlotte Bellamy on the Consultative Working Group on ESMA's Corporate Finance Committee.

32 An updated draft of the *ICMA Regulatory Grid* has been posted on a password-protected webpage on the ICMA website.

# Primary Markets

*by Ruari Ewing and Charlotte Bellamy*

## Prospectus Regulation

The Prospectus Regulation is due to enter into full application on 21 July 2019. This means that work on developing Level 2 provisions is in full swing. Significantly, ESMA issued its *Final Report on Technical Advice under the Prospectus Regulation* at the end of March 2018. Among other things, the Final Report included the outcome of ESMA's consultations on *Format and Content of the Prospectus* and *Scrutiny and Approval of the Prospectus* to which ICMA had previously responded in September 2017.

The Final Report is 502 pages long and helpfully sets out detailed feedback on the responses that ESMA received to its public consultation. ICMA reviewed the Final Report with members and noted that many of the detailed disclosure requirements at Level 2 seem relatively unchanged from the current Prospectus Directive regime. Whilst it may be argued that perhaps not enough has been done to make the most of the new tailored disclosure test at Level 1, the fact that things seem relatively unchanged is likely to be helpful to market participants as it will reduce friction when the Prospectus Regulation enters into application next summer, and it reflects the general acceptance by market participants that the current Prospectus Directive regime works well in practice. However, inevitably adjustments will be required to address the amendments that have been made and there are a few surprising suggestions in the Final Report, detailed below. ICMA had the opportunity to discuss these points informally with ESMA and the Commission after the Final Report was published, which was welcome.

- *Cover notes:* ESMA suggests that a prospectus cover note will not be mandatory but, where one is included in the prospectus, its length will be limited to three sides of A4. As nearly all bond prospectuses have a cover note of some description, it is expected that potentially the new length limit would be applicable to nearly all bond prospectuses. For many bond issuers, this might mean restructuring their prospectus cover notes to include only the most important information and information that is required by law to be disclosed prominently. The basis for ESMA's suggested length limit is unclear, as there is no reference to prospectus cover notes in the Level 1 text. In addition, ICMA is not aware of any investor concerns on the length or format of current cover notes. It will be interesting to see if this suggestion is taken forward in the final Level 2 delegated acts.
- *PRIIPs KIDs and prospectuses:* ESMA's view is that where a PRIIPs KID is used as part of the prospectus summary, the information in the PRIIPs KID must also be disclosed elsewhere in the prospectus. The rationale for this is that the prospectus summary must summarise information that is included elsewhere in the prospectus. While there is some logic to this, ESMA's approach might lead to unexpected results in practice. For example, as noted in the 2018 Q2 edition of this Quarterly Report, the FCA acknowledged in a *Statement on Communications in relation to PRIIPs* that certain aspects of a KID could be misleading, noting: "Where firms selling or advising on PRIIPs have concerns that the performance scenarios in a particular KID may mislead their clients, they should consider how to address this, for example by providing additional explanation as part of their communications with clients." Might the mandatory inclusion of information from KIDs in a prospectus compound any concerns surrounding information in KIDs being misleading?
- *Tax disclosure:* A useful element of the new Prospectus Regulation is Recital 47, which states: " … a prospectus should only contain a warning that the tax laws of the investor's Member State and of the issuer's Member State of incorporation might have an impact on the income received from the securities. …" This should result in simpler tax disclosure in practice. However, ESMA notes that it feels unable to depart from the reference to the issuer's and investor's "Member State" in its Final Report. This means that the associated disclosure requirement in the draft delegated acts refers to the "tax legislation of the investor's *Member State* and of the issuer's *Member State* of

incorporation…" (emphasis added). This seems potentially problematic for third country issuers and/or where investors are based in a third country. If this formulation of words is carried through to the final Level 2 delegated acts, it will be important that this disclosure requirement is not interpreted rigidly by NCAs, so that issuers can refer to their country of incorporation and/or investors in a third country in order to avoid incorrect and confusing disclosure where the issuer and/or investors are located in one or more third countries.

- *Secondary issuance requirements:* In its response to the ESMA consultation on the format and content of the prospectus, ICMA made a number of comments on the proposed disclosure annex for secondary issuance. These comments were intended to be technical in nature and designed to ensure that the disclosure requirements for the alleviated secondary issuance regime were consistent with, and not more onerous than, the disclosure requirements in the primary debt disclosure annexes. Several of these points were not taken into account, although there does not seem to be a policy reason for this. It is hoped that the Commission will rectify this position in the final delegated acts, to ensure that debt issuers have the chance to benefit from the secondary issuance regime.
- *Definitions:* ESMA decided not to define certain terms that are used in the draft delegated acts, for example the term "wholesale debt". The rationale for this is ESMA's understanding that it cannot clarify a term used in Level 1. This means that where a term, or a similar term (eg "wholesale market for non-equity securities"), is used in Level 1, ESMA considers that it cannot provide a definition at Level 2. It is hoped that the circumstances in which the "wholesale debt" disclosure annexes apply will be clear once all the provisions of the delegated acts are published. Presumably, this will be where non-equity securities have a minimum denomination of €100,000 or are admitted to trading on a regulated market, or a specific segment thereof, to which only qualified investors have access.

In terms of next steps, the Commission is currently considering ESMA's Final Report and is due to adopt delegated acts by 21 January 2019. ICMA understands that drafts of the delegated acts will be made available publicly as part of the Commission's Better Regulation approach and will be open for comment for four weeks. It is expected that this will happen in autumn 2018.

Otherwise, we are expecting:

- ESMA to publish its final position on RTS for certain areas of the Prospectus Regulation (key financial information for the prospectus summary, data and machine readability of prospectuses, advertisements, prospectus supplements and prospectus publication) towards the end of July 2018 (see the 2018 Q2 edition of this Quarterly Report for a summary of ICMA's response to the ESMA consultation on these points);
- ESMA to publish a consultation paper on guidelines on risk factors in mid-July 2018, with the consultation running until early October 2018 and the guidelines to be published in March 2019 (this stems from the new requirements relating to risk factors in Article 16 of the Prospectus Regulation);
- ESMA to begin working on equivalence criteria for prospectuses drawn up under the laws of third countries (the precise timing for this is currently unclear); and
- ESMA to begin work on Level 3 measures under the Prospectus Regulation, for example to update the *Q&A on Prospectuses*.

Separately, the *European Commission Action Plan on Financing Sustainable Growth* published in March 2018 states: "Within the framework of the Prospectus Regulation, the Commission will specify by Q2 2019 the content of the prospectus for green bond issuances to provide potential investors with additional information." ICMA intends to monitor developments on this point. It is hoped that the Commission will not specify overly prescriptive requirements that could raise potential liability concerns for issuers and/or unnecessarily hinder issuance of green and other sustainable bonds.

**Contact: Charlotte Bellamy**
charlotte.bellamy@icmagroup.org

## PRIIPs and MiFID II product governance: ICMA papers

Since the beginning of the year, various ICMA members have reportedly been using the ICMA1 ("all bonds"/"professionals only") and ICMA2 ("simple listed bonds"/"general retail") draft approaches to the PRIIPs and MiFID II product governance (PG) regimes. These were outlined in the 2017 Q4 and 2018 Q1 editions of this Quarterly Report, respectively.

The ICMA1 and ICMA2 draft approaches and a related programme paper have now been published on the ICMA MiFID II/R in primary markets webpage.

ICMA staff are considering related updates to the ICMA Primary Market Handbook.

**Contacts: Ruari Ewing and Charlotte Bellamy**
ruari.ewing@icmagroup.org
charlotte.bellamy@icmagroup.org

**The EBA has developed interpretation of all STS criteria applicable to ABCP securitisation.**

## FEMR Progress Report

In May, the Chancellor of the Exchequer, the Governor of the Bank of England and the Chair of the Financial Conduct Authority published a *Progress Report* on the Fair and Effective Markets Review.

Among other things, the Progress Report states: "The Bank and FCA have set up a joint initiative to identify and review potential private sector co-ordination failures and a new team has been active in detailing and identifying actions needed to help catalyse market-led reform. [...] For example, the team has explored vulnerabilities in pricing and risk management practices in primary bond markets including potential conflicts of interest and limited transparency." There is no mention of any conclusion so far.

The *Progress Report* also states: "More broadly, the FCA is looking at [...] managing conflicts of interest in primary bond markets". This is interesting, since:

- the June 2015 *FEMR Final Report* stated: "The transparency of the corporate bond allocation process will be assessed as part of the FCA's market study of investment and corporate banking"; and then
- the FCA's October 2016 *ICB Market Study Final Report* (i) focused on four specific aspects (contractual ties, league tables, IPO allocations and IPO prospectus timing) that do not relate exclusively to new bond issues and (ii) stated (as flagged in the First Quarter 2017 edition of this Quarterly Report) that in the preceding interim report the FCA "said that we had not identified concerns about the other market practices and issues we investigated [ie beyond the four specific aspects above] and therefore we did not intend to pursue these issues further at this stage" (certain allegations in the FCA's earlier interim report were not publicly substantiated, as flagged in the Third Quarter 2016 edition of this Quarterly Report).

ICMA will continue to review any developments in this area.

**Contact: Ruari Ewing**
ruari.ewing@icmagroup.org

## Asset-Backed Commercial Paper (ABCP)

On 17 April 2018, the European Commission published its formal proposal to amend the Solvency II Delegated Act with regard to simple, transparent and standardised (STS) securitisation, inviting comments by 15 May. According to the proposal, the changes would come into force at the same time as the STS Regulation has to be applied, (ie 1 January 2019).

In brief, the proposal:

- deletes Article 177 of the Delegated Act (which previously described Type 1 securitisations) and refers to STS securitisations instead in the STS Securitisation Regulation;
- introduces new capital solvency requirements for STS securitisations by replacing the existing Article 178 with a new article with new calculations; and
- introduces grandfathering provisions for assets held under the existing Type 1 calculations.

On 20 April, the EBA launched a public consultation, for comment by 20 July, on its draft Guidelines, which will provide a harmonised interpretation of the criteria for securitisation to be eligible as STS. These EBA Guidelines, developed for both non-ABCP and ABCP securitisation, aim to clarify and ensure common understanding of all the STS criteria, including those related to the expertise of the originator and servicer, the underwriting of standards, exposures in default and credit impaired debtors, and predominant reliance on the sale of assets. They will be applied on a cross-sectoral basis throughout the EU with the aim of facilitating the adoption of the STS criteria, which is one of prerequisites for the application of a more risk-sensitive regulatory treatment under the new EU securitisation framework.

In accordance with its mandate, the EBA has developed interpretation of all STS criteria applicable to ABCP securitisation, while focusing on clarifying the main areas of unclarity and ambiguity embedded in each criterion. The interpretations follow the principle of proportionality, ie the comprehensiveness of the interpretation is reflective of the perceived level of ambiguity or uncertainty embedded in each STS requirement. A related public hearing was held, on the afternoon of 11 June, at the EBA's offices at One Canada Square, Canary Wharf, London.

On 4 May, the ESAs launched two joint consultations, for comment by 15 June, to amend RTS on the clearing obligation and risk mitigation techniques for OTC derivatives not cleared by CCPs. These aim to amend the current Regulation in order to provide a specific treatment for STS securitisation and ensure a level playing field with covered bonds.

The consultation on the draft RTS on the clearing obligation seeks to clarify which arrangements under covered bonds or securitisations adequately mitigate counterparty risk and thus may benefit from an exemption from the clearing obligation.

And, the consultation on the draft RTS on risk mitigation techniques aims at extending the type of special treatment currently associated with covered bonds to STS securitisations – the proposed treatment, ie no exchange of initial margins and collection only of variation margins, is applicable only where an STS securitisation structure meets a specific set of conditions equivalent to the ones required to covered bonds issuers to be able to benefit of that same treatment.

On 14 May, the BCBS and IOSCO issued the *Criteria for Identifying Simple, Transparent and Comparable Short-Term Securitisations* (the short-term STC criteria). These aim to assist the financial industry in its development of STC securitisations and build on the principles in the criteria for identifying STC securitisations issued by BCBS-IOSCO in July 2015. The short-term STC criteria take account of the characteristics of ABCP conduits, such as (i) the short maturity of the CP issued, (ii) the different forms of programme structures and (iii) the existence of multiple forms of liquidity and credit support facilities.

They incorporate feedback collected during the public consultation conducted in July 2017, with changes made including clarification that the criteria do not automatically exclude equipment leases and auto loan and lease securitisations from the short-term STC framework. Similar to the STC criteria for term securitisations, the short-term STC criteria are non-exhaustive and non-binding.

Concurrently, the BCBS issued the *Capital Treatment for STC Short-Term Securitisations*, which sets out additional guidance and requirements for the purpose of applying preferential regulatory capital treatment for banks acting as investors in or as sponsors of STC short-term securitisations, typically in ABCP structures. The additional guidance and requirements in this standard are consistent with those for STC term securitisations set out in the BCBS's July 2016 revisions to the securitisation framework.

Provided that the expanded set of STC short-term criteria are met, STC short-term securitisations will receive the same modest reduction in capital requirements as other STC term securitisations. The standard incorporates feedback collected during the public consultation conducted in July 2017, with changes made including setting the minimum performance history for non-retail and retail exposures at five years and three years, respectively, and clarifying that the provision of credit and liquidity support to the ABCP structure can be performed by more than one entity, subject to certain conditions.

The short-term STC framework takes effect immediately although, similar to the STC framework for term securitisations, implementation of the STC short-term framework is not mandatory. Jurisdictions which consider that implementation costs exceed potential benefits retain the option not to implement the STC framework.

In a letter, published on 6 June, ICMA joined several other leading European trade associations in writing to the European Commission to express support for the recently agreed STS securitisation framework in Europe. However, the signatories stress that for STS securitisation to be successful it is critical that other pieces of EU legislation are calibrated appropriately to create the right conditions and incentives to support and encourage securitisation.

The last two paragraphs (in the middle of page 3) of the segment of this finalised letter relating to Solvency II specifically concern the treatment of ABCP; and the final paragraph (in the upper part of page 4) of the segment of the letter regarding the liquidity coverage ratio is about the treatment of fully supported ABCP programmes.

Circulated on 6 June, AFME's *First Quarter 2018 Securitisation Data Report* shows that European ABCP issuance was €68.2 billion in the first quarter of 2018. This is a decrease of 9.1% versus the prior quarter and a decline of 17.1% versus the same quarter in the prior year. Multi-seller conduits (97.4% of total), particularly from France (82.3% of total), continue to dominate as the largest issuance category in the ABCP market.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

# Electronification in primary bond markets

*by Gabriel Callsen*

Primary bond markets fulfil a vital function for the real economy, allowing borrowers to obtain funding and investors to generate returns. Whilst the uptake of technology in investment grade (IG) primary bond markets remains limited in comparison to secondary or repo and collateral markets, it is arguably an area which offers potential for further electronification. This is reflected by a growing number of FinTech initiatives in relation to the IG bond issuance process and life cycle, whether leveraging existing technology or early experiments building on distributed ledger technology (DLT). As a result of discussions with investors, issuers, bank syndicates, law and technology firms, this article seeks to summarise trends in primary markets from a technology and innovation perspective and identify the direction of travel.

## *Investors' perspectives*

From investors' perspectives, it is essential that technological solutions in primary bond markets increase efficiencies and deliver straight-through-processing (STP). For example, from communicating with syndicates throughout the book building process; to providing feedback before deal completion; to exchanging information on and disclosing final pricing. Process electronification would thus enable a reduction in manual input and operational risk, notably for deals involving multiple syndicate desks.

However, the issuance process remains complex, and reducing this complexity would be welcome, for instance by standardising term sheets and deal documentation, enhancing access to prospectuses, and improving the allocation process and standardising timeframes for communication. This is particularly important for investors with global operations and diverging regional market practices. To enable greater technology uptake, an open-source infrastructure utility would be desirable to allow connectivity to multiple technology providers and across multiple asset classes.

## *Issuers' perspectives*

Efficiency considerations, STP and the benefits of an infrastructure utility are shared by issuers. From their perspective, the bond issuance process remains an equally manual and time-consuming process. This is partly due to legal and regulatory requirements, for instance in terms of required documentation for bearer notes, anti-money laundering rules, or policing requirements under MiFID II.

Technology has the potential to streamline both pre-book and book-building processes, improve pricing efficiency, and create greater transparency. Clearing and settlement, as well as liability management processes also lend themselves to greater electronification. In the same vein, direct connectivity and communication between issuers and investors would lead to greater efficiencies. However, there are currently no common industry standards for electronic book building, which would be helpful for the uptake of technology.

## *Syndicates' perspectives*

Bank syndicates are supportive of electronification and STP, which is critical to speed up the execution of bond issuances, for example by entering orders electronically, enhancing the flow of information, and allocating internal resources more efficiently. However, faster execution may not necessarily help investors in regard to cash management and underlying client interaction.

Standardisation of term sheets and timeframes is possible to some degree, but market practices diverge depending on the currency, issuer and regional specificities. Understanding how primary and secondary markets interact, and how to create synergies in terms of connectivity is important. Nonetheless, from an organisational perspective, it is worth bearing in mind that many banks are siloed across products, while investors often have a single desk both for primary and secondary bond markets.

Furthermore, costs are an important consideration, even more so in view of costly IT requirements for regulatory compliance under MiFID II or the upcoming SFTR reporting regime. While there is clear potential for process electronification in IG primary bond markets, it is also a matter of perspective. In comparison to high yield or loan markets where processes are more cumbersome and settlement cycles longer (eg T+14), efficiency in IG primary bond market is markedly higher.

### *Lessons learned from electronification in secondary markets*

In secondary bond markets, electronification gained traction as a result of banks' shrinking profit margins, reduced balance sheets, and liquidity concerns. What has been pivotal in this process is the standardisation of trading protocols such as the Request-for-Quote (RFQ) protocol and price discovery mechanisms ie the dissemination of bond inventories.

Similarly, the development of rules and common standards would be critical to facilitate electronification of IG primary bond markets. Also, primary markets may follow the trend towards differentiation between high touch (eg for illiquid, large sizes) and low touch business (eg liquid, small sizes) and automation of the latter.

### *Views from law and technology firms*

Technology itself is not the catalyst of evolution, but remains market-driven. To facilitate innovation in primary bond markets, rules, common standards and integration with existing systems are key. For example, minimum common standards for data protocols allowing data exchange in an open-source network; and integration of clearing and settlement functions on platforms into existing systems. The development of Legal Mark-up Language (LML), an open source standard to help translate legal documents into machine readable format, has allowed coupling of legal contracts and transaction execution.

In recent months, a number of proofs of concept for the issuance of bonds based on DLT have been developed. While there is a degree of uncertainty with regard to the regulatory treatment of public blockchains, DLT and digital assets, the adoption and roll-out of DLT is a slow and difficult process. That being said, the appropriate choice of technology depends on the problem to be solved, and in many cases, it is not necessarily DLT.

Importantly, technology may alter the role of intermediaries but there is a common view that banks will not be disintermediated. That is because banks perform regulated activities and play a key function by providing balance sheet, undertaking risk transformation, ensuring compliance for Know-Your-Customer (KYC) or Anti-Money-Laundering (AML) purposes, and acting as an intermediary and trusted party.

Furthermore, the legal and regulatory framework is not specifically adapted to new technologies, and any technological innovation in bond issuances has to be accommodated within the existing framework. At the same time, regulation such as MiFID II has created binary choices, which in some cases provides greater clarity and can be more conducive to the development of tailored electronic solutions.

From a cost perspective, a limiting factor is that most platforms rely on fees from the sell-side while issuers and investors tend to have free access. Wider adoption of technology solutions would therefore require further engagement from the latter, which might notably be challenging for smaller firms. A one-stop, cross-asset infrastructure utility would be more palatable from a budgetary point of view than separate services.

### *Conclusion*

In IG primary bond markets, a common theme of the discussion on technology with investors, issuers, bank syndicates, law and technology firms is the creation of greater efficiencies. Process electronification and STP are key, notably for firms that operate across different markets and currencies. However, the challenge lies in striking a balance between process standardisation on the one hand, and flexibility on the other, according to funding needs, cash management requirements as well as local market practices.

From a technology perspective, minimum common standards for communication, data exchange, and end-to-end connectivity are critical to reduce operational risk and eliminate inefficiencies. From a legal perspective, the standardisation of legal contracts and the development of LML has facilitated the adoption of technology in the bond issuance process. However, the cost model of technology solutions has implications for its uptake and sharing the cost more equally with all involved parties would facilitate wider adoption.

Finally, a scalable infrastructure utility, based on open-source standards allowing for connectivity to multiple technology providers across asset classes is strongly preferred to a monopolistic, commercial infrastructure. There is a common view that, whilst technology may alter the role of intermediaries, the functions fulfilled by banks are and will remain crucial for IG primary bond markets.

**Contact: Gabriel Callsen**
gabriel.callsen@icmagroup.org

# Secondary Markets



*by Andy Hill, Elizabeth Callaghan and Gabriel Callsen*

## The ECB's Corporate Sector Purchase Programme

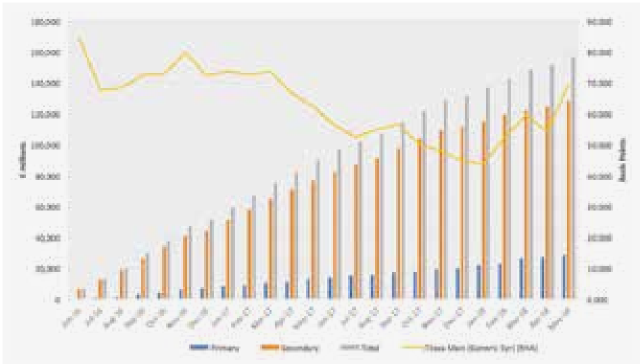
Following its meeting on 14 June 2018, the ECB's Governing Council announced that it will reduce its purchases under the Asset Purchase Programme (APP) from €30 billion per month to €15 billion per month from October, and cease purchases at the end of December, subject to future economic data. The ECB also updated its forward guidance on official interest rates, stating that these would remain at their present levels at least through to summer of 2019, and potentially longer, depending on its inflation outlook. The ECB provided no update on APP reinvestments. It would seem likely that the ECB will reduce its corporate bond purchases under the Corporate Sector Purchase Programme (CSPP) from around €5 billion to €2.5 billion per month, not including reinvestments.

