ICMA

International Capital Market Association

QUARTERLY REPORT

ASSESSMENT OF MARKET PRACTICE AND REGULATORY POLICY

INSIDE:

THE TRANSITION TO RISK-FREE RATES IN THE BOND MARKET

THE IMPORTANCE OF INTEGRATED CAPITAL MARKETS AND CMU

SUSTAINABLE FINANCE

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

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

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

FEATURES:

01:

The transition to risk-free rates in the bond market

02:

Integrated capital markets and CMU

by David Hiscock

03:

Sustainable finance

by Nicholas Pfaff

CONTENTS

4 FOREWORD

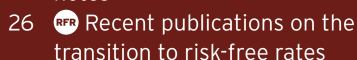
7 MESSAGE FROM THE CHIEF EXECUTIVE

8 QUARTERLY ASSESSMENT

8 The transition to risk-free rates in the bond market

15 INTERNATIONAL CAPITAL MARKET FEATURES

15 The importance of integrated capital markets and CMU
18 Implementing CSDR mandatory buy-ins
20 Big Data in securities markets

24 Fallbacks for LIBOR floating rate notes

26 Recent publications on the transition to risk-free rates

29 INTERNATIONAL CAPITAL MARKET PRACTICE AND REGULATION

29 Summary of practical initiatives by ICMA

33 PRIMARY MARKETS

33 European Distribution of Debt Instruments consultation
33 EU Prospectus Regulation
34 Asset-Backed Commercial Paper
34 Review of Russian and international practices
35 Panda bond market: review and outlook

37 SECONDARY MARKETS

37 MiFID II/R: ESMA guidance in the second quarter of 2019
40 MiFID II/R: post-trade data
42 CSDR Settlement Discipline: ICMA's role
43 ICMA's third corporate bond market liquidity study
43 Recent secondary market research
45 ICE Data Services Corporate Bond Market Liquidity Tracker

46 REPO AND COLLATERAL MARKETS

46 SFTR implementation
47 Other regulatory reforms

48 Repo market: transition from EONIA to €STR

49 LIBOR and the GMRA
49 Recent repo and collateral research
50 ICMA Ops FinTech mapping directory

51 GREEN, SOCIAL AND SUSTAINABILITY BOND MARKETS

51 Green, social and sustainability bond market developments
52 European Action Plan on Sustainable Finance
56 GBP SBP 5TH AGM & Conference in Frankfurt
59 World's first benchmark corporate green sukuk

60 ASSET MANAGEMENT

60 Incorporating sustainability factors in UCITS and AIFMD
60 EU funds' developments under CMU
61 Research unbundling: study by Risk Control
62 EU Securitisation Regulation: RTS
62 EU Securitisation Regulation: implementation issues
62 Buy-side oriented research
64 Covered Bond Conference

65 INTERNATIONAL REGULATORY DIGEST

65 G20 financial regulatory reforms
69 European financial regulatory reforms
73 Macroprudential risk
77 Credit rating agencies
78 OTC (derivatives) regulatory developments
79 Market infrastructure

82 FINTECH IN INTERNATIONAL CAPITAL MARKETS

82 FinTech regulatory developments
85 FinTech Forum

86 ICMA CAPITAL MARKET RESEARCH

88 ICMA EVENTS AND EDUCATION

92 GLOSSARY

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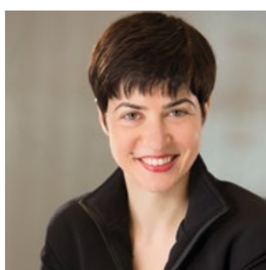
ICMA's strategy and focus *By Mandy DeFilippo*



It has been my pleasure to serve as Chair of ICMA for the past year, against what has been and continues to be a very challenging political backdrop in Europe, defined by: Brexit and the uncertainty that remains around it today, plus: populist movements and resulting political realignment, within European countries. This is happening in Europe and around the world, and will, it seems, be with us for some time to come.

In this context, the Board and the Executive of ICMA have taken the opportunity to review and examine our strategy and focus for the organisation. This is something that we do as a matter of course, to make sure that ICMA continues to be relevant in today's dynamic and fast changing financial markets – but given the backdrop we felt it to be particularly important this year.

We need to rise to the challenge of balancing our in-depth knowledge and valuable specialisation in our selected key operational areas, with being forward-looking and alert to the major changes which will impact how entities access capital, how debt is traded and how investment decisions are made in debt securities. We need to ensure we have clearly defined priority areas, where we are the acknowledged experts, the "go-to" association, and where we are able to add value for our members.

We know that good regulation is a positive in a well-functioning market. With this in mind, it is essential that ICMA as a cross-industry body works collaboratively and constructively with regulators to achieve common objectives. We must also continue to work closely with other industry associations across our markets, as we have done in the past.

We recognise the importance of inclusion, in all dimensions, for ICMA's future. We must embrace participants from all sections of the market and provide a forum for them to provide input into how market practices develop and how their markets are regulated.

As markets evolve, we have sought to involve the developers of market infrastructures of all sorts, listening to their view of the future.

In the same way, as the geographical balance of markets shifts, we engage with the newer participants and increasingly significant participants from emerging jurisdictions.

We encourage diversity within ICMA and in the industry and we have devoted resources to outreach in this area.

With these aims in mind in ICMA's strategy, we are maintaining our focus on our four core areas: primary markets, secondary markets, repo and collateral, and ESG/sustainability, combined with the "cross-cutting" themes of market fragmentation and the impact of technological innovation and electronification in the fixed income markets.

I believe that developments over the past year have proven that this strategy has positioned us incredibly well as an industry association to serve our members.

I would like to focus on three key aspects of our strategy – market fragmentation, technological innovation and ESG – and then speak about our commitment to inclusion.

Brexit and market fragmentation

I know I am not alone in saying that Brexit took up a lot of time over the past year – everyone I speak to has been involved in some way, trying to predict outcomes and the impact on markets, and make the right decisions for the business in an environment where the various actions taken in the political arena did not always come with clear results.

Brexit, with all of its challenges, created an environment where ICMA as an association has an opportunity to demonstrate fundamentally what it does for its members – and in doing so, to show why associations like ICMA are so relevant, by: providing information and education to members; updating members in real time about relevant developments in our markets; providing a forum in which market participants can and do discuss standards and solutions to market practice issues as they arise in our markets; acting as a trusted and neutral source of

information to regulators, central banks and, where relevant (as it was in the Brexit context), to politicians and the public, about the markets and our industry.

We have done all of this in the context of Brexit over the past year and will continue to do so.

However, Brexit is not only relevant in terms of the work we have done with members over the past year; it also brings to the fore our focus on the theme of market fragmentation, and the dangers of fragmentation resulting from a polarised political and regulatory environment.

ICMA is not the only industry association or group focused on market fragmentation: this is one of the themes of Japan's G20 Presidency for 2019.

At ICMA, we believe that market fragmentation continues to be a threat to well-functioning capital markets.

We are operating in an environment where substantial new regulation continues to be proposed and implemented, both regionally and globally – on an ongoing basis – which requires banks and institutions to make changes almost constantly, in order to keep up with deadlines and developments.

Inconsistency in the implementation of these regulations – or failure to establish agreed market standards across national borders – will result in market fragmentation, which would impede liquidity and keep regional and/or local markets from functioning correctly.

In a world where the current political trend is to push away from global relationships in favour of domestic agendas, the risk that fragmentation could take hold and have a serious economic impact becomes greater.

ICMA has an important role to play *both* in helping regulators to understand these risks and – through the work we do with members in forming agreed market practices – providing ways to avoid them coming to fruition, both regionally and globally.

In this context, truly global trade associations like ICMA, with its members in 60 or more countries, are more relevant than ever.

Technological innovation

We are in the middle of a time of considerable change in the capital markets and how we do business in those markets, largely due to regulation and the impact of technology.

Technological innovation in financial markets is driving changes in primary, secondary and Repo Markets. Some of this is helped along by regulation. For example:

Electronification of the secondary fixed income markets

On the secondary markets side, fixed income markets are "electronifying": more and more of our trading is being done on electronic platforms.

Over time, this should transform the amount of information about trading or transactions which is publicly available in real time, which was one of the key innovations that MIFID II/R was driving at from a regulatory standpoint.

We are not there yet in terms of achieving full transparency in reporting, as we at ICMA have pointed out. As technological developments are embedded within our markets, hopefully we will see this issue resolved and a greater degree of transparency achieved.

These same technological advances will inevitably change how buy-side and sell-side firms interact in the public markets and in fact is already doing so.

Streamlining the new issue process in the primary markets

On the primary markets side, FinTech "solutions" and developments are being proposed to solve one of the problems highlighted in Europe post-crisis: in an environment where banks may no longer be able to act as lenders to all areas of the market, how do we encourage greater use of capital markets and provide access to investors who might be positioned to step in and provide financing in a less conventional way?

FinTech solutions which more directly link issuers/borrowers with investors/lenders could bridge that gap. In doing so, these same solutions could cut out the customary intermediaries in such relationships: another potential market transformation.

These are just two examples. We are seeing FinTech solutions which are relevant to all areas of market infrastructure.

Technological innovation is driving substantial change in our markets, whether we all notice it day-to-day or not.

At ICMA, we will continue our focus on this area of our strategy this year, serving our members through providing information and education and, where relevant, developing market standards or providing ways for market participants to establish an agreed approach to certain developments.

ESG and sustainability

It is wonderful to see the public focus on "ESG" investing continue to increase over the past year. This is the continuation of a trend — both in Europe and in financial markets around the world — that has been building up for some time, and which has gained, and will continue to gain, significant momentum.

Green and sustainable financing is a key focus for ICMA. We have been heavily involved in developments in this area:

first, and perhaps most visibly, through initiatives we have coordinated, and participated in, for green bonds.

Through its support for the Green Bond Principles (GBP) for the last five years – which were developed with the input of the full community of market participants, including issuers, investors, banks and others – ICMA has been instrumental in providing a *de facto* global market standard for the issuance of green bonds.

It is encouraging to see that use of the Green Bond Principles has increased with the growth in the market, which to us indicates their relevance. In fact, in recently reviewing ICMA's website, I saw that we now provide the GBP to members on the website in 20 languages! Clearly this is an indication of how widely accepted they have become.

As the market moves to broader concerns in the social and sustainable space, ICMA has moved as well. In 2017, we launched the Social Bond Principles and sustainability bond guidelines, which provide similar guidelines for issuers of social and sustainable bonds.

ICMA's 2019 Green Bond Principles and Social Bond Principles AGM in Frankfurt in June provided an opportunity for participants from all sides of the market to come together, discuss and promote further action to facilitate financing in this space.

Diversity and the next generation

I have spoken about the trends and dynamics in our markets that will be a focus for ICMA in the immediate future. Before I conclude, I would like to talk about another important way in which we support our members with the future in mind: the ICMA Women's Network and our Future Leaders Group.

I believe that both of these groups are unique in the capital markets. Like ICMA itself, these groups connect members from all sides of the capital markets, and they provide a valuable service. They provide the opportunity not simply for individuals in these groups to create their own networks in the market, but they are also able to provide relevant content and foster dialogue and information sharing on topics relevant to these groups.

Over a relatively short period of time, each of these groups has managed to gather a significant amount of interest and each has an international membership numbered in the thousands.

Although there are groups focused on fostering diversity and inclusion, and on engaging with the next generation, within all of our member organisations and firms, it is much less common to find groups that extend *across firms* and *across the industry*, and less common still to find organisations that can do that effectively, the way both of these have.

Ensuring that our industry is truly inclusive and continues to be a vibrant and interesting place for the next generation are important priorities for all of us who are involved in financial services and markets more generally.

As Chair of ICMA, I am proud of what we have accomplished in our Women's Network and with our Future Leaders, and I expect we will see a lot more in the year to come.

Conclusion

In conclusion, I believe this past year has been a year in which ICMA has once again proven its relevance to members, and we have done so against a complex geopolitical background.

However, I do not want us to be complacent about our past achievements.

We continue with our core work analysing proposed and actual developments in market practice and regulation, providing our input to regulators and policy makers, and helping our members deal with implementation of resulting regulation.

Through these core activities, ICMA works with market participants to address the existential threats faced by all of us: in sustainability and the challenge of climate change; in funding much needed infrastructure projects; by connecting private capital across borders to make these a reality; and in fighting the effects of market fragmentation.

It is in this way that ICMA plays an important role in helping capital markets realise their potential.

None of this is possible of course without the efforts of so many individuals who voluntarily work on our Board, committees, councils and working groups. Thank you very much to all of you.

And finally: a huge thank you to Martin and to the team at ICMA who keep us and the work of the organisation on track.

Mandy DeFilippo *is a Managing Director and Global Head of Risk Management for Fixed Income & Commodities, Morgan Stanley International PLC, and Chair of the ICMA Board. This speech was given at the ICMA AGM in Stockholm on 16 May 2019.*

Message from the Chief Executive

By Martin Scheck

So much has occurred since my last piece in our Quarterly Report for the Second Quarter in April.

The UK has been granted an extension to Article 50 until 31 October before Brexit, Theresa May is stepping down as Prime Minister, and there will be a new Prime Minister in the next few weeks to steer the Brexit process – at present there is still no clarity. At ICMA, we continue to focus on the remaining cliff-edge risks and work with our members to help them prepare for a possible no-deal scenario.

Bond markets remain constructive as the Fed and the ECB react to the combination of weak growth and low inflation – perhaps partly due to heightened international trade tensions – and signal further accommodation. The pool of negative yielding bonds grows ever larger.

In a further notable development, the liquidity mismatch between funds and their underlying assets has been thrust into the spotlight – a topic we have been covering for a while in our Asset Management and Investors Council.

Against this backdrop ICMA has held a number of industry events and conferences in Q2 2019.

First, our AGM and Conference in Stockholm in May, which was extremely well attended. I provided a full review of ICMA and our activities during the AGM focusing on the extent of our member engagement, the development of our membership, finances and education as well as our market practice and regulatory policy agenda. We also heard from the chair of our regional committees and from representatives of the ICMA Women's Network and ICMA Future Leaders Group. It was a pleasure to welcome six new Board members and two returning Board members following the member vote. I very much enjoyed catching up with so many of our members during the two days – many thanks for attending. It is pleasing to see an increasing number of participants from Asia.

At the Conference which followed we covered many of the current ICMA initiatives, including the transition to risk-free rates, FinTech and market electronification, primary and secondary markets, repo and collateral. Sustainability was a constant theme during the two days illustrating the intense level of interest - and activity - in the topic.

This was in evidence at the AGM and Conference for the Green and Social Bond Principles which we organised this year in Frankfurt. Again, a very large, active and engaged audience heard about the work of the GBP and SBP, emphasising the importance of the transition to a low carbon economy and the role that green and social bonds can play in that transformation. It was also the opportunity to profile new documents published that day: the *Guidance Handbook* containing many useful questions and answers, a further handbook containing a *Harmonised Framework for Impact Reporting* and a mapping of the GBP to environmental objectives and existing taxonomies. The Conference took place just prior to the release by the European Commission's Technical Expert Group, of which ICMA is a member, of important reports on a European taxonomy for climate mitigation and adaptation and an EU Green Bond Standard. We have been actively involved in their preparation, in particular the EU Green Bond Standard, and will continue to be so. Regulation in this rapidly maturing market is inevitable and should (or at least could) be very positive for its further growth providing that it is implemented in a sensible and proportionate way that encourages issuance and investment.

FinTech and the impact of electronification on debt capital markets is an overarching theme for ICMA. A landmark event was our first FinTech Forum, kindly hosted by UBS, addressing how technology is shaping international fixed income markets. Attendance surpassed our expectations and the input we gleaned from the conference will help us hone our work to ensure it is in line with our members' wishes. The speech on Big Tech was particularly relevant given the recent announcement of Facebook's stablecoin project, Libra, and the many comments that immediately followed from the regulatory community.

The summer event of the ICMA Women's Network took place in June. By all accounts it was one of the most interesting and relevant meetings, focusing on mental health in the workplace, and featuring eminent women dedicated to improving the situation building on their own personal journeys. Equally applicable of course to both men and women it was great to see a very balanced audience.

Lastly, I want to mention the recent 9th ICMA Covered Bond Investor Council (CBIC) Conference, held in Frankfurt. We approach the covered bond market from a buy-side perspective, working actively with other associations. Of course, 2019 is an important year given the wind-down of QE and the approval of the new EU Covered Bond Directive and Regulation in February and its implementation later this year. This is a high-grade market which is a stalwart of bank funding in both good times and bad, and we are delighted to receive so much support from members on the CBIC.

All of these events might give the impression that we are not fully focused on the underlying market practice and regulatory policy agenda – but that would simply be wrong. As you will see by glancing through this Quarterly Report, work continues intensively and at a fast pace on the many diverse market practice and regulatory initiatives in our four core areas. We are very grateful for the extensive input of the very many individuals from our members who participate on our committees, councils and working groups for all of their expert input. This keeps our market practice standards up to date and helps us represent the market perspective and our members' views in our interactions with the regulatory community.

Martin Scheck
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The transition to risk-free rates in the bond market

By Paul Richards

Summary

This Quarterly Assessment summarises progress in making the transition to near risk-free rates in the bond market and sets out some of the challenges in the period ahead. The assessment focuses on the transition from LIBOR to SONIA in the UK, but also provides comparisons with the transition from other IBOR jurisdictions to near risk-free rates (eg to SOFR in the US, €STR in the euro area and SARON in Switzerland), where appropriate. Following a reminder of the background, the assessment considers the following: adoption of overnight rates; market conventions; term rates; fallbacks; legacy bonds; cash market adjustment spreads; derivative hedges; regulatory issues; supervision; international coordination; and raising market awareness.

Background

1 In July 2017, Andrew Bailey, the Chief Executive of the FCA which regulates LIBOR, said that the FCA would no longer intend to persuade or compel banks to submit contributions for LIBOR after the end of 2021.[1] In the view of the authorities, there are three problems with LIBOR:[2]

- First, since the financial crisis, the structure of financial markets has changed: LIBOR really has become the rate at which banks do *not* lend to each other.[3]
- Second, LIBOR is a risk to financial stability: the pricing of hundreds of trillions of dollars of financial instruments rests on the expert judgment of relatively few individuals.
- Third, in the period before the introduction of benchmarks regulation, there was evidence that LIBOR had been manipulated in some cases.

2 To avoid these problems, the authorities want financial markets to transition away from LIBOR and the other IBORs to near risk-free rates. In all the main jurisdictions, the chosen risk-free rates are overnight rates: ie SONIA in the UK; SOFR in the US; €STR in the euro area; SARON in Switzerland; and TONA in Japan. A common objective is to make risk-free rates as robust as possible, with robustness measured primarily by the volume of underlying observable transactions.

3 Consequently, the authorities have warned market firms that LIBOR may not continue beyond the end of 2021; that they need to prepare for the transition to risk-free rates; and that their preparations will be monitored by their supervisors:

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

2. See in particular the speeches by the Governor of the Bank of England and the President of the Federal Reserve Bank of New York at the Bank of England Markets Forum, 24 May 2018; and the speech by the Chair of ESMA at the ICMA Annual Conference in Madrid, 31 May 2018. See also: Andrew Hauser, Executive Director, Markets, Bank of England: *Join the Revolution! Why It Makes Business Sense to Move on from LIBOR,* 27 June 2019.

3. Sir Dave Ramsden, Deputy Governor of the Bank of England, said that, in the first quarter of 2019, "there were on average only 9 deposits a day underpinning 6-month sterling LIBOR, with a total daily value of £81 million. SONIA, an overnight benchmark provided by the Bank, [is] underpinned by transactions worth about £40 billion a day.": *Last Orders: Calling Time on LIBOR,* Bank of England, 5 June 2019.

- Andrew Bailey, as Chief Executive of the FCA, has said that "the most effective way to avoid LIBOR-related risk is not to write LIBOR-referencing business"; and that "for those who are not yet aware, not yet engaged, and without plans to address their LIBOR-related dependencies, I warn you again of the risks."[4]
- Randal Quarles, Vice Chair for Supervision at the Federal Reserve Board, has said that "clarity on the exact timing and nature of the LIBOR stop is still to come, but the regulator of LIBOR has said that it is a matter of *how* LIBOR will end rather than *if* it will end, and it is hard to see how one could be clearer than that". He has also said that "many seem to take comfort in continuing to use LIBOR – it is familiar, and it remains liquid. But history may not view that decision kindly; after LIBOR stops, it may be fairly difficult to explain to those who may ask exactly why it made sense to continue using a rate that you had been clearly informed had such significant risks attached to it. And make no mistake – as good as the fallback language may be, simply relying on fallback language to transition brings a number of operational risks and economic risks."[5]

4 The transition to risk-free rates is a global challenge. It will only succeed if the authorities and market participants work together. To help organise the transition, the authorities have set up a series of risk-free rate working groups, and the transition is being overseen in each jurisdiction by these risk-free rate working groups, which involve market participants and the authorities working together. The transition is being coordinated internationally through the FSB Official Sector Steering Group (OSSG), co-chaired by Andrew Bailey, as Chief Executive of the FCA, and John Williams, President of the Federal Reserve Bank of New York. ICMA participates in the RFR Working Groups in the UK, the euro area and Switzerland; and ICMA is chairing the Bond Market Sub-Group in the UK, working with the FCA and Bank of England, and is in regular contact with the equivalent group in the US Alternative Reference Rates Committee (ARRC), which is working with the Federal Reserve.

Adoption of overnight rates

5 Considerable progress has already been made with adoption of SONIA in new public issues of floating rate notes (FRNs) over the past year:

- £27.4 billion issued in total, comprising £20.5 billion in the first half of 2019, compared with £6.9 billion in the second half of 2018, following the ground-breaking EIB deal in the summer of 2018;[6]
- 35 new FRN transactions referencing SONIA in the first half of 2019, compared with 12 in the second half of 2018;
- 19 different bookrunners in the first half of 2019, compared with 11 in the second half of 2018;
- a wide range of SSA, bank and building society issuers;
- an increasing amount of secondary market activity; and
- over 180 investors.

As a result, new public issues of FRNs referencing sterling LIBOR maturing beyond the end of 2021 have all but ceased.[7]

6 The market in securitisations referencing SONIA has also made a useful start. Following two retained transactions in December and March, arranged by Lloyds and HSBC with Lloyds respectively, in April 2019 Nationwide launched the first securitisation referencing SONIA distributed to investors.[8] There have been several securitisations referencing SONIA since then.

Market conventions

7 The same market conventions have been used in all bond market transactions referencing SONIA so far: overnight SONIA compounded over the interest period, with the margin added, and with a five-day lag before the end of each interest period. Like overnight SONIA, overnight SOFR has been used in the FRN market in the US.[9] There is agreement that an overnight risk-free rate is the most robust rate.

4. Andrew Bailey, Chief Executive of the FCA: *Interest Rate Benchmark Reform: Transition to a World Without LIBOR*, Bloomberg, London 12 July 2018.

5. Randal Quarles, Vice Chair for Supervision, Federal Reserve Board: *The Next Stage in the LIBOR Transition*, 3 June 2019.

6. Source: RBC Capital Markets. Progress has also been made with adoption of SOFR in new issues of FRNs in the US, with over $100 billion (including CP) issued in total so far.

7. There have been a few small relatively short-dated private transactions referencing sterling LIBOR.

8. See also the statement on behalf of the Sterling RFR WG: "SONIA-linked FRNs have rapidly become the market norm, with around £25 billion issued since June last year, and LIBOR-linked sterling FRN issuance beyond 2021 has all but ceased. Recent weeks also saw the issuance of the first distributed SONIA-linked RMBS.": *Progress on Adoption of Risk-Free Rates in Sterling Markets*, 15 May 2019.

9. See: Katie Kelly, *Market Conventions for Referencing SONIA*, ICMA Quarterly Report Second Quarter 2019.

8 There have so far been two main differences in market conventions between SONIA in the UK and SOFR in the US: whereas compounding has been used in the UK, simple averaging has often been used in the US; and whereas five-day lags have been used in the UK, four-day lock-outs have often been used in the US. But several recent SOFR transactions have used compounding rather than averaging, and variations on lags rather than lockouts.[10] New discussion papers on market conventions have recently been published in the UK, the US and by the FSB[11] which consider the opportunities for future international alignment, while recognising that it is up to the market to decide whether to evolve towards this.

Term rates

9 Compounded SONIA is a backward-looking overnight rate directly linked to the risk-free rate. While the Sterling RFR Working Group encourages market participants not to delay preparations to conduct new business using overnight rates,[12] one of its priorities this year is also to develop a robust forward-looking term SONIA rate. This would incorporate a derivative of the risk-free rate.[13] As with term LIBOR, and unlike compounded SONIA, each interest payment referencing term SONIA would be known at the beginning of the interest period.[14]

10 Given the progress already made using compounded SONIA, it is not clear whether there is still demand for term SONIA for new transactions in the sterling bond market, and there are some concerns about a potential split of liquidity if a term rate develops alongside compounded SONIA. But as FRN and securitisation issuers have so far mainly consisted of SSAs, banks and building societies, there may still be demand for term SONIA among corporates, particularly in the loan market.[15] A term rate may also be needed for the conversion of legacy transactions from LIBOR to SONIA. Much depends on how soon a sufficiently robust term rate develops.[16]

Fallbacks

11 Since new public issues of sterling FRNs are already referencing SONIA rather than LIBOR, there is no longer a need for LIBOR fallbacks to SONIA in the relevant documentation. But fallbacks already used in legacy bond contracts referencing LIBOR complicate the transition to risk-free rates in the bond market. Before Andrew Bailey's speech in July 2017 announcing the potential discontinuation of LIBOR after the end of 2021, most sterling FRNs referencing sterling LIBOR included fallbacks to the last available rate, which will be fixed for the remaining life of the bond when LIBOR is permanently discontinued. Since July 2017, many fallback clauses in the UK have been drafted to take account of the permanent discontinuation of LIBOR. While the fallback language used in Europe and Asia for new issuance of FRNs under existing multi-currency debt issuance programmes differs from new proposals for fallbacks published by the US ARRC in April,[17] the outcome should in practice be much the same.[18]

12 It has been estimated that legacy bonds referencing LIBOR with a value of at least $864 billion are outstanding globally and due to mature beyond the end of 2021, of which around 80% are denominated in US dollars and around 9% in sterling.[19] Legacy sterling LIBOR bonds which will fall back to a fixed rate when LIBOR is discontinued represent much the largest proportion of

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10. A Goldman Sachs transaction in May 2019 used compounded SOFR with a two-day lag. A Morgan Stanley transaction in June 2019 used compounded SOFR, with payment two days after the end of the interest period. The EIB has also issued referencing compounded SOFR, with a five-day lag.

11. Sterling RFR Working Group: *Discussion Paper: Conventions for Referencing SONIA in New Contracts*, March 2019; US ARRC: *A User's Guide to SOFR,* April 2019; and FSB: *Overnight Risk-Free Rates: A User's Guide,* 4 June 2019.

12. Statement on behalf of the Sterling RFR Working Group: *Progress on Adoption of Risk-Free Rates in Sterling Markets,* 15 May 2019.

13. "The FSB recognizes that there may be a role for [forward-looking term] rates for certain cash products. At the same time, the FSB has stated that it considers that the greater robustness of overnight RFRs makes them a more suitable alternative than a forward-looking term RFR in the bulk of cases where an IBOR is currently used.": FSB, *Overnight Risk-Free Rates: A User's Guide,* 4 June 2019.

14. Term rates are also planned in the US (for SOFR) and in the euro area (for €STR), but not in Switzerland (for SARON).

15. Statement on behalf of the Sterling RFR Working Group: "A consultation conducted by the RFR WG in 2018 identified demand for such a [term] rate from some participants in cash markets where usage of forward-looking rates has historically been common, and potentially also to support transition of certain legacy contracts.": *Progress on Adoption of Risk-Free Rates in Sterling Markets,* 15 May 2019.

16. "Three administrators (FTSE Russell, ICE Benchmark Administration and Refinitiv) have confirmed they are working on the development of a Term SONIA Reference Rate.": Sterling RFR Working Group statement on 15 May 2019.

17. US ARRC, *Recommendations Regarding More Robust Fallback Language for New Issuances of LIBOR FRNs,* 25 April 2019.

18. See Catherine Wade, *Fallbacks for LIBOR Floating Rate Notes (Europe and Asia):* ICMA Quarterly Report Third Quarter 2019.

19. Source: RBC Capital Markets. This estimate excludes sovereigns and includes both FRNs and securitisations.

outstanding legacy sterling LIBOR bonds. Since permanent discontinuation of LIBOR does not appear to have been considered when these contracts were originally written, there is a risk of market disruption if nothing is done to pre-empt fallbacks to a fixed rate when LIBOR is permanently discontinued. However, it cannot be assumed that there will be official intervention to legislate for the transition from LIBOR to an alternative rate: this would be a matter for the authorities.

Legacy bonds

13 The adoption of SONIA in new bond issues, coupled with the use of more robust fallbacks in case there are any more new bond issues still referencing LIBOR with maturities beyond the end of 2021, both help to cap the scale of the legacy LIBOR bond problem. But they do not solve it. Maturing bonds will reduce the scale of the problem in time, but there is a significant volume of maturities beyond 2030, and some bonds are perpetual, with no maturity date.