On balance the announcement was seen as dovish, and the initial market reaction was positive, with government bond yields moving lower, the yield curve flattening, and credit spreads tightening.

As at the end of May, the book value of bonds purchased under the CSPP stood at just short of €157 billion, which is around 21% of the eligible universe of bonds under the programme.

The chart below shows the cumulative monthly primary and secondary market purchases as at the end of May 2018 book value) along with the corresponding month-end closes of the iTraxx Main 5-year index.

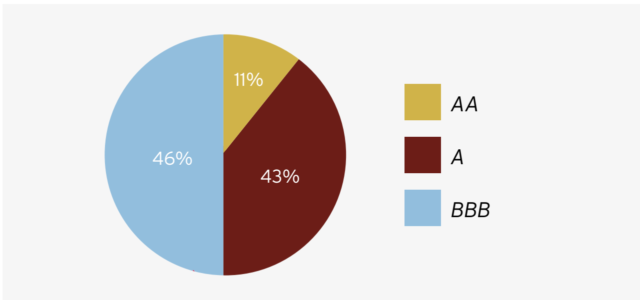
### CSPP Cumulative Purchases and iTraxx Main



*Source: ICMA analysis using ECB and Bloomberg/Markit data*

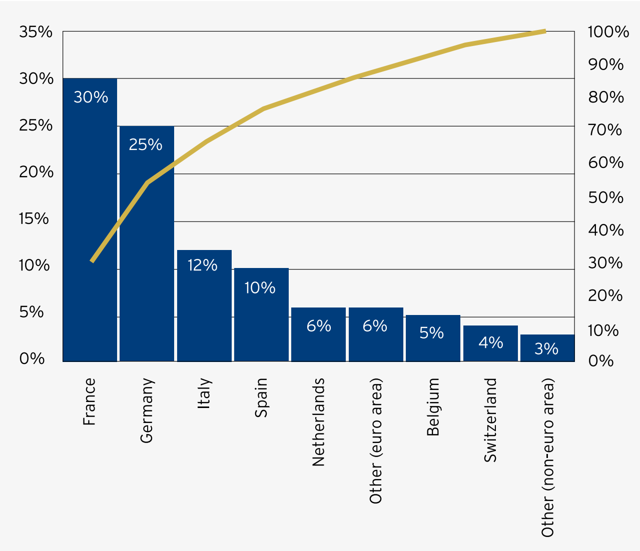
The charts below show the composition of the ECB's CSPP holdings as at the end of Q1 2018 by credit rating, country of risk, and sector.

### CSPP holding by credit rating Q1 2018



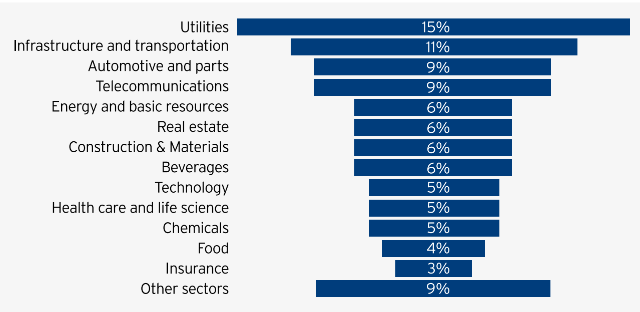

*Source: ICMA analysis using ECB data*

### CSPP Country of Risk Distribution Q1 2018




*Source: ICMA analysis using ECB data*

### CSPP Sector Distribution Q1 2018




*Source: ICMA analysis using ECB data*

**Contact: Andy Hill**
andy.hill@icmagroup.org

**It would seem likely that the ECB will reduce its corporate bond purchases under the Corporate Sector Purchase Programme from around €5 billion to €2.5 billion per month.**

## Review of ICMA Secondary Market Rules & Recommendations

ICMA has created a Working Group under the umbrella of the Secondary Market Practices Committee (SMPC) focused on reviewing the ICMA Secondary Market Rules & Recommendations in light of new regulation (including MiFID II/R and CSDR), evolving market structure, and market best practice. The SMR&R Working Group looks to make revisions, or propose new rules, where appropriate. This covers all aspects of the ICMA Rules, including the Buy-in Rules. Members are primarily sell-side and buy-side fixed income traders, as well as operations experts and interested legal, compliance, and regulatory policy representatives.

Members interested in participating in, or learning more about, the Working Group should contact Andy Hill at ICMA.

**Contact: Andy Hill**
andy.hill@icmagroup.org

## Publication of revised ETP mapping directory

In light of the evolving market structure resulting from MiFID II/R, ICMA has reviewed and updated the mapping directory of electronic trading platforms (ETPs) over recent months. The directory was initially launched in 2015 to map the fixed income landscape and help market participants understand the capabilities and differences between existing and new ETPs for cash bonds. Subsequently, the directory was expanded to cover information networks, and order/execution management systems.

The revised ETP mapping directory reflects changes in market structure in European fixed income markets and includes, for example, Organised Trading Facilities (OTFs), a new regulatory classification of trading venues introduced under MiFID II that applies typically to inter-dealer brokers. In addition to trading protocols and price discovery features, amongst others, the directory contains information on related regulatory reporting services, for instance, for trade reporting purposes via an Approved Publication Arrangement (APA) or transaction reporting via an Approved Reporting Mechanism (ARM). The revised ETP mapping directory is available on ICMA's website.

**Contact: Gabriel Callsen**
gabriel.callsen@icmagroup.org

# MiFID II RTS 28 on best execution: experience on the buy side and sell side

In June 2018, ICMA's MiFID II Working Group held roundtable discussions on best execution – the implementation of Regulatory Technical Standard (RTS) 28. Buy-side and sell-side members met separately to discuss amongst themselves their first experience of reporting under MiFID II's RTS 28. In due course, the plan is to have a combined roundtable discussion. The following represents a high-level summary of members' discussions on the challenges of implementing MiFID II's RTS 28.

### *Background*

RTS 28 outlines the requirements (including content and the format of information to be published by investment firms). This is intended to improve investor protection by increasing transparency related to executing client orders on trading venues (regulated markets, multilateral trading facilities, organised trading facilities), systematic internalisers, market makers or other liquidity providers, or entities that perform a similar function in a third country. The hope is that market participants will be better informed.

The requirements of RTS 28, for those who execute client orders, are to summarise and make public, *on an annual basis,* for each class of financial instrument (eg bonds), the top five execution venues in terms of trading volumes where they executed client orders in the preceding year. This information is required to be published on firms' websites in machine readable form.

Investment firms shall publish the following information with respect to the top five execution venues in terms of trading volumes for all executed orders per class of financial instrument (with separate templates for retail clients and professional clients):

- Class of financial instrument.
- Venue name and identifier.
- Volume of executed client orders on that venue as a % of total executed volume.
- Number of executed client orders on the venue as a % of total executed orders.
- % of executed orders that were "passive" and "aggressive" orders.
- % of executed orders that were "directed" orders.
- Confirmation of whether it has executed an average of less than one trade per business day in the previous business year (in that class of instrument).
- Passive order – order entered into the order book that provided liquidity.
- Aggressive order – order entered into the order book that took liquidity.
- Directed order – order where a specific execution venue was specified by the client.

Furthermore, Investment firms shall publish, for each class of financial instrument, a summary of the analysis and conclusions they draw from their detailed monitoring of the quality of execution obtained on all client orders, including:

- Explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution, or any other consideration.
- Description of any close links, conflicts of interest, and common ownerships with respect to any trading venues used.
- Explanation of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates, or non-monetary benefits received.
- Explanation of factors that led to a change in the list of execution venues listed in the firm's execution policy.
- Explanation of how order execution differs according to client categorisation.
- Explanation of whether other criteria were given

precedence over immediate price and cost when executing retail client orders.

- Explanation of how the investment firm has used any data or tools relating to the quality of execution.
- Explanation of how the investment firm has used output of a consolidated tape provider.

"Investment firm" under MiFID means "any legal person whose regular occupation or business is the provision of one or more investment services to third parties and/or the performance of one or more investment activities on a professional basis" (Article 4(1)). Both the buy-side and sell-side are in scope for MiFID II's RTS 28. *The deadline for the first attempt for reporting under MiFID II Best Execution RTS 28 obligations was 30 April 2018.*[1]

## Experience on the buy side and sell side

### (i) Value and usability

*Buy side:* From the buy-side perspective, the aim of the data generated from the RTS 28 report is to enable the public, investors and banks to evaluate the quality of the firm's execution practices by access to valuable information about how and where the firm has executed client orders. However, members broadly suggest that there has been almost no interest in the data generated by the reports from their clients. Apparently, there was some media attention in the first reports, but this, too, seems to have been limited. Sell sides also reported little or no interest in the data. One buy side said that they had recorded 18 views of the data reported on their website, but again their sense was that this was most probably media or other buy sides reviewing the data for comparison purposes. The participants in the roundtable agreed with one buy-side firm who said: "It is not surprising that this data is not generating a lot of interest. It is nearly impossible for us to understand our own reported data, much less anyone else gaining any valuable information from it."

Furthermore, measures of performance such as hit ratios are not included in the disclosure fields, even though it was generally agreed this could be useful information for investors. Due to the lack of hit ratio data, the view is that broker performance is not truly captured in the RTS 28 reports.

*Sell side:* The sell-side felt that, if the buy-side reports were broken down by bond classes (government, corporate, etc), the data would provide much more useful, granular data.

### (ii) Approach and scope

*Buy side:* There were differing approaches to the level of detail reported regarding "quality". This first attempt at RTS 28 proved to be quite difficult in drafting something meaningful from the millions of trades carried out the previous year. For some, it was a better explanation for the "qualitative" fields to state: "refer to the best execution policy of the firm".

However, many firms tried to produce something useful for the industry. Some provided two separate reports: one for the top MTFs, OTFs and RMs, and one for counterparties (including banks and SIs). However, this approach was not uniform across the buy-side firms.

*Sell side:* Member feedback suggests confusion as to what was in-scope for reporting and what would be the best approach for RTS 28 reporting, particularly when using terms such as "reception and transmission of orders – RTO". Much discussion centred on "principal" (principal counterparty to the trade) versus "agency" (trades on behalf of the client) and how to report these trades. The common view was that there should be two reports, one for each of these types of trades. This is so the data can be separated for meaningful analysis. There was consensus that it would be more appropriate for sell-side firms to report "principal" trades through RTS 27 and "agency" trades through RTS 28.

For example, most agreed that for RTS 28, where a liquidity provider is executing in response to an incoming request for quote (RFQ) via a trading venue, the report should show the trading venue name, not the counterparty name, as the trading venue is acting more in the capacity of "agent".

### (iii) Challenges

*Buy side:* Another major issue is that the RTS 28 report is driven very much by the firm's structure. As one roundtable participant pointed out, they are a large global firm which routes certain trades via a centralised hub, a US affiliate for example. That US hub is accordingly captured as a counterparty for the RTS 28

1. Although ESMA recognises that for this first set of RTS 28 reports, investment firms may not have been able to report fully information which is not available or applicable in relation to the preceding year.

report. Currently there is no "look-through" to the end counterparty mandated in the RTS 28 reporting requirements. Owing to this type of organisational structure, several firms were producing RTS 28 reports where their centralised hubs (eg US or Asian affiliates) were their top execution venues.

*Sell side:* The sell side reports a similar challenge. Because of the ambiguity around reporting agency versus principal or legal entity/affiliate, many large global sell side's RTS 28 reports are capturing their US or Asian affiliates in their "top five" execution venues.

To add to this, some firms calculated percentages based on total trades executed. For example, 80% on MTFs and 20% SIs. Then they aggregated trading venues and SI names to come up with their Top 5 execution venues. Others broke down their reports to SIs and trading venues and then took a percentage of those subsets. There was overall confusion as to which of these approaches is the correct way to report. However overall, the feeling amongst the sell side was that they gave it their best shot.

### (iv) Recommendations on reporting

*Buy-side reporting:* Allow flexibility for buy-side firms to design the RTS 28 disclosure to make it more tailored to their needs. In particular, provide for the possibility of a "look-through" to counterparties versus asset manager affiliates. The general view is that buy-side firms will be better able to provide useful data by reporting the counterparty and not the affiliate of the asset manager that the transaction was routed through.

*Sell-side reporting:* After much discussion, many felt that the RTS 28 data should be at instrument level but not at individual entity level. Instead, the individual entity levels should be aggregated upwards to group level.

The sell-side went on to recommend further that the buy side should break down their percentages based on portfolio directed orders and client directed orders.

In the case of directed orders for the sell side, most agreed the recommendation for RTS 28 is for sell-side firms to report "not applicable" in the relevant RTS 28 field, and that highlighting directed orders is an equities concept and not relevant for fixed income markets.

> **For RTS 28 data to be meaningful to market participants, as well as regulatory authorities, agreed best practice needs to be established.**

### (v) Fields and formats

Firms did not express strong opinions regarding file formats of the RTS 28 reports. However, there was agreement that PDF is not truly "machine readable" for the purpose of extracting data. The recommendation is to use CSV file format for the reports, with separate PDFs for graphics when applicable.

Some RTS 28 fields do not apply to bonds. An excellent example is the "passive/aggressive order" fields. Aggressive orders are defined as "an order entered into the order book that took liquidity". Passive orders defined as "order entered into the order book that provided liquidity". Both relate to orders where the firm is market member/participant (i.e. has access to the order book) and for instruments with an order book. *This is equities-based.* The recommendation is to report "n/a" in the relevant RTS 28 field with the justification that this is equities-related and not applicable to fixed income.

### Summary

The ICMA roundtables suggest that further industry discussion on RTS 28 reporting, involving buy and sell sides, is needed. In particular, the impact of legal entity/affiliate organisational structures as well as agency/principal trades on reported data requires deeper understanding. Roundtable participants also agreed that the regulatory reporting format of RTS 28 is far from optimal. For RTS 28 data to be meaningful to market participants, as well as helpful for the regulatory authorities, agreed best practice for reporting needs to be established. ICMA is currently facilitating this process through its MiFID II Working Group.

**Contact: Elizabeth Callaghan**
elizabeth.callaghan@icmagroup.org

## ESMA guidance on MiFID II/R in the second quarter

In the second quarter of 2018, 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) ESMA's statement on Legal Entity Identifiers (LEIs); (ii) ESMA Q&A updates on the publication of post-trade data and other topics; (iii) ESMA's publication of liquidity assessments of individual bonds for trade reporting for Q1; (iv) ESMA's prior update of *transitional* liquidity assessments of individual bonds for trade reporting; and (v) further ESMA Q&A updates.

### MiFID II/R

Overview of selected ESMA guidance in the second quarter of 2018:
20 June: ESMA statement on LEI requirements under MiFIR
29 May: Q&As on transparency topics
29 May: Q&As on market structure topics
25 May: Q&As on MiFIR data reporting
25 May: Q&As on investor protection and intermediaries topics
2 May: FITRS liquidity assessments for individual bonds by ISIN for Q1
18 April: Updated transitional liquidity assessments for individual bonds by ISIN

### (i) ESMA statement on Legal Entity Identifiers (LEIs)

On 20 June 2018, ESMA confirmed the end of the transitional six-month period with regard to LEIs, which was granted to allow for a "smooth introduction" of MiFID II/R requirements.

As a reminder, following ESMA's previous guidance issued on 20 December 2017, trading venues had been authorised to report their own LEI codes instead of LEI codes of the non-EU issuers that did not have their own LEI codes.

Similarly, investment firms had been allowed to provide a service subject to transaction reporting to a client, whose LEI code had not been previously obtained, under the condition that before providing such service the investment firm would obtain the necessary documentation from its client to apply for an LEI code on his behalf.

ESMA and national regulators found a "significant increase in the LEI coverage for both issuers and clients" and decided, as a result, "that there is no need to extend the initial six-month period" which ended on 2 July 2018, inclusive.

### (ii) ESMA Q&A updates on the publication of post-trade data and other topics

On 25 May 2018, ESMA updated its Q&As on transparency and market structure topics. In particular, ESMA provided clarification on the requirements to make information publicly available on post-trade data, 15 minutes after publication free of charge. Accordingly, ESMA has identified practices that "are not compatible with the requirement to make data available free of charge and ensure non-discriminatory access to the information", including: (a) imposing restrictions on access to the published post-trade data; (b) publishing information in a format that prevents users to read, use and copy the information; (c) requiring market participants to submit search queries in order to access data; (d) deleting data shortly after publication; (e) no publication of post-trade data on transactions benefitting from a deferral.

Other topics addressed in the Q&A include technical reporting questions related to post-trade deferrals, and pre-trade transparency requirements for voice trading and RFQ systems. The Q&A on market structure topics relates to Organised Trading Facilities (OTFs) and trading strategies which include an equity leg.

### (iii) ESMA publication of liquidity assessments of individual bonds for trade reporting for Q1

On 2 May 2018, ESMA published the liquidity assessments of bonds for the first quarter 2018 through the Financial Instruments Transparency System (FITRS). Initially, 220 bonds (out of 71,000) have been deemed liquid, which is significantly lower than the previous transitional transparency calculations (803 liquid bonds as of 18 April 2018). This was due to "data completeness and quality issues", according to ESMA.

The liquidity assessments are subject to further amendments if deemed necessary by ESMA. Subsequently, these appear to have been revised, and as a result, the total number of bonds deemed liquid increased slightly to 244 in the course of Q2. The new transparency requirements apply from 16 May 2018 to 15 August 2018, replacing the transitional transparency calculations (TTC). The next quarterly liquidity assessments are due to be published on 1 August and will apply from 16 August 2018.

### (iv) ESMA's prior update of transitional liquidity assessments of individual bonds for trade reporting

On 18 April 2018, ESMA issued another update of the transitional transparency calculations (TTCs) for bonds (excluding ETCs and ETNs) in relation to MiFID II/R transparency requirements. Accordingly, "trading venues [were] expected to apply the new results from 23 April 2018."

Overall, the total number of instruments considered in the TTCs has decreased slightly (-56 in comparison to ESMA's assessment released on 19 January 2018). Both the number of liquid and illiquid corporate, covered and sovereign bonds was lower, whilst the number of "other public bonds" increased slightly. It has not been clarified where the individual changes stem from. The TTCs were applicable until 15 May 2018. The FAQ document related to the TTCs was subsequently updated on the same date.

### (v) Further ESMA Q&A updates

On 29 May 2018, ESMA issued further guidance on a range of topics related to MiFIR data reporting and investor protection and intermediaries. In terms of data reporting, further clarification was provided on complex trades ie where a single price is available for a single transaction in multiple financial instruments, its characteristics, the scope and technical reporting requirements for transaction reporting and reference data purposes.

Other topics covered in the Q&A on investor protection and intermediaries include best execution requirements and the definition of "other liquidity provider", provision of investment services and activities by third-country firms, and supervisory responsibilities of competent authorities.

Further information on the aforementioned ESMA guidance can be found on ICMA's MiFID II secondary markets website.

**Contact: Gabriel Callsen**
gabriel.callsen@icmagroup.org

## CSDR mandatory buy-ins: secondary markets

### *Mandatory buy-ins set to apply from September 2020*

On 25 May 2018, the European Commission adopted the Regulatory Technical Standards (RTS) for the mandatory buy-in regime as part of CSDR Settlement Discipline measures. This comes more than two years after the revised draft RTS were submitted by ESMA.

The finalised RTS are largely in line with the draft RTS put forward by ESMA in February 2016. Key features include:

(i) trading-level buy-ins (for the most part);

(ii) the requirement to appoint a buy-in agent;

(iii) seven business days for fixed income before a failing trade mandates the start of the buy-in process;

(iv) seven business days for fixed income allowed from the start of the buy-in to completion (ie settlement);

(v) cash compensation in the event that the buy-in is unsuccessful (following the option of one more attempt at the buy-in);

(vi) an exemption for securities financing transactions (SFTs) with terms of less than 30 business days; and

(vii) a requirement for CSDs, CSD participants, CCPs, and trading venues, to put in place rules and contractual arrangements to ensure that the provisions of the buy-in can be applied to entities in non-EU jurisdictions.

Other than the mandatory, non-discretionary requirement for firms to execute buy-ins, a number of implementation challenges resulting from the problematically drafted Level 1 remain, in particular: (i) an embedded asymmetry in the payment schedule in favour of the non-defaulting party; (ii) the inability to pass on buy-ins to CCPs; and (iii) the inability (in most instances) to pass on buy-ins where the fail is caused by the failing end-leg of an SFT. Furthermore, as a direct consequence of the mandatory nature and the asymmetry of the payments, a pass-on mechanisms to resolve settlement chains, allowing one buy-in to settle multiple linked fails, will, in most instances, no longer work.

The European Parliament and EU Council now have three months to scrutinise the RTS before they are published in the *Official Journal*. The CSDR Settlement Discipline package, comprising both cash penalties and mandatory buy-ins, will then come into force 24 months following publication of the RTS in the *Official Journal*, which is now expected to be September 2020.

### *ESMA Settlement Discipline Workshop*

On 5 June 2018, ESMA hosted a workshop for market associations to discuss practical implementation issues related to the CSDR Settlement Discipline regime, including cash penalties and mandatory buy-ins. ICMA participated in the workshop. Many of the challenges arising from the design of the buy-in framework (and which are discussed in the Features section of this Quarterly Report) were highlighted in the workshop, and it became clear that implementing the buy-in regime will be a significant and complex process, and will impact not only investment firms, CSDs, CSD participants, CCPs, and trading venues located in the EU, but will have cross-jurisdictional reach. ESMA has suggested that it will hold further industry workshops focused on the many implementation challenges.