(i) Consent solicitation, bond by bond

14 One way of addressing the legacy sterling LIBOR bond problem would be to amend the interest rate provisions in bond contracts through a process of consent solicitation.[20] Consent solicitation is an existing market practice for individual bonds. Issuers can propose to undertake consent solicitations if and when they wish. The first example of a consent solicitation involving the replacement of LIBOR by compounded SONIA plus a fixed spread was launched by ABP in May 2019 in relation to £65 million FRNs due in 2022. At a meeting of the noteholders on 11 June 2019, the extraordinary resolution was successfully passed. Successful consent solicitations, as in the case of ABP, or other liability management exercises – such as bond exchanges or buy-backs – reduce the amount of legacy LIBOR bonds outstanding.

15 Even so, the use of consent solicitations to transition the *whole* of the legacy bond market – involving vanilla FRNs, covered bonds, capital securities and securitisations – would be a long, complex and expensive process and would not necessarily be successful. This is because individual bonds – which are freely transferable – are often held by many (eg several thousand) investors, and consent thresholds are generally high. While the majority of FRNs denominated in sterling are governed by English law, the greatest proportion of legacy FRNs referencing LIBOR are denominated in US dollars and governed by US federal securities laws, where consent thresholds of 100% are common, raising questions about whether consent solicitation in the US would be practicable.

16 In the UK, a common industry code, which issuers and investors could be invited to support, might help to streamline the process, if it included agreed adjustment terms for transitioning LIBOR to SONIA. But individual bond contracts would still need to be amended bond by bond. And, as the process would be voluntary, it might leave a rump of unconverted bonds still referencing LIBOR. So while consent solicitations – or other liability management exercises – should help to reduce the scale of the legacy sterling LIBOR bond problem, they are not currently expected on their own to solve it.

(ii) Continuing to use LIBOR for legacy bonds

17 A potentially complementary option would be for the FCA (as regulator of LIBOR) to allow the continued publication of LIBOR for legacy products which are not otherwise capable of transitioning away from LIBOR, when the usage of LIBOR is restricted for new transactions.[21] For example, if a sufficient number of banks is no longer willing to submit quotes for LIBOR after the end of 2021, the FCA may determine that LIBOR is no longer representative of its underlying market.[22] In certain circumstances, the EU Benchmarks Regulation (BMR) may permit continued publication and use of a benchmark to allow for orderly cessation and to avoid frustration of financial contracts, but restrict the use of the benchmark by supervised entities only to contracts that already reference the benchmark.[23] The FCA has stated that "the potential solution of allowing continued publication of LIBOR for use in legacy instruments that do not have mechanisms to remove their dependence on LIBOR could help to prevent otherwise unavoidable disruption in cash markets."[24]

18 If LIBOR is no longer sufficiently representative for use in new transactions, the question arises whether the method of calculating LIBOR could be modified to allow

20. See: Charlotte Bellamy, *Legacy Sterling LIBOR Bonds,* ICMA Quarterly Report, Second Quarter 2019.

21. Clearly, issuers and investors will wish to be made aware of all the different options that might be available before reaching a decision on transitioning away from LIBOR.

22. The BMR (Article 23) requires the FCA to make an assessment of LIBOR's representativeness in certain circumstances, such as the departure of one or more panel banks or, in any event, every two years.

23. The problems of retiring a benchmark that is no longer able to meet the requirements of the BMR without causing systemic disruption may be considered further during the review of the BMR which is due by 1 January 2020.

24. Edwin Schooling Latter, Director of Markets and Wholesale Policy at the FCA*: LIBOR Transition and Contractual Fallbacks*, ISDA Annual Legal Forum, 28 January 2019.

for its continued publication for use in legacy transactions for a longer period under the BMR: eg by modifying LIBOR so that it consists of SONIA (or term SONIA) plus an adjustment spread. If the method of calculating LIBOR were modified, it would be necessary to ensure contractual continuity so that references to LIBOR in legacy bonds could remain unchanged: eg modified LIBOR would need to be published on the same screen page at the same time each day. The critical question is whether modified LIBOR would be treated in the market as sufficiently similar to the LIBOR rate which it replaces. This would be a challenging test, both in economic and in legal terms.

19 In the euro area, the current focus is on replacing EONIA by €STR. From 2 October 2019, the method of calculating EONIA will be defined as €STR plus a fixed adjustment spread for a transition period until 3 January 2022.[25] In addition, the method of calculating EURIBOR is being modified to a hybrid methodology to achieve compliance with the BMR.[26] There are no plans to replace EURIBOR, at least at this stage, but it is planned to ensure that any new EURIBOR transactions should incorporate fallbacks to €STR (or term €STR).[27]

Cash market adjustment spreads

20 If LIBOR were to be replaced by SONIA for outstanding legacy bonds, a cash market adjustment spread would be needed to address the differences between LIBOR and SONIA: it would be needed to amend bond contracts by way of consent solicitation from LIBOR to SONIA; and it would also be needed if the method of calculating LIBOR were to be modified so as to consist of SONIA (or term SONIA) plus an adjustment spread. In addition, a cash market adjustment spread would be needed for fallbacks to SONIA in any new transactions referencing LIBOR maturing beyond the end of 2021. These are still taking place, particularly in the loan market.

Derivative hedges

21 Where derivatives are used to hedge legacy bond contracts which fall back to a fixed rate when LIBOR is permanently discontinued, there may be a hedging mismatch when LIBOR is discontinued, as derivatives will fall back to compounded SONIA plus an adjustment spread, under ISDA's proposed cessation trigger. The FSB OSSG has asked ISDA to consult on an additional pre-cessation trigger that would apply to derivative transactions if LIBOR is declared unrepresentative by the FCA and is no longer used for new transactions.[28] Such a declaration should not affect most legacy LIBOR bond contracts, as most fallbacks do not contain provisions relating to unrepresentativeness. They would fall back to a fixed rate only when LIBOR is no longer published. As with the proposed cessation trigger, a pre-cessation trigger which applies to derivative contracts but not the related cash products is also likely to give rise to a hedging mismatch.

Regulatory issues

22 The transition from LIBOR to SONIA in the bond market may also raise regulatory issues:

- In the case of prudential regulation, it is important that the change of benchmark (ie from sterling LIBOR to SONIA) does not itself have regulatory consequences; or, if there are regulatory consequences, that these can be addressed: if there is a change of benchmark, an existing security should not have to be reclassified as a new security.
- In the case of conduct regulation, it is important that the change of benchmark does not give rise to mis-selling or other conduct risks.
- After Brexit, as a UK-based administrator currently registered in the EU, the IBA will need to be registered in the UK and also achieve recognition, endorsement or

25. From 2 October 2019, "EONIA will be calculated as the €STR plus a spread. On 31 May 2019, the ECB provided the market with a one-off calculation of the spread between the €STR and EONIA that will be used for the calculation of EONIA. This spread will remain fixed at the level computed and published by the ECB until the final discontinuation of EONIA." Source: European Money Markets Institute (EMMI), 31 May 2019. The value of this one-off spread, as computed and published by the ECB, is 0.085% (ie 8.5 basis points).

26. On 25 February 2019, the European Commission stated that "the EU institutions agreed to grant providers of "critical benchmarks" (like EURIBOR) two extra years until 31 December 2021 to comply with the new BMR requirements." The final amendment to the BMR to incorporate this extension to the transition period is pending publication in the EU *Official Journal*. On 3 July, EMMI was granted an authorisation by the Belgian FSMA under the EU BMR for the administration of EURIBOR.

27. Political agreement has been reached to extend the mandatory contribution period from two to five years. The final amendment to the BMR to incorporate this extension is pending publication in the EU *Official Journal*.

28. "The FCA has publicly stated that market participants may prefer to include a trigger "based on an announcement of non-representativeness rather than triggers based on cessation alone" and the FSB OSSG expressed a similar view in a letter to ISDA noting that such a trigger "would offer market participants with LIBOR-referencing derivative contracts the opportunity to move to new benchmarks rather than remain on a non-representative LIBOR rate".": US ARRC *Recommendations Regarding More Robust Fallback Language for New Issuances of LIBOR FRNs,* 25 April 2019.

equivalence in the EU27 in order for LIBOR to be used in the UK and EU27 after the end of the transition period under the BMR.

- EU law is due to be brought "onshore" into law in the UK on Brexit. In the case of the BMR, it is not yet clear whether regulatory equivalence will be negotiated between the EU27 and the UK to take effect after the end of any Brexit transition period.

23 In the UK, a task force chaired by the FCA is considering these regulatory issues. Accounting and tax issues are being addressed in parallel in conjunction with the IASB.[29]

Supervision

24 Last autumn, the PRA and FCA in the UK sent a "Dear CEO" letter[30] to the chief executives of the banking and insurance firms they supervise in order to raise awareness of the need to prepare for the transition to risk-free rates.[31] Supervisors in other jurisdictions do not necessarily use the same mechanism, but their objective is the same.[32] That is to check on a regular basis that the firms they supervise are identifying and quantifying their LIBOR exposure and planning ways to reduce it by transitioning to risk-free rates, taking account of prudential and conduct risks during the transition to risk-free rates and at the cliff-edge when LIBOR is discontinued. Firms also have a responsibility to train their staff and communicate with their clients.

International coordination

25 International coordination of the transition to risk-free rates, which is being overseen by the FSB OSSG, is of great importance for international market firms and their clients, many of whom have operations in all the major IBOR jurisdictions. There are some differences of approach to the transition between national jurisdictions: some risk-free rates are secured (like SOFR in the US and SARON in Switzerland) and some unsecured (like SONIA in the UK and €STR in the euro area); and in the UK and US the focus is on replacing LIBOR, whereas the focus in the euro area is on replacing EONIA with €STR and defining fallbacks for EURIBOR rather than replacing it, at any rate at this stage. But while there is not a "one-size-fits-all" approach to the transition in different national jurisdictions, the direction of travel towards risk-free rates is much the same.

26 Attention so far has been on the transition from IBORs to risk-free rates in national currencies under national law (eg sterling LIBOR to SONIA under English law and US dollar LIBOR to SOFR under US federal securities laws). But it will be important also to consider in more detail the transition to risk-free rates of foreign currencies under national law (eg US dollar LIBOR under English law).

29. The FSB OSSG is also coordinating work on regulation, accounting and tax issues globally.

30. *Firms Preparations for Transition from LIBOR to Risk-Free Rates:* Letters to the CEOs of banking and insurance firms from the Prudential Regulation Authority and Financial Conduct Authority, 19 September 2018.

31. Andrew Hauser, Executive Director Markets, Bank of England: "To summarise the key conclusions of our first "Dear CEO" exercise: you need to have identified and quantified your LIBOR-linked exposures; you need a granular transition project plan, including an identified responsible executive covered by the Senior Mangers Regime (where applicable); you need to stress test that plan against the base case of LIBOR ceasing to exist at end-2021; you need to identify and manage your prudential and conduct risks; and you need to engage with the work of the relevant market working groups": *Join the Revolution: Why It Makes Business Sense to Move on from LIBOR,* 27 June 2019.

32. In the US, see the remarks by Randal Quarles, Vice Chair for Supervision, Board of Governors of the Federal Reserve System: "The Federal Reserve will expect to see an appropriate level of preparedness at the banks we supervise, and that level must increase as the end of 2021 grows closer": *The Next Stage in the LIBOR Transition,* New York, 3 June 2019. See also, for example, the letter from the Hong Kong Monetary Authority, 5 March 2019, and the letter from the Australian Securities Commission, 9 May 2019.

The BMR and third country benchmarks

27 Any benchmark administrator based outside the EU that provides benchmarks used in the EU by a supervised entity will be subject to the third country regime requirements of the BMR and thus defined as a third country administrator. The BMR exempts benchmarks administered by central banks and other public authorities.

28 Under the BMR, EU users of benchmarks can only use third country benchmarks registered on the ESMA list of eligible third country benchmarks. There are three routes for a third country benchmark to be included in the ESMA register: equivalence between a third country and the EU; or recognition by a competent authority of an EU Member State; or endorsement, under which an authorised EU-based benchmark administrator can apply to an EU competent authority to endorse a third country benchmark administrator's benchmarks.[33]

29 On 25 February 2019, political agreement was reached in the EU to extend the transitional period for third country benchmarks to comply with the BMR requirements until 31 December 2021. This will give the EU and non-EU regulators further time to work towards equivalence for, or for administrators to achieve recognition or endorsement of, third country benchmarks for use in the EU.[34]

Market awareness

30 International market awareness of the need to prepare for the transition to risk-free rates has increased, but there is much further to go, not only in the case of market firms, but also their clients. The authorities themselves are playing a major role in raising market awareness: eg through public speeches, events and their supervisory role. ICMA and other trade associations play a complementary role in raising market awareness among their members: eg through published articles, conference calls and events, such as the risk-free rate panel of senior officials from the FCA, the European Central Bank, the Federal Reserve Bank of New York and the Swiss National Bank at the ICMA AGM and Conference in Stockholm on 17 May 2019. ICMA has also posted, on its website, a dedicated webpage on benchmark reform and the transition to risk-free rates.

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33. See also: Patrik Karlsson, *The Impact of the EU BMR on the Use of Third Country Benchmarks*, ICMA Quarterly Report First Quarter 2019.

34. See also: David Hiscock: *Interest Rate Benchmarks:* ICMA Quarterly Report Second Quarter 2019.

The importance of integrated capital markets and CMU

By David Hiscock

ICMA represents issuers, lead managers, dealers, asset managers, investors and market infrastructure providers in the international capital markets. ICMA has over 570 members, based across Europe and globally, and has set standards of good market practice in the international fixed income market for over 50 years. ICMA's mission is to promote resilient well-functioning international and globally coherent cross-border debt securities markets, which are essential to fund sustainable economic growth and development.

Capital Markets Union (CMU) has been a major initiative of the current European Commission. Launched in September 2015, the Commission's CMU Action Plan was built around four principles: (i) creating more opportunities for investors; (ii) connecting financing to the real economy; (iii) fostering a stronger and more resilient financial system; and (iv) deepening financial integration and increasing competition.

There is a significant degree of consistency between ICMA's mission and the objectives of CMU, given which ICMA has supported CMU from the outset and continues to see significant value in the further development of the CMU concept. The element of integration inherent in this concept is a point that is integral to much of ICMA's work, which strives to avoid unnecessary market fragmentation and disruption given that such aspects run counter to the development of deep, liquid, efficient markets.

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

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

Europe's direct regulation of markets, in particular through MiFID II/R, has added costs and complexity while failing to adequately deliver intended benefits. Much work is needed to clean up data and make better information available, including through the establishment of a suitably designed and governed consolidated tape. CSDR market discipline will helpfully bring in a regime of settlement penalties, but also includes the imposition of mandatory buy-ins which are very poorly suited to fixed income markets and liable to simply drive more liquidity out of the market. Combined reporting burdens, particularly including those under MiFID

II/R, EMIR and SFTR, are significant and ought ideally to be streamlined in order to more efficiently and cost effectively deliver accurate, timely information.

CMU is conceptually a good further step to develop well-integrated EU capital markets, all the better to boost financing options and meet the challenges of continuing to deliver economic growth in mature economies, but despite progress on many potentially worthwhile initiatives, results thus far have been underwhelming in their impact. Many measures are only just agreed by the co-legislators and their effects therefore remain to be seen. Others are further advanced but there have been significant problems with implementation, including where Level 2 technical standards have not been agreed in time.

The STS Regulation has thus far proved especially problematic, with the challenge of complying with its incompletely specified multiple requirements serving to constrain rather than boost securitisation and threatening to eliminate ABCP in Europe. The new Prospectus Regulation may be significant for EU capital markets, but when placed alongside the constraints imposed by MiFID and PRIIPs will not do anything to boost meaningfully the development of retail fixed income markets, albeit that bonds should in principle be more retail-friendly than, for instance, (first-loss exposed) equities.

New regimes established for European long-term investment funds (ELTIFs) and for the pan-European personal pension product (PEPP) are further examples of important steps taken which move in the desired direction. Yet, in each case, the potential of what has been done is hampered by the introduction of too many detailed constraints, leaving it likely that the take-up of these new forms of investment vehicle will fall far short of the desired level. While remaining respectful of the need to provide the right degree of control to satisfy legitimate concerns, such as investor protection, more work to better facilitate take-up of these vehicles could boost their contribution towards the financing of much needed longer-term investment – to the benefit of the real economy.

Continuing to build and develop CMU offers benefits but also potentially brings new risks, which should of course be carefully considered and suitably addressed. For instance, the aim of complementing the bank financing channel and hence avoiding excessive economic retraction during periods of bank instability or weakness should not be allowed to be undermined by market risks introduced through the capital market channel and spread across borders by the union dimension of CMU. Already much progress to adapt EU supervision and oversight, especially through the establishment of the ESFS, has been made. This foundation can continue to be appropriately built upon, in parallel with the journey towards the realisation of CMU. This evolution should remain mindful of the distinction, which can be expected to remain even in an EU Single Market context, between retail markets that have a strong domestic orientation and wholesale markets which act widely across borders, both inside the EU and in a broader global markets context. Linking this to continued efforts to ensure that the EU's single rulebook is consistently administered across the whole of the EU can potentially bring at least as much benefit as the promulgation of yet more rules and regulations.

It is also widely recognised that CMU is a complement to the EU's well-advanced endeavour to introduce Banking Union. Completion of the latter is of significant importance, not only to ensure that the objectives of Banking Union are secured, but also since the CMU can itself benefit from the EU having a robust EU-wide banking system – given that banks are themselves important actors in capital markets. Alongside this, progress with other initiatives to further strengthen the Economic and Monetary Union also offer significant potential to act in ways which will greatly benefit CMU and vice-versa. Two elements discussed in this context which are particularly germane are the possible steps to boost the international role of the euro and the examination of how to create a European safe asset. Each of these can do much to add to the strength and depth of European markets, making them more attractive and better able to deliver CMU's objectives.

Brexit adds a significant further layer of complexity, exacerbating the risk of market fragmentation, and ICMA has contributed to efforts to avoid or mitigate cliff-edge risks. The EU27 continue to anticipate wishing to develop

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capital market capabilities (ie CMU looking ahead) but greater clarity is needed about how best to do this in a way which maximises the opportunity to attract investment to Europe through open and integrated capital markets, as opposed to cutting off Europe through excessively inward-looking protective measures.

The coming debate about the EU/UK relationship and the extent to which a model of regulatory equivalence can facilitate market access, suitably respecting the importance of safeguarding EU markets and their users while also facilitating their abilities to benefit from UK financial market capabilities, will prove important as Brexit progresses. Other regulations, such as the EU BMR, already illustrate the difficulty of creating EU rules which go beyond those anticipated elsewhere while, at the same time, suggesting that equivalence is the way to accommodate third country considerations. Appropriately and pragmatically resolving these tensions, also evident in current decision making regarding the EU's relationship with Switzerland, will play an essential part in shaping the EU's future position in global capital markets. Done well, this can bring significant value to the financing of the EU's economy and help the EU to achieve better outcomes in a highly competitive global environment.

The swift rise in focus on sustainability has been anticipated by the significant development which ICMA has helped to guide in relation to green and social bonds, working through market-led principles. Taking note of this, some countries have already moved to legislate and the EU is now progressing rapidly along this path, with its taxonomy and green bond standard proposals, alongside steps to integrate sustainability in other regulations, such as MiFID II/R, UCITS and AIFMD. There is much further to go on this journey and CMU will need to be shaped in such a way that it helps to drive the coming shift to sustainable finance.

Alongside this, at the same time as technological development holds the potential to boost economic productivity in most fields of human endeavour, FinTech offers a way in which to potentially rise to many of the challenges of formulating and regulating better markets. By thinking ahead, rather than looking back, the EU can seize this opportunity to build and develop its market capability in ways which already integrate and capitalise upon the potential which digitalisation offers, while simultaneously instigating safeguards in respect of associated technological risks.

While many more detailed steps need to be taken to progress CMU and better fulfil its objectives, there is a big opportunity, which currently lies in front of the EU, to fully exploit the synergies between each of the CMU, the sustainability action plan and the FinTech action plan. At the same time, it will be essential to maintain the EU's competitiveness in globally interconnected capital markets and to avoid that the fragmentation inherent in Brexit has an unduly negative impact.

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Implementing CSDR mandatory buy-ins

By Andy Hill

The mandatory buy-in obligations being introduced under the EU CSD-Regulation (CSDR) are unique in that, while market regulation usually seeks to reduce overall systemic risk, this particular regulatory initiative is purposefully designed to increase risk. The intention is to improve settlement discipline by disincentivising settlement fails, effectively transitioning "best effort" delivery markets closer to a "guaranteed delivery" regime. Mandatory buy-ins will apply from September 2020 (although this is now expected to be delayed until November 2020).

The obligation to buy in

The Regulation aims to improve settlement discipline by making it compulsory for purchasing parties to initiate a buy-in process against a seller who fails to deliver securities in a timely manner. It is important to note that this legal obligation to buy in a failing counterparty applies directly to the purchasing entity, which in many cases will be the end-investor (such as an asset manager or a pension fund), and not to the custodian bank, settlement agent, or any other intermediary in the settlement chain. The regime also affords little flexibility. Purchasing parties must initiate the buy-in process once a trade has failed for four business days in the case of liquid equities, or seven business days in the case of all other securities (including bonds).[1] Furthermore, the buy-in must be completed (ie initiated, executed, and settled) again within four or seven business days, depending on the underlying security. In the event that the buy-in cannot be executed,[2] the original trade must be cancelled, and a prescribed cash compensation process is triggered.[3]

Scope

Since the Regulation applies to transactions intended to settle on an EU/EEA regulated CSD or ICSD, the extra-territorial scope is likely to be significant. The regulatory technical standards (RTS) provide that all parties in the settlement chain must have contractual arrangements in place that not only require the relevant counterparties to comply with the regulatory obligations of the buy-in, but that also ensure that the Regulation is enforceable in all relevant jurisdictions.[4] Thus an asset manager located in Singapore or New York, settling trades on an European ICSD, will still be required to buy in a failing counterparty, whoever and wherever they may be.

Applying the ICMA buy-in rules

Buy-in mechanisms in the non-centrally cleared markets are nothing new. Participants in the international bond markets have relied upon the ICMA buy-in rules[5] for decades. The ICMA buy-in rules, however, are a contractual right, not a mandatory obligation, and are designed to protect parties to a transaction in the event of a settlement fail, rather than to penalise them. ICMA intends that its rules can continue to play a protective role with the introduction of CSDR mandatory buy-ins, providing not only a legal framework and market best practice for its implementation, but also mitigating some of the risks created by the new regime.

First, it is hoped that trading under the ICMA Rules will remove an anomaly that otherwise exists in the regulatory provisions relating to the differential payments that need to be made between parties following the execution of the buy-in or the application of the cash compensation process. As a result of an apparent error in the Level 1 Regulation, which has the payments being made in the wrong direction, an attempt to correct this in the RTS only goes part of the way, allowing for the differential payment to go in the right direction (from seller to buyer) in the case that the buy-in price or cash compensation reference price is higher than

1. The time between the intended settlement date and the legal requirement to initiate the buy-in process is known as the "extension period"

2. The Regulation allows for the purchasing party on more attempt at the buy-in process (called the "deferral period") before cash compensation becomes obligatory

3. The amount of cash compensation payable is based off a determined market reference price for the underlying security, although it can also be determined by a pre-agreed formula

4. See Article 25 of the RTS

5. The ICMA buy-in rules are part of the ICMA Secondary Market Rules and Recommendations which apply automatically between ICMA members transacting in international securities (ie a security intended to be traded on an international, cross-border basis and capable of settlement through an international central securities depository or its equivalent.

the original transaction price, but not being made at all in the case that it is lower. From a seller's perspective, this is the economic equivalent of being short an at-the-money put option in the event of a settlement fail.[6] The ICMA rules, as now, intend to allow for payments to be made in either direction.

Second, while the Regulation does not preclude it, there is no provision for a "pass-on" mechanism. The ICMA buy-in rules allow for pass-ons, which facilitate the possibility for a single buy-in to settle an entire chain[7] of failing transactions. Apart from being extremely efficient, this also avoids the undesirable situation of multiple buy-ins being executed at the same time, with important implications for market volatility and stability. Further advantages of the ICMA pass-on mechanism are that it is both (I)CSD and intended settlement date agnostic, and there is no requirement to have overall visibility of the transaction chain. While preserving this degree of efficiency and flexibility may prove challenging under CSDR, it is hoped that a modified version of the ICMA pass-on mechanism will still be available through the ICMA buy-in rules under the Regulation.

ICMA is in discussion with ESMA on these issues and more (such as the requirement to appoint a buy-in agent) and once there is greater clarity on what may or may not be possible under the new buy-in regime, ICMA will launch a consultation of members and other stakeholders to revise its buy-in rules to align with, and support implementation of, the CSDR requirements. This is likely to be in the second half of 2019.

Is there a case for mandatory buy-ins?

While ICMA concentrates on updating its buy-in rules to support implementation and provide best practice for applying the CSDR buy-in requirements in the international bond markets, it will continue to raise the question with the European Commission and other official sector stakeholders as to whether the CSDR mandatory buy-ins should even be implemented in the non-cleared markets. Apart from the cost and logistical complexity associated with implementation and enforcement (eg the extra-territorial implications), it is not obvious that there is a case for it. Settlement efficiency data would suggest that fails, at least in the European bond markets, affect a relatively small subset of overall transactions, are usually the result of operational inefficiencies, and, in most cases, clear up after a few days. In the case of longer-term fails, the causes tend to be more structural and due to a lack of liquidity in the underlying security. As the increased cost of capital forces market makers to trim inventories, and as repo traders scale back intermediation, sourcing liquidity in bond markets, particularly for credit and emerging markets, has become more challenging. In many cases buy sides are reliant on market makers' willingness to sell short in order to get the liquidity they need. Furthermore, transactions are delivery-versus-payment (meaning purchasers still have the use of their cash until the transaction settles) and purchasers retain the full economic benefit of ownership of the securities, even while the transaction is unsettled;[8] so in this respect investors are not disadvantaged. Ironically, they might be in the case of compulsory cash compensation.

ICMA has long advocated alternative, more market-friendly initiatives to improve and maintain settlement efficiency, such as a more appropriate (and flexible) calibration of the cash penalty regime.[9] In many respects, the mandatory buy-in regime is a bit like using a sledgehammer to crack a nut.

Who loses under mandatory buy-ins?

Unsurprisingly, the biggest impact of the CSDR buy-in regime is likely to be a significant reduction in secondary market liquidity, particularly for less liquid markets such as credit and emerging markets, a cost that will be borne most directly by investors. A 2015 ICMA impact study[10] suggests that, with the introduction of mandatory buy-ins, bid-ask spreads will widen significantly, even for the most liquid sovereign bonds, while in the case of less liquid corporate bonds market-makers will retreat from showing offers in securities that they do not already hold.

Ultimately, this expected loss of liquidity is likely to feed through to the cost of issuance, impacting sovereigns as well as corporates. In the case of smaller, less frequent issuers, it may be a barrier to accessing the capital markets altogether. As is frequently pointed out to the European Commission, this is hardly in keeping with a key objective of Capital Markets Union.

More about both CSDR mandatory buy-ins and the ICMA buy-in rules can be found on the ICMA website.

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6. Ordinarily a buy-in seeks to maintain the original economics of the transaction; in the case od CSDR buy-ins, in many circumstances, the economics will be inadvertently and unpredictably altered.

7. That is, where counterparties having matching purchases and sales

8. Although they will have a credit exposure to the selling party during this time

9. CSDR will also introduce cash penalties for settlement fails in parallel to the mandatory buy-in regime

10. ICMA *Impact Study for CSDR Mandatory Buy-ins*, February 2015

Big Data in securities markets

By Gabriel Callsen

The purpose of this article is to explore the concept of Big Data, its potential use in the securities markets and the implications for international debt capital markets. The article is divided into four sections and reflects ICMA's monitoring of relevant developments. The first section provides background and definitions of Big Data and associated terms such as "AI". The second section summarises regulators' views on Big Data, which has been a focus area over the last two years. The third section describes Big Data in securities markets and the use of data in fixed income markets. Finally, the fourth section provides a snapshot of potential applications of (big) data and machine learning in fixed income markets. The paper is primarily based on research, but also conversations with selected ICMA members and market participants representing the sell side, buy side, a supranational issuer, as well as data and technology providers.

(i) Defining Big Data, artificial intelligence, machine learning and algorithms

While there is no uniform definition of the term Big Data, it can be described as "data that contains greater variety arriving in increasing volumes and with ever-higher velocity".[1] This is also referred to as the three "Vs" ie variety, volume, and velocity.[2] In other words, Big Data is comprised of large and/or complex datasets, in particular from new data sources, and often includes unstructured (such as text, image, or language) or semi-structured data (a combination of data in table-format and unstructured formats).[3] Additional attributes associated with the concept of Big Data are data quality (or veracity) and data value.[4] A key feature is that Big Data cannot be processed by traditional software, but requires more advanced data processing capabilities, including applications of artificial intelligence (AI), or machine learning (ML).[5] This is also known as "Big Data analytics".