### *ICMA CSDR-SD Working Group*

Under the umbrella of its Secondary Market Practices Committee (SMPC), ICMA has established a CSDR Settlement Discipline Working Group which will focus on:

(i) raising awareness, globally, of the application and implications of the CSDR-SD regime;

(ii) addressing practical implementation challenges for the international bond and collateral markets (including updating the ICMA Buy-in Rules); and

(iii) continuing advocacy with the goal of convincing the authorities that implementing the mandatory buy-in regime is ill-advised from the perspective of market efficiency and stability.

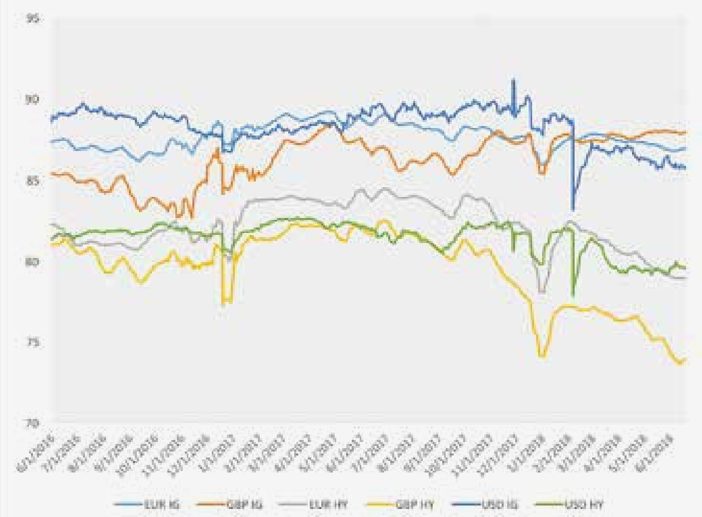
Members interested in participating in, or learning more about, the Working Group should contact Andy Hill at ICMA.

**Contact: Andy Hill**
andy.hill@icmagroup.org

# ICE Data Services Corporate Bond Market Liquidity Tracker

**June 2018**

### *Liquidity Tracker*




*Source: ICE Data Services*

### *Commentary*

The trackers are of particular interest going into 2018 in light of the implementation of MiFID II/R and the potential implications for EUR and GBP corporate bond market liquidity. While there is the usual seasonal decline in liquidity across all markets going into year-end, EUR and GBP IG and HY liquidity initially seems to recover quite quickly, reverting to pre-year-end levels, which corroborates the anecdotal evidence provided in ICMA's various post-MiFID workshops. Perhaps more notable is the sharp drop in liquidity in USD IG and HY in early February, which seems to be closely correlated with the sell-off in US credit spreads. Over Q2 2018, a marked decline can be observed for EUR and GBP HY, falling close to or below year-end liquidity levels respectively. In contrast, GBP IG followed a positive trend while EUR IG liquidity declined slightly.

**Contact: Andy Hill**
andy.hill@icmagroup.org

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 David Hiscock and Alexander Westphal*

## SFTR implementation

As one of the key challenges that repo and other SFT markets are currently facing, the EU SFT Regulation (SFTR) remains firmly among the top priorities of the ICMA European Repo and Collateral Council (ERCC). The technical standards specifying the extensive SFTR reporting requirements are still under review by the European Commission. Final adoption is currently expected in Q4 2018, which would imply a reporting "go-live" date in Q4 2019 (12 months after publication) for banks and a few months later for other market participants.

While the rules are still being finalised, the ERCC's SFTR Task Force is working towards their implementation, with a focus on repos and buy/sell-backs. The Task Force is a cross-industry group bringing together users, trade repositories and other providers offering services in this space. Besides offering a forum for discussion, the key objective of the group is to agree common definitions and market practices in order to facilitate the implementation of SFTR. Given the double-sided nature of SFTR reporting and the extensive reconciliation requirements that come with it, aligning practices across the industry will be critical to avoid unnecessary operational burden.

Once agreed, the ERCC's Repo Best Practice Guide provides a useful platform to implement any reporting best practices. Work has therefore started on a dedicated SFTR Annex to the Guide. When it comes to best practices, it will be particularly important to ensure consistency across all types of SFTs. Collaboration with other industry groups, such as ISLA and AFME will therefore be an important factor going forward. As many fields and issues are common across repo, securities lending and margin lending, close alignment will be necessary to avoid inconsistencies and duplication. Finally, it will of course also be important to ensure buy-in from regulators. In particular, ICMA continues to actively engage with ESMA, who will play a key role in the implementation, providing guidance and clarification on any arising implementation questions through formal Q&As.

As a basis for more detailed work on the over 150 individual reporting fields required by SFTR, member firms, supported by relevant vendor platforms, are currently engaged in reconciliation testing to get a better understanding for the key pain points and hence priorities for the group going forward. ICMA launched in June 2017 the bilateral reconciliation exercise which serves as a basis for the testing. Feedback is expected over the coming few weeks and should help to guide the group's further work.

A good opportunity to hear more about SFTR and the ongoing work of the ERCC Task Force will be the ERCC's upcoming General Meeting on 17 October, hosted by Bloomberg in London. SFTR will be a key focus of this year's event. For more details and to register for the event please visit the event section of the ICMA website.

**Contact: Alexander Westphal**
alexander.westphal@icmagroup.org

## CSDR mandatory buy-ins: repo markets

On 25 May 2018, the European Commission adopted the Regulatory Technical Standards (RTS) for the mandatory buy-in regime as part of CSDR Settlement Discipline measures. The finalised RTS are largely in line with the draft RTS put forward by ESMA in February 2016 and the key features are outlined in the Secondary Markets section of this Quarterly Report. Following a period for scrutiny by the European Parliament and EU Council, the RTS are expected to be published in the *Official Journal* in September 2018. The CSDR Settlement Discipline package, comprising both cash penalties and mandatory buy-ins, will then come into force 24 months following publication of the RTS in the *Official Journal*, which is expected to be September 2020.

From a repo and collateral perspective, it is important to note that securities financing transactions (SFTs) with a term of less than 30 business days will be exempt. However, SFTs with terms of 30 business days or longer will be in scope, and it would seem that mandatory buy-ins will be executed against both failing start- and end-legs. It is not yet clear how this will apply to open SFTs that reach 30 business days.

However, given the intrinsic interplay between cash and SFT markets, repo and securities lending markets are likely to be severely impacted by the mandatory buy-in regime. Some of the challenges and risks facing lenders of securities are discussed in the Features section of this Quarterly Report. It should be noted that the buy-in regime will also have extra-territorial impacts.

ICMA has created a CSDR Settlement Discipline (CSDR-SD) Working Group, focused on raising awareness of the Regulation, addressing implementation issues related to both bond and collateral markets, as well as advocacy related to CSDR-SD. Members interested in participating in, or learning more about, the Working Group should contact Andy Hill at ICMA.

**Contact: Andy Hill**
andy.hill@icmagroup.org

## Other regulatory reforms

As reported in this section of Issue 49 of the ICMA Quarterly Report, on 8 January, ESMA published a public consultation (for comment by 28 February) on draft guidelines, which aim to clarify the implementation of anti-procyclicality provisions for CCPs under EMIR, and the ICMA ERCC duly submitted a response highlighting that great care should be taken to fully assess the way in which such anti-procyclicality measures are calibrated.

Following on from this consultation process, on 28 May, ESMA issued its appropriately finalised guidelines – which will become effective from 3 December 2018. The guidelines will be translated into the official languages of the European Union and within two months from the date of publication of the translations, each NCA must notify ESMA of its intent to whether or not to comply with the guidelines.

The EU Money Market Funds Regulation (MMFR) 2017/1131, was published on 14 June 2017. The MMFR contains three empowerments for the European Commission to specify and amend certain provisions laid down in that Regulation, all of which have the same aim – to ensure that MMFs are invested in appropriate eligible assets:

(i) Article 11(4) empowers the Commission to cross-refer to the criteria identifying STS securitisation and ABCPs in the corresponding provisions of Regulation (EU) 2017/24022 (STS Securitisation Regulation);

(ii) Article 15(7) empowers the Commission to specify the quantitative and qualitative liquidity requirements for collateral received as part of reverse repurchase agreements; and

(iii) Article 22 empowers the Commission to specify the details of the credit quality assessment methodology for the assets in which the MMF manager concerned intends to invest.

Accordingly, on 10 April, the European Commission has duly adopted a Delegated Regulation amending and supplementing the MMFR in these regards. It will apply from 21 July 2018, except for Article 1 (the STS cross-reference) which will apply from 1 January 2019.

Article 2 of this Delegated Regulation specifies the quantitative and qualitative credit quality requirements for assets received as part of reverse repurchase agreements.

As reported in this section of Issue 49 of the ICMA Quarterly Report, on 16 March, the European Commission launched a short, exploratory consultation, on the finalisation of Basel III. On 12 April, the ICMA ERCC duly responded to this consultation, calling for great care to be taken to fully assess the way in which further measures, particularly regarding haircuts, are calibrated.

The ICMA ERCC remains unconvinced that haircut practices in the repo and collateral markets contributed materially to the financial crisis and believe that overly stringent regulation in this area might deter market participants from using these important secured forms of transactions. The ICMA ERCC welcomes the Commission's October 2017 SFTR report, and strongly endorses the view that it is appropriate to first obtain SFTR data and then to use this to appropriately design and calibrate any new EU haircut regime.

As reported in this section of Issue 46 of the ICMA Quarterly Report, on 13 June 2017, the European Commission put forward a proposal for more robust

> **ECON and Constitutional Affairs Committee MEPs backed the ECB's proposal to bring CCPs within the scope of its regulatory powers.**

supervision of CCP activities in the EU. Within the European Parliament, a draft ECON report was published by the rapporteur on 31 January. Proposed amendments were tabled in April and following debate it was announced, on 16 May, that MEPs had backed plans to set up an ESMA supervisory committee for EU CCPs and impose stricter rules on third country ones, depending on systemic risk. This agreed ECON report was tabled for Plenary, where a decision to enter into interinstitutional negotiations was confirmed, on 30 May. Accordingly, trilogue will follow once the European Council agrees its common stance.

Subsequently on 19 June, ECON and Constitutional Affairs Committee MEPs backed the ECB's proposal to bring CCPs within the scope of its regulatory powers. According to MEPs, these new ECB powers should have to be restricted to monetary policy purposes – MEPs included an indicative list of regulatory powers that the ECB would apply under the amended Article 22 of the ECB Statute.

Also on 19 June, draft rules amending the EU's BRRD were approved by Economic and Monetary Affairs Committee (ECON) MEPs. As part of this reform package, MEPs changed the proposed rules for applying a "moratorium power" to suspend payments by banks that are getting into difficulty. The provision says that this power may be activated when it has been determined that the institution is failing or likely to fail, in order to determine next steps and in particular whether it is in the public interest to put the bank into resolution rather than insolvency. It also specifies the scope of the suspension power and its duration.

Alongside this, the EU's plans to adopt Basel III rules were also backed by ECON MEPs. Within this package, MEPs agreed to a binding 3% leverage ratio and an additional 50% buffer for GSIIs. They also refined NSFR rules for ascertaining whether an institution holds sufficient stable funding to meet its funding needs during a one-year period. With the Council already having agreed on its common approach at the end of May, trilogue talks will be held once these texts have been announced at the Parliament's July plenary session.

Moreover, MEPs seek to ensure that the new ECB competences could only be exercised within the legal framework established by other EU institutions and that ECB actions are transparent and are accountable to the European Parliament and the Council. During Q3, the text will now be voted on by the Plenary.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

## TARGET2-Securities pricing review

The successful roll-out of TARGET2-Securities (T2S), concluded in September 2017, was a key milestone for post-trade integration in Europe. The benefits of the common settlement platform are widely acknowledged in the market. Firms are, however, currently still in a phase of transition. The full value of T2S has clearly not yet materialised (for a detailed discussion on this topic see for instance the summary of the ERCC's latest Annual General Meeting in March 2018).

Moreover, settlement volumes in T2S and hence revenues have, for a variety of reasons, fallen significantly short of initial estimates. The Eurosystem is therefore currently reviewing the pricing of T2S and has suggested to significantly increase settlement and other fees for users to ensure full recovery of the substantial development costs within a reasonable timeframe. While remaining fully supportive of the T2S project, the ICMA ERCC has raised its concerns with the latest proposals in a letter submitted to the ECB on 4 May.

In its letter, the ICMA ERCC cautions that the proposed fee increase comes at a time when firms are only starting to develop a deeper understanding for the opportunities that the single T2S platform offer and to review their operational arrangements accordingly. A significant cost increase at this critical juncture risks disincentivising market participants from shifting activity into T2S. The ICMA ERCC calls instead for an increased focus on the T2S value proposal. A number of helpful initiatives are already under way to help maximise the value of T2S and boost settlement volumes on the common platform, including a project with the ICSDs to make Eurobonds eligible for cross-CSD settlement in T2S.

Other important technical milestones such as clarity that firms can achieve balance sheet netting in T2S are still to be resolved. An important priority in this context, for authorities and the industry alike, should also be a renewed effort to remove the various remaining barriers in the European post-trade space more generally as these remain a substantial hindrance for a further integration of capital markets and hence increased cross-border activity, as the recent EPTF Report has clearly highlighted. There is also a need for greater transparency in relation to current T2S flows in order to better understand the current shortfall and identify necessary next steps.

On 17 May, AMI-SeCo met to discuss the T2S pricing proposals. While approving the proposed fee increase, which was subsequently adopted by the ECB Governing Board, AMI-SeCo members also acknowledged the points raised by the ERCC and other stakeholders and agreed to initiate a follow-up work stream to look at these issues in more detail, understand current T2S volumes and discuss potential ways to increase these. On 21 June, a first workshop focused on this topic, led by Nicholas Hamilton, Co-Chair of the ERCC Operations Group. While this has already led to a number of useful observations and follow-up actions, more work is clearly needed on this important topic which the ERCC will continue to drive.

**Contact: Alexander Westphal**
alexander.westphal@icmagroup.org

## Repo and collateral-related research

On 27 April, the ECB published the results of the March 2018 survey on credit terms and conditions in euro-denominated securities financing and OTC derivatives markets (SESFOD), which reported that credit terms offered to almost all counterparties in both SFTs and OTC derivatives transactions had tightened slightly between December 2017 and February 2018 – the most cited reason for this was the dealers' lack of balance sheet capacity, and hedge funds were the only counterparty for which credit terms and conditions eased.

In relation to the provision of finance collateralised by euro-denominated securities, survey respondents reported that conditions had been stable on the whole, with a distinct preference shown to favoured clients. This also applies to the liquidity and functioning of collateral markets. Also, CCP usage was reported to have increased between December 2017 and February 2018, in line with a trend which started in Q4 2013.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

## Post-trade risk reduction services

On 10 April 10, ICMA joined together with the EBF, ISDA, and ISLA in publishing a white paper on the benefits of post-trade risk reduction services (PTRRS) as a crucial risk management tool.

PTRRS like compression and counterparty rebalancing play an increasingly important role in reducing risks in derivatives markets. Compression, for example, results in offsetting trades between multiple parties being torn up, which reduces the size of gross derivatives exposures, in turn reducing systemic risk.

These risk-mitigating benefits are recognized in the EU under MIFID II/R – which exempts PTRR administrative transactions from the trading obligation. There is, however, currently no exemption from the EU's clearing obligation for these transactions. The failure to recognize these strictly non-trading and market risk neutral administrative transactions within EMIR's regulatory framework limits systemic risk reduction in derivatives markets. In the paper, the signatory associations recommend amending EMIR as part of the Regulatory Fitness and Performance Program to exempt transactions resulting from PTTRS from the clearing obligation, or to empower ESMA to do so.

The Associations make the following recommendation on conditions for satisfying any exemption:

- *They should be market risk neutral:* they are designed to not change the directional market risk of the portfolios concerned, but rather reduce counterparty, operational and systemic risk in respect of existing derivatives transactions.
- *They should be non-price forming:* while they may involve a new legal transaction (rather than a trading transaction) in order to achieve the identified risk reduction result, participants are not able to post bids or offers, no price negotiation takes place and market risk neutrality means transactions are recorded away from market prices on stale curves.
- *They should address second order portfolio risks:* they do not offer a vehicle for taking market positions or enter into trading transactions. Their purpose is the reduction of operational, counterparty and systemic risk.
- *Single multilateral compound transaction:* the risk reduction cycles are binding on an all or nothing basis across all cycle participants and the transaction components are executed as a single compound bulk legal transaction.

ICMA's particular interest in this topic arises from the fact that collateral in the form of margin is an essential risk management tool, but rather than over rely on this mechanism it makes sense to better facilitate PTRRS and so reduce aggregate exposure levels.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

# Asset Management

*by Patrik Karlsson and Bogdan Pop*

## STS securitisation

On 17 April 2018, the European Commission published its formal proposal to amend the Solvency II Delegated Act with regard to STS securitisation. In brief, the proposal:

- deletes Article 177 of the Delegated Act (which previously described Type 1 securitisations) and refers to STS securitisations instead in the STS Securitisation Regulation;
- introduces new capital solvency requirements for STS securitisations by replacing the existing Article 178 with a new article with new calculations; and
- introduces grandfathering provisions for assets held under the existing Type 1 calculations.

The AMIC Securitisation Working Group welcomed the proposal by the Commission as Solvency reform is crucial to reviving the asset class. Although the proposal is welcome, it is does not go far enough in reforming capital requirements for insurers investing in ABS.

AMIC welcomes the proposed capital charges for senior STS bonds, as they will be similar to those for covered bonds, though still at a small premium. The new regime reflects the greater level of cash flow analysis required for securitisations but recognises the similar default and liquidity risk. However, the problem is that insurance companies are not typical buyers of senior STS bonds as they do not yield enough and are often too short-dated to match the insurer's asset/liability needs.

Unfortunately, the proposal includes separate capital charges for the non-senior parts of STS securitisations, despite the fact that the lower credit ratings of non-senior bonds already naturally lead to a higher capital charge. Whilst the new proposals are much lower than those currently in place, they are still between three and four times the equivalent charges for corporate bonds. Yields in ABS are not even close to three or four times compared to corporate bonds. Over the last two years, average BBB securitisation yields have been around 0.5% to 0.75% higher than corporates – nowhere near enough of a pick-up to attract investors who will suffer a three to four times higher capital charge.

Non-STS securitisations (such as CLOs and CMBS) are even more harshly treated as their capital charges will remain unchanged. This means the AAA senior part of a CLO will incur a capital charge almost three times higher than a typical BB-rated constituent loan, and of course yield far less, so insurers have no incentive to buy them. This forces insurers into other investments, such as whole pools of mortgages, which are completely illiquid and where investors will take the first and every subsequent loss on every loan in the pool that defaults.

AMIC believes that, if insurers are to invest significantly in securitisations again, revisions to capital treatment need to be more ambitious, reflecting the real risk and return not just for senior STS, but for non-senior and ultimately for non-STS securitisations as well. The huge cliff effects of the current proposals mean insurance investors are unlikely to embrace the new STS framework, meaning there is unlikely to be any significant effect on participation and therefore pricing.

On 6 June 2018, ICMA co-signed a letter with AFME and other European trade associations calling for more ambitious Solvency II reform. The letter stresses that calibrations for securitisation investments in Solvency II and the Liquidity Coverage Ratio (LCR) do not go far enough in addressing the harsh treatment of securitisation. The associations are concerned that without a more ambitious approach that fully recognises the prudential strength of securitisation in Europe, especially STS securitisations, the new Common Framework and STS Framework may become a missed opportunity.

**Contact: Patrik Karlsson**
patrik.karlsson@icmagroup.org

## ESRB: ESFS Review

On 14 February 2018, the European Systemic Risk Board (ESRB) published a Recommendation on liquidity and leverage risks in investment funds.

The Recommendation was adopted on 7 December 2017 and published on 14 February 2018. The text of the Recommendation is accompanied by Annex I "Compliance Criteria for the Recommendations" and Annex II "Economic Rationale and Assessment".

ESRB proposed significant changes to EU legislation for the fund sector regarding (i) liquidity risk tools, (ii) liquidity mismatches, (iii) stress testing, (iv) UCITS reporting, and (v) leverage limits.

AMIC members were not only concerned at some of the suggested remedies but were also particularly concerned by the lack of consultation by the ERSB with industry, despite significant changes to primary legislation being suggested, as outlined by the Chairman of the AMIC Fund Liquidity Working Group in an article in the ICMA Quarterly Report for the Second Quarter of 2018.

As part of the Review of the European System of Financial Supervision (ESFS), the ESRB's founding regulation is currently being reviewed at the same time as the European Supervisory Authorities (ESAs). The AMIC Fund Liquidity Working Group decided to address the concerns with ESRB governance and lack of consultation by publishing a position paper on 16 May 2018 about possible changes to the ESRB Regulation. The position paper recommends two important changes.

First, AMIC recommends allowing Member States to choose one representative to be a voting member of the General Board from the national central bank, the national competent authority (NCA), or a national authority addressing systemic or macroprudential risk, depending on the item discussed.

Second, AMIC believes that public consultation and cost/benefit analysis should be made a more formal, and mandatory, part of the ESRB's working when issuing recommendations that contain legislative initiatives.

The AMIC Executive Committee approved the positions taken by the working group and endorsed deploying the position paper with relevant audiences among the co-legislators over the coming months as the ESFS Review undergoes the legislative process.

**Contact: Patrik Karlsson**
patrik.karlsson@icmagroup.org

## AMIC Primary Market Investor Working Group

In the past, ICMA used to run a series of *ad hoc* new issue process roundtables for investors to engage with syndicate managers and issuers. A newly established AMIC Primary Market Investor Working Group has now formalised these *ad hoc* steps into a more permanent group of buy-side representatives with views on primary issues.

The objective of this Working Group is to foster dialogue between investors, syndicate managers and issuers. The Working Group will also provide a forum for ICMA buyside members to raise various topics related to the new issuance process and seek the opinion of syndicate managers and issuers on these topics – but also vice versa.

ICMA Secretaries of the Primary Market and Practices Committee (PMPC) representing syndicate managers and the Corporate Issuer Forum (CIF) representing issuers will also participate in meetings of this Working Group to provide initial feedback and bring ICMA's expertise in the primary markets to the discussion table.

The first meeting of the AMIC Primary Market Investor Working Group was held on 13 June in London. The meeting was well attended both in person and via conference call. The members of the Working Group approved the proposed terms of reference, agreed on the initial focus of the Working Group and on several initial action points.

AMIC investor representatives made the following points:

- It would be good to have more standardisation in the new issue process. This would not necessarily mean a rigid timetable, but some certainty on communication would be helpful.
- More electronification: an end-to-end solution. There is too much manual work still in the primary market, for instance around the issue of lack of availability of ISINs.
- Electronification is important but agreeing standardisation also needs to happen, ideally on as global a scale as possible to avoid regional divergence.
- Reduction of duplication: there are too many banks to contact in each deal.
- The length of time taken for new issues is too long, especially when deals are pre-sounded and reasonably well flagged.
- There is insufficient attention on the equal treatment of investors between secondary and primary desks. There is too much opacity around initial price thoughts (IPTs).
- There is insufficient communication around allocation decisions.

The Working Group members agreed that the group would attempt to (i) identify a standardised set of base terms from an investor perspective, (ii) agree a process for automating asset set-up (such as obtaining ISINs), (iii) standardising engagement via a communication timeline and (iv) build FIX protocols and pipelines.

ICMA buy-side members interested in participating in the work of this Working Group or propose further topics in due course are encouraged to contact the AMIC Secretariat to find out more and to get involved.

**Contact: Bogdan Pop**
bogdan.pop@icmagroup.org

# The European Commission's InvestEU Programme

*By Katie Kelly*

The European Commission has announced its new "InvestEU" programme, which is expected to bring together the various financial programmes currently available and expand the model of the Investment Plan for Europe (the "Juncker Plan").

The Juncker Plan, which was discussed in the Third Quarter 2015 edition of this Quarterly Report, has to date triggered almost €290 billion in investment and provided financing for 635,000 small businesses. On 12 December 2017, the European Parliament and Member States agreed on a regulation to enhance the European Fund for Strategic Investment (EFSI), the core of the Juncker Plan, and extend the investment target to €500 billion by the end of 2020, which came into force on 30 December 2017.

The InvestEU programme will have a single governance structure and reporting requirements and will integrate the many different EU-level financial instruments and applicable rules. The European Investment Bank (EIB) will remain the Commission's main financial partner under the InvestEU programme, although Member States' national and regional promotional banks and other institutions which can offer specific expertise and experience may become financial partners.

The InvestEU programme will consist of three elements: the InvestEU Fund, the InvestEU Advisory Hub and the InvestEU Portal, and will support four policy areas: sustainable infrastructure; research, innovation and digitisation; small and medium-sized businesses; and social investment and skills.

The Commission is proposing that €15.2 billion be earmarked for the InvestEU Fund, allowing the EU budget to provide a €38 billion guarantee which will be used to support strategically important projects across the EU. By crowding in private and public investments, the Commission expects the InvestEU Fund to trigger more than €650 billion in additional investment across the EU over a 7year period.

Building on the model of the Juncker Plan's European Investment Advisory Hub, the InvestEU Advisory Hub will integrate the 13 different advisory services currently available into a one-stop-shop for project development assistance, providing technical support and assistance to help with the preparation, development, structuring and implementation of projects, including capacity building.

The Juncker Plan's European Investment Project Portal brings together investors and project promoters by providing an easily-accessible database, giving projects more visibility and enabling investors to find investment opportunities in the sector or location of their interest. It will be continued under the InvestEU programme.

Investment conditions in Europe are considered to have improved since the Juncker Plan was launched, thanks to structural reforms carried out by the Member States, a more favourable economic situation and interventions such as the Juncker Plan. An independent evaluation of the EFSI published in June 2018 concludes that the EU guarantee is an efficient way of increasing the volume of riskier operations by the EIB, and that it uses fewer budgetary resources compared to financial instruments. It also highlights the need to continue improving access to finance for innovation, as well as to strengthen synergies with other EU funding programmes, which the Invest EU programme aims to address.

**Contact: Katie Kelly**
katie.kelly@icmagroup.org

# Green, Social and Sustainable Bond Markets




*by Nicholas Pfaff, Valérie Guillaumin, Peter Munro and Denise Odaro*

## European Commission legislative actions on sustainability

After the European Commission's High Level Expert Group (HLEG) on Sustainable Finance published its final report on 31 January, the Commission subsequently released on 8 March an Action Plan on Sustainable Finance that follows many of the HLEG's recommendations. It has now followed through with a package of proposed legislative measures including:

- A proposal for a Regulation on the establishment of a framework to facilitate sustainable investment. This Regulation establishes the conditions and the framework to gradually create a unified classification system ("taxonomy") on what can be considered an environmentally sustainable economic activity.
- A proposal for a Regulation on disclosures relating to sustainable investments and sustainability risks and amending Directive (EU)2016/2341. This Regulation will introduce disclosure obligations on how institutional investors and asset managers integrate environmental, social and governance (ESG) factors in their risk processes.
- A proposal for a Regulation amending the Benchmark Regulation. The proposed amendment will create a new category of benchmarks comprising low-carbon and positive carbon impact benchmarks, which will provide investors with better information on the carbon footprint of their investments.

In addition, the Commission closed on 21 June a consultation on amendments to Delegated Acts under the Markets in Financial Instruments Directive (MiFID II) and the Insurance Distribution Directive to include ESG considerations into the advice that investment firms and insurance distributors offer to individual clients.

**Contact: Nicholas Pfaff**
nicholas.pfaff@icmagroup.org

## European Commission Technical Working Group on Sustainable Finance

In line with the its Action Plan, the Commission further announced on 13 June the establishment of the Technical Working Group on Sustainable Finance (TEG) on which ICMA, represented by Nicholas Pfaff, has been nominated following a highly selective process. The main tasks of the Group are to assist the Commission in the development of:

- an EU taxonomy of environmentally sustainable economic activities;
- an EU Green Bond Standard;
- a category of "low carbon" indices for use by asset and portfolio managers as a benchmark for a low carbon investment strategy;
- metrics allowing improving disclosure on climate-related information.

In addition to ICMA, the members of the group represent a wide variety of financial and economic actors as well as non-governmental agencies and academics. In determining the composition of the TEG, the Commission has considered the technical expertise of the candidates, the need for a balanced representation of relevant know-how from financial and real economic actors, geographical coverage and gender.

A number of European and international institutions contributing to the development of sustainable finance have also been invited as members or observers to the Group. They include representatives from the European Supervisory Authorities, the European Central Bank, multilateral development banks (such as the European Investment Bank and the European Bank for Reconstruction and Development), the European Environment Agency, the United Nations Environment Programme Finance Initiative, the Central Banks and Supervisors Network for Greening the Financial System, and the Organisation for Economic Co-operation and Development.

The TEG will hold its first meeting in early July. Its mandate will run until 30 June 2019, with possible extension until the end of 2019.

**Contact: Nicholas Pfaff**
nicholas.pfaff@icmagroup.org

**The Commission further announced on 13 June the establishment of the Technical Expert Group on Sustainable Finance on which ICMA has been nominated.**

## 2018 Updates to the Principles and complementary guidance

The updated versions of the Green Bond Principles, Social Bond Principles and the Sustainability Bond Guidelines (the "Principles") were published on the occasion of the 4th Annual General Meeting and Conference of the Green and Social Bond Principles held in Hong Kong on 14 June. The 2018 editions benefit from the contributions of the large community of market participants and stakeholders that support the Principles. A number of key documents that complement the Principles were also released. These include:

- *Guidelines for External Reviews* promoting best practice and integrity in the provision of external review services for Green, Social and Sustainability Bonds. Produced by the GBP & SBP Executive Committee and a dedicated Working Group in consultation with over 30 external reviewers, these Guidelines include (i) updated typology of external reviews, (ii) ethical and professional standards and (iii) organisation and content. The Guidelines are designed to contribute to the integrity of Green, Social and Sustainability Bond market and to provide further clarity on the role of external reviews. They are also evidence of the continued leading role of self-regulation in the Green, Social and Sustainability Bond market and its ability to work together to promote quality standards through a constructive dialogue with all of its participants.
- *A High-Level Mapping to the UN's Sustainable Development Goals* of the Principles' Eligible Project categories, recognizing investor and wider market interest in referencing SDGs within this context. Although not designed as a framework for investments, the Sustainable Development Goals launched in 2015 and adopted by 193 countries, have been proactively embraced by the investment community as a means of extra-financial evaluation to track the Environmental, Social and Governance (ESG) impact of investments in their portfolios. In response to this drive, there have been several efforts by capital market participants to provide tools to adapt the SDGs to an investable context. The High-Level Mapping is designed to complement the Principles and is based on a review of each of the 169 targets associated with the 17 SDGs and in particular those identified as most applicable to either the GBP or the SBP project categories. At this stage, 15 out of the 17 SDGs have been identified as relevant to Green, Social or Sustainability Bond eligible project categories and these are highlighted in a user-friendly table format within the guide. A supplementary excel spreadsheet was released alongside the guide which contains more detailed listings of the SDG targets mapped to the GBP and SBP.
- *The Framework for Impact Reporting of Social Bonds* designed to accelerate progress on impact reporting for social and sustainability bonds. The Framework was drafted in response to the need for further impact reporting metrics for social bonds expressed by 85% of the respondents to the consultation of the GBP & SBP in autumn 2017. The document outlines six core principles and seven recommendations for issuers to adhere to as they develop their own reporting and it also provides an adaptable reporting table template covering quantitative and qualitative information for issuers to employ based on their own circumstances. An illustrative list of indicators is included as an annex to the document with an acknowledgement that these indicators will be refined over time.

Changes to the Principles themselves this year were limited and illustrate the growing maturity of the documents. Nonetheless, the following novelties should be noted:

- recognition of five high level environmental objectives, namely climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control;
- distinction between these environmental objectives and the projects designed to meet them;
- reference to international and national initiatives to produce green taxonomies and classifications;
- refinement to the definition of target populations that benefit from Social Projects within the SBP;
- agreed detailed definitions of external review services, plus new template for reviewers to articulate the types of service provided;
- emphasis on timely reporting by issuers to investors in the case of material developments;
- confirmation that ESG or sustainability themed bonds are not aligned unless fully consistent with the four core components of the Principles.

Additional 2018 work and developments that were also highlighted at the AGM are the release earlier in March of the Green Loan Principles by the LMA and APLMA with the support of ICMA; the completion and release of a survey of 51 investors globally (representing 90% of buy-side Members & Observers) that highlighted among other the use of the Principles in issuer evaluation and portfolio impact assessments, and requirements for impact reporting; continued progress on guidance on impact reporting, with this year, in addition to the Framework for Social Bonds impact reporting, releases for waste management projects and clean transportation; and finally the new GBP & SBP quarterly e-newsletter.

**Contacts: Nicholas Pfaff, Valérie Guillaumin, Denise Odaro and Peter Munro**
nicholas.pfaff@icmagroup.org
valerie.guillaumin@icmagroup.org
denise.odaro@icmagroup.org
peter.munro@icmagroup.org

# 2018 AGM & Conference: landmark pivot to Asia

The 2018 Green and Social Bond Principles Annual General Meeting and Conference was co-hosted by ICMA and the Hong Kong Monetary Authority (HKMA) in Hong Kong on 14 June. It was also generously sponsored by the HKMA and the Hong Kong Financial Services Development Council (FSDC). It was a landmark pivot to Asia - the first iteration of this event in Asia or outside Europe.

The calibre and significance of the Conference was underlined by the exceptional seniority and support for this market from speakers representing the official sector and major financial institutions, including the Hong Kong Financial Secretary (Minister of Finance), the CEOs of HKMA, HSBC, and Loan Market Association, the Chairman of Hong Kong FSDC, Group CFO of the World Bank Group, Deputy CEO of HKMA, and CEO of ICMA. There were 39 further senior speakers representing major market participants and stakeholders globally, producing high quality panel discussions.

The pivot to Asia was further vindicated by record participation, with close to 1,000 registering for the event, a significant increase versus prior year. Attendees included industry professionals from around the world, including investors, issuers, intermediaries, external reviewers, the official sector - including policy makers and market supervisors, and wide array of infrastructure and service providers including stock exchanges, index and data providers and law firms. The event also proved to be an anchor for a "green and social finance week" in Hong Kong, with a rich programme of complementary conferences and side events.

In addition to discussion on the latest innovations and updates from the GBP & SBP, prominent themes of the Conference included the growing maturity of the market, underlining growth and diversification across major regions, including Asia, Europe and the US; the spread of a *de facto* market standard closely following the GBP & SBP; the importance of emerging green and social classifications or taxonomies as a complement to high level guidance of the GBP & SBP; as well as developments in social and sustainability bond markets.

The AGM of the GBP & SBP preceded the conference and included the Executive Committee election results. There was real continuity with one new member on the investor side, Actiam, and all other members re-elected. During the meeting, there was debate on many of the themes highlighted above in relation to the Conference.

## 2018 GBP & SBP Executive Committee

| INVESTORS | ISSUERS | UNDERWRITERS |
|---|---|---|
| *ACTIAM** | BANK OF CHINA | BofA MERRILL LYNCH |
| AMUNDI AM | EDF | *BNP PARIBAS* |
| AXA IM | EBRD | *CREDIT AGRICOLE CIB* |
| *BLACKROCK* | *EUROPEAN INVESTMENT BANK* | *HSBC* |
| KFW | *INTERNATIONAL FINANCE CORPORATION* | JP MORGAN |
| *MIROVA* | KOMMUNALBANKEN NORWAY | NATIXIS |
| TIAA-INVESTMENTS | *NORDIC INVESTMENT BANK* | RABOBANK |
| *ZURICH INSURANCE GROUP* | *WORLD BANK* | *SKANDINAVISKA ENSKILDA BANKEN AB* |

*2018 elected members in italics *New 2018 member*

Earlier in the week the GBP/SBP Excom and ICMA together hosted a series of working group meetings, with a half day of debate, attracting close to 50 attendees representing most members. Seven different working groups discussed achievements over the past year, future priorities and organisational questions.

**Contacts: Nicholas Pfaff, Valérie Guillaumin and Peter Munro**
nicholas.pfaff@icmagroup.org
valerie.guillaumin@icmagroup.org
peter.munro@icmagroup.org


*The Financial Secretary of Hong Kong, Paul Chan, delivers keynote speech at the Conference.*


*The Chief Executive of the HKMA, Norman Chan, gives welcome remarks at the Conference.*


*The Chairman of the Financial Services Development Council, Hong Kong, Laura M Cha, hosts a roundtable discussion on the development of the green bond markets in Hong Kong and Mainland China at the Conference.*


*John Flint, Group CEO, HSBC speaks at the Conference.*

*Some 800 participants attended the 2018 Green and Social Bond Principles Annual General Meeting and Conference co-hosted by ICMA and the Hong Kong Monetary Authority in Hong Kong om 14 June.*

# The green bond market in Asia-Pacific

By Jonathan Drew

The 2018 Green and Social Bond Principles Annual General Meeting and Conference, held in Hong Kong for the first time outside of Europe, received strong participation and endorsement from a wide ranging audience from both the public and private sector across the region. The spirit of global cooperation in growing the market and delivering finance to support sustainable development was evident.

According to Dealogic, Asian green bond issuance reached $43.4 billion in 2017 accounting for 36% of global volume (up from less than 10% in 2015). In 2018 we have already seen issuance from Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, Singapore, South Korea, Taiwan and The Philippines, including many debut issuers. Multinational development banks such as the Asian Development Bank (ADB) and World Bank have also raised green capital in Asian currencies this year continuing their market leadership.

## Asia Pacific: Stepping up to the challenge

Asia Pacific – home to vast and globally significant reserves of natural resources, many rapidly growing economies and expanding middle class populations – faces the complex challenges of sustainable development. The ADB's estimate has suggested the required spend on new infrastructure alone across Asia is $1.7 trillion per annum. This cannot be achieved by relying on public sector funding, therefore private sector sustainable finance will be critical to low carbon non-polluting growth. Governments in the region are actively setting out frameworks and incentives to develop the market and the speed of growth of the sustainable bond market in Asia Pacific over the last few years reflects the galvanizing impact of such policy support from governments and regulators alike.

## China

The green agenda has become a key component of China's national development plans, and the financial system has played a key role in this, driven by the People's Bank of China. China established itself as a leading green bond market back in 2016 and China now accounts for more than half of Asia Pacific's issuance volume so far in 2018, totalling more than $10 billion via 40 some deals. In 2018, state-owned enterprise issuers including Tianjin Rail Transit and Beijing Capital Group debuted in the market, along with corporates such as Landsea Green Group and repeat issuer Modern Land, as well as regular financial sector issuers such as the Bank of China and the Industrial Bank of China. Since the launch of the Bond Connect scheme in 2017, which allows foreign investors to participate in the mainland bond market, a number of China's development banks have launched green bonds through the platform.

## Indonesia

As a tropical island nation with a high level of biodiversity, Indonesia is hugely susceptible to climate change. As the fifth biggest emitter of greenhouse gases, the country understands the role it needs to play in decarbonising its infrastructure and energy mix and is now strongly committed to combating climate change. In February 2018, the government of Indonesia issued a green sukuk worth $1.25 billion. The green sukuk proceeds will be allocated to environmental projects that contribute to the mitigation of or adaptation to climate change as well as the preservation of biodiversity. This supports the nation's commitment to cut greenhouse gas emissions by at least 29 percent by 2030, and for renewable energy to make up one-quarter of its energy mix by 2025.

## India

The Indian Government has set an ambitious target to install 165 gigawatts of renewable energy capacity by 2022. Capital requirement to achieve this target is estimated to be $200 billion. Public sector entities including Rural Electrification Corporation, IDBI Bank, Indian Renewable Energy Development Agency, along with private sector corporates such as ReNew Power as well as financial institutions such as ICICI Bank and Yes Bank have introduced green bonds to raise funds for clean energy projects. The cumulative green bond issuance in India has more than doubled to over $7.1 billion since the Securities and Exchange Board of India issued green bond guidance in May 2017. In January 2018, Indiabulls Housing Finance completed the first social private placement from India issuer in international market (INR 3.15 billion Masala Bond for affordable housing). Growth in the market is expected to continue in line with government-mandated initiatives.

## Japan

In Japan, where one of the largest pools of institutional investment assets in the world resides, a number of Japanese institutional investors have set targets for sustainable investment. Additionally, Japan's Ministry of the Environment released voluntary green bond guidelines in March 2017. The world's biggest pension fund, Japan's Government Pension Investment Fund (GPIF), requested its external asset managers to fulfil the stewardship responsibilities outlined in the "Japan's Stewardship Code". Earlier this year, Japan's largest shipping company, NYK Line, issued the world's first green bond by a shipping company. Other debut issuers include Japan Retail Fund Investment and Mitsubishi Estate and repeated issuers include: Development Bank of Japan (DBJ), Mitsubishi UFG, Japan Railway Construction Transportation and Japan International Cooperation Agency (JICA).

## Australia

The first half of 2018 has seen repeated active financial institutions players including Westpac and NAB bringing to the market green bonds as well as Flexigroup's solar asset-backed securitisation. Following HSBC Bank's $1 billion Sustainability bond in November 2017 – from its Sustainable Development Goals (SDG) Bond Framework – ANZ debuted its €750m SDG Bond to promote nine of the United Nations' 17 SDGs.

## Looking forward

The Green Bond Principles (GBP) are the *de facto* global standard for issuers, and the GBP's working groups regularly release additional guidance in critical areas such as impact reporting. The Association of Southeast Asian Nations Capital Markets Forum released the ASEAN Green Bond Standards, which are closely aligned with the GBP will serve to direct the regional markets.

The Joint White Paper co-authored by the China's Green Finance Committee and the European Investment Bank paves the way for enhancing the international consistency of green finance definitions for the benefit of issuers and investors.

Expanding to the green lending space, in March 2018 the Loan Market Associations in Europe and Asia, together unveiled the Green Loan Principles (GLP)with the support of ICMA. The GLP are aligned with GBP and can be expected to accelerate the channelling of funds to green projects, especially via the bank markets.

While the Asia Pacific investor community may not yet match its counterparts in Europe and the Americas in terms of embedding sustainability considerations in investment analysis and product design, they are changing fast. This includes sovereign wealth funds, and central banks such as Japan's GPIF, South Korea's National Pension Service and the New Zealand Superannuation Fund. Among private investors, an increasing majority of investors are adopting ESG criteria to screen investments with meeting market expectation, according to the latest Asian Bond Investor Survey sponsored by HSBC and S&P Global Ratings.

The combination of strong policy and regulatory direction combined with increasing private sector awareness and action mean that the Asian sustainable finance markets are set to continue to grow rapidly, creating attractive investment opportunities for global capital and contributing significantly to meeting the global challenge.