AI is broadly understood to refer to computer systems which "perform human-like tasks, such as learning, reasoning, and problem solving".[6] Machine learning (ML) can be considered a subset of AI which enables computers to "learn directly from examples, data, and experience" and "carry out complex processes by learning from data, rather than following pre-programmed rules".[7] An algorithm in mathematics and computer science can be described as "an unambiguous specification of how to solve a class of problems. Algorithms can perform calculation, data processing, automated reasoning, and other tasks".[8] However, it is worth noting that there does not appear to be a consensus on a single, consistent definition of AI and ML and to what extent ML forms part of AI.[9]

(ii) Regulators' views on Big Data

Big Data is a theme that has clearly captured financial regulators' attention. Over the last two years, a number of reports have been published and consultations launched on Big Data, exploring the potential benefits and risks arising from the use of Big Data, in particular from a financial

1. https://www.oracle.com/uk/big-data/guide/what-is-big-data.html

2. https://www.gartner.com/it-glossary/big-data/

3. FSB (2017), Artificial intelligence and machine learning in financial services. Market developments and financial stability implications, p.4.

4. BaFin (2018), Big data meets artificial intelligence - Challenges and implications for the supervision and regulation of financial services, p.17.

5. Further background on the shift between data processing systems can notably be found in Infosys (2012), Use of Big Data Technologies in Capital Markets, Viewpoint, p.2.

6. https://news.sap.com/2018/03/what-is-artificial-intelligence/

7. The Royal Society (2017): Machine learning: the power and promise of computers that learn by example, p. 16.

8. https://en.wikipedia.org/wiki/Algorithm

9. WEF (2018), The New Physics of Financial Services. Understanding how artificial intelligence is transforming the financial ecosystem, p.10.

stability and retail/consumer perspective. The overview below aims to provide a concise, albeit non-exhaustive, insight into the thinking of key regulators in relation to Big Data.

The Financial Stability Board (FSB) released a report on *Artificial Intelligence and Machine Learning in Financial Services* on 1 November 2017. As the title suggests, the focus of the paper is on AI and ML, and notably on market developments and financial stability implications. This is relevant for Big Data insofar as it is considered a key supply factor for the adoption of such technologies. Applications of AI and ML are considered to be in early stages and fast-evolving, but while potential benefits include greater operational efficiency, for instance for regulatory reporting purposes, the "use of big data from new sources" may have unexpected consequences and "lead to greater dependencies on previously unrelated macroeconomic variables and financial market prices".[10]

The Joint Committee of the European Supervisory Authorities (ESAs) published its *Final Report on Big Data* on 15 March 2018. The report provides a summary of the responses received from its consultation following a *Discussion Paper on the Use of Big Data by Financial Institutions* released on 19 December 2016. The reports describe the phenomenon of Big Data, the applicable regulatory framework, as well as potential benefits and risks for consumers and financial institutions. A key observation is the "continued increase in the use of Big Data across the banking, insurance and securities sectors, ie the collection, processing and use of high volumes of different types of data from various sources".[11]

BaFin, in the 195-page report *Big Data Meets Artificial Intelligence - Challenges and Implications for the Supervision and Regulation of Financial Services*, released on 16 July 2018, undertakes an in-depth analysis of Big Data in conjunction with artificial intelligence and machine learning (referred to as BDAI), and its use by banks, insurance companies and in capital markets. The report explores the use of Big Data and AI, its potential benefits (eg efficiency gains, personalisation of product offers, development of new products) and risks (eg discrimination, market concentration, fragmentation). A common key concern of the ESAs and BaFin relates to retail clients, in particular to profiling and segmentation practices, which could result in "differentiated", or in other words, unfair, pricing practices.

With regard to securities markets, it is acknowledged that the usage of large and diverse data sets, for instance, for high-frequency trading strategies, is not a new phenomenon. A key observation in the BaFin report is that in light of the high quality of existing models, the "increased use of BDAI may thus only offer small increases in model quality".[12] However, with regard to the impact on market structure, it is worth noting that "BigTechs" are already profiting from BDAI usage in capital markets because they are important infrastructure providers supplying cloud computing".[13] and "could quickly become systemically important".[14] Even though regulatory guidance has been provided on outsourcing to cloud service providers[15], BigTechs have generally not been subject to supervision. Looking ahead, the use of Big Data and AI is expected to lead to further automation and use of algorithms. Consequently, the report concludes that the use of Big Data and AI in capital markets is likely to be "more of the same, only faster and better".[16]

The FCA, in a speech given on 13 February 2019 by Julia Hoggett, Director of Market Oversight at the FCA, highlighted the risks of market misconduct arising from the use of (big) data and artificial intelligence. According to a commentary by Clifford Chance, in light of ever-growing volumes of data in electronic format, "it is becoming increasingly difficult to distinguish between data which is publicly available and data which is non-public and therefore potentially inside information".[17]

(iii) Big Data in capital markets

While the concept of Big Data is normally associated with retail clients, where increasing volumes of data are

10. FSB (2017), Artificial intelligence and machine learning in financial services. Market developments and financial stability implications, p.31.

11. Joint Committee of the ESAs (2016), Discussion Paper on the use of Big Data by financial institutions, p.5.

12. BaFin (2018), Big data meets artificial intelligence - Challenges and implications for the supervision and regulation of financial services, p.135.

13. Ibid. p. 141. BigTech may also be well positioned to leverage their customer networks, data collected outside the financial sector combined with data analytics capabilities to venture into the distribution of financial retail products.

14. Ibid. p.8.

15. EBA (2018), Recommendations on outsourcing to cloud service providers.

16. BaFin (2018), Big data meets artificial intelligence - Challenges and implications for the supervision and regulation of financial services, p.137.

17. Clifford Chance (2019), Big data and artificial intelligence – evolving market misconduct risks, 14 March 2019, p.3.

Big Data is a theme that has clearly captured financial regulators' attention.

generated, for example, from the use of mobile devices, social media, or connected devices (internet of things), Big Data in capital markets is not a new phenomenon. The ingestion of large amounts of data, for instance, algorithmic or high-frequency trading in equities markets, or data-driven investment strategies by certain market participants such as hedge funds are not new *per se*. Indeed, market participants tend to make use mostly of structured data sets (provided by third-party data providers, for example), and to a lesser extent unstructured data (for sentiment analysis or market surveillance).[18]

Use of (Big) data in fixed income markets

In fixed income markets, electronification has created increasingly large volumes of data, in particular over the last two years. This has entailed ever-growing capacity requirements to process and store data. Accessibility has improved significantly through the use of cloud networks, which has enabled firms that do not have the required capacity to access and make use of data.

Access to data, but also the ability to manage ever-increasing volumes of data, is therefore of critical importance for a range of purposes. First, besides liquidity, data is a key component for algorithmic trading, as is the case in equities markets, and has resulted in an increase in automated market-making. Streaming prices, and not only seeing actionable prices on screen but also receiving data in electronic format, result from improved use of data and technological progress. Transparency reporting requirements under MiFID II/R have generated vast amounts of data, which can be considered "Big Data". However, low data quality, data dispersion across different sources, lack of standardisation, and divergent national deferral regimes for the publication of trading data, have prevented market participants from making meaningful use of MiFID II/R data. Second, data is equally important for human use or manual trading. For example, mid prices, historical data and CRM data are paramount in order to make informed trading decisions. Third, data is key from a business management perspective, for example, to estimate market share, measure performance, or analyse market trends. And fourth, data is used for regulatory reporting, for example, under MiFID II/R and the forthcoming SFTR reporting regime, and for compliance purposes, for instance, to detect conduct issues or suspicious activities. However, a preliminary step is to aggregate and standardise the data for machine use, and make the data accessible in a user friendly and meaningful way if used manually. This process remains a resource intensive precondition to exploit the full potential of data.

That said, in comparison to large technology companies, but also other sectors such as aviation or other retail sectors, capital markets appear to be far behind when it comes to processing and using data. This is surprising considering market participants, notably from a sell-side perspective, generate large volumes of data. Given the data is recorded and linked to unique identifiers such as ISINs, it should be easy to use. However, to what extent BigTech firms will play a role in international debt capital markets going forward remains rather questionable. The competitive edge is perceived not to be generic cutting-edge technology, but the combination of specialist financial market expertise with cutting-edge technology. And this is an area traditionally dominated by hedge funds rather than BigTechs.

The cost of data

A key factor for the use of data is cost. Market participants are paying to aggregate data (eg using specific software to combine data from different sources in different formats), process and report data for regulatory reporting purposes (eg publication of post-trade data under MiFID II/R through APAs), and incur additional costs for using their own data provided by trading venues or data providers. Reducing the cost of data would create incentives for the producers of data to make greater use of it. However, behaviour will only change if incentives change. While the benefits of data need to outweigh the costs, it requires prior investment and leads to a typical "chicken and egg" dilemma.

18. AITE (2014), Big Data in Capital Markets: At the Start of the Journey, p.11-13.

(iv) Selected examples of "Big Data" and machine learning applications in fixed income markets

While it is not possible to make a qualitative judgement of the following examples, the aim is to provide a snapshot of recent (big) data-related developments and highlight potential use cases in fixed income markets.

ESM: Predicting investor behaviour in European bond markets through machine learning[19]

The quant team of ESM is developing, in cooperation with the Zurich University of Applied Sciences, a machine-learning based application to predict investor demand for syndicated bond issuances. A key reason for using machine learning algorithms is the ability to analyse complex and high-dimensional data sets with widely unknown structures, to capture complex dependencies and relations of variables and identify any kind of patterns in the data.

The analysis comprises diverse datasets, including transaction-related data such as orderbooks, internal and external primary and secondary market data, including secondary market transactions reported by primary dealers. In addition, it comprises internal and external investor-specific data as well as macroeconomic data. The applied ML methodology is promising. First results show a prediction power of well above 50% of investor demand by investor type (such as banks, brokers, fund managers, pension funds or insurance). While results for individual investors were overall less accurate due to smaller data sets, qualitative information and behaviour patterns of specific investors could be detected. These results can help better to understand and address investor needs and consider this in the transaction planning and execution.

This machine-learning application to predict investor demand is considered work in progress. Further improvements of data quality, inclusion of further data sources, and a refinement of the used ML algorithms are expected to improve forecasts substantially. However, a key limiting factor is the availability of data despite access to diverse data sources, including primary dealer reporting. The inclusion of further primary dealer data can play an important role. ML technology can help solve potential confidentiality issues.

Other use cases

Apart from this use case, there is a growing number of different machine learning applications that have been developed in fixed income markets. These include applications to predict pricing of new issues and existing securities, match issuers with potential investors, aggregate siloed data and provide access in real-time across asset classes, or predict financial markets movements based on alternative data to enhance investment decisions.

Conclusion

Big Data, or data characterised by greater variety, increasing volumes and ever-higher velocity (known as three "Vs") is often associated with applications of advanced analytics based on artificial intelligence or machine learning. Regulators have focused extensively on this topic, highlighting potential benefits, but also risks in relation to retail clients in particular. In capital markets, the use of large volumes of data and advanced analytics is not new *per se*. In fixed income markets, electronification has created increasingly large volumes of data. While data is used for a range of key functions, cost is a limiting factor in fixed income markets. Challenges relate in particular to data normalisation and quality. Predictive analytics based on machine-learning algorithms seem promising, but such applications are still in early stages. That said, Big Data analytics and data-driven trading strategies will certainly become more and more widespread in fixed income markets and ICMA will continue to monitor these developments closely.

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19. With kind permission from the European Stability Mechanism (ESM) and special thanks to Martin Hillebrand.

Fallbacks for LIBOR floating rate notes

By Catherine Wade

Traditional fallback provisions (Type 1)[1]

RFR Floating rate notes (FRNs) issued prior to Andrew Bailey's July 2017 speech[2] typically include "traditional" fallback provisions which, in summary, provide that if the relevant reference rate is not available at the relevant time, then the party responsible for determining the rate (usually an agent of the issuer) must request quotes from a certain number of major banks in the interbank market (known as "reference banks") and use the quotes provided to determine a rate. If the agent cannot obtain a certain number (or any) quotes from reference banks, then the rate will be the rate in effect for the last preceding interest period.

It is unlikely that, in the event of a permanent cessation of LIBOR, reference banks would provide quotes for any length of time if at all. Therefore, absent any other intervention[3], the majority of legacy FRNs that reference LIBOR and contain traditional fallback provisions will become fixed rate instruments in the event of a permanent cessation of LIBOR, because the rate in effect for the last preceding interest period will be applied to every interest period for the remaining life of the note.

Alternative fallback provisions (Type 2)

After Andrew Bailey's July 2017 speech, issuers of FRNs began to consider "alternative" fallback provisions to supplement the "traditional" fallback provisions described above.

In Europe and Asia, market practice has evolved since July 2017 to a point where alternative fallbacks are now common in new issues of long-dated FRNs and updated or newly established multi-currency debt issuance programmes that envisage the issuance of long-dated FRNs.

Alternative fallbacks typically seen in new European FRNs and multi-currency debt issuance programmes are designed to apply across currencies and in respect of different benchmarks (not just LIBOR and/or other IBORs) and do not refer to specific alternative rates such as the relevant risk-free reference rate (RFR) or term RFR to address the permanent discontinuation of a rate or benchmark

Rather than referring to specific alternative RFRs or term RFRs, alternative fallbacks in European documentation typically envisage (broadly) the issuer appointing an independent adviser to select (or to advise the issuer in the selection of)[4] an alternative or replacement rate and adjustment spread to be applied to such rate, in each case, on the basis of (a) any recommendations made by relevant official bodies (see below) or (b) if no such recommendations have been made, customary market practice[5].

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1. References to Type 1, 2 and 3 fallbacks are for convenience only. This categorisation is not referred to in the contractual documentation and there may be overlap between each "Type" of fallback, which varies in detail from issuer to issuer.

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

3. See also: Paul Richards, *The Transition to Risk-Free Rates in the Bond Market*, ICMA Quarterly Report Third Quarter 2019.

4. There is a degree of variation in the fallback language and in particular regarding whether the issuer makes the determination of the replacement rate (having been advised by the independent adviser) or the independent adviser makes the determination. This may depend upon the nature of the issuer, for example it might be more appropriate for financial institution issuers to make the determination, whereas it might be less so for a corporate issuer.

5. The alternative fallbacks contained in some regulatory capital securities are stated to be subject to compliance with any regulatory requirements.

Relevant official bodies are likely to include:

- the relevant central bank or supervisory authority; and
- any working group or committee sponsored by, chaired or co-chaired by or constituted at the request of the relevant central bank or supervisory authority or group of central banks or supervisory authorities or the Financial Stability Board.

In the case of the European securitisation market, AFME has developed model interest rate modification language to provide for certain changes to be made to terms and conditions via a simplified consent mechanism with the involvement of the trustee.

To date such a mechanism has not been seen in the vanilla FRN markets, where a trustee may not be a feature of many transactions.

Latest fallback provisions (Type 3)

Subsequent statements and publications in 2018/19, which include:

- a speech on *LIBOR Transition and Contractual Fallbacks* by Edwin Schooling-Latter of the FCA on 28 January 2019;
- the European Central Bank's Working Group on euro area risk-free rates *Guiding Principles for Fallback Provisions* in January 2019; and
- publication by the Alternative Reference Rate Committee in the US of its *Guiding Principles for Fallback Contract Language* in July 2018, its consultation and *Recommended Fallback Language for Floating Rate Notes* published on 25 April 2019

have provided the market with some guidance or recommendations on appropriate fallback drafting principles relevant to certain currencies.

For certain issuers these statements and publications have further influenced the drafting of the currency and benchmark agnostic fallback language included in multi-currency debt issuance programmes which have been updated with new fallbacks in 2019[6]. Any new fallback language, as updated, will apply to new issuance of FRNs only[7].

In some cases, new fallbacks have started to include the concept of a pre-cessation trigger based upon a statement of "unrepresentativeness" of the relevant original benchmark by the regulator of the administrator of the benchmark.

It is worth noting that practice in the European and Asian FRN markets continues to vary depending on the nature of the issuer and their longer-term issuance plans.

The language recommended by the US Alternative Reference Rates Committee (ARRC) is applicable only to new US dollar-denominated FRNs and so varies in a number of important ways to the currency and benchmark agnostic language that is being used typically in the European FRN market. For example, the ARRC drafting hardwires different forms of SOFR as the replacement rate. The language also includes some optionality for users. These are recommendations only, encouraged for use by ARRC for new contracts and the related guide acknowledges that variations will be appropriate.

Current European practice for contractual fallback language for programmes aligns with the ARRC language in many areas, but differs in others and therefore whilst the same outcome would be likely from an application of this Type 3 fallback language (because the provisions operate to follow any recommendation or market practice in relation to the original benchmark), you could not guarantee an identical outcome to what might result from applying the ARRC language. An important distinction is that for example the typical language followed in Europe tends to envisage (broadly) the issuer appointing an independent adviser to select (or to advise the issuer in the selection of) an alternative or replacement rate and adjustment spread. This is not a feature of the ARRC language.

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6. Financial institutions issuers have tended to be the most reactive in updating fallback language to reflect latest developments. Many, particularly smaller, corporate issues have not updated their fallback language from Type 1 as they may not envisage issuing long dated FRNs imminently.

7. Amending the fallback language in programme documentation does not retrospectively change the fallback language in relation to any notes already in issue. These will form part of the legacy notes which will need to transition in accordance with their own terms and conditions.

Recent publications on the transition to risk-free rates

by Katie Kelly

This article is a summary of key publications in the UK, the US, the euro area and globally in the first half of 2019 on the transition from LIBOR and the other IBORs to risk-free rates. Further information can be found on the ICMA *Benchmark reform and transition to risk-free rates* webpage.

Recent publications in the UK

On 28 January, Edwin Schooling Latter, Director of Markets and Wholesale Policy of the FCA, gave a speech at the International Swaps and Derivatives Association (ISDA) Annual Legal Forum, in which he said: "it is entirely plausible that the end-game for LIBOR will include an assessment by the FCA that one or more panels have shrunk so significantly in terms of number of banks or the market share of the banks remaining, that it no longer considers the relevant rate capable of being representative. … There is a powerful logic to avoiding contractual reliance on a benchmark that is no longer representative of an underlying market, at least for those market participants that can avoid that reliance. That's one clear reason to consider including a representativeness trigger in contractual fallbacks."

In March, the Working Group on Sterling Risk-Free Reference Rates (RFR Working Group) published a Discussion Paper: *Conventions for Referencing SONIA in New Contracts*. Addressed to market participants considering how to reference SONIA in new contracts, this Discussion Paper was intended to raise market awareness of the identified conventions for referencing SONIA. The Infrastructure Working Group of the RFR Working Group had previously published a paper which outlined provisional specifications for a calculator to support the adoption of SONIA-based instruments.

The RFR Working Group wrote to the International Accounting Standards Board (IASB) in March to extend its support to the IASB on risk-free rate transition. It welcomed the IASB's decision to add the "IBOR Reform and the Effects on Financial Reporting" project to its standard setting agenda, and its decision to prioritise the analysis of the accounting issues affecting financial reporting.

In May, the RFR Working Group published a *Statement to Update on Progress in the Adoption of SONIA* in sterling markets, providing an update on SONIA adoption, noting that SONIA referencing floating rate notes have rapidly become the "*market norm*" as well as highlighting the first distributed SONIA-referencing RMBS transaction. The Statement also provided an update on work underway to develop a term SONIA Reference Rate (TSRR). Three administrators have confirmed that they are working on the development of a TSRR; their respective presentations are available to view on the Bank of England's *Transition to sterling risk-free rates from LIBOR* webpage. Notwithstanding this work, in the Statement, the RFR Working Group "encourages market participants not to delay preparations to conduct new business using overnight rates while the development of a TSRR takes place."

In June, at a joint conference of the Bank of England, the FCA and the RFR Working Group hosted by the Bank of England (*Last Orders: Calling Time on LIBOR*), thematic feedback from firms in response to the FCA and PRA's Dear CEO Letter from September 2018 was shared. The feedback resulted in a number of key findings across eight areas (including identification of reliance on, and use of, LIBOR; quantification of LIBOR exposure; granularity of transition plans and their governance; identification and management of prudential and conduct risks associated with transition; scenario planning and transacting in new risk-free rates and building-in fallbacks). The authorities have asked firms to confirm their preparedness for the transition from IBORs to alternative risk-free rates in a number of other countries, including Hong Kong, Australia and The Netherlands (in Dutch).

The RFR Working Group also released a Roadmap at the *Last Orders* event, which sets out progress to date and a Roadmap for 2019-2021. The Roadmap sets out certain RFR Working Group Deliverables, as to which, three priority task forces have been set up, focused on the development of term rates, accounting treatment and regulatory dependencies.

In June, the Bank of England released a Discussion Paper: *The Bank of England's Risk Management Approach to Collateral Referencing LIBOR for Use in the Sterling Monetary Framework*. The Discussion Paper provides a brief background to both the LIBOR transition process and the Bank's collateral framework, describes some of the potential implications for the Bank's balance sheet from LIBOR transition, and outlines a number of possible risk management approaches currently under consideration by the Bank to ensure that it remains well-placed to provide liquidity insurance in support of financial

stability. The deadline for responses to the Discussion Paper is 27 September 2019.

Recent publications in the US

The minutes from the Federal Open Market Committee's January meeting noted that Federal Reserve Bank staff have started work on publishing a series of backward-looking averages of SOFR, with plans to solicit public feedback on this effort later this year and initiate publication of these averages by the first half of 2020.

In February, Federal Reserve Board economists published a staff working paper, which details a potential methodology for calculating indicative forward-looking SOFR term rates. The paper only aims to demonstrate some of the basic properties as to how an eventual forward-looking SOFR term rate might behave. It presents *indicative* forward-looking term rates derived from end of-day SOFR futures prices, which are for information purposes only and do not comply with the IOSCO Principles for Financial Benchmarks and so are not appropriate for use as reference rates in financial contracts.

In April, the US Alternative Reference Rates Committee (ARRC) published a *User's Guide to SOFR*, to help explain how market participants can use SOFR in cash products. The ARRC User's Guide lays out a number of considerations for market participants, and the conventions pertaining to all.

In April, the ARRC released recommended contractual fallback language for US dollar-denominated floating rate notes and syndicated loans. This was followed by the release in May of recommended contractual fallbacks for US dollar LIBOR-denominated bilateral business loans and securitisations. The recommended contractual fallback language (with related guidance) is for voluntary use in new contracts that reference US dollar LIBOR and was developed with the goal of reducing the risk of serious market disruption in the event that LIBOR is no longer usable. The recommended language sets out a "waterfall" approach to determine the SOFR-based successor rate and spread adjustment that would apply to the successor rate. But notwithstanding the fallback language, Randal K. Quarles, Vice Chair for Supervision of the Federal Reserve Bank of New York, noted that "There is, however, also another and easier path, which is simply to stop using LIBOR ... Good as the fallback language may be, simply relying on fallback language to transition brings a number of operational risks and economic risks."

In June, the ARRC released a report detailing preliminary considerations for the use of risk-free rates in interdealer cross-currency swaps which currently reference LIBOR and other IBORs, and where it will be important to develop new structures that can be based on risk-free rates.

Recent publications in the euro area

In January, the Euro RFR Working Group published *Guiding Principles for Fallback Provisions in New Contracts for Euro-denominated Cash Products*. The paper considers some main features of the legal frameworks and market practices for retail and wholesale cash products with contracts referencing euro benchmarks, and outlines, at a high level, the main characteristics of existing fallbacks for typical, euro-denominated cash products. It then proposes a set of guiding principles for fallback provisions in new contracts for such products that market participants may wish to consider.

The European Money Markets Institute (EMMI, the current provider of EURIBOR and EONIA) released a public consultation in March on the recommendations for EONIA of the working group on euro risk-free rates (the Euro RFR Working Group). The results of that consultation were released in May, confirming that the EONIA methodology will change to €STR plus a spread on 2 October 2019. EONIA is expected to be discontinued on 3 January 2022. Also in May, the ECB announced a one-off spread between €STR and EONIA, to be used by EMMI in the new EONIA methodology as of 2 October 2019. The methodology used to calculate the spread (which will be 8.5 basis points) is based on the recommendations of the Euro RFR Working Group published on 14 March.

The Euro RFR Working Group also launched a public consultation in May on a legal action plan for the proposed transition from EONIA to €STR, including a set of draft recommendations which address the legal implications for new and legacy contracts referencing EONIA. A detailed summary of the responses to the legal action plan was released on 27 June, which concluded that, among other things, almost all respondents agreed that the €STR plus spread (8.5 basis points) should be the primary fallback rate to be included in new and legacy contracts referencing EONIA.

On 6 May, EMMI announced that it had applied for authorisation from the Belgian Financial Services and Markets Authority (FSMA) under the EU Benchmarks regulation (EU BMR). As a subsequent step, EMMI has started transitioning panel banks from the current EURIBOR methodology to the new hybrid methodology. In support of all this, EMMI has adopted a governance framework establishing the requirements and principles related to the provision of the EURIBOR benchmark under the hybrid methodology. The framework consists of the *EURIBOR Governance Code of Conduct*; the *EURIBOR Code of Obligations of Panel Banks*; the *EURIBOR Code of Obligations of Calculation Agent*; and the *Benchmark Determination Methodology for EURIBOR*. EMMI has also published its updated *Benchmarks Consultation Policy* and *Benchmark Changes and Cessation Policy*, applicable to all benchmarks administered by EMMI; and a document on *Data Transmission and Validation under the Hybrid EURIBOR Methodology*. Subsequently, on 3 July, it was announced that EMMI has been granted an authorisation by the FSMA under the EU BMR for the administration of EURIBOR.

On 28 May, EMMI announced National Bank of Greece's

withdrawal from the panel of banks contributing to EURIBOR, with immediate effect. The FSMA, after consultation with the EURIBOR College of Supervisors, subsequently informed EMMI that it would not compel NBG to continue to contribute data because of NBG's low level of actual and potential participation in the market that EURIBOR intends to measure. Following this, the panel of EURIBOR contributing banks now consists of 18 contributors.

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 the EU BMR. The most recent update was published on 23 May. The new Q&As provide clarification on the following issues: the information included in the ESMA register of administrators of benchmarks; determination of the Member State of reference; and the role of IOSCO principles and of external audit in the recognition of 3rd country administrators.

On 19 June, ESMA issued the official translations of its Guidelines on non-significant benchmarks under the EU BMR. National competent authorities to which these Guidelines apply must notify ESMA whether they comply or intend to comply with the Guidelines, within two months of the date of publication by ESMA of the Guidelines in all EU official languages. The purpose of these guidelines is to ensure common, uniform and consistent application, for non-significant benchmarks, of: oversight function requirements; input data provision; transparency of the methodology provision; and governance and control requirements for supervised contributors' provision.

Regarding the EU BMR, ESMA is maintaining published registers of administrators, with over 40 now duly registered, and third country benchmarks, with almost 72,000 benchmarks now duly registered.

In June, ESMA wrote to the IASB and to the European Financial Reporting Advisory Group agreeing with certain of IASB's proposals to amend IFRS 9 and IAS 39, recommending certain clarifications and urging the IASB to proceed rapidly towards the finalisation of the proposed amendments.

Recent publications in Switzerland

At its February meeting, the National Working Group on Swiss Franc Reference Rates (the Swiss NWG) recommended using compounded SARON as a term rate alternative to Swiss Franc LIBOR wherever possible, and discussed options for using compounded SARON in cash products.

At its June meeting, the Swiss NWG presented a discussion paper on SARON-referencing FRNs, which included an assessment for different interest rate provisions and draft fallback language, and a paper on *IBOR to RFR Transition: Effects on Financial Reporting.*

Other recent publications globally

In March, ICE Benchmark Administration (IBA), the administrators of LIBOR, released the results of its *Survey on the Use of LIBOR* from December 2018, which set out to identify the LIBOR settings that are most widely used. Based on the results of the survey and other outreach work, IBA will work with globally active banks to seek to publish certain LIBOR settings after 2021 with their primary goal being seek to obtain sufficient banking industry support to publish certain LIBOR settings after 2021 in order to provide these settings to users with outstanding LIBOR-linked contracts that are impossible or impractical to modify. Any such settings will need to be compliant with relevant regulations and in particular those regarding representativeness.

In April, IBA announced the successful completion of the transition to the Waterfall Methodology for all LIBOR Panel Banks. IBA had previously announced (in April 2018) that it intended to begin the process of transitioning LIBOR Panel Banks to making submissions in accordance with their standardised Waterfall Methodology for making LIBOR submissions, based on transactions to the greatest extent possible, as set out in the LIBOR Output Statement.

The FSB's Official Sector Steering Group (OSSG) sent a letter to ISDA in March encouraging ISDA to ask for market opinion on, among other things, an additional trigger that would ensure a move to the spread-adjusted fallback rate in the event that the FCA found LIBOR to be non-representative in its capacity as the regulator of LIBOR. ISDA responded in a letter to the OSSG in April, providing, among other things, details of a consultation on the preferred approach for addressing pre-cessation issues in derivatives that reference LIBOR and potentially other IBORs, stressing the importance that any steps ISDA takes with respect to pre-cessation issues do not "jeopardize market-wide adherence to the protocol for inclusion of permanent cessation fallbacks in existing derivatives".