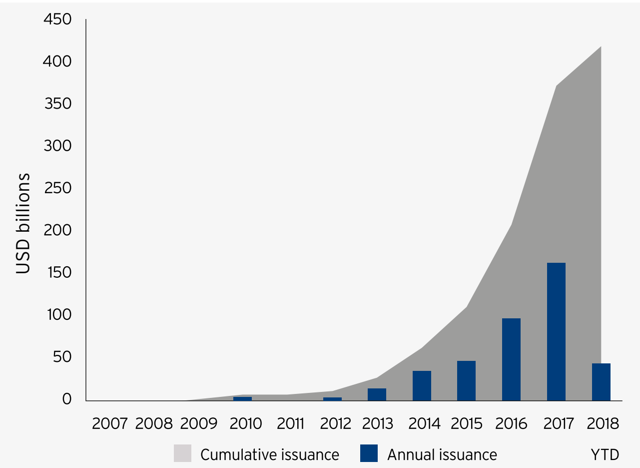
**Jonathan Drew** *is Managing Director, Infrastructure and Real Estate Group, Global Banking and Markets, The Hongkong and Shanghai Banking Corporation Ltd.*

# Green and social bond market developments

Cumulative green bond issuance continued to progress beyond the landmark $400 billion reached at the end of 2017. There was strong growth in corporate and financial issuance early in the year, which has been much awaited in the market, as well as a strong showing for MBS issuance. Also, it was significant to see the emergence of a green loans market, supported by Green Loan Principles based on the GBP.

Green bond volumes continued to grow at a double-digit rate in 2018. In recent years, volumes have tended to be more concentrated in the latter part of the year. Year-to-date issuance seemed to follow that pattern: average growth in the first four months of 2018 was at a more moderate rate than in FY 2017 (+14% / €45 billion to end-April vs. +78% in FY 2017), and momentum picked up in early Q2 (+32% year-on-year in April); sources: SEB analysis & data, BNEF and CBI data, unless stated.

***Green bond issuance: cumulative and annual***




*Source: SEB analysis based on Bloomberg (BNEF) and SEB data as at April 30, 2018*

In a promising sign, private sector issuance was buoyant, with corporate and financial issuance volumes up by 44% and 23% respectively year-on-year to end-April. It was also encouraging to see strong geographic breadth, with issuance from no less than 31 jurisdictions year to date, fast approaching the total for 2017 as a whole (40). Regionally there was a swing towards Europe (51% vs. 33% in FY 2017), alongside sizeable issuance from Asia (21%) and the US (19%). This influenced currency preferences, led by EUR (46%), USD (26%) and CNY (8%). The US remained the largest individual country of issuance – led by Fannie Mae, the largest green bond issuer of 2017, which in June announced a new green bond framework aligned with the GBP. Belgium ranked second – boosted by new sovereign issuance, followed by familiar leaders in the form of China and France. Remarkably, in the Swedish krona market, green bonds achieved a market share of 12% in Q1 (vs. typically a low single digit share elsewhere), underlining the advanced state of this market. Also, Indonesia entered the top 10 driven by inaugural sovereign issuance in sukuk format.

Social and sustainability bond issuance remained on robust path, with over €7 billion by end-April, a run rate comparing favourably vs. €16 billion in FY 2017. There is also a strong pipeline, with over 20 issuers announcing plans to come to market. While this segment remained dominated by SSA issuers (74%), corporate issuance was significant (26%). In geographic terms, Europe led – the Netherlands followed by Germany, Spain and France – all with a double-digit share, followed by supranationals (9%).

Green loans have gained momentum and are expected to be further encouraged by the announcement in March 2018 of Green Loan Principles (GLP) by the Loan Market Association (LMA) and Asia Pacific Loan Market Association (APLMA). The GLP explicitly reference the GBP as their basis and were developed in partnership with ICMA in consultation with Members of the GBP/SBP ExCom.

Separately in the syndicated green loans in Europe reached a cumulative volume of €19 billion as of March 2018 (source: LMA, Thomson Reuters). This included issuance from corporate and financial institutions across a range of European markets. Green loan issuance has also launched in Asia, notably the announcement of a sizeable green real estate loan in Hong Kong in March 2018. In addition, significant new Green Loan initiatives were announced by financial institutions in Europe and in Latin American corporate space in March/April 2018.

**Contacts: Nicholas Pfaff, Valérie Guillaumin, Denise Odaro and Peter Munro**
nicholas.pfaff@icmagroup.org
valerie.guillaumin@icmagroup.org
denise.odaro@icmagroup.org
peter.munro@icmagroup.org

# International Regulatory Digest

*by David Hiscock and Alexander Westphal*

## G20 financial regulatory reforms

On 5 April 2018, the Board of IOSCO, as part of its ongoing work aimed at improving the functioning of global corporate bond markets, published its recommendations for improving the information on secondary corporate bond markets available to both regulators and the public. These recommendations seek to ensure that regulators have better access to information, so they can perform their functions more effectively, and to enhance cross-border information sharing and understanding.

The transparency recommendations aim to support the price discovery process and facilitate better informed investment choices. Updating IOSCO´s 2004 report on *Transparency of Corporate Bond Markets*, the *Regulatory Reporting and Public Transparency in the Secondary Corporate Bond Markets* report makes seven recommendations that emphasize the importance of ensuring the availability of information to regulators, through reporting, and to the public, through transparency requirements.

On 19 April, HM Treasury and the US Treasury Department jointly announced the formation of a US-UK Financial Regulatory Working Group, with a view to the further promotion of financial stability; investor protection; fair, orderly, and efficient markets; and capital formation on both sides of the Atlantic. In doing so, they note that the importance and prominence of US and UK financial markets and the transition in the UK's regulatory relationship with the EU due to Brexit provides an opportunity to formalize their bilateral regulatory cooperation engagement.

This working group is anticipated to meet twice a year, with additional technical meetings and calls, as appropriate, between the biannual meetings. It will be used as a platform for furthering financial regulatory cooperation, with the general operational objective to improve transparency, reduce uncertainty, identify potential cross-border implementation issues, work towards avoiding regulatory arbitrage and towards compatibility, as appropriate, of each other's national laws and regulations.

Completing an important element of its 2015 *Workplan on Measures to Reduce Misconduct Risk*, on 20 April, the FSB published *Strengthening Governance Frameworks to Mitigate Misconduct Risk*, which provides a toolkit that firms and supervisors can use to tackle the causes and consequences of misconduct. Since mitigating misconduct requires a multifaceted approach, the toolkit identifies 19 tools that firms and supervisors could use to strengthen governance frameworks in three overarching areas identified by the FSB as part of its earlier work on misconduct. It provides a set of options based on the shared experience and diversity of perspective of FSB members in dealing with misconduct issues.

The second Argentine G20 Meeting of Finance Ministers and Central Bank Governors concluded, on 20 April, with a press conference given by G20 finance chairs, Argentine Treasury Minister Nicolás Dujovne and Central Bank President Federico Sturzenegger. The chairs drew attention to growth in the global economy and the opportunity to take measures to mitigate latent risks. Recognizing that risks still exist, such as a retreat to inward-looking policies and geopolitical challenges, the Central Bank President announced that that group agreed on now being the right time to normalize monetary policy at international level. He also explained that monetary policy normalisation should be a gradual process, one which requires better communication between members of the G20. The next finance ministerial meeting will be held in Buenos Aires, in July.

Additionally, the, 21 April, communiqué of the 37th meeting of the IMFC includes, among others the following statements:

- In line with central bank mandates and mindful of financial stability risks, monetary accommodation should continue where inflation remains weak and be gradually withdrawn where inflation looks set to return to central bank targets.
- Structural reforms should aim to lift productivity, potential growth, and employment, while effectively assisting those bearing the cost of adjustment.
- We stress the importance of timely, full, and consistent implementation and finalisation of the financial sector reform agenda as soon as possible to further strengthen financial sector resilience.
- We will continue to monitor and, if necessary, address emerging risks and vulnerabilities in the financial system.
- We will work together to reduce excessive global imbalances in a way that supports global growth by pursuing appropriate and sustainable policies.

Documents related to, and statements given on the occasion of, this IMFC meeting have been published, as has a transcript of the IMFC Press Conference. These meetings were held in the context of the 2018 Spring Meetings of the Boards of Governors of the IMF and the World Bank Group, held in Washington DC, from 16-22 April.

On 23 April, the BCBS issued the *Fourteenth Progress Report* on adoption of the Basel regulatory framework, which sets out the adoption status of Basel III standards for each BCBS member jurisdiction as of end-March 2018. It includes for the first time the finalised Basel III post-crisis reforms published by the BCBS in December 2017, which will take effect from 1 January 2022. Since the last report, published in October 2017, member jurisdictions have made further progress in implementing standards. The BCBS continues to urge member jurisdictions to strive for full, timely and consistent implementation of Basel III post-crisis reforms and will keep monitoring closely the implementation of these reforms.

On 10 May, IOSCO issued a press release regarding its 43rd Annual Conference, in Budapest, at which the focus was on key challenges facing securities regulators. Under the sub-heading of strengthening the structural resilience of capital markets, this reports that in the area of asset management, the Board discussed ETFs and heard from an IOSCO member-led group conducting an exploratory workstream linking any idiosyncratic risks that may arise from ETF structures. It also reviewed the progress of IOSCO's efforts to complete its work on measuring leverage in investments funds. Additionally, in the area of standards implementation, the Board supported a proposal to assess the consistency in implementation by various IOSCO members of MMF reforms against IOSCO´s 2012 recommendations for MMFs.

Under the sub-heading of analysing the role of securities markets in sustainability issues and the related role of securities regulation, this reports that Board members shared their experiences regarding non-financial reporting, sustainability disclosures and other aspects of sustainable finance in their jurisdictions. They agreed to establish an information sharing network among IOSCO members to gain insight into the issues around sustainability, including the details of issuer disclosure and its relevance to investor decision making. The Board discussed the work of the Growth and Emerging Markets (GEM) Committee in enabling sustainable capital markets in emerging markets, noting that many GEM Committee members are adopting frameworks designed to foster the growth of sustainable instruments and enhance transparency and disclosure.

Furthermore, under the sub-heading of examining the role of regulation in financial technology and automation, it is reported that the Board agreed to launch a Fintech Network to facilitate the sharing of information, knowledge, and experiences related to FinTech among IOSCO members. The Fintech Network will also serve as a forum for collaborative work on regulatory issues, trends, and emerging risks.

Following meetings, of the IOSCO Board, the GEM Committee, the four Regional Committees and the Affiliate Members Consultative Committee (AMCC – of which ICMA is a member, with Andy Hill attending as ICMA's representative), public sessions of the conference focused on four key issues: (i) the sale of unsuitable products to retail investors; (ii) the challenges of Fintech and digitalization; (iii) the shift from active to passively managed collective investment schemes; and (iv) SME access to funding through capital markets.

The BCBS maintains a two-year work programme that outlines the strategic priorities for its policy, supervision and implementation activities. This programme is endorsed by the Group of Governors and Heads of Supervision and is developed under the direction of the BCBS Chairman. On 5 June, the BCBS published information regarding its 2018-19 work programme, the themes of which are: (a) finalise existing policy initiatives and initiate targeted policy development; (b) ensure full, timely and consistent implementation of the BCBS's post-crisis reforms; (c) promote strong supervision; and (d) evaluate and monitor the impact of post-crisis reforms.

Alongside this, the BCBS published updated details of its charter, which provides information on its purpose and role; membership; oversight; organisation; BCBS standards, guidelines and sound practices; consultation with non-member authorities; relationship with other international financial bodies; and public consultation process.

On 21 June, the FSB published two guidance documents to assist authorities in implementing its *Key Attributes of Effective Resolution Regimes* for G-SIBs. The guidance will support the application of the overall policy framework to end "too-big-to-fail". Together with the final guidance the FSB published feedback notes setting out how responses to the associated November 2017 public consultations have been incorporated.

Bail-in within resolution is at the core of resolution strategies of G-SIBs. It helps achieve a creditor-financed recapitalisation by way of a write-down and conversion of liabilities into equity that minimises impacts on financial stability, ensures the continuity of critical functions, and avoids exposing taxpayers to loss. The guidance, *Principles on Bail-in Execution*, sets out principles to assist authorities as they make bail-in resolution strategies operational.

The second guidance document, *Funding Strategy Elements of an Implementable Resolution Plan*, covers the development of a resolution funding plan for G-SIBs. It builds on the FSB's, August 2016, *Guiding Principles on the Temporary Funding Needed to Support the Orderly Resolution of a G-SIB* and existing supervisory and resolution guidance on liquidity risk management and resolution planning.

On 25 June, the FSB Plenary met, in Basel, to discuss risks and vulnerabilities from market developments in the global financial system and progress against its 2018 workplan for delivery to the Argentine G20 Summit in November. Regarding market developments and vulnerabilities, the Plenary continues to see a broad-based snap-back in long-term interest rates as a risk; and discussed the results of a systemic stress assessment that examined the potential impact of portfolio rebalancing behaviours by asset managers and institutional investors on liquidity in fixed-income markets – while fixed-income liquidity may appear resilient under normal market conditions, correlated portfolio rebalancing away from higher-yielding fixed-income assets could in some circumstances amplify market stress during a market shock.

The Plenary discussed progress on crypto-assets deliverables; and agreed on a framework to monitor potential emerging financial stability risks of crypto-assets. FSB members also discussed the macrofinancial implications of operational and cyber risks and current challenges for supervisors in overseeing cyber risk management in internationally active financial institutions.

> **The Plenary continues to see a broad-based snap-back in long-term interest rates as a risk.**

The FSB discussed preliminary results from two ongoing evaluations of the effects of reforms: on the financing of infrastructure investment, and on the incentives to CCP clear OTC derivatives. Two other evaluations agreed upon by the FSB will be launched in the coming months: (i) an evaluation of the effects of reforms on the financing of SMEs; and (ii) an evaluation of the effects of policies to address too-big-to-fail, which will be completed in 2020.

With respect to efforts to transform shadow banking into resilient market-based finance, IOSCO updated the Plenary on its work to develop consistent leverage measures for investment funds, as part of its work to operationalise the FSB policy recommendations on structural vulnerabilities from asset management activities. The Plenary also discussed a draft framework for FSB collection and handling of firm-level non-public data; provided feedback on an interim report to review the FSB's processes and transparency; agreed to invite several new jurisdictions to join the Regional Consultative Groups; and received an update on the ongoing work of the Task Force on Climate-related Financial Disclosures (TCFD).

**Contact: David Hiscock**
david.hiscock@icmagroup.org

# Developments in China's interbank bond markets

By Qing Ren, Deputy-Head of International Cooperation Department at National Association of Financial Market Institutional Investors (NAFMII), and Ricco Zhang, Director Asia-Pacific, ICMA

Since the beginning of China's economic reforms 40 years ago, China's domestic bond market has developed from virtually nonexistent into what is now the third largest in the world. As of the end of 2017, the market's outstanding volume reached RMB 75 trillion (almost $12 trillion), of which the credit market segment totalled RMB 18 trillion, making it the largest in Asia and the second largest in the world. Secondary market trading is active, with a spot trade transaction volume of RMB 108 trillion in 2017. Most products commonly seen in the international bond market are now available in China, including public offerings and private placements, and CP, MTN, ABS, perpetual bonds and derivatives such as CDS and CLN. In recent years, China's Central Government has continued to liberalise its financial market, in particular opening up the interbank bond market to foreign institutions.

## Panda bond market development

As of May 2018, 56 panda bond issuers have entered the interbank market, 40 of which have registered panda bonds with NAFMII. Types of issuers include international development institutions, sovereign or municipal governments, financial institutions and non-financial enterprises. Such panda bond issuers have issued a total of RMB 169.54 billion through 83 transactions, of which RMB 137.01 billion (approximately $21.2 billion) remains outstanding.

The panda bond market is potentially attractive to overseas issuers, as outlined in the NAFMII-ICMA report *Panda Bonds and the Perspectives of Foreign Issuers.* However, to ensure continued development of the market, technical issues such as accounting standards, auditing recognition and taxation still need more clarity. Chinese regulators are actively working on addressing these issues. For instance, the Ministries of Finance of China and Japan exchanged letters on cooperation regarding audit oversight last December, which is expected to better facilitate both Panda and Samurai bond issuers, and better protect investors in both markets.

## Development of market access for foreign investors

In July 2017, China and Hong Kong officially launched the Bond Connect scheme, which for the first time enables foreign investors to trade in China's interbank bond market from Hong Kong accounts under a streamlined process.

At present, there are three main programmes by which foreign investors can access the domestic bond market, namely the Qualified Foreign Institutional Investor (QFII) and RMB QFII(RQFII) schemes, direct investment in China's interbank bond market (CIBM Direct) and Bond Connect. (See comparison in Table 1).

### Table 1: Comparison of three ways to access China's interbank bond market

| | QFII/RQFII | CIBM Direct | Bond Connect |
|---|---|---|---|
| Regulatory requirements | CSRC: QFII/RQFII license; SAFE: QFII Quota | Pre-filing with PBOC | Pre-filing with PBOC, with help from CFETS, domestic custodies and interbank bond market settlement agencies |
| Investment quota | Only needs to pre-file with SAFE if requested quota is within the base quota or obtain approval if the requested quota exceeds base quota | No specific investment quota restrictions; applicant may pre-file with PBOC the anticipated investment value | No specific investment quota restrictions |
| Eligible fixed income products | All cash bonds | Cash bonds and onshore interest rate derivatives for all, but repo transactions are open to "three types of institutions[1]" | All cash bonds |
| Foreign exchange management | QFII: foreign currencies RQFII: RMB(CNH); not allowed to do hedging | Both RMB and foreign currencies; Allowed to do FX hedging in onshore FX market | Both RMB and foreign currencies; Allowed to do FX hedging via trade settlement banks in HK |
| Custody arrangement | Domestic custody | Domestic custody | HK CMU |
| Lock-up period or repatriation restrictions | 3 months, but no restrictions on open-ended funds | No restriction | No restriction |

*Source: JP Morgan Asset Management, Hong Kong Exchange, People's Bank of China (PBOC)*

1. On 16 August 2010, the PBC released a circular allowing three types of institutions to invest in China's interbank bond market, namely foreign central banks or monetary authorities/RMB clearing banks in Hong Kong SAR and Macau SAR/Overseas participating financial institutions engaging in RMB cross-border trade settlement.

The convenience offered by Bond Connect is that foreign investors do not have to open an onshore account, which would have taken months in the past. Due largely to the introduction of Bond Connect, outstanding volume of foreign holdings increased 29% over the year 2017 to more than RMB 1 trillion.

Bond Connect allows foreign investors to access the onshore primary markets as well as secondary markets. In July 2017, the government of Hungary issued its inaugural RMB 1 billion panda bond via Bond Connect with three-year maturity and a 4.85% coupon. The issuance received active subscription from domestic and overseas investors with 1.96 times oversubscription, while overseas investors' participation reached a record high of over 55% of the total issuance volume in the transaction. And in November 2017, when the Canadian province of British Columbia issued its second batch of panda bonds via Bond Connect, foreign subscription was about 70% of the total.

### *Foreign participation in the onshore credit rating industry*

Credit rating is an integral part of bond market, providing necessary risk assessment and disclosure. There are eight major Chinese domestic credit rating agencies (CRAs) providing rating services based on local methodologies, models and criteria.

***Table 2 Major credit rating agencies in China's bond market***

| Name | International Shareholder | Market segment | | |
|---|---|---|---|---|
| | | Interbank market products | Enterprise bond | Corporate bond |
| Dagong | None | √ | √ | √ |
| Brilliance | None | √ | √ | √ |
| Golden | None | √ | √ | √ |
| Lianhe | GIC[1] 49% | √ | √ | |
| Lianhe | None | | | √ |
| Chengxin | Moody's 30% | √ | √ | |
| Chengxin | None | | | √ |
| Pengyuan | None | | √ | √ |
| Far East | None | | | √ |

*Source: NAFMII*

**China's Central Government has continued to liberalise its financial market, in particular opening up the interbank bond market to foreign investors.**

In July 2017, the PBOC announced the opening-up of the credit rating industry (see PBOC *No. 7 Announcement*, 2017*)*[2] allowing eligible foreign CRAs to provide credit rating services in the interbank bond market. This reform is expected to promote more accurate pricing in this market.

According to the PBOC announcement, NAFMII is authorized to establish a registration and market-oriented evaluation system for CRAs. In March 2018, NAFMII published *The Rules for Credit Rating Agencies' Registration and Participation in Market-based Evaluation in Interbank Bond Market*[3] which also specifies the required documentation.

Other specific measures have been taken to open up China's financial sector. For instance, in April 2017, China Securities Regulatory Commission officially released its *Administrative Measures for Foreign-Invested Securities Companies*, allowing foreign investors to increase their shareholdings in joint-venture security companies to 51%. As the recently appointed Governor of the PBOC, Gang Yi, has stated that the Government is "losing no time in translating China's plans to widen market access into reality." Just before this article was published, some measures were taken to streamline the filing requirements for foreign investors investing in China's interbank bond market.[4] (Both Chinese and English version of this *Notice* made by PBOC Shanghai Head Office can be found in the link below.)

**Contact: Ricco Zhang**
ricco.zhang@icmagroup.org

2. http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/3337553/index.html
3. http://www.nafmii.org.cn/zlgz/201803/t20180327_68266.html
4. http://shanghai.pbc.gov.cn/fzhshanghai/113571/3560420/index.html

## European financial regulatory reforms

The European Parliament is preparing an own initiative report on the topic of relationships between the EU and third countries concerning financial services regulation and supervision. Accordingly, a draft report has been published, under date of 4 April, which presents 24 points, including calls:

- for the introduction of clear procedures and timelines governing the adoption, withdrawal or suspension of equivalence decisions;
- on the Commission to adopt a legislative act establishing a clear framework for a transparent, coherent and consistent application of equivalence procedures which introduces a standardised process for the determination of equivalence;
- for equivalence decisions to be reviewed at least once every three years by the relevant ESA and for such reviews to be made public;
- on the Commission to consider the possibility of introducing an application process for granting equivalence which could be opened to third countries on a date specified in a given piece of legislation;
- on the Commission to conduct an in-depth review of all equivalence decisions taken, in order to determine the successes and failures of the current equivalence regime; and
- for active involvement from the Commission, the Member States and ESAs in global standard-setting bodies in financial services; and to that end, moreover, for the EU-US Financial Markets Regulatory Dialogue to be upgraded to include more regular meetings.

Amendments were tabled, by 4 May, and this report has been debated and awaits adoption.

On 27 April, the ESAs announced that they have concluded a multilateral Memorandum of Understanding (MoU) on cooperation, information exchange and consultation with the EFTA Surveillance Authority. This multilateral MoU establishes practical arrangements between the ESAs and the EFTA Surveillance Authority in relation to the adoption of acts by the EFTA Surveillance Authority on product intervention, breach of EEA law, action in emergency situations, mediation, as well as on the adoption of specific opinions, effective within the EEA-EFTA States.

On 3 May, the European Commission published its annual *European Financial Stability and Integration Review* (EFSIR), showing that the EU banking sector is benefiting from a strong economy and supportive financing conditions. The performance of European banks has improved, and their resilience has increased thanks to the restructuring of balance sheets. Nevertheless, the sector continues to be challenged by tight interest margins and the provisions that banks are having to make for non-performing loans. Over the past year, growth in the banking sector was stimulated by supportive economic and monetary policy measures such as the ECB's asset purchase programme and the prolonged low interest rates.

The EFSIR also shows that the Commission's risk reduction effort is being reflected on the ground. Banks have increased their capital position and limited their exposure to market risk by reducing bond and derivative portfolios. Nevertheless, the report finds that local capital markets continue to be very unevenly developed in Europe. In particular, markets in central, eastern, and south-eastern Europe lag behind those in western Europe, in terms of both size and liquidity. On the plus side, capital market integration is improving, and firms' market-based funding increased, in line with the objectives of the CMU.

Alongside this, the ECB published its annual report on *Financial Integration in Europe*, showing that financial integration in the euro area resumed last year. The resumption of financial integration after the volatile year 2016 was pronounced in prices but not in quantities. The price-based integration process was driven in particular by convergence to similar levels across countries in equity returns and, to a somewhat lesser extent, in bond yields. The main force behind this capital market-oriented process was the strengthening and broadening of the economic expansion in the euro area, which was quite uniform overall.

Reasons why quantity-based financial integration is not yet recovering are that euro area cross-border interbank trading remains relatively low and cross-border equity or bond holdings do not show particular trends up

**Reasons why quantity-based financial integration is not yet recovering are that euro area cross-border interbank trading remains relatively low.**

or down over the reporting period. Investment funds, however, tend to play a favourable role in quantity-based financial integration, as many of their portfolios are quite geographically diverse, enabling them to help other investors spread asset holdings across countries. As there is room for further financial integration and as the extent of cross-border private financial risk sharing remains relatively low, the completion of the European Banking Union and further progress with the CMU should remain policy priorities.

These two reports were presented at the annual European Financial Integration and Stability conference, organised jointly by the Commission services and the ECB, in Frankfurt and streamed live. This year's conference was titled *Fostering Banking Union and Capital Markets Union – a Top-down or Bottom-up Approach?* Besides the presentation of the reports, speeches were given by Valdis Dombrovskis, Vice-President, European Commission and Vítor Constâncio, Vice-President, ECB, and high-level policy panel discussions were held on the themes of (i) How to Make Retail Banking Integration Happen; and (ii) The Role of Institutional Investment for the CMU.

On 22 May, EIOPA published its first study on the Modelling of Market and Credit Risk. The results of the study show significant variations in asset model outputs, partially resulting from model specificities, which indicates the need for further supervisory actions. The study is a first step in an ongoing process of monitoring and comparing internal market and credit risk models.

On 24 May, the European Commission launched a proposal to remove unwarranted regulatory obstacles to the market-led development of sovereign bond-backed securities (SBBS). SBBS would be issued by private institutions as claims on a portfolio of euro-area government bonds, and would, by design, not involve mutualisation of risks and losses among euro area Member States – only private investors would share risk and possible losses. It is intended that investing in such new instruments would help investors such as investment funds, insurance companies, or banks to diversify their sovereign portfolios, leading to more integrated financial markets. This initiative could also contribute to weakening the link between banks and their home countries, which – despite recent progress – remains strong in some cases, while SBBS would not negatively affect existing national bond markets.

Also, on 24 May, to support the goals of CMU and the EU's agenda for sustainable development, the Commission issued first proposals following up on the EU Action Plan on Sustainable Finance. Key features of the measures are: (i) a unified EU classification system ("taxonomy"); (ii) the introduction of consistency and clarity on how institutional investors should integrate environmental, social and governance (ESG) factors in their investment decision-making process; (iii) creation of a new category of low-carbon (or "decarbonised") and positive-carbon impact benchmarks; and (iv) consultation to assess how best to include ESG considerations into the advice that investment firms and insurance distributors offer to individual clients – taking account of their individual sustainability preferences.

Additionally, on 24 May, the Commission proposed new rules to give SMEs better access to financing through public markets. The aim is to cut red-tape for SMEs trying to list and issue securities on "SME Growth Markets", a new category of trading venue dedicated to small issuers, and to foster the liquidity of publicly-listed SME shares. The new rules will introduce a more proportionate approach to support SME listing while at the same time safeguarding investor protection and market integrity.

Among the main proposed changes to SME listings rules, the Commission seeks to make it easier for trading venues specialised in bond issuance to register as SME Growth Markets. This will be done by setting a new definition of "debt-only issuers", which would be companies that issue less than €50 million of bonds over a 12-month period.

On 25 May, the European Council agreed its stance on a package of measures aimed at reducing risk in the banking industry. Ministers asked the presidency to start negotiations with the European Parliament as soon as the Parliament is ready to negotiate. The package agreed by the Council comprises two regulations and two directives, relating to (i) bank capital requirements – including a binding leverage and net stable funding ratios; and (ii) the recovery and resolution of banks in difficulty – including to integrate the FSB's TLAC requirement into the EU's MREL rules.

Then, on 19 June, the EU's plans to adopt Basel III rules were backed by Economic and Monetary Affairs Committee MEPs. Within this package, MEPs agreed to a binding 3% leverage ratio and an additional 50% buffer for GSIIs. They also refined NSFR rules for ascertaining whether an institution holds sufficient stable funding to meet its funding needs during a one-year period. MEPs also took up the idea of certain rule waivers, as proposed by the EU Commission – these refer to own funds and liquidity requirements for banking groups operating across borders within the EU, which would help to complete the banking union. However, they decided to make the waivers more prudent, by stipulating that the amount of own funds waived should not exceed 25% of the minimum own funds requirement.

To ensure that banks are treated proportionately, according to their risk profiles and systemic importance, MEPs inserted a definition of a "small and non-complex institution" that should be subject to simplified requirements with regard to recovery and resolution planning and reduced reporting frequency. And, MEPs believe that a fixed list of banks that would be exempted from prudential requirements could be extended only on the basis of clear criteria – moreover, EU member states would be required to ensure the publication of a list of excluded entities, together with information on deposit protection. With the Council already having agreed on its common approach at the end of May, trilogue talks will be held once the text has been announced at the Parliament's July plenary session.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

## Financial benchmarks

As from 2 April 2018, the New York Fed is making available Secured Overnight Financing Rate (SOFR) data. Previously selected as the US risk-free rate (RFR), SOFR is a broad measure of the cost of borrowing cash overnight collateralized by Treasury securities. SOFR includes all trades in the broad general collateral rate plus bilateral Treasury repurchase agreement transactions cleared through the delivery-versus-payment service offered by the Fixed Income Clearing Corporation, which is filtered to remove a portion of transactions considered "specials".

Subsequently, on 7 May, CME launched SOFR futures, to trade alongside highly liquid Eurodollar, Fed Fund and Treasury futures. Based on extensive customer input, CME Group launched 3-month and 1-month SOFR futures contracts. The 1-month SOFR strip futures proves useful to participants who seek finer granularity in framing market expectations of future SOFR values over the nearby 1-month to 7-month interval during which the front 3-month contract becomes more set each day from daily SOFR fixings.

ICE Benchmark Administration Limited (IBA) is responsible for the end-to-end administration of four systemically important benchmarks, including ICE LIBOR (LIBOR) which is the world's most widely used benchmark for short-term bank borrowing rates. In accordance with Article 15 of the EU Benchmarks Regulation (BMR), an administrator of a benchmark based on input data from contributors must develop a code of conduct clearly specifying contributors' responsibilities with respect to the contribution of input data. The BMR stipulates elements that must be included with the code. On 12 April, IBA published its proposed *LIBOR Code of Conduct*, for comment by 11 May.

Subsequently, dated 18 June, IBA published its *LIBOR Code of Conduct*, Issue 5. Other updated IBA documents published alongside this are the *ICE LIBOR Methodology* and the *LIBOR Evolution – Error and Reportable Items Policy*.

Additionally, on 25 April, IBA published a report outlining the evolution of LIBOR. The report summarises the evolution of LIBOR to date and also outlines plans for the gradual transition of LIBOR panel banks to the waterfall methodology, as set out in the ICE LIBOR output statement. This constitutes the next phase of LIBOR's evolution as part of IBA's ongoing work. IBA is also seeking to identify a framework to seek to continue publishing the LIBOR rates that are critical to the global financial system, beyond the end of 2021.

On 23 April, the Bank of England announced that it has implemented its reforms to the SONIA interest rate benchmark, which has been selected as the £ RFR. The Bank's aim in reforming SONIA is to strengthen a benchmark which is considered critical for the sterling financial markets. Previously, the benchmark was based on a market for brokered deposits which has limited transaction volumes. It now captures a broader scope of overnight unsecured deposits, by including bilaterally negotiated transactions alongside brokered transactions. Volumes underlying the rate based on the new methodology now average around £50 billion daily, over three times larger than those underlying SONIA previously.

On 18 June, the Bank of England made available a provisional timeline with milestones for RFR transition in sterling markets, as agreed by the Sterling RFR Working Group (RFR WG) – this will be updated on a regular basis with amendments and additional detail to reflect ongoing progress on plans for benchmark transition. In addition, the RFR WG notes the following immediate steps that market participants could undertake: (i) market participants should assess SONIA referencing product offerings which may be available to meet their financing, investment and risk management needs; (ii) financial service firms should provide clients with clear and accessible information for SONIA referencing product offerings; and (iii) all firms should assess the benefits as well as the risks of benchmark migration.

On 17 May, the Working Group on euro RFRs, set up by the ECB together with the Financial Services and Markets Authority (FSMA), ESMA and the European Commission (on which ICMA participates as a non-voting member), held its second meeting in Frankfurt. The agenda included updates on the progress towards selection of a euro RFR and on the work of the sub-groups on term structure and contract robustness –

meeting papers have been published on the ECB's website. The next meeting is scheduled for 11 July.

On 18 May, the ECB published a summary of responses to the ECB's second public consultation on developing a euro unsecured overnight interest rate. Ahead of this, on 16 May, the ECB's Governing Council decided that the new ECB unsecured overnight rate will be called ESTER (euro short-term rate). This interest rate, which will be produced before 2020, will complement existing benchmark rates produced by the private sector and serve as a backstop reference rate.

Subsequently, on 28 June, the ECB announced that it will begin publishing ESTER by October 2019, and that it will publish a time-lagged pre-ESTER to facilitate adoption of the new rate by markets.

On 6 June, EMMI announced that as part of its ongoing efforts in the context of the EURIBOR reform, and upon the outcome of the stakeholder consultation published on 26 March, EMMI's governing bodies approved the cessation of the 2 week, 2 month and 9 month tenors as of 3 December 2018. Consequently, as of 3 December, the EURIBOR benchmark will only be calculated and published for the following defined tenors: 1 week, 1 month, 3 months, 6 months and 12 months.

Subsequently, on 28 June, EMMI published a summary of feedback from its consultation on a hybrid methodology for EURIBOR.

On 21 June, the Working Group on euro RFRs called on market participants and all other interested parties to comment, by 13 July, on its assessment of candidate euro RFRs against key selection criteria. The new euro RFR will replace EONIA, which will no longer meet the criteria of the EU BMR as of 2020. The three euro RFR candidates are (i) ESTER, the new wholesale unsecured overnight bank borrowing rate; (ii) GC Pooling Deferred, a one-day secured, CCP cleared, general collateral repo rate produced by STOXX; and (iii) RepoFunds Rate, a one-day secured, CCP cleared, combined general and specific collateral repo rate produced by NEX Data Services Limited. The Working Group will use this market feedback as input for their discussions on recommending a new euro RFR, and plans to make its recommendation on the new euro RFR in autumn 2018.

The text of the BMR was published in the *Official Journal*, on 29 June 2016, and entered into force the following day. It entered into full application on 1 January 2018. 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 of the BMR. The first version of ESMA's BMR Q&A document was published on 5 July 2017, with the most recent update having been published on 24 May.

On 19 December 2017, ESMA issued an announcement that it would, as from 3 January (ESMA's first working day of 2018), begin publishing a register of administrators and third country benchmarks, in accordance with Article 36 of the EU Benchmarks Regulation. ESMA is currently still working on a new technical release of this register, therefore until the new register release is fully available as an IT functionality on its website (in Q3 2018), ESMA is providing an interim solution which involves it publishing, on a daily basis (ESMA working days), the latest registers' information in a comma-separated values (CSV) file format, available for download.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

## Credit rating agencies

In November 2017, ESMA published an updated methodological framework for the endorsement of credit ratings in its *Guidelines on Endorsement*. This new methodological framework incorporated new EU requirements that are due to enter into force for the purposes of endorsement from 1 June 2018. On 4 April, ESMA issued an update stating that the legal and supervisory frameworks of Canada and South Africa will continue to meet the requirements for endorsement under the EU CRA Regulation (CRAR) from June 2018. As a result, there will be no disruption to EU registered CRAs' ability to

**The Working Group on euro RFRs called on market participants and all other interested parties to comment, by 13 July, on its assessment of candidate euro RFRs.**

endorse credit ratings from these jurisdictions following the entry into force of the new requirements.

On 25 May ESMA published its latest set of semi-annual statistical data on the performance of credit ratings, including transition matrices and default rates. Data is available in the Central Rating Repository (CEREP), which is updated on a semi-annual basis with statistics covering the preceding 6-month period: the reporting periods are January to June and July to December – this latest dataset covers the period to 31 December 2017.

On 20 November 2017, ESMA published the most recent update to its Q&A on the application of the EU CRA Regulation.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

## OTC (derivatives) regulatory developments

On 10 April 2018, the CPMI and IOSCO published the *Framework for Supervisory Stress Testing of Central Counterparties* (CCPs), which provides authorities with guidance to support their design and implementation of supervisory stress tests for CCPs. The framework is designed to support tests conducted by one or more authorities that examine the potential macro-level impact of a common stress event affecting multiple CCPs. Among other things, such supervisory stress tests could help authorities better understand the scope and magnitude of the interdependencies between markets, CCPs and other entities such as participants, liquidity providers and custodians. This type of supervisory stress test is different from, yet may complement, other stress testing activities conducted by authorities seeking to evaluate the resilience of individual CCPs.

On 3 May, the CPMI and IOSCO published a report, entitled *Implementation Monitoring of PFMI: Follow-up Level 3 Assessment of CCPs' Recovery Planning, Coverage of Financial Resources and Liquidity Stress Testing*, assessing the progress made by CCPs in addressing the most serious issues of concern that were identified in an initial Level 3 report published in 2016. Overall, while the report found that participating CCPs have made progress in implementing arrangements consistent with the key PFMI, some CCPs are still failing to implement a number of measures in the areas of risk management and recovery planning. The failure of these CCPs to implement practices constitutes, in certain instances, serious issues of concern and warrants immediate attention; and the CPMI and IOSCO encourage the relevant CCPs to act as a matter of priority.

While ten derivatives CCPs were surveyed in the initial assessment in 2016, the follow-up assessment report has expanded the sample to 19 globally active and regionally focused CCPs spanning 17 jurisdictions and providing clearing services to a broader range of product classes, such as repo, bonds and equities, in addition to derivatives. The CPMI and IOSCO reiterate the importance of developing comprehensive and effective recovery plans, consistent with standards in the PFMI and informed by associated guidance in the revised Recovery Report. They also reiterate that, according to the PFMI, an FMI should maintain sufficient liquid resources in a wide range of potential stress scenarios – the fact that, following the publication of the initial Level 3 report, some CCPs continue to lack sufficient liquidity-specific scenarios is a serious issue of concern.

On 4 May, the ESAs launched two joint consultations to amend RTS on the clearing obligation and risk mitigation techniques for non-CCP cleared OTC derivatives not. These standards, which implement EMIR, aim to amend the current regulation in order to provide a specific treatment for STS securitisation, as further detailed in

**The fact that, following the publication of the initial Level 3 report, some CCPs continue to lack sufficient liquidity-specific scenarios is a serious issue of concern.**

the Asset-Backed Commercial Paper section of this ICMA Quarterly Report.

On 28 May, ESMA issued final guidelines, effective 3 December 2018, on anti-procyclicality margin measures for CCPs under EMIR. These guidelines seek to establish consistent, efficient and effective supervisory practices and to ensure a common, uniform and consistent application of EMIR, in order to limit procyclicality of CCP margins.

As reported in this section of Issue 46 of the ICMA Quarterly Report, on 4 May 2017, the European Commission proposed some targeted reforms to improve the functioning of the derivatives market in the EU. Within the European Parliament, a draft ECON report was published by the *rapporteur* on 26 January. Proposed amendments were tabled in March and following debate it was announced, on 16 May, that MEPs had agreed to simplify clearing rules for small and non-financial counterparties and to temporarily exempt pension funds from clearing. This ECON report was tabled for Plenary, where a decision to enter into interinstitutional negotiations was agreed, on 12 June. With the European Council having already agreed its common stance in December, trilogue is proceeding accordingly.

On 13 June, ESMA issued its first annual report regarding supervisory measures carried out and penalties imposed by NCAs under EMIR. The report particularly focuses on the supervisory actions undertaken by NCAs, their supervisory powers and the interaction between NCAs and market participants when monitoring the compliance of the following EMIR requirements:

(a) the clearing obligation for certain OTC derivatives;

(b) the reporting obligation of derivative transactions to TRs;

(c) requirements for non-financial counterparties; and

(d) risk mitigation techniques for non-cleared OTC derivatives.

To promote convergent risk management practices and risk control across the EU, on 22 June, ESMA published an opinion addressed to competent authorities responsible for CCP supervision. This sets out how EU CCPs should consider, in their internal risk models, the liquidity risk posed by all entities towards which the CCP has a liquidity exposure, such as liquidity providers – regardless of whether these are clearing members. In the measurement of their liquidity needs CCPs should include the default of their top two clearing members in all their capacities vis-à-vis the CCP, in addition to assessing in their stress testing scenarios all entities towards which the CCP has a liquidity exposure.

EMSA's list of CCPs authorised to offer services and activities in the EU, in accordance with EMIR, was last updated on 14 May, and its list of third-country CCPs recognised to offer services and activities in the EU was last updated on 18 May. ESMA's *Public Register for the Clearing Obligation* under EMIR has not been updated since 19 January; whilst its (non-exhaustive) list of CCPs established in non-EEA countries which have applied for recognition was last updated on 19 June.

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 30 May.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

# FinTech regulatory developments

by Gabriel Callsen

### *BIS Annual Economic Report (AER): Cryptocurrencies: looking beyond the hype*

On 17 June 2018, the BIS published its Annual Economic Report (AER), a new title launched this year. In a special chapter on cryptocurrencies, the BIS argues that the decentralised technology underpinning private digital tokens is no substitute for tried and trusted central banks. Cryptocurrencies promise to replace trusted institutions with distributed ledger technology. Yet, looking beyond the hype, it is hard to identify a specific economic problem which they currently solve. Transactions are slow and costly, prone to congestion, and cannot scale with demand. The decentralised consensus behind the technology is also fragile and consumes vast amounts of energy. Still, distributed ledger technology could have promise in other applications. Policy responses need to prevent abuses while allowing further experimentation.

### *IMF Working Paper: Cyber Risk for the Financial Sector: A Framework for Quantitative Assessment*

On 22 June 2018, the IMF published a staff working paper (No. 18/143) which presents a novel documentation of cyber risk around the world for financial institutions by analysing the different types of cyber incidents (data breaches, fraud and business disruption) and identifying patterns using a variety of datasets. The other novel contribution that is outlined is a quantitative framework to assess cyber risk for the financial sector. The framework draws on a standard VaR type framework used to assess various types of stability risk and can be easily applied at the individual country level. The framework is applied in this paper to the available cross-country data and yields illustrative aggregated losses for the financial sector in the sample across a variety of scenarios ranging from 10% to 30% of net income.

### *IMF: Expansion of the Fund's High Level Advisory Group on Finance and Technology*

On 1 June 2018, the IMF announced the expansion of the Fund's High Level Advisory Group on Finance and Technology, to strengthen the representation of national authorities and international organizations. The group is composed of 19 members who are highly-experienced experts and respected leaders in the field of finance and technology, including industry pioneers, officials from national authorities and international organizations, lawyers and academics. The IMF is responding to growing interest from its member countries in the opportunities and challenges arising from technological innovation in the financial sector.

### *EC FinTech Action Plan: First meeting of the EU FinTech Lab*

On 20 June 2018, the EU FinTech Lab met for the first time in Brussels. The focus of the session was outsourcing to cloud in the banking and insurance sectors. Following the adoption of the FinTech Action Plan for a more competitive and innovative European financial sector by the European Commission in

**ESMA continues to monitor market developments around DLT and looks into whether a regulatory response may become necessary following the publication of its report in February 2017.**

March 2018, the Commission has established an EU FinTech Lab to raise the level of regulatory and supervisory capacity and to share knowledge about new technologies. This is a training opportunity for regulators and supervisors, who will meet multiple technology providers to address regulatory and supervisory concerns and to explain the technologies behind the relevant products and services.