ISDA launched the corresponding consultation on pre-cessation issues for LIBOR and certain other IBORs in May. At the same time, they released a consultation on adjustments that would apply to fallback rates in the event certain IBORs are permanently discontinued. The deadline for responses for each consultation is 12 July 2019.

In June, the FSB published *Overnight Risk-Free Rates - A User's Guide* in June. This Guide provides an overview of risk-free rates, details of how they are calculated, the differences between compound and simple averaging, publication timing of the risk-free rates and the impact on when the interest payment is known (ie in advance or in arrear); and options on how overnight risk-free rates can be used in cash products (eg payment delay, lockout, lookback etc.).

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Summary of practical initiatives by ICMA

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

Brexit

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

ICMA's role is to encourage efficient and integrated capital markets, which are necessary to support economic growth.

ICMA's approach has been to focus on the potential impact of Brexit on international capital markets, particularly the need to address and avoid cliff-edge risks which arise when passporting rights between the EU27 and the UK cease.

ICMA is not lobbying for any particular financial centre. ICMA's members are based in London, the EU27 and more broadly.

ICMA has been discussing capital market preparations for Brexit with members through its main ICMA Market Practice and Regulatory Policy Committees and reporting to the ICMA Board.

ICMA is keeping in contact with the authorities in the UK, the EU27 and the euro area.

ICMA is cooperating with other trade associations by sharing information, wherever possible.

ICMA is keeping members up-to-date on Brexit by giving them regular assessments through the ICMA Quarterly Report and conference calls.

ICMA has posted on its website for members an ICMA Brexit FAQ, focusing on ICMA's own documentation.

ICMA is keeping its Brexit webpage up-to-date, both with its own work, and also with electronic links to key documents published by the authorities in the EU27 and the UK, and with links to the webpages of law firms and others.

The transition to risk-free rates

2 ICMA participates in the RFR Working Groups in the UK, the euro area and Switzerland; and ICMA is chairing the Bond Market Sub-Group in the UK, working with the FCA and Bank of England, and is in regular contact with the equivalent group in the US Alternative Reference Rates Committee (ARRC), which is working with the Federal Reserve. A more detailed account of ICMA's work is given in the Quarterly Assessment on *The Transition to Risk-Free Rates in the Bond Market.*

Primary markets

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

4 *Corporate and financial institution issuers:* The Corporate Issuer Forum (CIF) and Financial Institution Issuer Forum (FIIF) held a joint meeting on 16 May in the margins of the ICMA AGM and Conference in Stockholm, hosted by Telia Company (a CIF member). There were presentations at the meeting on sustainability and green financing as well discussions on other market practice issues.

5 *MiFID II/R:* ICMA is helping members with initial regulatory feedback on the implementation of MiFID II/R in the primary markets.

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

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

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

8 *Russian market practices:* ICMA has been contributing to a comparative review of Russian domestic and international issuance practices.

9 *Primary markets technology mapping directory:* To increase ICMA's coverage of the evolving FinTech landscape, ICMA published a mapping of existing and emerging platforms and technology solutions in primary markets. The purpose is to help inform ICMA members and thereby create greater transparency. The mapping was published on ICMA's website on 18 December and is being kept up-to-date.

Secondary markets

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

11 *Electronic Trading Council:* The ICMA Electronic Trading Council (ETC), a technical working group under the umbrella of the ICMA Secondary Market Practices Committee, is focusing on electronic trading and the role of technology in the evolving structure of fixed income secondary markets.

12 *CSDR settlement discipline:* ICMA has established a dedicated working group focused on the practical challenges of implementing the CSDR settlement discipline provisions, in particular the new mandatory buy-in framework. The CSDR buy-in provisions will come into force in September 2020 and will also apply to non-EU/EEA domiciled trading entities. ICMA is in ongoing discussions with ESMA, including on finding a solution for an anomaly in the CSDR provisions that potentially prohibits the payment of the buy-in or cash compensation price differential from moving in the right direction, and also on the establishment of a pass-on mechanism. In addition, ICMA is seeking to raise awareness of the scope and obligations of the CSDR, particularly among buy-side and non-EU members.

13 *MiFID II/R data quality:* ICMA has established a MiFID II/R data quality task force which has identified key challenges and provided practical solutions related to MiFID II/R post-trade data. The objective of the task force is to work with ESMA in improving the existing data structures and systems. The task force met ESMA in April.

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

15 *ICMA third corporate bond market study:* ICMA has launched work on its third study into the state and evolution of the European investment grade corporate bond secondary market. The previous study was published in July 2016.

Repo and collateral markets

16 *SFTR implementation:* ICMA is continuing to help members to implement the EU Securities Financing Transactions Regulation (SFTR), through the ICMA ERCC SFTR Task Force. The current focus on the work is on ESMA's draft Reporting Guidelines, which were published on 27 May. A response to the consultation is being prepared by the SFTR Task Force and will be submitted by the deadline on 29 July.

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

18 *Impact of post-crisis regulation:* Working jointly with the GFMA, the ICMA ERCC published a report in December which assesses the impact of post-crisis regulation on the functioning of the repo and broader securities financing transactions (SFT) markets. The report, which includes some new research in the form of qualitative and quantitative analysis, makes a number of recommendations concerning the need for further review and refinement of the post-crisis regulatory framework. Various follow-up discussions are being conducted with official institutions, including the European Commission, the ECB and the FSB.

19 *ICMA ERCC Guide:* A revised and updated version of the ICMA *ERCC Guide to Best Practice in the European Repo Market* was published on ICMA's website on 21 December. Subsequently, an updated version of ICMA's *Frequently Asked Questions on Repo* was also published on the website.

20 *Intraday liquidity:* The ERCC continues to analyse the important challenges around intraday liquidity management for the industry. Following a successful cross-industry workshop on the topic held in September, the ERCC is focusing in particular on the need for further alignment and on market practice in relation to shaping and partialling.

21 *Technology:* The ERCC is assessing the important impact of technology on Repo Markets and collateral management. In this context, ICMA is working closely with ISDA to assess the possibility to extend ISDA's work on a Common Domain Model (CDM) for derivatives to other asset classes, in particular SFTs. ISDA outlined its CDM project at the latest ERCC AGM in Luxembourg.

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

Sustainability

23 *Integrating sustainability risks and factors in MiFID II/R:* ICMA responded to this ESMA consultation mainly from the perspective of the Primary Market Practices Committee and Legal & Documentation Committee. The response focused on the need to clarify terminology and references to green labels and standards in the market, while noting the absence of any concerns in the context of ICMA1/ICMA2.

24 *Integrating sustainability risks and factors in the UCITS Directive and AIFMD:* ICMA responded through the AMIC Sustainable Finance Contact Group on 19 February to the ESMA consultation on integrating sustainability risks and factors in the UCITS Directive and AIFMD. AMIC agreed overall with ESMA's principles-based approach. However, AMIC has suggested some clarifications to the technical advice, including (i) limiting the coverage to "risks" and not "factors", (ii) strengthening the materiality of sustainability risks and (iii) preferring "sustainability" to "ESG" risks for consistency purposes.

25 *Climate change and green finance:* ICMA responded to this FCA discussion paper by aligning with the view that climate change risks are likely to have a significant impact on financial markets and expressing its support for voluntary disclosures as recommended by the Task Force for Climate-related Financial Disclosure (TCFD).

26 *Usability of the EU Taxonomy:* ICMA responded to this EU consultation primarily from the perspective of the Green Bond Principles (GBP). Support was expressed for a taxonomy that would determine environmental sustainability and be complementary to the existing GBP project categories and other green taxonomies. Concerns were, however, raised on certain proposed thresholds for sustainability (eg green buildings and energy efficiency) that go significantly beyond current levels for eligible green projects and could impact both existing and future green bond issues.

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

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

Asset management

29 *AMIC Executive Committee:* On 26 June, the AMIC Executive Committee held its latest meeting, in Frankfurt. The meeting included a discussion regarding euro area monetary policy; a review of liquidity risks in 2018 and reflection on potential future risks; an update on matters relating to the EU Action Plan on Sustainable Finance; and some consideration regarding the evolution of FinTech in asset management.

30 *CBIC Annual Conference:* The ICMA Asset Management and Investors Council's (AMIC's) Covered Bonds Investor Council (CBIC) held its 9th annual Covered Bond Investor Conference, arranged by ICMA in conjunction with The Covered Bond Report, in Frankfurt on 27 June. Topics covered in the conference included implementation of the new EU Covered Bond Directive; investor sentiment in the post-CBPP3 era; novel jurisdictions, structures and assets; and green, sustainable and social bonds.

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

32 *AMIC conference:* The next AMIC Conference, which will be hosted by BlackRock in London on 27 November, is currently being organised.

FinTech in capital markets

33 *FinTech meetings with regulators:* ICMA held meetings with the FSB on 29 April and with FINMA on 30 April to discuss FinTech and related legislative and regulatory developments.

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

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

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

Other meetings with central banks and regulators in Europe

37 *ICMA Regulatory Policy Committee (RPC):* Verena Ross, Executive Director at ESMA, joined the ICMA RPC meeting in Paris on 13 June for a discussion.

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

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

ICMA Asia-Pacific

40 *Membership in Asia-Pacific:* ICMA currently has among its membership 65 firms based in Asia-Pacific (plus a further 22 overseas affiliates of Asia-Pacific firms) making a total of 87 members with direct interests in the region, who are served by the ICMA Asia Pacific office in Hong Kong.

41 *Primary markets*

- ICMA's Asia-Pacific office facilitates two debt primary market committees in the region, the ICMA Asia Pacific Bond Syndicate Forum and the ICMA Asia Legal & Documentation Forum, which allow participants to shape cross-border primary market practices in Asia and provide Asian perspectives on European regulation and practice. Participation from leading Chinese banks and securities houses is now significant. Recent topics of interest include evolving book disclosure and allocation practices, X-accounts, rebates, stabilisation practices in Asia, electronic trading and other FinTech applications, due diligence

practices, MiFID- and PRIIPs- related documentation, and retail distribution.

- ICMA has held two Primary Market Forums in Asia so far in 2019 (Hong Kong and Mumbai) which have sparked renewed interest in similar events in the region, particularly in jurisdictions with robust domestic bond markets and growing cross-border activity.

42 *Secondary markets*

- In cooperation with the Secondary Market Practices Committee, ICMA published a report on Asia-Pacific cross-border corporate bond markets which expands upon ICMA's well-regarded studies on European corporate bond liquidity. In 2019 ICMA is deepening research into the state and evolution of the Chinese cross-border markets and opportunities for foreign investors, with a new report scheduled for publication in early 2020.
- The joint ICMA-NAFMII Working Group established under the UK-China Economic and Financial Dialogue has continued in its fourth year and will soon publish a guide book for international investors on how to access the Chinese interbank bond market.
- NAFMII is separately working with ICMA on issues related to investor protection, given the increased rate of default in the Chinese bond market.

43 *Repo and collateral markets*

- The joint ICMA-ASIFMA Guide to Asian Repo, based on the European guide and originally published in 2015, is also being revamped and updated to reflect recent evolutionary changes in international repo practices.
- A second Asia repo survey, in cooperation with ASIFMA, is still under way with a renewed effort to reflect a wider dataset than the pilot survey published in 2017.
- Across Asia (particularly Hong Kong, Philippines, Singapore, Indonesia, and Malaysia) ICMA has continued to be active promoting GMRA and international standards through workshops and training sessions with local member firms, securities regulators, and central banks.

44 *Sustainable markets*

- In partnership with the Japan Securities Dealers Association (JSDA), ICMA will hold the 3rd joint conference on *Developments in Green, Social and Sustainability Bond Markets* in Tokyo on 9 October 2019.
- In Hong Kong, ICMA acts as co-chair of the Hong Kong Green Finance Association's Green Bond Working Group and plans to publish a Green Bond listing/offering guidebook book in partnership with Hong Kong Exchange.
- In China, ICMA is active in the UNDP committee on SDGs.
- In Southeast Asia, ICMA continues to work closely with the ASEAN Capital Markets Forum and national securities regulators on the development of sustainable finance markets following the publication of ASEAN Green and Social Bond Standards that are based on and aligned with the Green and Social Bond Principles.
- Under the auspices of the Asia Securities Forum, ICMA is working with JSDA and other national trade associations on a detailed mapping of local sustainable finance markets across Asia-Pacific.

45 *FinTech and market electronification*

- ICMA's work in Asia on FinTech is guided by the global strategy to focus on areas of direct application to the fixed income securities markets. In Asia, members and other market constituents are particularly interested in DLT applications and practical deal commentary, primary market automation, smart contracts, and emerging regulation in the region.
- Asian market infrastructure providers and technology companies have contributed to the ICMA primary markets technology mapping directory and ETP mapping directory, and Asia-Pacific issuers and law firms are at the forefront of new applications of distributed ledger technology (DLT).

46 *Global regulatory issues*

- Benchmark reform is a key priority of ICMA in Asia. In particular, the transition to risk-free rates in the international bond market, covered elsewhere in this issue, is of interest to Asia-Pacific regulators, issuers, and investors. Asian markets are also following closely developments related to implementation of EU Benchmark Regulation and impact on Asia-Pacific benchmarks across asset classes.
- ICMA is also focused this year on education related to European regulation with potential impact on Asian fixed income markets, particularly CSDR settlement discipline and SFTR. ICMA is planning member update calls and seminars on both topics for later in 2019, and active in bilateral advisory work to national policy makers in the region.

Primary Markets

by Ruari Ewing

European Distribution of Debt Instruments (EDDI) consultation

On 28 May 2019, the European Central Bank published a six week consultation on the proposed European Distribution of Debt Instruments (EDDI) initiative.

EDDI is proposed to have three modular elements:

- a pre-trade element providing technical syndication functionality (announcements, order collection, order book management and allocation);
- a post-trade solution providing a centralised issuer-facing clearing functionality that is connected to existing central securities depositories (CSDs) to provide investor-facing clearing functionality; and
- related harmonisation (potentially including corporate actions and bond terms and conditions).

The articulation of these elements seemingly has mainly had in mind European supranational and agency borrowers syndicating new issues of euro-denominated bonds that are to then be cleared in central bank money. However, the consultation holds open the possibility of EDDI applying to a much wider range of bonds, including those:

- denominated in currencies other than euro;
- issued by national governments' debt management offices (DMOs) or even corporates – and potentially from outside the euro area or even the EU;
- issued via auction instead of syndication.

The consultation states that EDDI's modular elements are individually voluntary for issuers, who may choose to use all, some or none or of them. It also states that EDDI does not seek to disintermediate existing actors in the market. The advantages of EDDI are argued to be:

- providing more efficient syndication pre-trade;
- facilitating post-trade clearing Europe-wide by connecting investor-facing CSDs across national borders;
- straight-through connectivity between the pre-trade and post-trade elements (to the extent both are used); and
- harmonisation. In this respect, it is felt EDDI could materially contribute to CMU and the strengthening of the euro.

ICMA consulted its members for their input, including by reference to existing syndication and international clearing solutions, and submitted the ICMA response by the consultation's 9 July response deadline.

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EU Prospectus Regulation

On 21 June 2019 were published the:

- 14 March Commission Delegated Regulation (EU) 2019/980 on prospectus format, content, scrutiny and approval and detailed disclosure annexes; and
- 14 March Commission Delegated Regulation (EU) 2019/979 concerning regulatory technical standards on key financial information for the prospectus summary, data and machine readability of prospectuses, advertisements, prospectus supplements and prospectus publication.

ICMA is now notably working with member groups to update the technical materials in the ICMA Primary Market Handbook that have an incidence to the EU's prospectus regime – namely Appendices A8 (A8 Final terms and pricing supplement), A13 (Selling restrictions and legends - PRIIPs Regulation, Prospectus Directive, UK) and A16 (Sub-€100,000 denomination bonds under the Prospectus Directive and retail cascade legends). It is expected that revised appendices will be circulated at least informally ahead of the new Prospectus Regulation coming into force on 21 July (with formal publication following as soon as possible thereafter).

However, many of the implications of the new regime will only become clear in the context of actual transactions (likely to be mostly from the autumn as many issuers have had their issuance programmes grandfathered under the preceding Prospectus Directive) as regulators and market participants work together to apply its provisions in practice. Consequently, it is quite possible that Appendices A8, A13 and A16 will be further revised following initial practical experience of the new regime.

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Asset-Backed Commercial Paper (ABCP)

The Securitisation Regulation brought in a raft of regulatory changes to the responsibilities (and sanctions) on those involved in establishing and operating both term securitisation transactions and ABCP programmes. In particular, it brought in new disclosure and reporting obligations relating to the sharing of documents and periodic information relating to any securitisation (and the relevant securitised exposures) with investors and any competent authorities supervising such investors or the other parties involved in establishing or managing the securitisation. A June 2019 article (see pages 26-29) by Clifford Chance considers the approaches that may be taken by those establishing and managing ABCP programmes on the basis of the current legislation."

Circulated on 10 June, AFME's *First Quarter 2019 Securitisation Data Report* shows that European ABCP issuance was €158.5 billion in the first quarter of 2019. This is a sharp increase of 62.4% versus the prior quarter and of 132.3% versus the same quarter in the prior year; and is more than in any other quarter in the past decade. Multi-seller conduits (99.1% of total), particularly from France (68.4% of total) and Ireland (28.2%), continue to dominate as the largest issuance category in the ABCP market.

In order to provide a comprehensive package of clarifications for market participants ESMA has developed a set of Q&A, most recently updated on 27 May, based on stakeholder feedback and questions on the disclosure technical standards received by ESMA. These cover many technical issues on how to complete template fields and aim at providing guidance to market participants seeking further context that may be helpful for their future expectations of how to comply with these RTS/ITS. Nevertheless, they are being provided in advance of the possible adoption of the disclosure RTS/ITS being adopted by the EC and consequently, are subject to possible changes.

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

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Review of Russian and international practices

On 5 June 2019, ICMA and the Self-Regulatory Organization National Finance Association (NFA) in Russia published a comparative review of practices and procedures in the Russian and international primary debt capital markets. The review outlines dynamics in the Russian primary bond markets and then contrasts related dynamics in the international syndicated markets.

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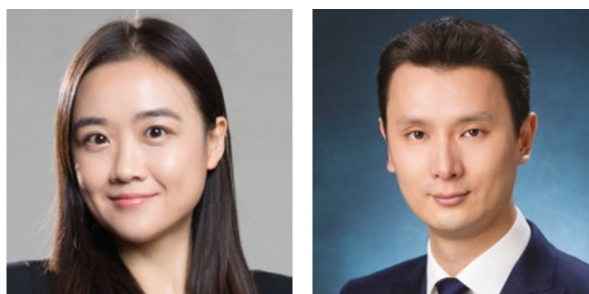
Panda bonds: market review and outlook

By Ariel Yang, China Chengxin International Credit Rating Co., Ltd and Ricco Zhang, ICMA



Panda bond market review

The Panda bond market is still in its early stage of development and is significantly affected by evolving regulatory policy.

Panda bonds, which allow non-Chinese entities to issue bonds in the Chinese domestic market, are a key component of China's internationalization of the capital market. However, the Panda market is still in an early stage of development, with small overall volumes compared to the size of the overall domestic bond market and is significantly affected by evolving regulatory policy. From 2005 to 2014, only multilateral development institutions were authorized to issue Panda bonds, with the total issuance amounting to RMB 6.0 billion. Starting from 2015, when corporates and banks were allowed to issue, the Panda bond market entered a phase of rapid development, with the year's issuances amounting to RMB 13.0 billion, surpassing the total sum of issuance over the past decade. From 2016 to 2018, against the backdrop of fluctuating onshore and offshore interest rates and exchange rates and the adjustment of regulatory policies, growth of the Panda bond market accelerated. In September 2018, China's interbank market introduced the first systematic regulation of Panda Bond issuance[1], which now includes a unified regulatory framework and offers more transparent and pragmatic guidelines for Panda bond issuers. (Figure 1.)

Panda bond market structure and advantages for issuers

The Panda bond market is intended for highly qualified foreign institutions with real RMB financing needs. For issuers with long-term RMB financing demand, Panda bonds have the advantages of longer maturities, less restricted use of proceeds within China, and more market-based interest rates compared with bank loans and other RMB financing channels. Over the past three years, issuance frequency and volume of existing Panda bond issues has increased. In addition, Panda bond issuers continue the route of diversification in terms of industry and qualifications. (Figures 2, 3 and 4).

Convergence between domestic rules and international practices

The Panda bond guidelines have already been relaxed in terms of accounting and auditing standards, and the potential investor base has diversified due to the launch of "Bond Connect". These developments could reduce issuance cost, expand the investor base and promote the expansion of the market. However, regulators are still trying to strike a balance between promoting internationalization and reducing risks within the system. Some relevant rules await further clarification, and issues remain such as the "case by case" approval mechanism, long issuance process and restrictions on cross-border outflow of Panda bond funding. In addition, due to differences in regional practices, domestic rating agencies can play an important role in reducing information asymmetries between issuers and investors. In particular, Chinese rating agencies, with abundant rating samples, can provide useful benchmarks in Panda bond ratings. Chinese rating agencies have sought recently to encourage better alignment of local and global scale rating methodologies and strengthen the risk disclosure available to global investors.

Panda bond market outlook

In the first five months of 2019, given external factors such as the widening of China-US interest rate spreads and exchange rate fluctuations, the issuance volume of Panda bonds was only RMB 220 million, a significant reduction as compared to the same period last year. While interest rate and exchange rate fluctuations will be important to future issuance volumes, further expected implementation of relevant supporting policies may also have an impact. (Figure 5.)

In the medium to long term, the Panda bond market could have encouraging prospects. As of the end of 2018, the outstanding Panda bonds account for merely 0.32% of the overall volume of the Chinese bond market. With the internationalization of RMB and further opening-up of China's capital market, a higher level of volume and diversification of China's bond market along with further progress of the Panda bond market are expected in the foreseeable future.

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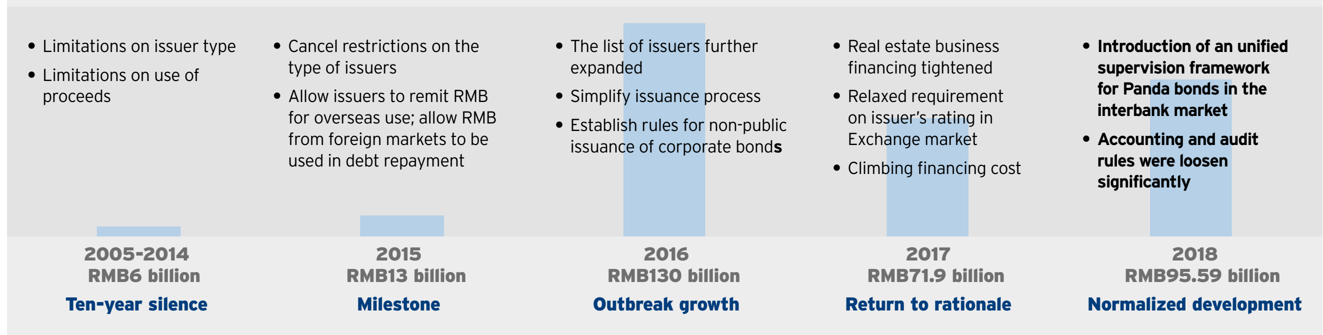
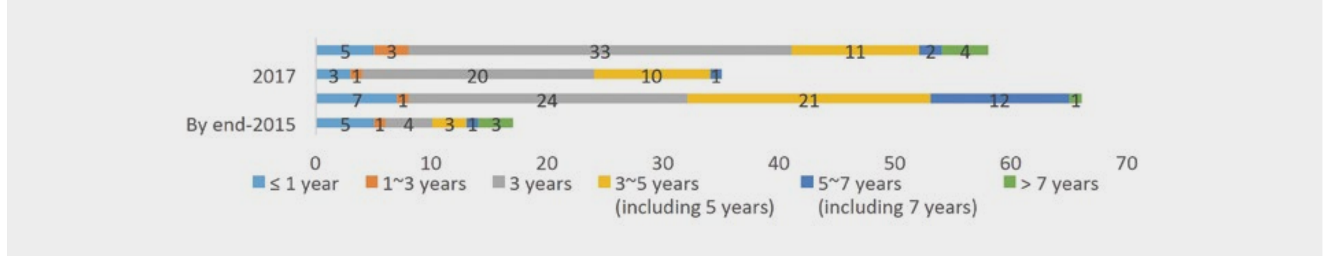
1. *Interim Administrative Measures for the Issuance of Bonds by Overseas Institutions on the National Interbank Bond Market*

Figure 1: Panda bond market evolution



Source: Public information, compiled by CCXI

Figure 2: Panda bond maturity structure (by number of issues)



Source: Public information, compiled by CCXI

Figure 3. Distribution of domestic Panda bond issuer rating

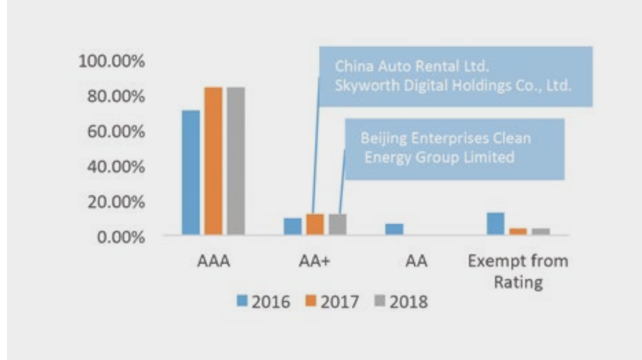
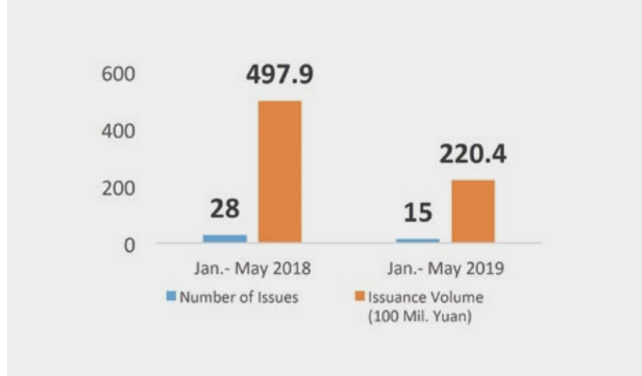


Figure 4. Distribution of Overseas Panda bond issuer ratings

Source: Public information, compiled by CCXI

Figure 5. Jan-May 2019 issuance of Panda bonds



Source: Public information, compiled by CCXI

Secondary Markets

by Andy Hill, Elizabeth Callaghan and Gabriel Callsen

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

In the second quarter of 2019, the European Securities and Markets Authority (ESMA) issued further guidance in relation to MiFID II/R. The following briefing is designed to provide a non-exhaustive summary of selected guidance impacting market structure and fixed income trading, notably: (i) liquidity assessments of bonds for Q1 2019 for transparency purposes, (ii) publication of data for the systematic internaliser (SI) calculations for bonds, (iii) SI regime: quoting obligations for bonds & liquidity status changes, (iv) SI regime: opting in voluntarily for specific bonds, (v) SI regime: EU branches of a third-country firm, (vi) best execution reporting & information on costs and charges, (vii) further ESMA guidance and Q&A updates. In addition, (viii) selected ESMA guidance in relation to MiFID II/R and Brexit is referenced below.

(i) Liquidity assessments of bonds for Q1 2019 for transparency purposes

On 1 May 2019, ESMA announced that the quarterly liquidity assessment for bonds under MiFID II/R had been made available through FITRS in XML format and the FITRS interface. Accordingly, 987 bonds were deemed liquid in Q1 2019. The liquidity assessments are applicable from 16 May 2019 until 15 August 2019. However, additional data and corrections submitted to ESMA may result in further updates within each quarter, published in ESMA's FITRS, which shall be applicable the day following publication.

MiFID II/R: Q2 2019

Overview of selected ESMA guidance:

3 June: Q&As on transparency topics

29 May: Q&As on investor protection and intermediaries topics

10 May: SI calculations for bonds

1 May: Completeness indicators related to bond liquidity data

1 May: Liquidity assessments for individual bonds by ISIN for Q1 2019

9 April: Q&As on MiFIR data reporting

2 April: Q&As on transparency topics

2 April: Q&As on market structure topics

Overview of selected ESMA guidance in relation to Brexit:

17 June: Annual review of transparency requirements for bonds and derivatives

12 April: Update on preparations for a no-deal Brexit scenario

8 April: Update on the impact on its databases and IT systems of a no-deal Brexit scenario on 12 April 2019

(ii) Publication of data for the systematic internaliser calculations for bonds

On 10 May 2019, ESMA released the data for the systematic internaliser (SI) calculations for bonds, equity and equity-like instruments. The publication was originally scheduled for 1 May but was delayed due to a technical issue. More specifically, ESMA "published the total number of trades and total volume over the period October 2018 to March 2019 for the purpose of the SI calculations". The list of ISINs released by ESMA comprises 315,615 bonds and 24,909 equity and equity-like instruments.

"The results were published only for instruments for which trading venues submitted data for at least 95% of all trading days over the 6-month observation period. The data publications also incorporate OTC trading to the extent it has been reported to ESMA. The publication includes data also for instruments which are no longer available for trading on EU trading venues at the end of March."

Investment firms were required to perform an internal assessment against the data provided by ESMA, and if in scope of the SI regime, comply with relevant SI obligations from 24 May 2019. Further information on the SI regime and calculations are available on ESMA's website.

(iii) SI regime: quoting obligations for bonds & liquidity status changes

On 2 April 2019, ESMA issued further guidance within its Q&A updates on transparency topics in relation to quoting obligations for SIs in non-equity financial instruments. ESMA clarified that "under Article 18 of MiFIR, the provision of a quote [for non-equity financial instruments] is at the full discretion of systematic internalisers. ESMA therefore considers that systematic internalisers should be able to refuse *ex ante* to provide quotes in certain financial instruments for which they are systematic internalisers.

Separately, ESMA stated that "if the liquidity status of a financial instrument changes (regular transparency calculations or amendment of the information available on the ESMA website), systematic internalisers in that instrument should adapt the quoting arrangements accordingly." Further information can be found in section 7 (questions 12 and 13) of the Q&A document.

(iv) SI regime: opting in voluntarily for specific bonds

On 3 June 2019, ESMA issued further Q&A updates on transparency topics in relation to the SI regime. With regard to the possibility to opt in, ESMA stated that "an investment firm that voluntarily opts in under the systematic internaliser regime can decide in which specific instruments (TOTV and non-TOTV instruments) it chooses to be a systematic internaliser and to comply with the related obligations. [...] Investment firms that voluntarily opt in under the systematic internaliser regime in specific instruments are nevertheless expected to perform the quarterly test for those instruments and, if the pre-set limits for a frequent and systematic basis and for a substantial basis are both crossed, they qualify as systematic internalisers under the mandatory regime." Further details can be found in section 7 (question 11a) of the Q&A document. Further updates include modifications of existing Q&As, in particular those that are no longer relevant.

(v) SI regime: EU branches of a third-country firm

On 2 April 2019, ESMA stated in a Q&A update on market structure topics that "MiFID II does not prohibit a branch, including the EU branch of a third-country firm, from operating as an SI in the EU. In this case the branch should fulfil all relevant MiFID II / MiFIR provisions and in particular the obligations attached to SI activity, ie Article 14 to 27 of MiFIR. The branch should also meet the criteria set out in the Q&A on "centralised risk management within a group for the operation of an SI". However, as clarified under Article 47(3) of MiFIR, in the absence of an equivalence decision by the European Commission, branches can only operate as SIs in the Member State where they have been authorised. Those branches can therefore only actively serve clients that are located in this Member State." Furthermore, ESMA clarified how the concept of "risk-facing activity" applies to an EU branch of a third-country firm that operates as an SI in the EU and set out criteria to be fulfilled with regard to risk management, quote provision, commercial policy and reporting. Further details can be found in section 5 (questions 30 and 31) of the Q&A document.

(vi) Best execution reporting & Information on costs and charges

On 29 May 2019, ESMA provided a number of Q&A updates on investor protection topics covering technical reporting requirements for best execution purposes and information on costs and charges. The clarifications relate notably to specific reporting fields such as reporting for venues on the "trading mode" according to RTS 27, reporting for venues and firms on template fields of RTS 27 and 28 if the required content is not applicable to their activities, reporting on passive and aggressive orders for firms using quote-driven systems to have client orders executed; and RTS 28 reporting and execution venues. The detailed clarifications can be found in section 1 (questions 21 to 24) of the Q&A document.

The Q&A updates in relation to costs and charges refer to ex-ante information in case of sell orders and telephone

ESMA does not consider that this is a suitable time for performing the assessment and for potentially tightening the transparency rules in RTS 2.

trading, the use of assumed investment amounts for ex-ante information in relation to investment services and/or products with non-linear charging structures, and the use of ranges and maximum amount/percentages for ex-ante information. The Q&As are available in section 9 (questions 27 to 30) of the Q&A document.

(vii) Further ESMA guidance and Q&A updates

With respect to transparency topics, ESMA issued further Q&A updates on 2 April 2019 in relation to the classification of money market instruments and reverse convertible bonds, zero coupon bonds, and bonds which are issued as fixed rate with a coupon rate equal to 0 (that can also be increased in the course of the life of the bond). Further clarifications relate to post-trade transparency reporting obligations for customary prime brokerage transactions. Moreover, ESMA published the quarterly completeness indicators related to bond liquidity data submitted by trading venues on 1 May 2019.

A Q&A update on market structure topics released on 2 April addresses third country trading venues and access to an EU CCP in the absence of equivalence decisions. Other Q&A updates include MiFIR data reporting obligations for trading venues operating on the basis of a specified list of instruments, released on 9 April.

(viii) Selected ESMA guidance in relation to MiFID II/R and Brexit

(a) Annual review of transparency requirements for bonds and derivatives

On 17 June 2019, ESMA submitted a letter to the European Commission regarding the RTS 2 [transparency requirements] annual review report. According to this letter, "ESMA considers that the remaining uncertainties regarding the timing and conditions of Brexit do not allow for an adequate assessment [of the operation of certain transparency requirements for bonds and derivatives as foreseen under Article 17 of the Commission Delegated Regulation (EU) 2017/583 (RTS 2) by 30 July 2019] at this point in time. Including or excluding UK data from the assessment would have a fundamental impact on the results and any decision whether to include UK data would depend on whether the UK is still a member of the Union at the time any legislative change would take effect. Moreover, Brexit will in all likelihood affect liquidity in bond and derivatives markets and the value of the assessment will be limited when conducted before these effects have materialized. Therefore, ESMA does not consider that this is a suitable time for performing the assessment and for potentially tightening the transparency rules in RTS 2."

(b) Update on preparations for a possible no-deal Brexit scenario on 12 April 2019

On 12 April 2019, ESMA stated "that following the European Council's decision on 11 April extending Article 50(3), its published measures and actions, including public statements, issued on the basis of a possible no-deal Brexit scenario on 29 March 2019, subsequently updated to read 12 April 2019, should now be read as referring to the new potential no-deal Brexit date of 31 October 2019, unless the European Council decides otherwise."

(c) Statement in relation to the impact on ESMA's databases and IT systems

On 8 April 2019, ESMA published an update on the impact on its databases and IT systems of a no-deal Brexit scenario on 12 April 2019. The statement covers actions in relation to the Financial Instruments Reference Data System (FIRDS), Financial Instrument Transparency System (FITRS), transaction reporting systems, and ESMA's registers and data, amongst others.

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Reliable and useful post-trade data is perhaps the output of MiFID II/R that was most eagerly anticipated by market participants.

MiFID II/R: post-trade data

Introduction

This article is an update on the work being undertaken by ICMA, through its member-based workstreams, with regard to MiFID II/R post-trade data for fixed income. It comprises two main strands:

- working with ESMA to improve the quality and accessibility of post-trade data;
- advocating a utility-based consolidated tape for fixed income.

Good post-trade data, a key objective of MiFID II/R, is essential for policy objectives such as greater transparency and a more level playing field in Europe for bond trading market participants. Reliable and useful post-trade data is perhaps the output of MiFID II/R that was most eagerly anticipated by market participants. This data can be used in pre-trade decision making, trading venue identification, and post-trade performance and analysis. Currently, post-trade data is not of sufficient quality to be widely used by market participants.

Furthermore, there is no centralised, single-source consolidated tape for post-trade data. However, it should be noted that ESMA is actively focused on improving MiFID II/R's post-trade data quality, while we expect a consolidated tape to be considered in due course.

ICMA workstreams and task forces have been working actively on advocating solutions for both data quality of post-trade data and a market structure ecosystem that includes a consolidated tape. The following outlines our views and approach.

Post-trade data quality

As mentioned, quality post-trade MiFID II/R bond data is the deliverable most anticipated by market participants. However, usable post-trade data is still work in progress. At the end of 2018, ICMA published a study covering primary and secondary markets (including a member's survey) on the first-year impact of MiFID II/R on bond market participants. While there have been slight improvements to post-trade data quality in the first half of 2019 and this is important to note, it may be useful to review again the 2018 year-end statistics from the study.

Concerning post-trade transparency data, 86% of survey respondents found the post-trade data difficult or very difficult to access and 73% believed less than 10% of available data is useable. Regarding post-trade deferral regimes, EU member countries still do not have a harmonised EU-wide deferral regime. ICMA's MiFID II/R first-year study reported that there were "too many waivers and deferrals inhibiting true transparency." The study further found a similar trend of non-contributory post-trade data with best execution published data. 95% of ICMA's survey respondents found that best execution post-trade data was of little or no value to market participants and is challenging, time and resource-draining to produce.

The end of year study survey supported the view that the post-trade data situation should improve over time and this view has not changed in the first half of 2019.

ICMA is actively working on improving post-trade data quality and has concluded that the appropriate starting point for addressing post-trade transparency data quality is with the data structures and processes within ESMA. The ESMA database structures underpin the effective operation of MiFID II/R's transparency regime.

In order to tackle the challenges of post-trade data quality in the EU, ICMA has created a task force on post- trade data quality. This task force has convened data experts from trading venues and market data providers, sell-sides and buy-sides. The task force has identified challenges and proposed solutions, which comprises ESMA's two main databases: Financial Instruments Reference Data System (FIRDS)[1] and Financial Instruments Transparency System

1. FIRDS is a data collection infrastructure established by ESMA, in cooperation with EU NCA's. It covers financial instruments that are in scope of MiFID II. This database links data feeds between ESMA, NCAs and approximately 300 trading venues across the European Union.

(FITRS).[2] These database structures form the starting point, and are largely the "source" for, bond data quality in the EU. Both FIRDS and FITRS databases, in one way or the other, impact *all* downstream bond data. For example, ESMA liquidity assessments are based on the FITRS database and that database is reliant on the reference data held within FIRDS. The task force member view is that these databases should improve as they currently are not operating as effectively as they could.

In January 2019, ICMA's data quality task force created a table of the identified FIRDS and FITRS data challenges and proposed workable solutions. The task force then met ESMA in early April in Paris. At that meeting, ESMA requested ICMA's data quality task force continue to investigate one of the key challenges for the ESMA databases: misclassification of CFI codes (which affect liquidity calibrations). Additional analysis and further examples were provided to ESMA. ESMA continues to show keen interest in our findings and ongoing dialogue is taking place. We are hopeful the required improvements in data quality will materialise in due course.

Consolidated tape for EU bond markets

The concept of a consolidated tape is not new. Indeed, the need for a consolidated tape was identified ten years ago or more, with the emergence of the original Markets in Financial Instruments Directive. These discussions took place in the equities space, driven by the need to handle all the fragmented platform/trading venue post-trade data. Fast forward to today, and this is now the case with bonds. MiFID II/R has increased electronic trading and on-venue execution and expanded reporting and best execution obligations. Similar to equities, post-trade bond information is fragmented and in need of consolidation at a reasonable cost. In order for the industry to advance and evolve, a single source centralised consolidated tape in fixed income is needed.

Currently, MiFID II/R provides for multiple, commercially incentivised consolidated tapes for bonds. ICMA's position has been, and continues to be, that this approach is unworkable. Having multiple reporting venues could hamper pre-trade price discovery (using post-trade prices as a sourcing tool) and undermine confidence that prices viewed represent the full and true picture. To utilise a "multi-tape" system effectively, investors would be forced to access multiple providers (with multiplied costs) or pay for an aggregation service.

Ahead of the MiFID II/R go-live, ICMA voiced concern that multiple consolidated tapes could potentially lead to trade data duplications and significant reporting discrepancies. Today there is no definitive consolidated tape for fixed income instruments. Every vendor aggregates or filters data differently and rarely is there the same output from two vendors. Standardisation and consolidation are needed. Furthermore, there is no commercial incentive for vendors to work together, either to standardise or consolidate the data.

ICMA considers that the European Commission should provide ESMA with the resources necessary to create a single-source clean EU-wide consolidated tape for raw post-trade data.[3] While this could, in theory, be outsourced to a specialist provider, the ownership and governance should remain with ESMA and it would be non-commercial in principle.

A utility-based consolidated tape is not intended, nor expected, to replace the commercial offerings of private data providers. The sell-side and buy-side users of the data are prepared to pay for enriched data that market data and trading venue providers distribute as third-party commercial ventures. This data may include more advanced analytics such as benchmark spreads calculations (asset swap spreads or Z-Spreads), data presentation and visualisation tailored to traders' workflow, watch lists and dynamic charting capabilities. Examples of paid-for enriched data and analytics already exist today. Furthermore, TRACE, in the US, is an example of freely available raw data at a consolidated level.

ICMA is essentially advocating an EU equivalent of TRACE, covering all bond asset classes (similar to TRACE but not exact). This would support investor confidence and price formation, potentially enhancing underlying market liquidity, as well as facilitating best execution and trade cost/best execution analysis. Most importantly, it would create an even playing field for all investors and market participants (including the retail sector), regardless of scale or resources: a key objective of MiFID II/R. This view was evidenced in ICMA's MiFID II/R first-year study, where 86% of survey respondents reported that a non-commercial utility (similar to TRACE in the US) would help to provide the level playing field that MiFID II/R intended to deliver.

There is renewed focus and progress in 2019 regarding an EU consolidated tape. At the 2019 Eurofi Conference, a Commission policy maker stressed the commitment of the Commission to making progress in the post-trading area. The policy maker added that there is still a need for

2. The 'FITRS' database relies heavily on FIRDS master records for liquidity assessments for bonds subject to the pre- and post-trade transparency requirements in MiFID II.

3. "Raw" data would include basic information such as: time of execution, reported date and time (taking into account deferrals for large in scale trades), direction (buy or sell), price, cancel or correction, and trading venue.

a consolidated tape provider. The Commission had hoped that one would have emerged by now and will continue to encourage this to happen. The Commission is backing up this view with action. On 28 June, the Commission hosted a day long workshop solely on consolidated tape. ICMA attended this event in Brussels. The European Commission actively sought industry views on consolidated tape in consideration of the following questions:

- What problems would an EU bond consolidated tape solve?
- How should equities and bond consolidated tapes be prioritised?
- Should the bond consolidated tape be a public utility? What governance model would best support the tape?
- Should the bond consolidated tape (considering deferrals) be real-time (at point of execution, instead of end of day)?
- Should there be mandatory contribution directly to a bond consolidated tape? What would be the role of APAs/ARMs in a post-consolidated tape EU bond trading landscape?
- What aspects of the US consolidated tape should feature in an EU bond consolidated tape?

Conclusion and next steps

ICMA, through its data quality task force, will continue to engage with ESMA and support the necessary enhancements to the ESMA databases and processes in order to improve the quality and usability of EU bond market post-trade data.

ICMA will also continue to advocate an ESMA-governed, single-source non-commercial consolidated tape for post-trade bond raw data. Fortunately for ICMA and the industry, there is renewed interest from the European Commission and in-depth focus concerning a consolidated tape. Discussions are now taking place to decide a potential future model and governance of an EU consolidated tape. We are hopeful that a consolidated tape for fixed income instruments will emerge in the not too distant future.

From an advocacy perspective, gaining support of the European Commission and ESMA for a fixed income consolidated tape utility will be vital. In the meantime, ICMA intends to refine, develop and promote its views through a discussion paper.

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CSDR Settlement Discipline: ICMA's role

ICMA is currently in discussions with ESMA, ICMA members, and other market representative bodies and stakeholders, as it looks to update the ICMA buy-in rules to create a contractual framework for the implementation of the CSDR mandatory buy-in requirements as well as establishing best practice for the non-centrally cleared, cross-border bond markets. Among the key issues ICMA is looking to address are: (i) addressing the apparent asymmetry in the differential payment; (ii) establishing a pass-on mechanism, and (iii) appointing a buy-in agent.

Addressing the asymmetry in the differential payment

In 2018, ICMA discussed with ESMA the importance of a symmetrical differential payment mechanism in the buy-in and cash compensation processes and proposed that this could be achieved through contractual arrangements between trading parties, such as the ICMA Secondary Market Rules & Recommendations (which apply automatically to ICMA members transacting in international securities). ESMA seems open to the idea and is discussing the proposal with the European Commission with a view to providing Level 3 guidance on this critical issue.

Facilitating a pass-on mechanism

Earlier this year, ICMA shared and discussed with ESMA a proposal for a potential pass-on mechanism intended to work under the CSDR buy-in framework. The pass-on proposal is based on the current ICMA buy-in rules, and, if approved, would allow for pass-ons through transaction chains with multiple intended settlement dates (ISDs).

ESMA has indicated that it is keen to allow for a pass-on mechanism, and that this is mandated in the recitals of the Regulation. ESMA does not seem averse to a multiple-settlement date mechanism, even though this could effectively extend the overall timeline of the buy-in execution beyond the outlined extension periods in the Regulation. However, it will be necessary for parties to evidence that a pass-on situation exists, if required, and to provide that contractual arrangements are in place to ensure that the buy-in is executed at some point in time.

ICMA also recognises that there is not necessarily a "one-size-fits-all" pass on mechanism for all markets, and that it may be preferable to have more than one mechanism. For example, in the case of more liquid securities, it may be more efficient to execute the buy-in early on, rather than allowing the fail to extend along a chain. These different scenarios were explored at length at an ICMA-hosted cross-industry workshop on pass-ons on 1 July 2019. However, from the perspective of the ICMA buy-in rules, the likelihood is that members will wish to retain as much flexibility as is permissible in order to manage their buy-in risk effectively.

Appointing a buy-in agent

The regulatory technical standards (RTS) require that for non-centrally cleared trades a buy-in agent is appointed by the purchasing party. The experience of the European bond markets in recent years has been that this is not as straight forward as it sounds, and there is a general reluctance for firms (traditionally market-makers in the underlying security) to act as a buy-in agent. In 2017 the ICMA buy-in rules were amended to remove the need to appoint a buy-in agent, allowing the purchasing party to execute the buy-in themselves, subject to certain requirements with respect to best execution and conflicts of interest. ICMA is looking to explore a similar possibility under CSDR in the case that a buy-in agent cannot be found.

ICMA intends that, at the end of this process, the ICMA buy-in rules will provide an implementation framework and market best practice for CSDR mandatory buy-ins for the non-cleared, cross-border bond markets. More about ICMA's extensive work on implementing CSDR mandatory buy-ins can be found on its dedicated CSDR-SD Working Group webpage.

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Recent secondary market research

The past few months have seen the publication of a number of regulatory papers focused on secondary bond market functioning and liquidity.

IOSCO, 2019, Liquidity in Corporate Bond Markets Under Stressed Conditions

The report, prepared by IOSCO´s Committee on Emerging Risks, examines how liquidity in secondary corporate bond markets tends to evolve when those markets experience stress. The report seeks to increase understanding of how stressed conditions may affect both bond and other financial markets and the financial system more broadly. The findings are drawn from a review of the literature on liquidity in corporate bond markets under normal and stressed conditions, an examination of past episodes of stress in corporate bond markets and discussions with a broad range of industry stakeholders. The report notes that changes in the structure of secondary corporate bond markets have altered the way that liquidity is provided in these markets. These changes result from such things as post crisis regulations that have reduced the capacity of intermediaries to provide liquidity in secondary corporate bond markets; greater risk aversion on the part of intermediaries; the gradual introduction of electronic trading; and significant growth in the size of these markets resulting from central banks' quantitative easing policies and low rates of return on other financial assets.

ICMA's third corporate bond market liquidity study

In April 2019, following approval from its Secondary Market Practices Committee (SMPC), ICMA announced that it is undertaking its third study into the state and evolution of the European investment grade corporate bond secondary market.

The study is intended to update the findings and conclusions of the previous two studies, published in July 2016 and November 2014. The new study will also seek to explore some of the themes highlighted in ICMA's 2018 report on the European single name credit default swap market and its 2017 report on the European credit repo market, as well as the work undertaken by the European Commission Expert Group on Corporate Bond Markets. Specifically, the new study will seek to answer three key questions with respect to the European IG corporate bond market:

- What is the current state and expected course for market liquidity?
- How is the structure of the market evolving?
- What are the expectations for future market developments?

As with previous studies, the research will take a triangular approach, consisting of: (i) market data and analysis; (ii) online surveys; and (iii) semi-structured interviews with market stakeholders.

ICMA members and other stakeholders are encouraged to participate in the study. The online sell-side and buy-side surveys can be accessed via the ICMA website. Interviews should be arranged directly with Andy Hill. All information shared will be anonymised and synthesised, and interviewees and their firms will receive an advance draft of the final report for their review.

ICMA hopes to publish the final report by the end of Q3 2019.

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Bank of England, 2019, Simulating Stress in the UK Corporate Bond Market: Investor Behaviour and Asset Fire-sales

The researchers build a framework to simulate stress dynamics in the UK corporate bond market. This quantifies how the behaviour and interactions of major market participants, including open-ended funds, dealers, and institutional investors, can amplify different types of shocks to corporate bond prices. They model market participants' incentives to buy or sell corporate bonds in response to initial price falls, the constraints under which they operate (including those arising due to regulation), and how the resulting behaviour may amplify initial falls in price and impact market functioning. The study finds that the magnitude of amplification depends on the cause of the initial reduction in price and is larger in the case of shocks to credit risk or risk-free interest rates, than in the case of a perceived deterioration in corporate bond market liquidity. Amplification also depends on agents' proximity to their regulatory constraints. It further finds that long-term institutional investors (eg pension funds) only partially mitigate the amplification due to their slower-moving nature. Finally, the research concludes that shocks to corporate bond spreads, similar in magnitude to the largest weekly moves observed in the past, could trigger asset sales that may test the capacity of dealers to absorb them.

ECB, 2019, Institutional Presence in Secondary Bank Bond Markets: How does it Affect Liquidity and Volatility?

Using newly available information on euro area sectoral holdings of securities, the authors investigate to what extent the presence of institutional investors affects volatility and liquidity in secondary bank bond markets. They find that non-bank financial intermediaries, in particular MMFs, have a positive impact on secondary bank bond markets' liquidity conditions, at the cost of significantly increasing volatility of daily returns. The effect translates to more than a 19% improvement in liquidity conditions and up to 57% increase in daily-return volatility, assuming MMFs hold about 10% of the notional amount in the secondary market of a representative euro area bank bond. Investment funds, insurance corporations and pension funds are found to similarly affect market conditions, though to a lesser magnitude. The authors find a trade-off between volatility and liquidity, where the stronger presence of institutional investors at the same time improves liquidity and increases volatility, suggesting that possible structural shifts in investor composition matter for market conditions and should be monitored by financial stability authorities.

BIS, 2019, Measuring Corporate Bond Liquidity in Emerging Market Economies: Price- vs Quantity-based Measures

Prior research suggests that corporate bond issuance in emerging market economies increases when the markets exhibit substantial liquidity. While the Malaysian corporate bond market has grown dramatically over the last few decades, having now become one of the largest among emerging market economies, its liquidity has not progressed at a similar pace. Illiquidity may hamper access to local currency debt financing, so its measurement is an important topic for regulators and issuers. The paper investigates the liquidity of corporate bonds in Malaysia and finds that quantity-based measures of liquidity appear more reliable than price-based measures. Low liquidity appears to characterise both conventional and Islamic corporate bonds in Malaysia.

ECB, 2019, Exploring the Factors Behind the 2018 Widening in Euro Area Corporate Bond Spreads

The paper concludes that the observed widening in euro area credit spreads in 2018 is less due to credit risk fundamentals, nor is it euro area-specific (eg the end of the ECB's Corporate Sector Purchase Programme was largely priced in), but rather it was primarily driven by spillovers from the US and increased global risk aversion. The paper also decomposes euro area non-financial corporate (NFC) spreads into credit risk fundamentals and excess bond premia, which is particularly revealing.

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

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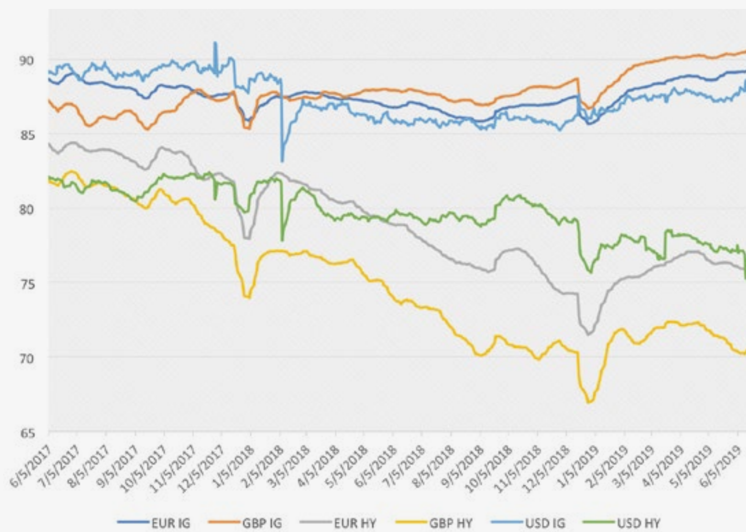
ICE Data Services Corporate Bond Market Liquidity Tracker

June 2019

Liquidity Tracker



Source: ICE Data Services

Commentary

As discussed in previous Quarterly Reports, corporate bond market liquidity appears to show a sharp decline in Q1 2018, which largely correlates with the US led sell-off in global credit markets. But IG remained relatively rangebound throughout 2018 followed by a drop at year-end. Subsequently, liquidity levels rebounded swiftly in Q1 2019 and continued to improve throughout Q2 2019.

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

While it is difficult to attribute causality, a possible explanation for the deterioration in EUR HY liquidity could be the announcement of the wind-down of the ECB's Corporate Sector Purchase Programme (CSPP). While HY is not in scope of the purchase programme, the sector has benefited from a "portfolio rebalancing" effect. Rate hikes in the US, widening CDS spreads and falling equities markets appear furthermore to have had a knock-on effect on reduced EUR and GBP liquidity. However, a stable outlook on monetary policy and tightening CDS spreads seem to have countered this effect in Q1 2019. Meanwhile, the continued economic uncertainty arising from Brexit, global geopolitical tensions and a "flight-to-quality" appear to have had an adverse impact on HY liquidity in Q2 2019.

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

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Repo and Collateral Markets

by Andy Hill and Alexander Westphal

SFTR implementation

The publication of the technical standards in March 2019 not only provided clarity on the Securities Financing Transactions Regulation (SFTR) implementation timeline, but also formally kicked off the so-called Level 3 process, during which ESMA will provide important further implementation guidance in relation to SFTR reporting. On 27 May, as a first important step in this process, ESMA launched a public consultation on draft *Guidelines for Reporting under Articles 4 and 12 SFTR*. The draft Guidelines will complement the technical standards and seek to address some of the many open questions that have already been raised with ESMA by stakeholders, including the ERCC's SFTR Task Force, in anticipation of the Guidelines.

The consultation paper with the draft Guidelines was published alongside an updated version of ESMA's SFTR validation rules. Responses to the consultation are due on 29 July, which gives stakeholders two months in total to work through the detailed draft guidance and to prepare their feedback. As one of the leading industry groups, the ICMA ERCC is of course planning to respond to the consultation through its SFTR Task Force, which is currently reviewing ESMA's proposals. The consultation will be the key focus for the group over the next weeks. In line with its remit, the ERCC response will focus specifically on the repo and buy/sell-back related aspects of the consultation, while other industry groups are taking the lead in relation to other types of SFTs. Close collaboration between the groups remains a key priority, given that many of the issues and challenges are common across the different types of SFTs and in order to avoid sending inconsistent messages to ESMA.

As part of the consultation process, ESMA will hold two events in Paris: an open hearing on the 15 July, which all stakeholders are invited to attend, as well as a more restricted industry workshop on the next day to which the key industry groups have been invited. In terms of next steps, once the consultation is closed, ESMA will use the third quarter of this year to review the feedback and update the Guidelines accordingly. The revised and final version of the Guidelines should then be published in Q4 this year, leaving market participants only a few months to incorporate any required changes and conclude their system developments before the initial reporting go-live for banks and investment firms in April 2020.

Despite the current focus on the Guidelines, the SFTR Task Force also continues to further develop and refine the extensive best practice documents in relation to SFTR reporting that the group has put together over the past months. Most importantly, this includes a draft Annex to the existing Repo Best Practice Guide focused specifically on SFTR Reporting, but also a useful set of sample SFTR reports and various other documents. All the files are currently being updated in light of the guidance provided by ESMA in the draft Guidelines. Once this is fully incorporated, the best practice documents should be sufficiently stable to allow a broader distribution outside the Task Force, although they will of course continue to evolve.

In the meantime, ICMA has already stepped up efforts to publicise more widely the important work done by the SFTR Task Force. A revamped version of ICMA's SFTR webpage was launched in May with detailed background information on SFTR, relevant updates and more details on the work of the Task Force. As part of the efforts to educate

Further editions of the SFTR workshop have been scheduled for 18 July and 29 July.

market participants on the implications of SFTR and the best practices developed by the Task Force, ICMA is holding focused SFTR technical workshops. A first edition of the workshop was successfully held on 2 July. Further editions of the SFTR workshop have been scheduled for 18 July and 29 July, with a few places still available for both dates.

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Other regulatory reforms

CRR II Regulation and CRD V Directive

On 7 June 2019, as part of a broader package of banking reforms, Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending the Capital Requirements Regulation and Directive (EU) 2019/878 of the European Parliament and of the Council of 20 May 2019 amending the Capital Requirements Directive IV, were both published in the *Official Journal*, entering into force on 27 June 2019. These include a leverage ratio requirement for all institutions, as well as a leverage ratio buffer for all global systemically important institutions, and a binding net stable funding requirement (NSFR).