### *ESMA response to EC consultation on FinTech*

On 7 June 2018, ESMA sent its response to the European Commission consultation paper on *FinTech: A More Competitive and Innovative Financial Sector*, welcoming the initiative to conduct a stock-take of the EU's FinTech industry. With regard to distributed ledger technology (DLT), ESMA continues to monitor market developments around DLT and looks into whether a regulatory response may become necessary following the publication of its report in February 2017. Regarding the role of regulation and supervisors, ESMA believes that entities providing the same service should be regulated and supervised on an equal foot. However, Fintech start-ups might benefit from regulatory advice to navigate the applicable legal framework.

### *EU Blockchain Observatory and Forum: Announcement of two working groups*

On 18 May 2018, the European Blockchain Observatory and Forum, which was launched in February 2018, announced the formation of two Working Groups that will explore critical themes in blockchain in Europe, as well as its first European blockchain workshop. The Blockchain Policy and Framework Conditions Working Group will look at cross-technology and cross-industry issues to define the policy, legal and regulatory conditions needed to promote the regulatory and legal predictability necessary for larger-scale deployment of blockchain applications. The Use Cases and Transition Scenarios Working Group will focus on the most promising transformative blockchain use cases with an emphasis on public sector applications such as identity and government services, health care, energy and environmental reporting.

### *ECB publication of European framework for testing financial sector resilience to cyber attacks*

On 2 May 2018, the ECB published the so-called European Framework for Threat Intelligence-based Ethical Red Teaming (TIBER-EU), which is the first Europe-wide framework for controlled and bespoke tests against cyber attacks in the financial market. The TIBER-EU framework has been designed for national and European authorities and entities that form the core financial infrastructure, including entities with cross-border activities which fall within the regulatory remit of several authorities. TIBER-EU based tests simulate a cyber attack on an entity's critical functions and underlying systems, such as its people, processes and technologies. This helps the entity to assess its protection, detection and response capabilities against potential cyber attacks.

**Contact: Gabriel Callsen**
gabriel.callsen@icmagroup.org

## Market infrastructure

### ECB: TARGET2-Securities (T2S)

On 27 April, the 2017 T2S Annual Report was published. The report includes a wide range of interesting facts and figures related to the operation of T2S, including daily settlement volumes, updates on financial matters as well as a preview on upcoming priorities and next steps.

As reported more in detail in the repo and collateral market section above, the Eurosystem is currently undertaking a review of the T2S fee schedule. As a result of a shortfall in T2S settlement volumes (and hence revenues) as compared to initial estimates it has been suggested to increase fees considerably from currently 0.15 EUR per (DvP) settlement instruction to 0.235 EUR. At the same time, the cost recovery period was extended to 14.5 years (until 2029) in order to keep the increase limited. The proposal was approved by AMI-SeCo members and submitted to the ECB's Governing Council who adopted the new T2S fee schedule on 21 June.

A structured process for the change and release management related to T2S has been put in place. The annual change cycle aims to ensure that T2S continues to meet the requirements of its users and other stakeholders and that new releases of the T2S software can be applied effectively. On 8 – 10 June the first major change release since the successful migration of the last T2S wave in September 2017 was deployed. A key focus was on improving the operational resilience in a multi-currency set-up in view of the migration of the Danish krona to the T2S platform in October 2018.

### ECB: Advisory Groups on market infrastructure

The AMI-SeCo, which brings together the Eurosystem, its user community and the relevant market infrastructure providers, had its latest regular meeting on 22 June. A key milestone achieved at the meeting was the adoption of two reports with detailed proposals in relation to the harmonisation of collateral management activities prepared and submitted by the HSG CMH-TF. The two reports focus on corporate action processes and tri-party collateral management (explained in more detail in the subsequent section).

Prior to the latest regular meeting, AMI-SeCo members met on 17 May for an ad hoc meeting focused on the review of the T2S pricing schedule, as mentioned above. At the meeting AMI-SeCo members endorsed the revised final proposals which were subsequently submitted in a letter by AMI-SeCo Chair Marc Bayle (ECB) to the ECB's Governing Council for adoption. As a follow-up to the meeting, an ad hoc workshop on T2S volumes was held on 21 June, chaired by ERCC Ops co-chair Nicholas Hamilton who represents the ERCC in AMI-SeCo.

The ECB's second market infrastructure related advisory group, AMI-Pay, had its latest regular meeting on 17 April. At the meeting members received an update on the latest operations of the TARGET2 (T2) platform and reviewed the state of play in relation to the different ongoing initiatives in the area of payments, in particular the new TARGET Instant Payments Service (TIPS) and the consolidation of the T2 and T2S platforms. Furthermore, CLS Group as a member of AMI-Pay gave a presentation on their new service for same day FX settlement management called CLSNow. This was followed by a discussion with members on the impacts of CLSNow on euro liquidity. A more detailed summary of the meeting is available on the ECB website.

### ECB: collateral management harmonisation

Extensive work is under way to foster the harmonisation of collateral management activities in Europe. As explained more in detail in Quarterly Report for the Second Quarter of 2018, this work is undertaken mainly in support of the future Eurosystem Collateral Management System (ECMS), developed to offer a single system for users to manage eligible assets used as collateral for Eurosystem credit operations, and replacing the fragmented collateral framework based on the Correspondent Central Banking Model (CCBM). The harmonisation work is undertaken by a dedicated Collateral Management Harmonisation Task Force (CMH-TF) set up under the umbrella of AMI-SeCo. In line with the ECMS priorities the initial focus of the work has been on corporate action processes and tri-party management. This work has been undertaken against a tight deadline imposed by the annual change management cycle. The related deadline was successfully met when the CMH-TF submitted two detailed reports with harmonisation proposals in both areas to AMI-SeCo ahead of its latest meeting on 22 June. Both reports were discussed and approved at the meeting. While this is an important milestone, work continues on the three remaining sub-streams, namely bilateral collateral management, CSD billing and cut-off times and collateral static and dynamic data.

### ECB: Other market infrastructure-related initiatives

As reported in previous editions of the Quarterly Report, the Eurosystem is working on a number of important infrastructure related initiatives. This work is closely coordinated with market participants and other stakeholders through the two advisory groups on market infrastructure. The detailed technical work is undertaken by dedicated working groups. This includes the TARGET consolidation contact group established in January 2018 to focus on the project to consolidate the T2 and T2S platforms as well as a contact group on the TARGET Instant Payment Settlement (TIPS) service, scheduled to go live in November 2018. The third major project in this space, the future Eurosystem Collateral Management System (ECMS) is also supported by a dedicated internal working group, which is working on the concrete technical specifications of the platform. This is complemented by the extensive harmonisation work undertaken in collaboration with the market in support of the ECMS (see above).

Another area of focus formalised more recently is cyber resilience, both in relation to banks and financial market infrastructures (FMIs). In March 2017 the ECB's Governing Council approved a new *Eurosystem Cyber Resilience Strategy for FMIs*. The objective of this strategy is to improve the cyber resilience of the euro area financial sector as a whole by enhancing the "cyber readiness" of individual FMIs that are overseen by central banks in the Eurosystem, and to foster collaboration among FMIs, their critical service suppliers and the authorities. Specifically, the strategy aims to put in practice global CPMI-IOSCO guidance on this issue and comprises three pillars: (i) FMI readiness, (ii) sector resilience, (iii) strategic regulator-industry engagement. As part of the third pillar a new market contact group has been established, the Euro Cyber Resilience Board for pan-European Financial Infrastructures. This group met for the first time on 9 March 2018. ECB Executive Board member Benoit Coeuré provided the introductory remarks.

## ECB: Market contact groups

Members of the Bond Market Contact Group (BMCG) last met on 26 June in Frankfurt. The agenda for the meeting included a discussion on the Bond market outlook for the year ahead, the implications from the global unwind of QE, as well as other "hidden" risks to bond markets, such as the growth of passive investing, the use of leverage in investment funds and the role of geopolitics. The related presentations should be available in due course on the ECB website. The next regular meeting of the BMCG is scheduled for 9 October 2018.

The latest meeting of the Money Market Contact Group (MMCG) was held on 7 June in Frankfurt. At this meeting members reviewed recent developments in money markets, including the recent widening of USD LIBOR-OIS spreads and the functioning of repo markets. Other topics discussed included monetary policy expectations and the implications for the functioning and liquidity of money markets, money market reform in Europe as well as the ongoing work in relation to benchmark reform in the euro area. The next quarterly meeting of the group will be held on 25 September.

## European Commission

On 25 May 2018, the European Commission published the long-awaited final Regulatory technical standards (RTS) for CSDR Settlement Discipline, including mandatory buy-ins. For a more detailed assessment, please see the feature article earlier in this Quarterly Report as well as the shorter repo specific analysis in the repo and collateral market section.

As a follow-up to the detailed Report published by the European Post-Trade Forum (EPTF) in May 2017 and the subsequent public consultation on remaining barriers to cross-border clearing and settlement in Europe, the Commission is expected to publish a Communication to set out concrete next steps towards a more harmonised and integrated post-trade space. The Communication is expected to be published in Q3 this year.

As reported in the previous Quarterly Report, the Commission is undertaking a broad review of all existing EU financial reporting regimes, the so-called fitness check on supervisory reporting. The related public consultation was launched on 1 December 2017 and closed on 14 March 2018. The 391 responses that have been submitted by stakeholders to the consultation are now available on the consultation website.

## ESMA: Post-trading

With the final RTS on settlement discipline now published, ESMA has picked up the detailed work on the implementation of the rules. As a first step, on 5 June ESMA held an industry workshop on CSDR settlement discipline to discuss the key challenges in relation to settlement penalties and mandatory buy-ins with industry representatives. Unsurprisingly, feedback from the different stakeholders present at the workshop, including ICMA, highlighted once again the substantial difficulties with the proposed mandatory buy-in regime.

ESMA also continues to work on other aspects of CSDR. This includes work on outstanding guidelines and Q&As. In particular, since the last Quarterly Report, ESMA published further Guidelines in relation to the substantial importance of CSDs and relevant currencies. In addition, ESMA is providing guidance to clarify arising implementation questions. For this purpose, ESMA maintains a growing list of Q&As on CSDR which is regularly updated and available on the ESMA website. The latest update was published on 30 May.

Besides CSDR, ESMA also continues to work on the implementation of other important post-trade regulations, including extensive work on EMIR. On 27 April, in the context of the EMIR reporting provisions for derivatives, ESMA published a set of guidelines on the transfer of data between Trade Repositories. In the context of EMIR implementation, ESMA also reports on any supervisory measures and penalties imposed. The first Annual Report on such measures was published on 13 June.

### Global Legal Entity Identifier System (GLEIS)

On 24 April, the executive arm of the GLEIS, the Global LEI Foundation (GLEIF) published its Annual Report 2017. The Report includes an update on the GLEIF operations and provides a useful overview of the extensive global activities in relation to the adoption of LEIs in the course of 2017, with a particular focus on Europe where the LEI was hotly discussed as part of the final preparations for MiFID II, which went live on 3 January 2018 and introduced challenging requirements in relation to the use of LEIs. The immediate impact of these rules was somewhat mitigated by ESMA's last minute waiver in relation to the use of LEIs, which, as recently announced, will come to an end in July 2018. The GLEIF provides a useful overview of all regulatory requirements in relation to LEIs that have been put in place around the world (last updated on 29 May).

### BIS: Committee on Payments and Market Infrastructures (CPMI)

On 9 April, CPMI and IOSCO published technical guidance in relation to the harmonisation of critical OTC derivatives data elements. The report includes guidance for public authorities on harmonised definitions, formats and usage of these critical data elements and complements separate guidance already published in relation to the Unique Transaction Identifier (UTI) and the Unique Product Identifier (UPI).

CPMI-IOSCO continue to monitor the implementation of the 2012 Principles for Financial Market Infrastructures (PFMI). In this context, a recent report assesses the financial risk management and recovery practices of 10 derivatives CCPs. The latest report follows up on an initial assessment published in 2016 and shows good progress since then but also finds some CCPs still lag on risk management and recovery planning.

On 8 May, CPMI-IOSCO published a report on wholesale payments which calls upon the industry to adopt a common strategy to improve the security of wholesale payments.

**Contact: Alexander Westphal**
alexander.westphal@icmagroup.org

## Macroprudential risk

On 5 April 2018, the EBA published the regular update of its Risk Dashboard summarising the main risks and vulnerabilities in the EU banking sector for Q4 2017. The progress is positive for European banks, but risks remain heightened on sustainable profitability. Following the ESRB recommendation on commercial real estate markets, the EBA's Risk Dashboard has an additional page showing the aggregated real estate exposures referred to real estate activities and the construction sector.

Published on 12 April, *Financial Spillovers, Spillbacks, and the Scope for International Macroprudential Policy Coordination* is a BIS paper, which discusses the scope for such coordination in a financially integrated world economy. It first reviews the transmission channels associated with, and the empirical evidence on, financial spillovers and spillbacks, then proceeds with evaluating the potential gains associated with cross-border macroprudential coordination – dwelling on both recent analytical contributions and quantitative studies based on multi-country models with financial market frictions.

The particular case of currency unions is discussed, and so is the issue of whether coordination of macroprudential policies simultaneously requires some degree of monetary policy coordination. Much of this analysis focuses on the potential for countercyclical policy coordination between major advanced economies and a group identified as systemic middle-income countries (SMICs). Finally, the paper considers practical ways to promote international macroprudential policy coordination. Following a discussion of Basel III's principle of reciprocity and ways to improve it, the paper advocates a further strengthening of the current statistical, empirical and analytical work conducted by the BIS, the FSB and the IMF to evaluate and raise awareness of the gains from international coordination of macroprudential policies.

On 12 April, the Joint Committee of the ESAs reported that the securities, banking and insurance sectors in the EU face multiple risks. The ESAs' latest report on risks and vulnerabilities, for the second half of 2017, outlines the following risks as potential sources of instability:

- Sudden repricing of risk premia as witnessed by the recent spike in volatility and associated market corrections;
- Uncertainties around the terms of the UK's withdrawal from the EU; and
- Cyber-attacks.

The ESAs' report also reiterates their warning to retail investors investing in virtual currencies and raises awareness for risks related to climate change and the transition to a lower-carbon economy.

The 2018 Spring Meetings of the Boards of Governors of the IMF and the World Bank Group were held in Washington DC, from 16-22 April. In the run up to these meetings, the IMF published its latest semi-annual *World Economic Outlook* and *Fiscal Monitor*, alongside the *Global Financial Stability Report (GFSR) April 2018: A Bumpy Road Ahead*.

This finds that short-term risks to financial stability have increased somewhat since the previous GFSR; and that medium-term risks are still elevated as financial vulnerabilities, which have built up during the years of accommodative policies, could mean a bumpy road ahead and put growth at risk. Higher inflation may lead central banks to respond more aggressively than currently expected, which could lead to a sharp tightening of financial conditions; while valuations of risky assets are still stretched, and liquidity mismatches, leverage, and other factors could amplify asset price moves and their impact on the financial system.

Banks have strengthened their balance sheets since the crisis, but parts of the system face a structural US dollar liquidity mismatch that could be a vulnerability. Also, crypto assets have features that may improve market efficiency, but they could also pose risks if used with leverage or without appropriate safeguards. Central banks should continue to normalize policy gradually and communicate clearly, while policymakers should address vulnerabilities by deploying and developing macroprudential tools. This GFSR also examines the short- and medium-term implications for downside risks to growth and financial stability of the riskiness of corporate credit allocation – documenting the cyclical nature of the riskiness of corporate credit allocation at the global and country levels and its sensitivity to financial conditions, lending standards, and policy and institutional settings.

Published on 23 April, *From the Horse's Mouth: Surveying Responses to Stress by Banks and Insurers* is an ESRB occasional paper, which seeks to address concern that existing stress tests do not capture feedback loops between individual institutions and the financial system. To identify feedback loops, the ESRB has developed macroprudential surveys that ask banks and insurers how they would behave in a macroeconomic stress scenario. In a pilot application of these surveys, the authors find evidence of herding behaviour in the banking sector, notably concerning credit retrenchment. Results show that the consequences can be large, potentially undoing the initial effects of banks' remedial actions by worsening their solvency position. In contrast, insurers' responses to the survey provide little evidence of herding in response to macroeconomic stress.

On 25 April, the ESRB published *A Review of Macroprudential Policy in the EU in 2017*, which provides an overview of the macroprudential measures adopted in the EU in 2017, to update and further develop on reports the ESRB has been publishing since 2015 – these draw to a large extent on notifications made by the national authorities to the ESRB and discussions within the ESRB. The Review's overview chapter provides a broad outline of the national macroprudential measures that were adopted, or planned, in 2017 – it starts by reviewing certain trends seen across different instruments and then turns to specific instruments.

Three special features focus on structural developments in the banking sector and the implications for macroprudential policy, as well as the use of specific macroprudential instruments addressing both cyclical and structural risks – the first considers the implications of a growing role of bank branches for financial stability and macroprudential policymaking; the second compares the use of the CCyB across a sample of European countries; and the third provides a similar cross-country analysis of the use of the capital buffer for O-SIIs to address structural risks posed by SIIs.

On 27 April, EIOPA published its April 2018 Risk Dashboard, based on fourth quarter of 2017 data. The results show that the risk exposure of the insurance sector in the EU remained stable. Despite positive macroeconomic developments, low interest rates are still a major source of risk for

**Liquidity mismatches, leverage, and other factors could amplify asset price moves and their impact on the financial system.**

European insurers, while credit and market risks continued at a medium level. Spreads further decreased and concerns about potential risk mispricing remained. Median profitability levels were broadly the same as in Q4 2016 and solvency positions continued to be strong for both groups and solo companies. The impact of the natural catastrophes from the Q3 kept insurance risks at a medium level.

Published on 30 April, *Targeted Review of the Macroprudential Framework* is an article which outlines and explains the ECB's key messages concerning those of the European Commission's proposals for the reform of EU banking rules which are of particular importance for macroprudential regulation and policy. In particular, the ECB considers that the ongoing discussions on the CRR/CRD IV package provide the opportunity to make targeted changes to the macroprudential toolkit to make it more efficient and consistent. In the medium term, a comprehensive review of the macroprudential toolkit is still necessary to streamline procedures within the framework and to complement it with tools to address risks in the real estate and non-banking sectors.

Also published by the ECB on 30 April, *Using Large Exposure Data to Gauge the Systemic Importance of SSM Significant Institutions* is an article which presents stylised facts from the euro area network of large exposures and derives model-based interconnectedness measures of SSM significant institutions. The article has three main findings: (i) the interbank network is relatively sparse and suggests a core-periphery network structure; (ii) the more complex network measures on average correlate highly with the more simple size-based interconnectedness indicators, constructed following the EBA guidelines on the calibration of O-SII buffers; and (iii) there is nevertheless value for policymakers to take into account network-based measures in addition to the size-based interconnectedness indicators, as for some individual banks those measures can deviate considerably.

**Systemic risk for the euro area has remained low over the past six months – helped by better growth prospects, both outside and in the euro area.**

On 14 May, EIOPA launched its fourth stress test for the European insurance sector. This regular exercise aims to assess insurers' vulnerabilities but is not a pass-or-fail-exercise. For each stress test, EIOPA tailors the scope and scenarios according to developments in market conditions and their potential negative implications for insurers – the 2018 scenarios encompass a combination of market and insurance specific risks, including a natural catastrophe scenario. The deadline for submission of results to the NCAs is 16 August, with publication of the stress test results planned to be in January 2019.

Euro area governments have committed to break the doom loop between bank risk and sovereign risk. But policymakers have not reached consensus on whether and how to reform the regulatory treatment of banks' sovereign exposures. To inform policy discussions, *Regulating the Doom Loop* is an ESRB staff working paper, published on 15 May, in which the authors simulate portfolio reallocations by euro area banks under scenarios for regulatory reform. Simulations highlight a tension in regulatory design between concentration and credit risk. It finds that an area-wide low-risk asset – created by pooling and tranching cross-border portfolios of government debt securities – would resolve this tension by expanding the portfolio opportunity set. Banks could therefore reinvest into an asset that has both low concentration and low credit risk.

Published on 18 May, *Insurers as Asset Managers and Systemic Risk* is an ESRB staff working paper. The authors observe that financial intermediaries often provide guarantees that resemble out-of-the-money put options, exposing them to tail risk. Using the US life insurance industry as a laboratory, they present a model in which variable annuity (VA) guarantees and associated hedging operate within the regulatory capital framework to create incentives for insurers to overweight illiquid bonds ("reach-for-yield"). They then calibrate the model to insurer-level data and show that the VA-writing insurers' collective allocation to illiquid bonds exacerbates system-wide fire sales in the event of negative asset shocks, plausibly erasing up to 20 - 70% of insurers' equity capital.

On 24 May, the ECB published its latest biannual Financial Stability Review (FSR), noting that systemic risk for the euro area has remained low over the past six months – helped by better growth prospects, both outside and in the euro area. However, vulnerabilities are building up in global financial markets.

The FSR singles out four main risks to financial stability in the euro area over the next two years: (i) spillovers from a disruptive repricing of risk premia in global financial markets; (ii) a potential hampering of the ability of banks to intermediate amid weak financial performance compounded by structural challenges; (iii) public and private debt sustainability concerns amid historically high debt levels; and (iv) liquidity risks that could emerge in the non-bank financial sector, with contagion to the broader system. All four of these risks are intertwined and any one of them could trigger the others.

The FSR also contains three special features: (i) presentation of a new composite financial stability risk index aimed at predicting large adverse shocks to the real economy in the near term; (ii) introduction of a composite cyclical systemic risk indicator designed to signal risks of a financial crisis over the medium term; and (iii) analysis of the distribution of interest rate risk in the euro area economy, using data from significant credit institutions.