The leverage ratio requirement complements the current requirements in the CRD and the CRR to calculate the leverage ratio, to report it to supervisors and, since January 2015, to disclose it publicly.

The leverage ratio requirement is set at 3% of Tier 1 capital, which institutions must meet in addition to/in parallel with their risk-based capital requirements. The 3% calibration is in line with the internationally agreed level.

Importantly, the NSFR introduces a 5% required stable funding factor (RSF) against monies due from securities financing transactions with financial customers, where those transactions have a residual maturity of less than six months. This is a less punitive requirement than the Basel III framework for the NSFR, which applies a 10% RSF for such transactions. In order not to hinder the good functioning of EU capital markets, this compromise is intended to apply only for a transitional period of four years, after which the calibration of the Basel standard would apply unless the Commission submit a legislative proposal to amend the treatment of these short-term transactions.

Revised BCBS leverage ratio reporting requirements to prevent "window dressing"

On 20 June 2019, the Basel Committee on Banking Supervision (BCBS) issued a press release following its meeting in Basel of 19-20 June 2019. Of note, the Committee agreed on a set of disclosure requirements to curb leverage ratio window dressing, building on the measures outlined in a Committee newsletter published last year. This also follows the 2018 BCBS consultation related to potential regulatory arbitrage by banks in the form of temporary reductions of transaction volumes in key financial markets around reference dates, resulting in the reporting and public disclosure of elevated leverage ratios.[1]

On 26 June 2019, the BCBS published the finalised revisions to leverage ratio disclosure requirements, setting out additional requirements for banks to disclose their leverage ratios based on quarter-end and on daily average values of securities financing transactions. A comparison of the two sets of values will allow market participants to assess better banks' actual leverage throughout the reporting period.

These revisions are applicable to the Pillar 3 disclosure requirements associated with the version of the leverage ratio standard that serves as the Pillar 1 minimum capital requirement as of 1 January 2022.

In the EU, the agreed text of CRR II (published in the *Official Journal* on 7 June 2019 – see above) already anticipates this. Article 451 concerns disclosure of the leverage ratio and, besides expecting this to be done as a periodic measure, this specifically states that large institutions shall disclose the leverage ratio and the breakdown of the total exposure measure based on averages. The EBA is tasked with developing draft implementing technical standards which shall specify the detail of how this reporting requirement must be performed.

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1. The ICMA ERCC response to the consultation can be found on the ICMA website

Repo market: transition from EONIA to €STR

RFR

On 14 March 2019, the Working Group on Euro Risk-Free Rates, supported by the ECB, published recommendations on transitioning from the euro overnight index average (EONIA) to the euro short-term rate (€STR). The ECB's recommendations include the following:

(i) market participants should gradually replace EONIA with €STR for all products and contracts, making €STR their standard reference rate once the period of transitioning to the €STR ends at the end of 2021;

(ii) EONIA's administrator, the European Money Markets Institute (EMMI), should modify the current EONIA methodology to become €STR (plus a spread)[2] for a limited period of time, allowing market participants sufficient time to transition to €STR; and

(ii) market participants should make all reasonable efforts to replace EONIA with €STR as a basis for collateral interest for both legacy and new trades with each participant's counterparties (clean discounting).

The ECB further announced that it will start publishing €STR as of 2 October 2019, reflecting the trading activity of October 1 2019.[3] Additionally, the ECB is ready further to support private sector efforts in the transition away from the euro overnight index average EONIA and will provide the computation of a one-off spread between the €STR and EONIA, which was requested by the Working Group on Euro Risk-Free Rates. This spread (published on 31 May 2019) has been calculated by the ECB according to the methodology publicly recommended by the Working Group on Euro Risk-Free Rates.

Perhaps the most significant consideration from a repo market perspective, in the case of EONIA-based transactions, is the timing of the publication of €STR. Unlike the publication of EONIA today,[4] €STR will only be published the following day of the contributing transactions (no later than 09:00 CET).[5] This is because the MMSR Regulation specifies that data shall be transmitted once per day to the ECB between 18:00 CET on the trade date and 07:00 CET on the first TARGET2 settlement day after the trade date. The complete dataset is therefore only available for the computation of the €STR after 07:00 CET on the following TARGET2 day. There is a provision for the rate to be amended up until 11:00 CET in the event of an error.

This "T+1" publication creates potential challenges for transacting and settling €STR-based repo, since the final rate to be applied in calculating the final repo interest will not be known until the actual repurchase date, which may be too late to send settlement instructions to the (I)CSD in time for settlement.

It should also be noted that the use of EONIA-based repo is largely limited to transactions in French government securities.[6] According to the most recent ICMA ERCC European Repo Market Survey (December 2018), the floating rate repo portion of the overall market is 13.1%.

Recommendation for market best practice

The practicalities of the EONIA/€STR transition for the non-cleared repo market have been discussed at length by the ICMA ERCC and the ERCC Operations Group. The ERCC has agreed on the following recommended best practice to be followed from 1 October 2019:

- The interbank market should transact purely on a fixed rate basis ("classic repo") and should no longer use floating rate repo.
- In the case of non-interbank transactions (such as dealer-to-client), where firms agree to transact on a floating rate basis (using EONIA or €STR), best practice will be to apply the fixing of the penultimate accrual date of the transaction to the final (repurchase) date (ie "crystallizing" the penultimate fixing into a fixed rate for the final business day). This will allow for parties to send timely settlement instructions for the repurchase leg of the transaction.
- Where parties transact on a floating basis, using the crystallization methodology, this will create discrepancies between the repurchase price calculated and settled by the parties and the repurchase price that would have applied had it been possible to instruct after the final fixing. In this instance, the disadvantaged party can elect to claim the differential from the advantaged party, so long as the differential is equal to or greater than an agreed threshold per transaction (the exact amount to be determined by the ERCC in the coming weeks following further discussion).

It should be noted that the recommended best practice for floating rate (EONIA or €STR) repo is largely similar to current market best practice for overnight index (OI) based repo in the event that the publication of the OI fixing is too late to send settlement instructions to the (I)CSD in time for settlement.[7]

2. On 31 May 2019 the ECB confirmed that this spread will be 0.085%.
3. Note that this means that there will be no published rate on October 1 2019.
4. Currently EONIA is published on the same day, between 18:45 and 19:00 CET.
5. EONIA, represented by €STR + the calculated spread, will be published by EMMI by 9:15 CET.
6. This is very much a legacy, market specific practice that pre-dates the introduction of the euro.
7. See paragraphs 2.72, 2.73, and 2.76 of the ERCC Guide to Best Practice in the European Repo Market

Other considerations

Averaging vs. compounding

Currently, market practice for EONIA-based repo is to apply the average rate over the life of the trade, rather than compounding, even though daily compounding is used in the EONIA swap market. The ERCC agreed that this practice should continue in the case of EONIA or €STR repo, noting that it is also possible for parties to agree to a compounding methodology.

Reference to EONIA in GMRA annexes

While none of the GMRAs reference EONIA, it is understood that some bilaterally negotiated annexes may make reference to EONIA with respect to interest payable on cash collateral. Where this is the case, firms will need to update these bilateral annexes to reference a suitable alternative benchmark. While ICMA cannot do anything directly to assist firms in identifying or updating any bilateral contractual arrangements that may be impacted, in coordination with the ERCC it will look to raise awareness of the issue so that affected firms can take the steps necessary to prepare for the discontinuation of EONIA.

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Recent research on repo and collateral markets

Bank of England, 2019, Decomposing Changes in the Functioning of the Sterling Repo Market

The researchers identify the degree to which changes in gilt repo market functioning have been driven by changes in the supply of – and the demand for – market intermediation. To do so, they use a structural vector auto regression (SVAR) model with sign and zero restrictions. The paper finds that changes in gilt repo market functioning over the past five years have been driven largely by changes in the supply of repo market intermediation by dealers, rather than by changes in the demand of end-users. Following the introduction of the UK leverage ratio, the model suggests that an increase in demand for repo by end-users results in a larger increase in the cost of repo transactions and a smaller increase in their volume. This effect is stronger in the case of transactions that are not nettable via central counterparties. These findings are consistent with the notion that the leverage ratio may reduce dealers' ability and/or willingness to act as repo market intermediaries. This may have implications for the resilience of Repo Markets in future periods of stress.

Bank of England, 2019, Regulatory Effects on Short-term Interest Rates

The researchers analyse the effects of EMIR and Basel III regulations on short-term interest rates. EMIR requires central clearing houses (CCP) to acquire safe assets continually, thus expanding the lending supply of repurchase agreements (repo). Basel III, in contrast, disincentivises the borrowing demand by tightening banks' balance sheet constraints. Using unique datasets of repo transactions and CCP activity, the study finds compelling evidence for both supply and demand channels. The overall effects are decreasing short-term rates and increasing market imbalances in various forms, all of which entail unintended consequences originated from the new

LIBOR and the GMRA

ICMA published an updated edition of the Global Master Repurchase Agreement (GMRA) in 2011, containing enhancements which (i) provide the non-defaulting party with more flexibility; (ii) account for changes in market practice; and (iii) increase alignment with other industry standard agreements. One of the amendments made in the GMRA 2011 was to remove references to LIBOR (note that these relate only to professional expenses and interest on late payments) and replace these with the concept of "Applicable Rate". Users of the older version of the agreement (the GMRA 1995 and GMRA 2000 versions) will need to consider amending their documentation in the event of a permanent discontinuation of LIBOR. If parties to a GMRA 1995 or GMRA 2000 update their documentation using the 2011 GMRA Protocol, it is possible to amend the aforementioned boilerplate LIBOR references on a multilateral basis by making the relevant elections in Annex 5 of the protocol (subject to both parties adhering to the protocol and making the same elections). With respect to LIBOR references made in bespoke terms (pricing or otherwise), we understand that parties are making appropriate bilateral amendments to their documentation.

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regulatory framework.

Bank of Canada, 2019, Systemic Risk and Collateral Adequacy: Evidence from the Great Crisis

Conventional collateral requirements are highly conservative but are not explicitly designed to deal with systemic risk. This paper explores the adequacy of conventional collateral levels against systemic risk in the Canadian futures market during the 2008 crisis. The results show that conventional collateral levels adequately absorb crisis-level systemic risk, even allowing for an implausibly large margin of error. However, this occurs at the expense of unequal buffering of systemic risk across banks. The paper documents that the largest systemic risk contributors are buffered relatively less than the rest and that there is a large cross-country difference in the behaviour of US and Canadian institutions. Nonetheless, even this does not result in meaningful risk spillovers. The maximum expected market shortfall in excess of collateral comes up to at most 1% of the banks' market capitalization, and hence the added systemic risk does not exceed the effect of a 1% downward stock price move.

ECB, 2019, From Cash- to Securities-Driven Euro Area Repo Markets: The Role of Financial Stress and Safe Asset Scarcity

Focusing on repo specialness premia, using ISIN-specific transaction-by-transaction data of one-day maturity repos, the study documents a gradual shift from cash- to securities-driven transactions in euro area Repo Markets over the period 2010-2018. Compared to earlier studies focusing only on specific sub-periods or market segments, the researchers extend, illustrate, and validate evidence on financial frictions that are relevant in driving repo premia: controlling for a comprehensive range of bond-market specific characteristics, the study shows that repo premia have been systematically affected by fragmentation in the sovereign space, bank funding stress, and safe asset scarcity. These channels exhibit very strong country-specific differences, as also reflected by large discrepancies in country-specific interest rates on General Collateral. To ensure robustness of their empirical findings, the researchers apply panel econometric and data mining approaches in a complementary and mutually informative way.

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ICMA Ops FinTech mapping directory

ICMA's Ops FinTech Working Group (WG), a sub-group of the ERCC, has conducted a review of the FinTech mapping directory for repo and cash bond operations (and ancillary services). During Q2 2019, members of the WG reached out to vendor firms with a view to updating the referenced technology solutions or adding new applications. As a reminder, the directory comprises over 100 technology solutions and spans the following 10 categories:

1. Collateral management (Lifecycle)
2. Collateral management (Margin)
3. Corporate actions
4. Exposure agreement
5. Intraday liquidity: monitoring and reporting
6. KYC onboarding
7. Matching, confirmation & allocation
8. Reconciliation
9. Static Data & Standard Settlement Instructions (SSI)
10. Workflow & communication.

The ICMA Ops FinTech mapping directory compares the capabilities of different providers and seeks to create greater transparency in a fast-evolving market. It provides information on how each solution can be used, for example at which stage of the trade lifecycle, whether for cleared or uncleared transactions and where the solution sits within the IT infrastructure.

The mapping directory is intended to be a living document. It does not constitute an exhaustive list of providers in the market and is kept up-to-date on a regular basis to include other existing or new solutions. The document can be accessed by ICMA member firms and the public on ICMA's website.

Relevant providers that are not yet covered by the mapping directory and wish to join are welcome to do so.

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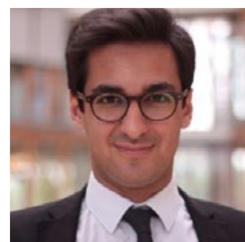
Green, Social and Sustainability Bond Markets



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

Green, social and sustainability bond market developments

Global green bond issuance has surpassed the $100 billion mark already this year with a total of $111.7 billion: up 35% year-on-year and in line with market expectations of a total issuance in 2019 in the range of €210-240 billion. The cumulative value of outstanding green bonds in the market now exceeds $640 billion.

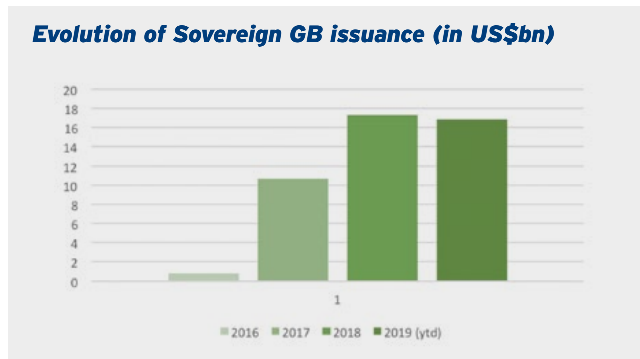
Corporates have taken the lead in this year's impressive growth, accounting for almost 31% of total issuance (year-to-date), compared with last year when financial institutions were in the first position. Some of the prominent scale corporate issuances in 2019 are listed in the table below, which also illustrates the predominant position of European and Asian issuers in this category.

Issuer	Country	Issuance Amount*	Eligible Green Project Categories
China Three Gorges	China	2.97	Renewable Energy
EDP	Portugal	1.13	Renewable Energy
Enel	Italy	1.14	Clean Transportation, Energy Efficiency, Renewable Energy
Engie	France	1.69	Energy Efficiency, Renewable Energy
Lisea	France	1.03	Clean Transportation
LG Chem	Korea	1.56	Clean Transportation, Energy Efficiency, Green Buildings, Sustainable Water and Wastewater Management
Orsted	Denmark	1.17	Renewable Energy
Tennet	Netherlands	1.96	Renewable Energy
Telefonica	Spain	1.14	Energy Efficiency

*ICMA based on Environmental Finance Database; *In USD billion*

With the Netherlands, Hong Kong, Chile, and South Korea issuing their inaugural green bonds (with totals of €5.98 billion, $1 billion, an equivalent of $1.5 billion and $500 million respectively), sovereign green bond issuance momentum continues a dynamic growth trend as illustrated in the chart below. To add to this are announcements of further scale issuance from Germany, Sweden and Spain in 2019.

Evolution of Sovereign GB issuance (in US$bn)

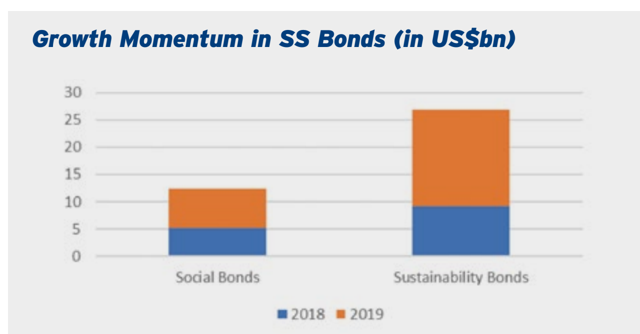


ICMA based on Environmental Finance Database and official sources

On the sovereign front, the Hong Kong SAR Government, in addition to its inaugural $1 billion Green Bond in May 2019, also announced in parallel three sets of measures to promote green finance, namely, a three-phase plan to implement a framework for Green and Sustainable Banking, prioritisation of Responsible Investment for managing the Exchange Fund, and the establishment of the Centre of Green Finance.

Turning to the wider sustainable finance market, it is also important to note the dynamism of social and sustainability bond issuance in 2019, continuing the trend from the previous year (see chart below). Issuance for social and sustainability bonds is up 75% in the first two quarters of 2019 in comparison with the same period in 2018.

Growth Momentum in SS Bonds (in US$bn)



ICMA based on Environmental Finance Database

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European Action Plan on Sustainable Finance

Background

Following the publication in March 2018 of the Action Plan on Sustainable Finance of the European Commission, the Technical Working Group on Sustainable Finance (TEG) was established in June 2018. ICMA, with the support of the GBP SBP Executive Committee, was nominated on the TEG following a highly selective process. The TEG has held monthly working group and plenary meetings since its inception and its mandate has now been extended until the end of 2019.

The TEG published on 18 June 2019 reports and guidelines relating to its four key deliverables:

- EU Taxonomy for sustainable activities
- EU Green Bond Standard
- EU climate benchmarks and benchmarks' ESG disclosures
- Guidelines on the disclosure of environmental and social information

This article provides an overview and comments on these reports. It also provides in Table 1 an update on the parallel EU legislative initiatives on sustainable finance that are under way reflecting the Commission's legislative proposals of May 2018.

Taxonomy

The June report aims to take on board market and stakeholder feedback from the first consultation at the end of 2018 which identified issues relating among others to (i) technical sustainability criteria seen as potentially too binary, rigid and/or EU centric; (ii) lack of clarity on how transition and impact would be taken into account; (iii) usability for the green bond market and green finance generally. The report reflects progress on all these fronts and also clarifies the proposed application of "Do No Significant Harm" (DNSH) criteria, based especially on EU environmental legislation which may however reinforce the perception of EU centricity of the Taxonomy. A new consultation will take place over the summer which will give the market the opportunity to provide further input. It will also be important to monitor how the European Council and Parliament may seek to amend the Taxonomy's configuration and methodology (through the related legislative discussions, see Table 1) as complementary approaches have been reportedly considered.

The report on the EU Taxonomy for Sustainable Activities sets out the basis for a future EU Taxonomy in legislation (See Table 1). It also aims to help investors and other potential users to start to understand the implications of

the Taxonomy. The report contains:

- technical screening criteria for 67 activities that can make a substantial contribution to climate change mitigation across the sectors agriculture, forestry, manufacturing, energy, transportation, water and waste, ICT and buildings. Almost all activities have also been assessed for potential significant harm to other environmental objectives;
- a methodology and worked examples for evaluating substantial contribution to climate change adaptation;
- guidance and case studies for investors preparing to use the Taxonomy.

The report identifies three kinds of activity can make a substantial contribution to climate change mitigation. These are:

- activities that are already low carbon. These activities are already compatible with a 2050 net zero carbon economy. Examples include zero emissions transport, near to zero carbon electricity generation and afforestation;
- activities that contribute to a transition to a zero net emissions economy in 2050 but are not currently operating at that level. Examples include electricity generation <100g CO_2/kWh or cars with emissions below 50g CO_2/km;
- activities that enable those above: for example, manufacture of wind turbines or installation of highly efficient boilers.

The report illustrates how the "Do No Significant Harm" criteria may be applied through additional screening criteria proposed by the TEG. These contain quantitative thresholds where possible. Where this is not possible, the criteria are qualitative, describing an action or set of actions which need to be demonstrated in order to avoid significant harm.

The baseline scenario is compliance with relevant EU environmental legislation. To this end, the criteria reflect existing EU legislation. The call for additional expertise to inform the TEG and a dedicated process enabled the establishment of criteria based on available scientific evidence. Where evidence was not conclusive, the precautionary principle enshrined in Article 191 TFEU was taken into account, as required in Article 14.

To the extent possible, the screening criteria, whether qualitative or quantitative, were selected to facilitate the verification of compliance. In many instances, the proposed criteria are expressed in terms of compliance with relevant EU legislation and/or associated reference information, such as the best available techniques (BAT) reference documents (also known as "BREFs").

The TEG's work on the Taxonomy will continue until end-2019 and will focus especially on:

- refining and further developing some incomplete aspects of the proposed technical screening criteria for substantial contributions and avoidance of significant harm;
- exploiting the additional feedback from the planned summer consultation;
- developing further guidance on implementation and use of the Taxonomy.

EU Green Bond Standard

The June report remains very close to the original version released in March and retains the proposed *voluntary* key features of the EU GBS (ie formalised Green Bond Framework, mandatory verification, reporting including impact, comprehensive definition of use of proceeds and alignment with EU Taxonomy) and explicitly references current best market practices as represented by the GBP. It is more specific on reporting requirements (that are simplified) and on what is subject to external verification (the Green Bond Framework and the Allocation Report). Certain recommendations regarding direct support to market participants (eg subsidies for external reviews and guarantees for non-investment grade issuers) are given less prominence. The proposal for a market based interim initiative relating to external reviewers is also recast as a registration rather than an accreditation scheme to describe more accurately the scope of what can be established before the proposed supervision by ESMA is in place.

The report on the EU Green Bond Standard proposes that the Commission creates a voluntary, non-legislative EU Green Bond Standard designed to enhance the effectiveness, transparency, comparability and credibility of the green bond market and to encourage market participants to issue and invest in EU green bonds.

1. Alignment with EU taxonomy: proceeds from EU Green Bonds should go to finance or refinance projects/activities that (a) contribute substantially to at least one of the six taxonomy Environmental Objectives, (b) do not significantly harm any of the other objectives; and (c) comply with the minimum social safeguards. Where technical screening criteria have been developed, financed projects or activities shall meet these criteria, allowing however for specific cases where these may not be directly applicable.
2. Publication of a Green Bond Framework, which confirms the voluntary alignment of green bonds issued with the EU GBS, explains how the issuer's strategy aligns with the environmental objectives, and

provides details on all key aspects of the proposed use-of-proceeds, processes and reporting of the green bonds.

3. Mandatory reporting on use of proceeds (allocation report) and on environmental impact (impact report).
4. Mandatory verification of the Green Bond Framework and of the allocation report by an external reviewer.

The TEG recommends that external verifiers are formally accredited and supervised. The TEG argues that the most suitable European authority to design and operate such an accreditation regime for verifiers would be the European Securities and Markets Authority (ESMA). As this will take time, the TEG calls for an interim registration process for external verifiers of green bonds to be set up, for a transition period of approximately three years, in close cooperation with the European Commission.

The TEG lists six additional preliminary recommendations on how the Commission, EU Member State governments and market participants can support of the uptake of the EU GBS through both demand and supply-side measures. It recommends widespread adoption by the official sector and calls especially for the "European System of Central Banks (ESCB) and the members of the Network for Greening the Financial System (NGFS) consider promoting greening the financial system by expressing and implementing a preference for EU Green Bonds when purchasing green bonds".

Benchmarks

Following the political agreement reframing of the TEG benchmark workstream in February 2019, the June report attempts to provide answers to the methodological challenges of implementing the proposed EU Climate Transition Benchmark and the EU Paris-Aligned Benchmark. The report expressly recognises that no "established framework has yet emerged for measuring the alignment of an investment portfolio with a temperature scenario". The feedback from the new consultation launched in parallel will be critical to judge market sentiment on the near-term feasibility of what is being proposed.

The TEG report on EU climate benchmarks and benchmarks' ESG disclosures sets out the methodology and minimum technical requirements for indices that will enable investors to orient the choice of investors who wish to adopt a climate-conscious investment strategy and address the risk of greenwashing. Several criteria must be met to qualify as an EU Climate Transition Benchmark (EU CTB) or an EU Paris-Aligned Benchmark (EU PAB).

Specifically, climate benchmarks must demonstrate a significant decrease in overall GHG emissions intensity compared to their underlying investment universes or parent indices. This assessment must gradually integrate Scope 3 emissions (ie indirect emissions from an organisation's value chain) during a four-year period for sectors where the impact on climate change is significant but located outside of direct operational boundaries (such as Oil & Gas and transport). This minimum relative decarbonization is set at 30% for EU CTBs and 50% for EU PABs.

Climate benchmarks must be sufficiently exposed to sectors relevant to the fight against climate change. In other words, decarbonization cannot happen through a shift in the allocation from sectors with high potential impact on climate change and its mitigation (eg energy, transport, manufacturing) to sectors with inherently limited impact (eg health care, media).

Regarding the requirement to disclose an assessment of "Paris alignment" for each benchmark, the TEG recognises that no broadly accepted and established framework has yet emerged for measuring the alignment of an investment portfolio with a temperature scenario. Hence, in the interim report, the aim is to address specific elements of the emerging market practice of measuring the Paris alignment of investment portfolios.

In parallel with the release of the climate benchmarks report a six weeks call for feedback was launched. With the benefit of the feedback received the TEG is expected to publish the final version of the report by the end of September.

The report on the EU Green Bond Standard proposes that the Commission creates a voluntary, non-legislative EU Green Bond Standard.

Disclosures

The proposed guidelines represent an important endorsement and elaboration on the recommendations from the market-led Task Force on climate-related financial disclosures (TCFD). The guidelines remain voluntary and are positioned as being complementary to the EU's existing rules on non-financial reporting. However, it is important not to confuse the guidelines with the separate Commission legislative initiative on a Regulation on sustainability-related disclosures in the financial services sector (see Table 1) that may lead to mandatory disclosures on sustainability risks.

The Commission released guidelines on the disclosure of environmental and social information. These guidelines aim to help companies on a voluntary basis to disclose relevant non-financial information in a consistent and more comparable manner. They reflect current best practices and most recent developments including recommendations from the Task Force on climate-related financial disclosures set up by the Financial Stability Board. They are designed to supplement the already existing EU rules on non-financial reporting (Directive 2014/95/EU).

Separately, the EU's future Regulation on sustainability-related disclosures in financial services sector (see Table 1) provides rules designed to strengthen and improve the disclosure of information by manufacturers of financial products and financial advisors towards end-investors. The Regulation sets out how financial market participants and financial advisors must integrate environmental, social or governance (ESG) risks and opportunities in their processes, as part of their duty to act in the best interest of clients. It also provides uniform rules on how those financial market participants should inform investors about their compliance with the integration of ESG risks and opportunities. The objective is to address information asymmetries on sustainability issues between end-investors and financial market participants or financial advisors. The Regulation also requires the disclosure of adverse impact on ESG matters, such as in assets that pollute water or devastate bio-diversity, to ensure the sustainability of investments.

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Table 1: Update on EU legislative and regulatory initiatives on Sustainable Finance

Initiative	Current Status	Comments
Taxonomy Regulation	First reading by the European Parliament completed on 28.03.2019 and by the Council ongoing with latest doc on 04.04.2019.	Important changes proposed by the European Parliament: (i) life cycle and value chain assessment to be taken into account for the technical screening and the "do no significant harm" criteria; (ii) disclosure of the relevant information that allow firms offering financial products to establish whether the products they offer qualify as environmentally sustainable investments pursuant to the criteria under the Taxonomy Regulation.
Amendments to Benchmark Reg. (2016/2341)	First reading by the European Parliament completed on 26.03.2019, expected to be approved by the Council without amendments as per the political agreement of 25.02.2019.	Benchmark categories/terminology in the European Commission's proposal revised to: (i) EU Climate Transition Benchmark, which aim to lower the carbon footprint of a standard investment portfolio and which is targeting companies that follow a measurable, science-based "decarbonisation trajectory" by end-2022; (ii) EU Paris-aligned benchmarks, having more ambitious goals to select only components that contribute to attaining the 2°C reduction set out in the Paris climate agreement
Regulation on sustainability-related disclosures in financial services sector	The European Parliament's position after first reading (adopted on 18.04.2019) to be approved by the Council without amendments	The European Parliament adding definitions for "sustainability risks" (defined with reference to the materiality of the negative impact on the investment) and "sustainability factors" (defined with reference to environmental, social and employee matters, human rights, anti-corruption and bribery matters). The European Parliament also extended transparency requirements (i) on the potential of adverse impacts of investments decisions (Art.3gamma); and (ii) the promotion of environmental or social characteristics in pre-contractual disclosures (Art 4a).
Various Delegated Acts and Amendments to respective ESMA guidelines	European Commission's request on 24.07.2018 for technical advice from ESMA and EOIPA. Following the regulators' input, the European Commission will take these delegated acts further.	Public Consultations took place for amendments to various delegated under MiFID II, UCITS/AIFMD, Solvency II and Insurance Distribution Dir and on amendments to ESMA guidelines on product suitability and press releases as part of CRA disclosures. EIOPA and ESMA published their final reports in response to the technical advice on sustainability of the European Commission, on April 30th and May 3rd respectively. ESMA's final report on CRA disclosures is expected to be released by the end of July.

GBP SBP 5th AGM and Conference in Frankfurt

The 2019 Green and Social Bond Principles Annual General Meeting and Conference was held in Frankfurt on 13 June 2019 co-hosted by ICMA and the Green and Sustainable Finance Cluster Germany. Key announcements were made during the meetings concerning the 2019 deliverables and initiatives of the GBP SBP. The results of the elections of the Executive Committee were also revealed. The Conference itself has been described as a potential landmark event for sustainable finance in Frankfurt and more widely in the German financial market.

2019 deliverables and initiatives of the GBP SBP

While the Principles remain unchanged (2018 editions of the GBP, SBP and SBG remain applicable), the GBP SBP Executive Committee and its Working Groups have issued publications offering key complementary guidance, consolidating certain existing materials and adding new insights:

- The Impact Reporting Handbook: The Handbook brings together in one publication a series of impact reporting frameworks for eligible green categories covering several sectors, released since 2017, namely: Sustainable Water and Wastewater Management Projects, Sustainable Waste Management and Resource-Efficiency Projects, Clean Transportation Projects and Green Building Projects. This has been prepared by the Impact Reporting Working Group of the GBP SBP that benefits especially from the support and contributions from leading International Financial Institutions (IFIs) including Multilateral Development Banks and National Promotional Banks and Agencies.
- The Green Project Mapping: This new document maps Green Projects to the five environmental objectives in the Principles (ie climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control) and provides a basis for comparison to other green taxonomies and classification systems (China Green Bond Catalogue, CBI, MDB/IDF – climate change mitigation only, and in the future the EU Taxonomy).
- The Guidance Handbook: Market participants haveregularly sought additional information on how to interpret the Principles. The responses provided by the GBP SBP Executive Committee have grown into an important body of knowledge and best practices. This has been assembled in an updated compendium of Q&As organised thematically. It covers: Fundamentals, Governance & Membership, Core Components of the GBP/SBP, Market and Technical Issues and Other Market and Official Sector Initiatives.
- Updated 2019 editions of *Green and Social Bonds: A High-Level Mapping to the Sustainable Development Goals* and *Working Towards a Harmonized Framework for Impact Reporting Social Bonds* were also published.

The establishment of an Advisory Council was announced. It is designed to increase the market awareness and outreach, to provide guidance to the Executive Committee and to engage with specific membership categories and observers. The Advisory Council participants will be selected among the observers and the members (not already represented on the Executive Committee). The selection will be made based on criteria being developed by the Executive Committee with a specific view to ensure the representation of the observer community and geographic diversity. The nominations will be for a one-year term renewable each year. It is expected that a call for candidacies for the Advisory Council will take place during the summer of 2019.

The Executive Committee Election Results

The AGM of the GBP & SBP preceded the conference and recorded 232 attendees with strong participation of the Observer community (53 out of the total). The results of the 2019 Executive Committee election were announced with several organisations seeing their mandates renewed and four new ones joining. These are PIMCO as an investor, the African Development Bank and IBERDROLA as issuers, and ING as an underwriter.

2019 GBP & SBP Executive Committee

Investors	*Issuers*	*Underwriters*
ACTIAM	*AFRICAN DEVELOPMENT BANK**	*BofA MERRILL LYNCH*
AMUNDI AM	*EBRD*	BNP PARIBAS
AXA IM	EUROPEAN INVESTMENT BANK	CREDIT AGRICOLE CIB
BLACKROCK	*IBREDROLA**	HSBC
KFW	IFC	*ING**
MIROVA	*KOMMUNALBANKEN*	*JP MORGAN*
*PIMCO**	NORDIC INVESTMENT BANK	*NATIXIS*
ZURICH INSURANCE GROUP	WORLD BANK	SKANDINAVISKA ENSKILDA BANKEN AB

*2019 elected members in italics *New 2019 member*

Keynote speech of Dr. Günther Bräunig, CEO of KfW

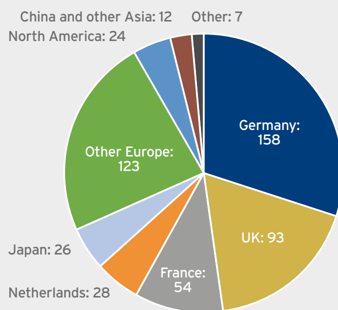
The Frankfurt Conference

The Conference featured senior speakers representing the official sector and market institutions, including Dr Günther Bräunig, CEO of KfW; Dr Sabine Mauderer, Executive Board member of the Deutsche Bundesbank; Dr Philipp Nimmermann, the State Secretary, Ministry of Economics, Energy, Transport and Housing, State of Hessen; and Clare Dawson, Chief Executive of the Loan Market Association. There were 40 further speakers and panelists representing major market participants and stakeholders globally, all contributing to the high quality of panel discussions.

The Conference, with over 500 attendees, was the anchor for what proved to be a remarkable week of green and social finance events and meetings in Frankfurt – giving a further boost to the sustainable finance initiatives in Germany. These attendees were industry professionals from around the world (including investors, issuers, intermediaries, external reviewers), the official sector (including policy makers and market supervisors), and a wide array of infrastructure and service providers including stock exchanges, index and data providers and law firms. During the networking breaks, the ICMA app proved to be very useful for building connections, with 40% of the attendees using it actively and close to 100 attendees making new connections via the app.

The Conference itself has been described as a potential landmark event for sustainable finance in Frankfurt and more widely in the German financial market.

GBP SBP 2019 Conference: Attendance per Country



In addition to the summary presentation of the latest innovations and updates from the GBP SBP, prominent themes of the Conference included regulatory innovation as a game changer for sustainable finance, green finance developments in Germany, new paradigms in impact reporting, developments in growth markets, mainstreaming of green and social bonds in the corporate world, and the market implications of new sustainability taxonomies and classifications.

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World's first benchmark corporate green sukuk

By Andy Cairns

Green and social Islamic issuance

Green and social Islamic issuance has continued to develop globally as an important segment of sustainable finance. The Green and Social Bond Principles have been influential to develop the green and social sukuk market both by regulators (eg in southeast Asia, through the ASEAN Green Bond Standards, and in the UAE and Abu Dhabi, for example through the ADGM Sustainable Finance Agenda), and by the market including the Indonesia sovereign and six green and social sukuks issued to date under the SRI Sukuk Framework in Malaysia.

This article highlights a significant recent corporate green sukuk issuance from the Middle East region designed to be the first benchmark corporate green sukuk.

On 7 May 2019, Majid Al Futtaim, a diversified lifestyle conglomerate spanning 15 countries across the Middle East, Africa and Asia, successfully priced a USD 600 million RegS Green Sukuk offering, via an intra-day execution. The transaction marked the first ever Green corporate capital markets offering from the Middle East and North Africa (MENA) as well as the first ever benchmark corporate Green Sukuk.

Majid Al Futtaim, rated BBB (stable) by both S&P and Fitch, is one of the most established MENA corporate issuers in the international capital markets, in both conventional and Islamic format. In 2009, the company's Properties business implemented a sustainability strategy which was updated and applied to all its operating companies in 2017. The process included identification and mapping of social, environmental and governance issues in accordance with standards and market requirements of the United Nations' Sustainable Development Goals (UN SDGs) as well as research of risks present in the company's key markets.

More recently, Majid Al Futtaim decided to leverage its existing funding infrastructure to access the Green capital markets. It established its Green Finance framework, which limits the use of proceeds from such issuances to projects including green buildings, renewable energy, sustainable water management and energy efficiency, in line with the ICMA Green Bond Principles 2018. The process to evaluate and select specific projects is rigorous and is cleared by the "Green Finance Steering Committee", chaired by John Arentz, Head of Treasury at Majid Al Futtaim and includes members from the company's Sustainability Committee. The Green Finance Steering Committee's responsibility is to oversee the selection of new and existing projects for the green portfolio.

Majid Al Futtaim also received a "low risk" environmental, social and governance (ESG) rating by Sustainalytics, an independent ESG auditor, certifying the company is at "low risk" of experiencing financial impact from ESG factors, due to its low exposure and effective management of ESG issues.

On the structuring front, the decision to issue in sukuk format was driven primarily by the intention to satisfy the demand from the Islamic investor community that arose due to the scarcity of recent corporate issuance (Majid Al Futtaim's last Islamic issuance was in 2015). In addition, the Islamic investor community has shown an increased interest in having access to the Green asset class.

For this transaction, Majid Al Futtaim completed an extensive roadshow, meeting fixed income investors in Hong Kong, Singapore, London and Paris. The roadshow was designed to target both traditional sukuk buyers as well as dedicated investors in Green instruments.

Strong investor demand, in addition to limited corporate supply from the region, led to Majid Al Futtaim pricing a new 10-year Green Sukuk transaction at fair value (zero new issue premium), which also resulted in broad international diversification (by geography: MENA 32%, Asia 27%, UK 20%, Europe excluding UK 13%, US offshore 8%; by investor type: Asset Managers 67%, Banks and Private Banks 23%, Insurance/Pension Funds 6%, Others 4%).

This transaction also represents the largest Green capital markets offering from MENA.

Andy Cairns *is Senior Managing Director, Head of Global Corporate Finance, FAB*

Asset Management

by David Hiscock and Bogdan Pop

Incorporating sustainability factors in UCITS and AIFMD

On 19 December 2018, ESMA issued two consultation papers, one on integrating sustainability risks and factors in the UCITS and AIFM Directives and a separate one on MIFID II/R. The deadline for the consultations was 19 February 2019. These were issued as a result of a formal mandate given by the European Commission to ESMA and EIOPA to provide technical advice to supplement its initial package of proposals on the integration of sustainability risks and sustainability factors.

On 19 February 2019, AMIC responded to the consultation on integrating sustainability risks and factors in the UCITS and AIFM Directives. In its response, AMIC stated that it agreed overall with ESMA's approach. The response emphasised that the high-level, principles-based approach is the right framework for UCITS firms and AIFMs to integrate sustainability risks in their investment processes. However, AMIC suggested some clarifications for the technical advice, including (i) limiting the coverage to "risks" and not "factors, (ii) strengthening the materiality of sustainability risks and (iii) preferring "sustainability" to "ESG" risks for consistency purposes.

On 3 May, ESMA published two final reports which contain technical advice to the European Commission on the integration of sustainability risks and factors, relating to environmental, social and good governance considerations with regards to investment firms and investment funds, into MiFID II/R (investment services), AIFMD and the UCITS Directive (investment funds). According to ESMA, the reports were informed by the public consultation and hearing on its technical proposals; its cost-benefit-analysis; and the opinion of the Securities Markets Stakeholder Group.

Comparing the two ESMA final reports, industry participants have raised concerns that some drafting differences may lead to the lack of a level playing field between UCITS/AIF managers and MiFID firms. This is mainly due to some optionality of requirements for MiFID firms, which is not mirrored for UCITS/AIF managers, while some activities can be carried out by any of the two types of players (ie discretionary portfolio management).

In addition, in the granular provisions proposed by ESMA regarding UCITS and AIF managers, it was highlighted that some might generate practical hurdles and/or responsibilities for which firms lack external data and market tools to ensure full compliance with the obligations.

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EU funds' developments under CMU

On 14 June 2019, the European Council adopted two key reforms in the framework of the CMU, namely a Regulation providing greater choice for people who wish to save for their retirement and expanding the market for personal pensions through the creation of a pan-European pension product (PEPPs); and a package of measures aimed at removing existing barriers to the cross-border distribution of investment funds. Shortly after the signature of the adopted legislation, on 20 June, the new measures for PEPPs and cross-border distribution of funds will be published in the EU's *Official Journal* and will enter into force 20 days later.

PEPPs

Launched by the European Commission on 29 June 2017, the legislative proposal for the PEPPs Regulation was previously approved by the European Parliament on 4 April 2019. The PEPP is a voluntary personal pension scheme which could be offered by a broad range of financial providers such as insurance companies, asset managers, banks, certain investment firms and certain occupational pension funds. The PEPP Regulation establishes the legal foundation for a pan-European personal pension market, by

ensuring standardisation of the core product features, such as transparency requirements; investment rules; switching right; and type of investment options. It is intended to ensure sufficient consumer protection while at the same time being flexible enough to enable different providers to tailor products to suit their business model.

Over the coming year, the Commission will work together with EIOPA on a number of delegated and implementing acts for the effective implementation of the PEPP Regulation, which will enter into application 12 months after the publication in the *Official Journal* of the delegated acts envisaged by the Regulation. It is hoped that the first PEPPs will come to the market soon after this date of entry into application. This process is expected to take place within approximately two and a half years, taking into account the time necessary for the preparation and adoption of the technical acts and for providers to adapt to the new framework.

Cross-border funds' distribution

On 12 March 2018, the Commission adopted its proposals to change and align a number of the rules governing cross-border distribution of AIF and UCITS funds. The European Parliament voted, on 16 April 2019, to adopt this initiative to improve the efficiency of cross-border distribution of collective investment schemes. Recognising that the majority of the total assets under management held by investment funds stem from their respective domestic markets, this initiative aims to eliminate current regulatory barriers to the cross-border distribution of investment funds in order to enable a better functioning Single Market and economies of scale. The package, which consists of a Regulation and a Directive, is designed to improve transparency, remove overly complex and burdensome requirements and harmonise diverging national rules. More concretely:

- The Regulation aims to improve transparency by aligning national marketing requirements and regulatory fees, while introducing more consistency in the way these regulatory fees are determined. It also harmonises the process and requirements for the verification of marketing material by NCAs and enabling ESMA to better monitor investment funds.
- The Directive harmonises the conditions under which investment funds may exit a national market, creating the possibility for asset managers to stop marketing an investment fund in defined cases in one or several host Member States. It also allows European asset managers to test the appetite of potential professional investors for new investment strategies through pre-marketing activities.

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Research unbundling: study by Risk Control

It has been more than one year since MiFID II/R entered into force, requiring asset managers with EU interests to unbundle research payments from the trading commissions they pay to brokerages.

So far, what we have learned from the new transparent pricing model is that the availability of research significantly outweighs the buy side's need for it, which can be seen from the reports of the majority of the asset managers cutting their research budget significantly. This is in line with findings of the AMIC Survey on FICC research unbundling 2018, issued in November last year.

This decline in demand for investment research led to consolidation in the industry, meaning the services of smaller players, such as independent research providers, were put under significant pressure. Ultimately, the effect of this is that fewer companies are being covered because it would be uneconomical to cover everyone, with research on small and medium business being most affected. Concerns around this were flagged by the industry early on, and now that the effect of the rules is becoming clear, the European Commission has started to act.

In December 2018, the European Commission tasked Risk Control to complete a major analysis of the impact of MiFID II/R rules on investment research. According to the tender, the study should carefully examine the effects of MiFID II research payment rules on SME research and fixed income investment research, and in particular their impact on the amount and quality of research. It is interesting to note that the Commission asked for this impact assessment relatively early, with a tender for this being published in June 2018. Normally an impact assessment would be done after a slightly longer period of time following the entry into force of new legislation.

The report is expected to be published in autumn 2019, but a final draft is expected by the end of summer. The report will be divided into four components.

- The first component will be a legal review which will cover the legal landscape and the consistency or conflict of these rules with laws of other jurisdictions, both within and outside the EU.
- The second will be a quantitative fact-based analysis of how research coverage of different companies has been changing over the last few years with an emphasis on the last 18 months since MiFID II came into force.
- The third component will be the findings of a series of surveys issued to the buy-side, sell-side and issuer communities. The closing date of the surveys is 15 July.

- Lastly, the fourth component of the report will be the results of a series of structured interviews with buy-side firms on evaluating and budgeting for research and with sell-side firms in respect of research pricing.

Considering the breath and scope of the study and the fact that AMIC, as well as other industry bodies, has been consulted on the content of the surveys, there will not be an AMIC FICC research unbundling survey conducted in autumn this year, as was the case in the past two years.

We strongly encourage all market participants with a view on the topic to complete the Risk Control survey.

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EU Securitisation Regulation: RTS

The EU Securitisation Regulation came into force on 1 January 2019. However, some technical details in the rules still need to be finalised by the regulatory authorities. This remains a source of nervousness among some market participants.

The outlook for issuance is generally positive. After a slow start to the year, held back by the implementation of the new regulations, the pipeline has picked up and while the year may finish slightly down in volume terms compared to 2018, expectations for medium term growth are positive.

On 26 March 2019, the European securitisation market saw the first announced European RMBS transaction, STORM 2019-I issued by Obvion, intended to meet the STS requirements. At the time of writing there were over 60 different STS compliant issuances with more in the pipeline.

In April, the first STS-compliant securitisation in the United Kingdom was issued by Silverstone and, in a further first, it referenced SONIA, the Bank of England's overnight near risk-free rate which is set to replace LIBOR.

ICMA's AMIC has been very active in supporting the development of a high-quality securitisation market. In order to assist investors, on 31 January 2019 the AMIC Securitisation Working Group published a short guide to due diligence requirements on investors in the new rules.

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EU Securitisation Regulation: implementation issues

Since first proposed in 2015, largely in response to the global financial crisis, the revised and expanded due diligence requirements of the Securitisation Regulation have generated much debate. But what are they, who is affected and what have been the issues for those in the market trying to implement them? These are some of the questions Clifford Chance have received over the past few years as institutional investors have contemplated if and how they are affected. In a June 2019 article (see pages 21-25), they outline some of the most common issues for asset managers and other institutional investors seeking to implement the new requirements.

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Buy-side oriented research

On 29 March 2019, EIOPA published a discussion paper, for comment by 30 April, on *Systemic Risk and Macroprudential Policy in Insurance*. This builds on a series of three previously published papers that laid down its policy stance. In developing its policy stance, EIOPA followed a systematic approach addressing the following questions in a sequential way:

- Does insurance create or amplify systemic risk?
- If yes, what are the tools already existing in the Solvency II framework, and how do they contribute to mitigate the sources of systemic risk?
- Are other tools needed, and, if yes, which ones could be promoted?

EIOPA aims at turning the work done into a specific policy proposal for additional macroprudential tools or measures, where relevant and possible as part of the Solvency II Review.

On 11 April, EIOPA published its updated *Risk Dashboard* based on the fourth quarter 2018 Solvency II data. The results show that the risk exposures of the European Union insurance sector remain overall stable, with macro risks continuing at medium level. Low swap rates and recent downward revisions to GDP growth and inflation forecasts remain a concern going forward. Credit and market risks remain at medium level amid slightly decreased bond spreads, stable portfolio exposures and broadly unchanged bond volatility. Profitability and solvency risks are stable. Median solvency capital requirement

ratios are well above 100% for groups, life and non-life solo undertakings. Insurance risks increased to medium level due to a further increase in the catastrophe loss ratio. Market perceptions remain stable at medium level with insurance stocks slightly outperforming the overall market, a reduction in insurance groups' CDS spreads and unchanged external ratings.

Published on 29 April, *Capital Flows: The Role of Bank and Nonbank Balance Sheets* is an IMF staff working paper. The authors assess the role of bank and non-bank financial institutions' balance sheet foreign exposures and risk management practices in driving capital flow responses to global risk. Using a unique and previously unexplored dataset on domestic and cross border balance sheet positions of financial institutions collected by the IMF, they show that the response of overall capital flows to global risk shocks is associated with the on-balance sheet foreign exposures of non-banks, but not with that of banks.

A possible interpretation is that risk-averse and dynamically optimizing non-banks reduce their foreign risk exposure when global risk perceptions increase, leading to capital flows, while banks tend to be hedged against these risks off balance sheet. In advanced countries, the findings suggest that nonbank portfolio adjustment to changing risk conditions may take place through derivatives transactions with banks, the hedging practices of which trigger bank related capital flows rather than portfolio flows.

In November 2018, the ECB published a special feature on *Counterparty and Liquidity Risks in Exchange-Traded Funds*. According to the ECB, the special feature presents new evidence for the European ETF market on some key risk transmission and amplification channels associated with liquidity and counterparty risk.

Following on from this, on 17 June, the ESRB's ASC published a report presenting the main channels, based on existing empirical evidence, through which ETFs have the potential to affect systemic risk. The ASC observes that while ETFs have greatly benefited the investment community by lowering the cost of delegated portfolio management and improving investors' access to diversification, they also can affect investors' behaviour, by allowing them to pursue new strategies to seek returns, manage risk and access new asset classes. These changes in investors' behaviour may in turn impact the functioning of financial markets.

While some of the channels through which ETFs can affect systemic risk are common to other investment vehicles, the ASC considers that their presence on primary and secondary markets, together with the rapid development of the ETF sector, warrants further analysis of ETFs. The report does not discuss specific policy measures, but does call for further empirical research in two key areas:

(i) ETF order flows in periods of stress and their impact on the volatility, co-movement and illiquidity of both ETFs and constituent securities; and

(ii) the extent to which financial institutions have significant and common exposure to ETFs and/or rely on them to manage liquidity.

Also published on 17 June, *Use of Credit Default Swaps by UCITS Funds: Evidence from EU Regulatory Data* is an ESRB staff working paper. Using a sample of more than 18,000 UCITS, this paper aims to provide a first overview of the use of CDS by EU UCITS funds. The authors show that UCITS funds only account for a small share of the overall EU CDS market, which is highly concentrated – with 13 large dealers acting as counterparty to the vast majority of CDS transactions that involve UCITS funds. The use of CDS by UCITS is mainly concentrated in fixed income funds and funds that rely on so-called alternative strategies; and UCITS that use CDS tend to be much larger on average.

The analysis also reveals three salient features in the UCITS funds' use of CDS:

(i) funds with directional strategies, such as fixed income and allocation funds (or mixed funds), are on aggregate net sellers of CDS;

(ii) a large majority of CDS underlyings are indices, from which funds can gain exposure to multiple entities at once within one sector or region; and

(iii) most sovereign single-name CDS are written on emerging market issuers, highlighting the role that these instruments can play in facilitating access to less liquid markets.

On 1 July, EIOPA published its June 2019 *Financial Stability*

ETFs have greatly benefited the investment community by lowering the cost of delegated portfolio management and improving investors' access to diversification.

Report (FSR) of the (re)insurance and occupational pensions sectors in the EEA. This FSR shows that while overall the insurance sector remains adequately capitalized, profitability is under increased pressure in the current low yield environment, with the risk of a prolonged low yield environment having become more prominent in recent months, as central banks have put the process of monetary policy normalisation on hold amid concerns over economic growth following growing trade tensions and political uncertainty. The reinsurance industry has proven resilient despite again suffering significant catastrophe losses in 2018, which ended up as the fourth costliest year in terms of insured catastrophe losses – in general, natural catastrophe losses are showing an upward trend, with the ten costliest years in terms of overall losses all occurring after 2004. In the European occupational pension fund sector, total assets and cover ratios remained broadly stable. However, the current macroeconomic environment and ongoing low interest rates continue to pose significant challenges to the European occupational pension fund sector, in particular for the defined benefit pension schemes. This FSR also includes a thematic article assessing the impact, using an empirical analysis based on the European equity market, of green bond policies on insurers.

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Covered Bond Conference

The 9th annual Conference of the ICMA Covered Bond Investor Council and the Covered Bond Report was held, on 27 June, in Frankfurt, with the generous support of Mayer Brown and vdp, the Association of German Pfandbrief Banks.

The Conference started with a German success story, on the back of which today's covered bond markets have evolved and continue to do so, with Fritz Engelhard making a presentation on *Demystifying 250 years of Pfandbrief History* – surely this makes the pfandbrief one of the world's most venerable and successful financial instruments!

Following on from this, there were then four very interesting panel sessions.

The first panel, ably chaired by the Covered Bond Report's Neil Day, took a hard look at the pros and cons of the new EU covered bond package, asking if it will raise standards in the asset class and identifying challenges in its implementation, notably the scope for varying implementation in different jurisdictions. And, not having been adopted as part of the current package, touching on the prospects for European Secured Notes.

Now that we have entered a post covered bond purchase programme (CBPP3) era, albeit with the ECB still holding a large chunk of the market and active through its proceeds' reinvestment process, the second panel brought together representatives from the buy and sell side to find out how investors are faring in this continuing low for long interest rate environment. Among other things, the panellists were invited to make some informed predictions about what the future holds for covered bonds.

The third panel gave an opportunity to share the experiences of a geographically disparate set of issuers and investors in the euro denominated covered bond market. Attendees learnt about the panellists' successes and what they might have done differently. Additionally, they learnt about some of the developments in the covered bond market, such as the pan-Baltic framework; social covered bonds; the first Romanian covered bond; and the use of ship loans in the cover pool.

The fourth and final panel picked up on an area which has definitely grown in importance for ICMA since it took over the management of the Green Bond Principles five years ago. As reported elsewhere in this Quarterly Report, well over 300 issuers, investors and intermediaries are now members of the GBP and a great number of them joined ICMA in Frankfurt, on 13 June, for the AGM of the GBP and that of the allied Social Bond Principles. Subsequent to that the Commission released three reports from its Technical Expert Group on sustainable finance, including reports on a green bond standard and on the EU taxonomy. In the context of the growing market for green, and social, covered bonds, this panel explored all this and more.

Following all these discussions, the Covered Bond Report's 2019 Awards for Excellence, which recognise those deals, institutions, and initiatives that have been best in class or contributed to the development of covered bonds over the past year (since June 2018), were handed out.

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International Regulatory Digest

by David Hiscock and Alexander Westphal

G20 financial regulatory reforms

On 9 April 2019, the FSB published a letter from its Chair, Randal K. Quarles, to G20 Finance Ministers and Central Bank Governors ahead of their, 11-12 April, meeting in Washington, which provides an update on the FSB's work and discusses current vulnerabilities in the financial system. The letter addresses four key issues, namely addressing new and emerging vulnerabilities in the financial system; finalising and operationalising post-crisis reforms; evaluating the effects of the reforms; and reinforcing outreach to stakeholders.

Also, on 9 April, the BCBS launched a new section of its website that sets out a consolidated version of its global standards for the regulation and supervision of banks. The consolidated framework aims to improve the accessibility of the BCBS's standards and to promote their consistent global interpretation and implementation. The publication of the standards in the new format has focused on reorganising existing requirements, not introducing new ones. The preparation of the framework did, however, reveal certain inconsistencies between Basel requirements as well as ambiguities that need to be addressed through minor policy changes. The framework has been published initially in draft form, together with a consultative document to gather feedback, by 9 August, on the website and various proposed technical amendments to the standards.

On 13 April, a communiqué was issued following the 39th meeting of the IMFC, which was held in Washington alongside the Spring Meetings of the Boards of Governors of the World Bank Group and the IMF. Statements given on the occasion of the IMFC meeting and related documents are available. Among other things, the IMFC communiqué states that "we will continue to mitigate risks, enhance resilience, and, if necessary, act promptly to shore up growth for the benefit of all; and will monitor and, as necessary, tackle financial vulnerabilities and emerging risks to financial stability, including with macroprudential tools."

"Also, advancing financial and structural reforms is critical to boosting potential growth and employment, enhancing resilience, and promoting inclusion. To this end:

(a) We stress the importance of timely, full, and consistent implementation and finalization of the financial sector reform agenda as soon as possible, and the ongoing evaluation of the effects of these reforms. We will also address fragmentation through continued regulatory and supervisory cooperation, adapt regulation to structural changes, and close data gaps; and

We will implement policies that foster innovation and fair market competition.

(b) We commit to strong governance, including by tackling corruption. We will implement policies that foster innovation and fair market competition. We will strive to address challenges from demographic shifts, ensure that gains from technological change and economic integration are widely shared, and effectively assist those bearing the cost of adjustment."

"Furthermore, we will continue to take joint action to strengthen international cooperation and frameworks, namely we will work together to reduce excessive global imbalances through macroeconomic and structural policies that support sustainable global growth; recognize the need to resolve trade tensions and support the necessary reform of the World Trade Organization to improve its functioning; will expedite work for a globally fair and modern international tax system and address harmful tax competition, artificial profit shifting and other tax challenges, such as those related to digitalization; and are working together to enhance debt transparency and sustainable financing practices by both debtors and creditors, public and private; and strengthen creditor coordination in debt restructuring situations, drawing on existing fora."

On 26 April, the FSB Plenary met, in New York, to discuss vulnerabilities in the global financial system and progress under its 2019 work programme, including deliverables for the June G20 meetings in Japan. Considering current vulnerabilities in the global financial system it was noted that market sentiment has improved since the start of the year and financial conditions have eased, after the sharp decline in the prices of various financial assets during Q4 2018. Uncertainties remain elevated, but some immediate concerns have receded, including following the extension to the deadline for Brexit.

Financial markets generally functioned well during the period of volatility at the end of 2018, yet the FSB recognises that a more severe and protracted stress event could test the resilience of the financial system. The FSB therefore remains vigilant about the loosening seen in lending standards, elevated asset values, and high private and public debt. There are questions as to the extent of financial institutions' exposures to riskier credit instruments, including leveraged loans, directly and through CLOs. The FSB is closely monitoring these markets and members will further examine information on the pattern of exposures to these assets in the coming months to deepen its analysis of potential vulnerabilities.

Other points discussed included the FSB surveillance framework; market fragmentation; review of the implementation of the TLAC standard; evaluating the effects of financial reforms; financial innovation; response to and recovery from a cyber incident; and Unique Product Identifier and LEI.