Published on 5 June, *Coordinating Monetary and Financial Regulatory Policies* is an ECB staff working paper. To explore how to conduct macroprudential regulation and how to coordinate monetary policy and macroprudential policy, the author develops a continuous-time New Keynesian economy in which a financial intermediary sector is subject to a leverage constraint. It is found that coordination between monetary and macroprudential policies helps to reduce the risk of entering into a financial crisis and speeds up exit from the crisis. The downside of coordination is variability in inflation and in the employment gap.

On 6 June, ESMA issued the latest iteration of its Risk Dashboard, covering risks in the EU's securities markets for Q1 2018. ESMA's overall risk assessment remains unchanged from Q4 2017 at high levels. ESMA remains specifically concerned about risks posed to investors, which have been mounting across a range of products, and has accordingly taken some targeted steps. More broadly, ESMA perceives that high levels of risk persist. In Q1 2018, equity markets in the EU and elsewhere saw significant price corrections and the return of market volatility. Concerns about persisting very high market risks result from asset over-valuations in equities as well as market uncertainty as the period of ultra-low interest rates draws to a close. Also, ESMA's outlook for liquidity, contagion and credit risk remains unchanged at high; and operational risk continues to be elevated, with a deteriorating outlook, as Brexit-related risks to business operations and vulnerabilities to cyber-attacks rise.

Published on 8 June, *Targeting Financial Stability: Macroprudential or Monetary Policy?* is a Bank of England staff working paper. The authors explore monetary-macroprudential policy interactions in a simple, calibrated New Keynesian model incorporating the possibility of a credit boom precipitating a financial crisis and a loss function reflecting financial stability considerations. Deploying the countercyclical capital buffer (CCyB) improves outcomes significantly relative to when interest rates are the only instrument. The instruments are typically substitutes, with monetary policy loosening when the CCyB tightens. The authors also examine when the instruments are complements and assess how different shocks, the effective lower bound for monetary policy, market-based finance and a risk-taking channel of monetary policy affect their results.

Also published on 8 June, *Bank Runs, Prudential Tools and Social Welfare in a Global Game General Equilibrium Model* is another Bank of England staff working paper, in which the author develops a general equilibrium model that features endogenous bank runs in a global game framework. A bank run probability – systemic risk – is increasing in bank leverage and decreasing in bank liquid asset holdings. Bank risk shifting and pecuniary externalities induce excessive leverage and insufficient liquidity, resulting in elevated systemic risk from a social welfare viewpoint. It is found that addressing the inefficiencies requires prudential tools on both leverage and liquidity – imposing one tool only causes risk migration: banks respond by taking more risk in another area. The author extends the model and studies risk migration in other fields including sectoral lending, concentration risk and shadow banking.

On 17 June, the BIS published chapter IV of its *Annual Economic Report 2018*, which is titled *Moving Forward with Macroprudential Frameworks*. The BIS notes that since the great financial crisis, both advanced and emerging market economies have made substantial progress in implementing macroprudential frameworks. Such measures have strengthened the resilience of the financial system and moderated credit growth, but they have not always prevented the build-up of financial imbalances. They are most effective as part of a broader macro-financial stability framework, involving also monetary, fiscal and even structural policies.

On 25 June, EIOPA published its *June 2018 Financial Stability Report* of the (re)insurance and occupational pensions sectors in the EEA. The persistent low yield environment remains the main risk for both the insurance and pension fund sector. Furthermore, new types of risks are emerging with the onset of climate change and rapid technological developments.

On 27 June, the Bank of England published its latest semi-annual *Financial Stability Report*, which sets out the Financial Policy Committee's (FPC's) view of the outlook for UK financial stability, including its assessment of the resilience of the UK financial system and the main risks to UK financial stability, and the action it is taking to remove or reduce those risks. The FPC continues to judge that, apart from those related to Brexit, domestic risks remain standard overall, whilst risks from global vulnerabilities remain material and have increased. The 2017 stress test showed that the UK banking system is resilient to severe domestic, global and market shocks; and the FPC is maintaining the UK countercyclical capital buffer rate at 1%.

The FPC continues to judge that the UK banking system could support the real economy through a disorderly Brexit and is continuing to monitor preparations to mitigate disruption to financial services that could arise from Brexit – progress has been made but material risks remain. Separately, the FPC is setting standards for how quickly critical financial companies must be able to restore vital services following a cyber attack and plans to test them against these in cyber stress tests. In addition, the FPC considers that continued reliance of financial markets on LIBOR poses a risk to financial stability that can be reduced only through a transition to alternative rates, so the FPC will monitor progress and report regularly.

Alongside this, the Bank of England also published a report which presents the results of the first-half 2018 systemic risk survey, which was conducted between 9 April and 3 May. The perceived probability of a highimpact event in the UK financial system over the short term has increased slightly relative to the H2 2017 survey, while the perceived probability of such an event over the medium term was broadly unchanged. Confidence in the stability of the UK financial system over the next three years has increased, with the proportion of respondents judging themselves to be fairly, very or completely confident having increased to 94% (+4). UK political risk was the risk to the UK financial system most cited by respondents – around 80% of responses that cited UK political risk explicitly referred to the implications of Brexit – and, for the fifth consecutive survey, was also cited as the risk most challenging for firms to manage.

**Contact: David Hiscock**
david.hiscock@icmagroup.org

# ICMA Capital Market Research

*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

*The Counterparty Gap: A study for the ICMA European Repo and Collateral Council on the Trade Registration Models used by European Central Counterparties for Repo Transactions*
**Published:** 27 September 2016
**Author:** Prepared for ICMA by John Burke, independent consultant

*Remaking the Corporate Bond Market: ICMA's 2nd Study into the State and Evolution of the European Investment Grade Corporate Bond Secondary Market*
**Published:** 6 July 2016
**Author:** Andy Hill, ICMA

*Evolutionary Change: The Future of Electronic Trading in European Cash Bonds*
**Published:** 20 April 2016
**Author:** Elizabeth Callaghan, ICMA

*Perspectives from the Eye of the Storm: The Current State and Future Evolution of the European Repo Market*
**Published:** 18 November 2015
**Author:** Andy Hill, ICMA

*Impact Study for CSDR Mandatory Buy-ins*
**Published:** 24 February 2015
**Author:** Andy Hill, ICMA

*The Current State and Future Evolution of the European Investment Grade Corporate Bond Secondary Market: Perspectives from the Market*
**Published:** 25 November 2014
**Author:** Andy Hill, ICMA

*Continually Working to Develop Efficient and Effective Collateral Markets*
ERC Occasional Paper
**Published:** 4 September 2014
**Author:** David Hiscock, ICMA

*Covered Bond Pool Transparency: the Next Stage for Investors*
**Published:** 21 August 2014
**Author:** Prepared for ICMA by Richard Kemmish Consulting Ltd

*Collateral is the New Cash: The Systemic Risks of Inhibiting Collateral Fluidity*
**Published:** 3 April 2014
**Author:** Andy Hill, ICMA

*Avoiding Counterproductive Regulation in Capital Markets: A Reality Check*
**Published:** 29 October 2013
**Author:** Timothy Baker, Senior Adviser to ICMA

*Collateral Damage: the Impact of the Financial Transaction Tax on the European Repo Market and its Consequences for the Financial Markets and the Real Economy*
**Published:** 8 April 2013
**Author:** Richard Comotto, ICMA Centre

*Economic Importance of the Corporate Bond Markets*
**Published:** 8 April 2013
**Author:** Timothy Baker, Senior Adviser to ICMA


Over 1,000 ICMA members, speakers and sponsors joined us for the 50th ICMA AGM and Conference in Madrid at the end of May.

At the AGM on 31 May, ICMA members elected new board members and the new board subsequently appointed Mandy DeFilippo, a Managing Director and Head of Risk Management for Fixed Income & Commodities, EMEA at Morgan Stanley, as the ICMA Board Chair. She succeeds Martin Egan, Vice Chairman of Global Markets Client Board at BNP Paribas SA, who stepped down at the end of his term as an ICMA board member.

The Conference featured speakers and panellists from the industry, politicians and regulators looking at change in financial markets, influenced by regulation, disruptive financial technology, demographic trends and increasingly important environment and development considerations. Javier Alonso, Deputy Governor, Banco de España, gave the opening keynote speech on *Banks' Traditional Funding Sources*, followed by José Manuel González-Páramo, Executive Board Director, Head of Global Economics, Regulation and Public Affairs, Banco Bilbao Vizcaya Argentaria, on *The Future of Capital Markets: Digital and Sustainable.*


*Panel on international benchmark reform with Paul Richards, ICMA; Edwin Schooling Latter, FCA; Edward Ocampo, Bank of England: Cornelia Holthausen, ECB; David Bowman, Federal Reserve; and Roman Baumann, Swiss National Bank.*

International benchmark reform was also on the agenda with a presentation from Steven Maijoor, Chair of ESMA, on *Towards Benchmark Integrity and Stability*, followed by a panel of senior officials from the Bank of England, UK FCA, European Central Bank, Federal Reserve and Swiss National Bank discussing the transition from IBORs to risk-free rates internationally.

Environmental themes and the vital role that capital markets have to play in mitigating climate change was introduced by Margaret L. Kuhlow, of WWF International in a speech entitled *Green Finance: Good progress But We Need More*. While Arunma Oteh, Vice President and Treasurer, World Bank spoke about the opportunities for sustainable investment in *Leveraging the Capital Markets for Development.*

Highlights of the event were a privileged private view for delegates at the world renowned Prado Museum, taking in the works of artists Goya, Velasquez and El Greco, while Spanish culture and food were on display at a Spanish fiesta for guests at the Palacio de Cibeles.

Grateful thanks go to all our sponsors and exhibitors, of which there were nearly 50, who made the event possible. Special thanks to: Platinum sponsor, BBVA; Gold sponsor, Santander; Silver sponsor, DekaBank; and Bronze sponsors: Bank of China, BayernLB, BlackRock, BNP Paribas, ConvEx, Fitch Ratings, Fitch Solutions, HSBC, LIST, MarketAxess, Shanghai Clearing House and Societe General

**Don't forget to save the date for the 2019 AGM and Conference in Stockholm, 15 to 17 May.**

*AGM and conference delegates at the Prado.*


*Barbara Novick, Vice Chairman, BlackRock on 'Trends in asset management'.*


*World Bank Treasurer Arunma Oteh gives a keynote speech on 'Leveraging the Capital Markets for Development' at the conference.*


*Javier Alonso, Deputy Governor, Banco de España gives the opening keynote address.*

Events & Education

# Enter the ICMA Future Leaders Essay Competition

Professionals with up to eight years of experience in financial markets and who currently work for ICMA member firms are invited to write an essay on the broad theme "How will the international bond markets look in 10 years' time?". This will coincide with ICMA's 60th anniversary in 2028.

Essays may be based on a broad vision of the international bond markets or may focus on how specific segments of this market (ie issuance or clearing) may evolve in the future.

Entries should be between 3,500 and 4,500 words in length and the deadline for submission is October 31, 2018. They will be shortlisted by members of ICMA's executive committee and other staff, with the final selection being made by a panel comprising a selection of ICMA Board members and the chair of the ICMA Future Leaders.

The winning entry, to be announced in November, will receive a €3,000 prize and if more than 30 submissions overall, there will also be two runners up, who will receive €1,000 each. In addition to their essays being published by ICMA, the winners will also have the opportunity to present their essays at an ICMA Board meeting in December and at an ICMA Future Leaders event

How to participate:

- The essay should be no more than 4,500 words.
- It should be submitted as a word document double line spaced, with your full details (name, email, telephone, title and name of company.
- The essay should be an original piece of work, not previously submitted to other competitions.
- ICMA will have the rights to publish the winning essays.
- The essay author must be working for an ICMA member firm at the time of the submission deadline and the date of the award event.

Essays should be submitted to: futureleaders@icmagroup.org

## About ICMA Future Leaders

The Future Leaders initiative is designed to benefit the younger generation of finance professionals in ICMA's membership, connecting them with the services and networking opportunities which can enhance their careers in debt capital markets. It focuses on three core areas: Career Progression; Education; and Networking.

Open to all staff at ICMA member firms, the initiative aims to develop a sense of community between junior colleagues across geographic borders and functional areas, such as already exists at a more senior level amongst ICMA members. It works alongside member firms' own graduate programmes and internal youth networks.

**Contact: Allan Malvar**
allan.malvar@icmagroup.org

ICMA Women's Network

Networking. Progression. Support.

# ICMA Women's Network Summer Event: "Embracing change: future proofing your career with FinTech"

The sunny outdoor terrace at Allen Overy LLP on Wednesday 3rd May was the venue for the IWN's 2018 Summer Flagship Event.

Titled "*Embracing change: future proofing your career with FinTech*", the aim of the evening was to shine a spotlight on the world of FinTech, to explore the effect this technology revolution is already having on our lives and most importantly, how we can best use it going-forward to develop and further our careers.

We were delighted to be able to welcome Shruti Ajitsaria (Counsel, A&O and Head of Fuse), Sarah Rench (Advanced Analytics, Robotics and AI, Senior Manager, EY) and Ruth Wandhofer (Global Head Regulatory, Market & Innovation Strategy, Citi), to share their experiences and offer personal insight of technology-driven change, a subject that perhaps many of us feel ill-equipped to explore.

Camille McKelvey (TRAX) moderated the session as the panellists discussed a variety of topics including their (very varied) career pathways to their current FinTech positions, the perceived underrepresentation of women in FinTech, the advantages and disadvantages rapidly increasing technology in the workplace is having on our careers and lives and their thoughts on the flexibility and adaptability required to harness maximum benefits from this new and evolving environment.

The panel was followed by a number of excellent questions from the audience which expanded on many of the ideas touched upon by our panellists. In particular the audience was keen to discuss the practical application of FinTech ideas to either assist current careers or potentially, lead to an entirely different career path altogether.

After a few rounds of structured networking the evening finished with informal drinks where delegates were encouraged to mingle, chat with the panellists and table hosts and further develop contacts made during the sessions.

Many thanks again to Shruti, Ruth, Sarah and Camille for their excellent and insightful contributions and to A&O LLP for hosting us at their offices. For those of you who are interested in dipping your toes in the FinTech pool, links to some of the resources mentioned by Sarah are included below:

- *Coursera* and *Udemy Online*- online coding courses.
- *DevelopHer UK* - mentoring and joining women in technology networking events.
- *Cass Business School* - Global Women's Leadership programme for up to 50% scholarships for women interested in doing MBAs and other courses.

As ever, please do continue to provide us with your feedback and any suggestions of themes or topics for future events.

**Contact: icmawomensnetwork@icmagroup.org**

Follow IWN on Twitter

# Diary 2018

**DATE**

## Networking events

19 July

**ICMA Future Leaders: How to survive a career in financial markets, London, 19 July:** An evening of networking, following a panel of market practitioners on how to navigate employment opportunities in capital markets and their tips for career success.

28 Aug

**ICMA Future Leaders summer networking reception, Zurich, 28 August:** ICMA Future Leaders invites all ICMA members but particularly young professionals in the early stages of their career to an evening of networking which will feature discussions on career development.

04 Oct

ICMA Women's Network
Networking. Progression. Support.

**ICMA Women's Network: Starting out: career progression and influences, Madrid, 4 October:** A panel of inspirational industry figures will discuss their career paths and how they managed their progression and consider how unconscious bias in the workplace affects career development, and influences opportunities and the ability to network successfully.

## ICMA workshops

24-25 Sept

**Professional repo and collateral management, London, 24-25 September:** A panel of inspirational industry figures will discuss their career paths and how they managed their progression and consider how unconscious bias in the workplace affects career development, and influences opportunities and the ability to network successfully.

11-12 Oct

**GMRA Masterclass – a clause-by-clause analysis & Annex I negotiation, London, 11-12 October:** A panel of inspirational industry figures will discuss their career paths and how they managed their progression and consider how unconscious bias in the workplace affects career development, and influences opportunities and the ability to network successfully.

30 Oct

**European Regulation: An Introduction for Capital Market Practitioners, London, 30 October:** Against a background of far-reaching regulatory change ICMA's one-day, fast-track course on European regulation for capital market practitioners gives an overview of the new regulatory landscape for financial institutions in Europe.

02 Nov

**Bond syndication practices for compliance and middle office professionals, London, 2 November:** This workshop aims to give compliance professionals an in-depth and thorough understanding of the practices that are involved in launching a deal in the international debt capital market.

## Autumn conferences

17 Oct

**ICMA European Repo and Collateral Council General Meeting, London, 17 October:** The ERCC's General Meetings provide a good opportunity to hear about the various issues that the market is currently facing and the steps being taken to address these; they are open to anyone with an interest in repo and collateral. One of the key topics this autumn will be the EU's upcoming SFT Regulation.

18 Oct

**9th Annual bwf and ICMA Capital Markets Conference, Frankfurt, 18 October:** The ERCC's General Meetings provide a good opportunity to hear about the various issues that the market is currently facing and the steps being taken to address these; they are open to anyone with an interest in repo and collateral. One of the key topics this autumn will be the EU's upcoming SFT Regulation.

**For more information, please contact: ICMAevents@icmagroup.org or visit www.icmagroup.org/events**

ICMA Executive Education

Courses 2018

## Six reasons to get qualified online with ICMA

**1. The right course for you**
Different topics and different levels available to you. Whether you are front office or operations, at the early stages of your career or with some experience.

**2. An expert trainer will be available to help throughout your study**
Support and feedback from a trainer will be available to you through our online platform. All our trainers from current or former practitioners with over 30 years' experience in the market.

**3. A time-effective way to study and network**
One of the most important advantages of studying face to face is the opportunity to network. ICMA's online training gets you the best of both worlds as our online platform allows and encourages interaction with your peers. In your own time, at your own pace, and no time away from your desk.

**4. Get more value for your money**
Studying online means lower fees. With ICMA, if you work for a member firm, you are also entitled to important discounts on top of that, making this a very cost-effective way to gain knowledge, qualifications and recognition.

**5. Examined qualifications at your doorstep**
ICMA EE have a partnership with Pearson Vue to host our exams in their over 5,000 centres worldwide. So, no matter where you are, there will be somewhere nearby for you to take our exams and achieve our certificates.

**6. Recognition and accreditation**
All our programmes have industry-wide recognition for the quality of the content and the expertise of the trainers. This means getting qualified with us will earn you the respect of colleagues and managers. Our qualifications are also accredited by the CFA* and the UK's Financial Skills Partnership (FSP)*.

**Check www.icmagroup.org/EE or email us at education@icmagroup.org**
*Find details on our website.

The autumn course schedule for our flagship qualifications has been announced and you can start booking these now, starting with our Introduction to Fixed Income Qualification (IFIQ) in London, 3-5 October 2018.

Alternatively, now is a good time to get ahead by signing up for online learning to advance your career with ICMA qualifications.

Sign up today for these online programmes and you can start to study in August at our discounted member rates.

**Financial Markets Foundation Qualification (FMFQ) Online Programme**
Provides a good foundation knowledge of the key players in the financial markets, the main equity and debt products, cash and derivatives and the FX markets.

**Securities Operations Foundation Qualification (SOFQ) Online Programme**
Traditionally attended by professionals with up to 5 years' experience in operations, this qualification looks at securities products and their life cycle, equity and debt issuance, repos and securities lending & borrowing.

**ICMA Fixed Income Certificate (FIC) Online Programme**
(Advanced qualification)
Our flagship course is internationally recognised as the benchmark qualification for professionals in the middle and front office.

To book your place on ICMA EE online or classroom courses visit icmagroup.org/EE

**For more information, please contact: education@icmagroup.org or visit www.icmagroup.org/education**

| | |
|---|---|
| ABCP | Asset-Backed Commercial Paper |
| ABS | Asset-Backed Securities |
| ADB | Asian Development Bank |
| AFME | Association for Financial Markets in Europe |
| AIFMD Directive | Alternative Investment Fund Managers |
| AMF | Autorité des marchés financiers |
| AMIC | ICMA Asset Management and Investors Council |
| AMI-SeCo | Advisory Group on Market Infrastructure for Securities and Collateral |
| ASEAN | Association of Southeast Asian Nations |
| AuM | Assets under management |
| BBA | British Bankers' Association |
| 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 |
| 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 |
| 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 |
| ESA | European Supervisory Authority |
| ESG | Environmental, social and governance |
| ESCB | European System of Central Banks |
| ESFS | European System of Financial Supervision |
| ESM | European Stability Mechanism |
| ESMA | European Securities and Markets Authority |
| ESRB | European Systemic Risk Board |
| ETF | Exchange-traded fund |
| ETP | Electronic trading platform |
| ESG | Environmental, social and governance |
| EU27 | European Union minus the UK |
| 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 |
| 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 Board | International Accounting Standards |
| 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 | 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 |
| ROC | Regulatory Oversight Committee of the Global Legal Entity Identifier System |
| RPC | ICMA Regulatory Policy Committee |
| RSF | Required Stable Funding |
| 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 |
| SLL | Securities Law Legislation |
| SMEs | Small and medium-sized enterprises |
| SMPC | ICMA Secondary Market Practices Committee |
| SMSG | Securities and Markets Stakeholder Group (of ESMA) |
| 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 |
| STORs | Suspicious transactions and order reports |
| 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 |
| TRs | Trade repositories |
| UKLA | UK Listing Authority |
| VNAV | Variable net asset value |

**ICMA Zurich**
**T: +41 44 363 4222**
Dreikönigstrasse 8
CH-8002 Zurich

**ICMA London**
**T: +44 20 7213 0310**
23 College Hill
London EC4R 2RP
United Kingdom

**ICMA Paris**
**T: +33 1 70 17 64 72**
62 rue la Boétie
75008 Paris
France

**ICMA Hong Kong**
**T: +852 2531 6592**
Unit 3603, Tower 2,
Lippo Centre
89 Queensway Admiralty
Hong Kong

**icmagroup.org**