On 29 April, the FSB published a *Thematic Review on Bank Resolution Planning*, a peer review report which evaluates the implementation by FSB jurisdictions of the resolution planning standard as set out in the *Key Attributes* and in associated guidance. It focuses on resolution planning for all domestically incorporated banks that could be systemically significant or critical if they fail. The review finds that bank resolution planning frameworks have been adopted in most FSB jurisdictions, with planning most advanced for G-SIBs and in jurisdictions that are home to them. The range of banks subject to resolution planning varies widely and some of the requirements also tend to vary, particularly for banks other than G-SIBs or D-SIBs.

Notwithstanding the progress made to date, the review stresses that important work remains to ensure that bank resolution plans can be put fully into effect and sets out recommendations for FSB jurisdictions to take further steps to adopt and operationalise their resolution planning framework; for the FSB to undertake work to support member authorities' resolution planning for banks other than G-SIBs that could be systemic in failure; and for the FSB, working with relevant authorities and other bodies as appropriate, to promote the sharing of bank resolution planning experiences and practices in enhancing cooperation and information-sharing arrangements, particularly for non-G-SIBs and with non-crisis management group host jurisdictions for G-SIBs.

On 7 May, the BCBS issued the 16th 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 2019. This includes the Basel III post-crisis reforms published by the BCBS in December 2017 and the finalised market risk framework published in January 2019 – reforms which will take effect from 1 January 2022.

Since the previous report, published

in October 2018, member jurisdictions have made further progress in implementing standards for which the deadlines have already passed. These include, notably, the revised securitisation framework and the leverage ratio based on the existing (2014) exposure definition. However, the report also shows that progress has been limited in the implementation of other standards, which in a number of jurisdictions have yet to be finalised and put into effect. These include the NSFR, for which final rules are in force in only 11 member jurisdictions, although this standard took effect on 1 January 2018. The BCBS will continue to closely monitor the implementation of Basel standards including the finalised Basel III reforms.

Also on 7 May, the FSB Regional Consultative Group (RCG) for Europe, co-chaired by Luigi Federico Signorini, Deputy Governor, Bank of Italy and Marek Mora, Deputy Governor, Czech National Bank, met in Bucharest. The meeting started with an address from Mugur Isarescu, Governor of the National Bank of Romania. The RCG considered implications of the growing use of AI, machine learning and big data for the regulation and supervision of the financial system, recognising that these innovations are important drivers of change for the financial industry.

The RCG then discussed global and regional financial vulnerabilities and their potential impact on European economies; and exchanged views on possible policy responses, including assessments of potential vulnerabilities linked to high global indebtedness and more specifically to the markets for leveraged loans and CLOs. The RCG also received an update on the FSB's work programme and the deliverables to the June G20 meetings in Japan. Finally, members discussed ways to enhance the effectiveness of RCG groups, including consideration of ways in which non-FSB member jurisdictions can effectively contribute to its work and provide feedback on its direction.

Previously, the RCG for Sub-Saharan Africa met in Balaclava, Mauritius, on 2-3 May, and discussed FSB activities, regulatory developments and financial vulnerabilities; and the RCG for the Middle East and North Africa met in Istanbul, on 4 May, and discussed market fragmentation, reforms to interest rate benchmarks and financial stability surveillance frameworks. And, subsequently, on 17 May, the RCG for the Americas met in Buenos Aires and discussed regional vulnerabilities, market fragmentation, SME finance and correspondent banking; and the RCG for Asia met in Kuala Lumpur, on 14 June, and discussed the design and use of crisis simulation exercises, SME financing and climate-related financial risks.

IOSCO's 44th Annual Meeting took place in Sydney, from 13-15 May. It featured discussion of priority issues facing securities market regulators and supervisors today and included meetings of the IOSCO Board, IOSCO´s Growth and Emerging Markets (GEM) Committee, its four Regional Committees and the Affiliate Members Consultative Committee (AMCC – of which ICMA is a member). The event concluded with the annual general meeting of all IOSCO members in the Presidents' Committee.

Participants discussed different aspects of IOSCO´s priority work, including crypto-assets, FinTech, sustainability, data privacy, market fragmentation, asset management and retail distribution and digitalization. At its meeting, the IOSCO Board considered next steps for these important priority topics, which are consistent with the IOSCO workplan for 2019 that was developed following the IOSCO Board's decision to prioritize key issues in October 2018 and published on 25 March 2019.

On 23 May, the FSB announced that it was seeking feedback from stakeholders, by 21 June, as part of its evaluation of the effects of the too-big-to-fail (TBTF) reforms for banks, that were agreed by the G20 in the aftermath of the global financial crisis. This evaluation will assess whether the implemented reforms are reducing the systemic and moral hazard risks associated with SIBs and will also examine the broader effects of the reforms to address TBTF for SIBs on the overall functioning of the financial system.

In particular, the FSB invites feedback on the questions of to what extent are TBTF reforms achieving their objectives; which types of TBTF policies (eg higher loss absorbency, more intensive supervision, resolution and resolvability) have had an impact on SIBs and how; is there any evidence that the effects of these reforms differ by type of bank (eg G-SIB v. D-SIB); what have been the broader effects of these reforms on financial system resilience and structure, the functioning of financial markets, global financial integration, or the cost and availability of financing; and have there been any material unintended consequences from the implementation of these reforms to date?

On 3 June, the FSB published for public consultation two discussion papers, for comment by 2 August, that consider measures to improve the resolvability of G-SIBs. The first, *Public Disclosure of Resolution Planning and Resolvability*, explores how general and firm-specific disclosures on resolution planning and resolvability could be further enhanced, focusing mainly on disclosures of resolution planning for G-SIBs. However, many of the disclosure approaches discussed are also relevant for D-SIBs and other firms subject to a resolution planning requirement. The second, *Solvent Wind-down of Derivatives and Trading Portfolios*, sets out considerations related to the solvent wind-down of the derivative and trading book activities of a G-SIB that may be relevant for authorities and firms for

The report looks at some examples of financial activities where supervisory practices and regulatory policies may give rise to market fragmentation.

both recovery and resolution planning.

On 4 June, the FSB published a report on market fragmentation and identified several areas for further work to address it. The report, delivered to G20 Finance Ministers and Central Bank Governors, focuses on instances where reducing market fragmentation might have a positive impact on financial stability, or improve market efficiency without any detrimental effect on financial stability. The report looks at some examples of financial activities where supervisory practices and regulatory policies may give rise to market fragmentation. It discusses potential trade-offs that authorities have considered between the benefits of increased cross-border activity and a need to tailor domestic regulatory frameworks to local conditions and mandates.

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

Alongside of this, also on 4 June, IOSCO published a report that examines instances of regulatory-driven fragmentation in wholesale securities and derivatives markets and considers what actions regulators can take to minimize its adverse effects. This report focuses on market fragmentation that arises as an unintended consequence of financial regulation. It provides examples of market fragmentation that IOSCO members consider to be significant and potentially harmful to the oversight and supervision of financial markets. This report also examines the progress made by IOSCO members in using deference, and the regulatory mechanisms and tools associated with this concept (eg passporting, substituted compliance, recognition/equivalence). In doing so, the report follows up on a 2015 IOSCO report on cross-border regulation and seeks to identify remaining challenges that can restrict cross-border activities.

The BCBS met in Basel, on 19-20 June, to discuss a range of policy and supervisory issues, and to take stock of its members' implementation of post-crisis reforms. At this meeting, the BCBS:

- Agreed on a targeted and limited revision of the leverage ratio to allow margin received from a client to offset the exposure amounts of client-cleared derivatives – the BCBS will monitor the effect of this revision on the leverage ratio framework.
- Agreed on a set of disclosure requirements to curb leverage ratio window dressing, with the standard being revised to require banks to disclose their leverage ratios based on the quarter-end and average values of SFTs – the BCBS will continue to monitor window-dressing behaviour across financial markets.
- Approved a report, an *Overview of Pillar 2 Supervisory Review Practices and Approaches*.
- Discussed its work programme for evaluating the impact of its post-crisis reforms – the BCBS will publish additional information of this work in due course.
- Discussed matters related to financial technology and crypto-assets, including an upcoming report on the regulatory and supervisory implications of open banking and APIs; further work on financial technology, including on the risk management challenges associated with the use of AI and machine learning in financial services; and recent developments related to crypto-assets – the BCBS continues to assess how best to address the risks of these.
- Took note of the first comprehensive report by the NGFS and discussed the implications of the report's recommendations for the BCBS's future work.

As part of its work programme for evaluating the impact of its post-

crisis reforms, on 24 June, the BCBS published a working paper reviewing the literature on the costs and benefits of bank capital. The paper finds that the net macroeconomic benefits of capital requirements are positive over a wide range of capital levels. Under certain assumptions, the literature finds that the net benefits of higher capital requirements may have been understated in the BCBS's original assessment, published in 2010. Put differently, the range of estimates for the theoretically-optimal level of capital requirements – where marginal benefits equal marginal costs – is likely either similar or higher than was originally estimated by the BCBS. The literature review highlights the important assumptions and caveats that need to be considered when assessing studies of optimal bank capital ratios.

On 25 June, the FSB published a letter from its Chair, Randal K. Quarles, to G20 Leaders, ahead of their Summit in Osaka, on 28-29 June, together with a progress report on implementation of the G20 financial regulatory reforms. The letter provided a number of key themes, namely addressing new and emerging vulnerabilities; harnessing the benefits of financial innovation while containing risks; completing implementation of the agreed reforms and ensuring that the reforms work as intended; promoting an integrated global financial system; and strengthening the FSB's outreach and accountability.

The Japanese G20 Summit meeting was held in Osaka, on 28-29 June, following which a *Leaders' Declaration* was published. Particularly considering the ongoing process of financial regulatory reform, paragraph 19 of this says: "An open and resilient financial system, grounded in agreed international standards, is crucial to support sustainable growth. We remain committed to the full, timely and consistent implementation of the agreed financial reforms. We ask the FSB to continue to evaluate their effects. We will continue to monitor and, as necessary, address vulnerabilities and emerging risks to financial stability, including with macroprudential tools. While non-bank financing provides welcome diversity to the financial system, we will continue to identify, monitor and address related financial stability risks as appropriate. We welcome the work on market fragmentation, and will address its unintended, negative effects, including through regulatory and supervisory cooperation. We continue to monitor and address the causes and consequences of the withdrawal of correspondent banking relationships. Mobilizing sustainable finance and strengthening financial inclusion are important for global growth. We welcome private sector participation and transparency in these areas."

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European financial regulatory reforms

On 9 April 2019, the European Council adopted a decision establishing a high-level group of wise persons on the European financial architecture for development. By October, the group, which is being chaired by Thomas Wieser and is composed of eight independent members, is due to submit a report setting out the challenges and opportunities for rationalising the way development policies are financed at EU level and recommending possible options for reforming the existing set-up. The group is charged in particular with looking at all the existing instruments for development managed by the Commission, the EIB and the EBRD; and determining how to maximise the added value of the European financial architecture for development, taking into account existing national and international bodies involved.

Also on 9 April, the Joint Committee of the ESAs published its 2018 *Annual Report*, providing a detailed account of all the joint work achieved in the past year. Consumer protection and financial innovation matters were once again a key priority for the Joint Committee over the last year, where in particular the ESAs continued their joint efforts in assessing the potential benefits and risks for consumers and financial institutions related to the developments in financial technology. The Report also highlights the ESAs' continued efforts in overseeing market developments and cross-sectoral risks, including those posed by Brexit. In the area of AML and CFT the ESAs enhanced their focus on ensuring consistent application of AML/CFT rules across the EU and improving standards of AML/CFT supervision.

On 16 April, the European Commission published a fact sheet regarding the adoption of the banking package, which comprises revised rules on capital requirements (CRR II/CRD V) and resolution (BRRD II/SRMR II). Following the European Parliament's endorsement of the provisional agreement reached with Member States during the political trilogues at the beginning of December, the legislative texts were formally adopted by the Council of Ministers and subsequently published in the EU's *Official Journal*, on 7 June. The agreement includes many measures, among which are:

(i) a leverage ratio requirement for all institutions as well as a leverage ratio buffer for all GSIIs;

(ii) an NSFR;

(iii) a new market risk framework for reporting purposes;

(iv) a requirement for third-country institutions having significant activities in the EU to have an EU intermediate parent undertaking;

(v) revised rules on capital requirements for counterparty credit risk and for exposures to

CCPs;

(vi) a new discount on capital requirements for investments in infrastructure and a more generous discount on capital requirements for exposures to SMEs;

(vii) targeted amendments related to the incorporation of ESG aspects into prudential rules;

(viii) a new TLAC requirement for GSIIs;

(ix) enhanced MREL subordination rules for G-SIIs and other large banks referred to as top-tier banks; and

(x) a new moratorium power for the resolution authority.

On 18 April, the European Commission welcomed the European Parliament's final votes on legislation putting in place building blocks of CMU. The CMU project has been at the heart of this Commission's ambition to boost growth in Europe, invest in innovation and promote the EU's global competitiveness. With now 11 out of 13 proposals agreed, the Commission hopes that CMU will become a true driver of investment in the Single Market, providing additional sources of financing to EU companies and opportunities for citizens to save for their future; and notes that CMU is intended to channel investment to environmentally-friendly projects, thereby contributing to the EU's sustainable and carbon-neutral agenda.

A strong CMU is also considered necessary to complement Banking Union, in order to strengthen EMU and the international role of the euro. Overall, all the adopted proposals are expected to contribute to expanding the CMU's objectives of innovative financing and creating more investment opportunities from the local to the EU level, with each of them covering a specific scope of action.

On 26 April, EIOPA published its *2018 Supervisory Activities Report* in accordance with the Solvency II Directive, which outlines the supervisory activities conducted in 2018 and sets out the priorities for 2019. In 2018, EIOPA addressed supervisory convergence from different perspectives and using different tools depending on the issue and risks at stake. In 2019, the priorities for 2018 remain but with new activities identified for each priority area. New supervisory activities include work on conduct of business supervisory practices, analysis of the consistency of technical provisions best estimate calculation, analysis of the supervision of run-off undertakings as well as the promotion of supervisory convergence in the European pensions sector regarding the implementation of IORP II.

On 30 April, ahead of the *Future of Europe* meeting of EU27 leaders in Sibiu, Romania, on 9 May, the European Commission set out a number of policy recommendations for how Europe can shape its future in an increasingly multipolar and uncertain world. Reporting on progress, as the Juncker Commission nears its end, the European Commission listed 20 key achievements, including EFSI, the Paris Climate Agreement and GDPR; and ten key proposals which remain unfinished business, as they are still pending in Parliament and Council, including EDIS and the backstop to the SRF. Considering the EU's next strategic agenda, the Commission's view is that future action should focus on five dimensions – a Europe that is protective; competitive; fair; sustainable; and influential.

Also on 30 April, the European Commission adopted a report that reviews the application of the BRRD and the SRMR, taking stock of the implementation of the resolution legislation and its application to concrete banking cases. Given that the legislation has been applied only in a very limited number of cases – a number of which concern "legacy issues", which accumulated before and during the financial crisis – the report concludes that more time is needed to fully assess the implications of the legislation. In addition, some essential legislative elements were only recently amended as part of the Banking Package, agreed on 16 April, (eg the provisions on MREL) and these still need to be fully applied. On this basis, the Commission concludes that at this stage it is premature to propose any amendments to the BRRD and the SRMR. The Commission will continue its analysis in the coming months.

Additionally, on 30 April, the EBA published its *2018 Report on Supervisory Colleges*, which summarises its findings on the monitoring of supervisory colleges for the main cross-border European banking groups. Considering the progress observed in the functioning of colleges over the years, the report mainly focuses on the quality of the colleges' deliverables and highlights examples of good practice. Overall,

CMU is intended to channel investment to environmentally-friendly projects.

the EBA has identified significant improvement in the colleges' deliverables although further efforts are needed, in particular to ensure that the group risk/liquidity risk assessment reports form a real joint assessment of the group-wide risks. The Report also sets out the colleges' action plan for 2019.

On 16 May, the European Commission hosted, with the ECB, its annual joint conference on European financial integration and stability, with a special focus this year on the international role of the euro – on which topic a video address was given by Commission Vice-President, Valdis Dombrovskis. Finance Ministers and representatives from the financial sector, EU institutions and academia debated how to strengthen the use of the euro in capital markets and in the European banking sector.

At the conference, the Commission also launched its annual European Financial Stability and Integration Review. As well as taking stock of developments in the EU banking and financial sector, this year's report provides an in-depth review of two current challenges: the macroprudential toolbox for the EU banking sector, and the growth of AI. The report also details policy implications of AI in the financial sector, for instance in terms of efficiency gains, workforce, data protection and regulation, and cybercrime. During the day, ECB Vice-President, Luis de Guindos, gave a keynote speech on *Deepening EMU and its Implications for the Future International Role of the Euro*.

On 12 June, ahead of the Euro Summit on 21 June, the European Commission reported on the progress made to deepen EMU since the Five Presidents' Report, of June 2015, and called on Member States to take further concrete steps. The Commission finds that in the four years since the publication of the report, marked progress has been made to strengthen the single currency area and make EMU more robust than ever. Many of the gaps revealed by the post-2007 economic, financial and social crisis have been addressed.

Yet, important steps still need to be taken. The single currency and the coordination of economic policymaking are means to an end: more jobs, growth, investment, social fairness and macroeconomic stability for the members of the euro area as well as the EU as a whole. Among other things, the Commission invites EU leaders to finalise changes to the Treaty establishing the ESM; make a renewed effort to complete the Banking Union; and accelerate progress on CMU. The Commission also reviews the main progress of recent years beyond the deliverables expected at the Euro Summit of June 2019 and maps out the way forward for the coming years.

Also on 12 June, the Commission published its fifth Brexit Preparedness Communication regarding the EU's Brexit preparedness and contingency measures, particularly in light of the decision, taken on 11 April, by the European Council, at the request of and in agreement with the UK, to extend the Article 50 period to 31 October. The Commission highlights that, in light of the continued uncertainty in the UK regarding the ratification of the Withdrawal Agreement, as agreed with the UK Government in November 2018, and the overall domestic political situation, a no-deal scenario on 1 November very much remains a possible, although undesirable, outcome.

The Communication focuses on areas in which continued and particular vigilance is needed in the coming months. Concerning financial services, the Commission observes that while in the run-up to 12 April firms had made significant progress with their contingency planning, some residual issues remain. Insurance firms, payment services providers and other financial service operators which remain unprepared regarding certain aspects of their business (for example contract management and access to infrastructures) are strongly encouraged to finalise their preparatory measures by 31 October. The Commission is working with EU level and national supervisors to ensure that firms' contingency plans are fully implemented, and it expects that UK supervisors will not prevent firms from implementing such plans.

The *18th Annual Review of the International Role of the Euro* published, on 13 June, by the ECB, presents an overview of developments in the use of the euro by non-euro area residents. This report covers developments in 2018 and early 2019. The European Commission has launched an initiative to strengthen the international role of the euro and issued a Communication to this effect on 5 December 2018. Like the Commission, the Eurosystem stresses that the international role of the euro is primarily supported by a deeper and more complete EMU, including advancing the CMU, in the context of the pursuit of sound economic policies in the euro area. The Eurosystem supports these policies and emphasises the need for further efforts to complete EMU.

On 18 June, new rules under Solvency II, the EU's Directive regulating the activities of insurance companies, were published in the EU's *Official Journal*. These are intended to make it easier for insurers to provide financing to companies, including SMEs. For certain specified financings, insurers will now be able to benefit from lower capital requirements, which should help mobilise private sector investment – a key objective of CMU. The delegated regulation also introduces simplifications for the calculation of capital requirements by insurance companies, as well as alignments between rules for the banking and the insurance sector. A more fundamental review of Solvency

II is due by the end of 2020.

The European Council met on 20-21 June. The EU's strategic agenda for 2019-2024 was adopted by the EU leaders, who also focused on climate, disinformation, the long-term EU budget, and external relations; and discussed Brexit and the euro area. EU leaders emphasised the importance of stepping up global climate action to achieve the Paris agreement objectives and invited the Council and the Commission to advance work on processes and tools to be put in place to ensure a transition to a climate-neutral EU.

On 21 June 2019, the Euro Summit in an extended format of EU27 leaders looked at the economic situation together with the ECB President. EU leaders also discussed work done by the Eurogroup regarding deepening of EMU, in particular a budgetary instrument for convergence and competitiveness for the euro area; changes to the treaty establishing the ESM; and strengthening Banking Union. The Euro Summit welcomed the progress made by the Eurogroup and invited it to continue working on all the elements of the package.

ESMA aims to identify areas in which existing rules may contribute to mitigating undue short-termism and areas where the rules may exacerbate short-term pressures.

Considering the impact of short-termism forms part of ESMA's work on sustainable finance and relates to the Commission's action plan on financing sustainable growth. On 24 June, ESMA published a questionnaire which aims to gather evidence on short-termism in financial markets. Responses, to be contributed by 29 July, will help to inform ESMA's analysis of potential sources of undue short-termism on corporations, with an aim to identifying areas in which existing rules may contribute to mitigating undue short-termism and areas where the rules may exacerbate short-term pressures. By December, ESMA will deliver a report to the Commission based on its findings, in line with the Commission's request to each of ESAs. The report will present evidence and possibly advice on potential undue short-termism and the Commission will consider ways to follow up on the report's findings, which may include policy actions.

On 27 June, the EBA published its roadmap on the new market and counterparty credit risk approaches and launched consultations, for comment by 4 October, on eleven draft RTS on the new internal model approach under the FRTB standards along with a data collection exercise on non-modellable risk factors. The roadmap provides a comprehensive overview of EBA deliverables in the area of market and counterparty credit risk and outlines EBA intentions and roadmap with the view of ensuring a smooth implementation of the new approaches in the EU.

Following on from the Romanian Presidency, through the first half of 2019, the second half of 2019 falls under a Finnish Presidency of the Council of the EU. On 26 June, Finland published its Presidency programme, *Sustainable Europe – Sustainable Future*. The priorities for Finland's Presidency are to strengthen common values and the rule of law, to make the EU more competitive and socially inclusive, to strengthen the EU's position as a global leader in climate action and to protect the security of citizens comprehensively. Among other things, this Presidency programme says: "The EU needs a comprehensive long-term strategy for sustainable growth and competitiveness that specifically includes measures to improve the functioning of the Single Market and promote an ambitious, rules-based trade policy. The long-term objective should be to make the EU the world's most competitive and socially inclusive low-carbon economy."

More specifically, in section 3.4 of the programme, *Towards an Inclusive Economic Union*, it says that: "A well-functioning financial Single Market requires more resilient capital markets, a fully-fledged Banking Union and a robust crisis management framework." Also, "Only a healthy banking sector can finance the investments needed in technological development and in actions to combat climate change. Determined efforts to reduce risks are therefore needed. Completing the Banking Union demands an ambitious approach. Discussions will continue on the basis of the agreed roadmap, including the issue of regulatory treatment of sovereign exposures. The Finnish Presidency will take forward the technical discussions on common deposit insurance." Furthermore, "Sustainable finance and diversification of risks in capital markets are other key focus areas in strengthening the Economic and Monetary Union. In this respect, a solution needs to be found to break

the vicious circle between banks and sovereigns. Green finance is also needed to complement sustainable climate policy measures."

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Macroprudential risk

On 2 April 2019, the Joint Committee of the ESAs published their latest report on *Risks and Vulnerabilities in the EU Financial System*, showing that the EU's banking, insurance, pensions and securities sectors continue to face a range of risks. This 2019 spring ESAs' report highlights the following risks as potential sources of instability: (i) uncertainties around the terms of the UK's withdrawal from the EU; and (ii) further repricing of risk premia and asset price volatility, which could be aggravated in conjunction with a less favourable macro-economic environment and the materialisation of a no-deal Brexit scenario. In light of the ongoing uncertainties, especially those around Brexit, supervisory vigilance and cooperation across all sectors remain key. Therefore, the ESAs call for the policy actions by European and national competent authorities as well as financial institutions, with regard to contingency plans and stress tests; and in relation to the bank and insurance sectors.

Also on 2 April, EIOPA launched its biennial stress test of the European occupational pension sector. This exercise is expected to allow important and relevant insights into the resilience and potential vulnerabilities of the European occupational pension sector; and for the first time, a European stress test includes an assessment of ESG exposures. The core assessment refers to the direct impact of a stressed market scenario on the sustainability and funding of defined benefit pension funds and on the projected future retirement income of members of defined contribution pension funds. The results and conclusions of the stress test are expected to be published by the end of 2019.

In May 2017, the BCBS's Research Task Force (RTF) initiated a workstream on sectoral countercyclical capital buffers (CCyBs). It was tasked to produce two deliverables that would contribute to the understanding of the sectoral application of the CCyB: (i) a review of the existing literature; and (ii) a report summarising original research conducted within the work stream. The literature review was published in March 2018 and showed that there is a justified need for sectoral macroprudential tools. Moreover, it argued that a sectoral CCyB may be a useful complement to both the Basel III CCyB and existing targeted instruments in the macroprudential toolkit.

Now published, on 3 April, *Towards a Sectoral Application of the Countercyclical Capital Buffer* is a BCBS working paper which summarises the RTF-CCyB work stream's findings regarding the open issues identified by the literature review. Two theoretical papers analyse the transmission mechanism of a sectoral CCyB and compare its effectiveness and efficiency to that of the Basel III CCyB. The empirical work conducted by the work stream consists of three papers: two of them focus on the link between sectoral credit cycles and systemic risk, while the other analyses the transmission mechanism of the Swiss sectoral CCyB on banks' lending and risk taking.

Published by the ESRB, on 8 April, *Features of a Macroprudential Stance: Initial Considerations* is a first step towards a common macroprudential stance framework. It reflects the initial results of the discussions by an expert group specifically set up by the ESRB's Instruments Working Group. While the experience with macroprudential policies is still at an early stage, reflections in various ESRB fora over recent years have repeatedly highlighted the need to develop a conceptual framework to guide the discussion on macroprudential policies.

In addition to promoting a common understanding, such a framework would facilitate communication on policy actions with market participants and help mitigate any potential inaction bias when financial stability risks build up. By establishing the link between macroprudential policies and the objective of financial stability, a well-established framework for the macroprudential stance would help policy makers assess the effectiveness of their potential policy actions. The framework for assessing the macroprudential stance set out in this report is one potential approach and will serve to stimulate further discussion, with the concepts within the report standing to be refined further.

Launched at a 10 April press conference, the IMF's April 2019 *Global Financial Stability Report* (GFSR) finds that, despite significant variability over the past two quarters, financial conditions remain accommodative. As a result, financial vulnerabilities have continued to build in the sovereign, corporate, and non-bank financial sectors in several systemically important countries, leading to elevated medium-term risks.

The report attempts to provide a comprehensive assessment of these vulnerabilities while focusing specifically on corporate sector debt in advanced economies, the sovereign-financial sector nexus in the euro area, China's financial imbalances, volatile portfolio flows to emerging markets, and downside risks to the housing market. These vulnerabilities require action by policy makers, including through the clear communication of any changes in their monetary policy outlook, the deployment and expansion of macroprudential tools, the stepping up of measures to repair

A well-established framework for the macroprudential stance would help policy makers assess the effectiveness of their potential policy actions.

public and private sector balance sheets, and the strengthening of emerging market resilience to foreign portfolio outflows.

Published on 12 April, *The Benefits and Costs of Adjusting Bank Capitalisation: Evidence from Euro Area Countries* is an ECB staff working paper. The authors propose a framework for assessing the impact of system-wide and bank-level capital buffers, which rests on a factor-augmented vector autoregression (FAVAR) model that relates individual bank adjustments to macroeconomic dynamics. They estimate FAVAR models individually for 11 euro area economies and identify structural shocks, which allow them to diagnose key vulnerabilities of national banking systems and estimate short-run economic costs of increasing banks' capitalisation. On this basis, they run a fully-fledged cost-benefit assessment of an increase in capital buffers.

The authors find that the benefits are related to an increase in bank resilience to adverse shocks – higher capitalisation allows banks to withstand negative shocks and moderates the reduction of credit to the real economy that ensues in adverse circumstances. The costs relate to transitory credit and output losses that are assessed both on an aggregate and bank level. An increase in capital ratios is shown to have a sharply different impact on credit and economic activity depending on the way banks adjust, ie via changes in assets or equity.

Published on 18 April, *Have FSRs Got News for You? Evidence from the Impact of Financial Stability Reports on Market Activity* is a Bank of England staff working paper. The authors investigate the impact that the publication of the Bank's Financial Stability Report (FSR) has on the stock returns and CDS spreads of UK financial institutions. Examining a sample of 73 UK-listed banks and other financial institutions, they find that publication of the FSR is, on average, associated with no abnormal returns. They extend their analysis to examine the extent to which policies and the sentiment in the FSR are predictable, which would explain the observed lack of abnormal returns. They find that both sentiment and announced policies are predictable. The authors also examine the extent to which the release of the FSR reduces information asymmetry in financial markets, but do not find strong evidence.

Published on 26 April, *Taking Regulation Seriously: Fire Sales Under Solvency and Liquidity Constraints* is a Bank of England staff working paper. The authors build a framework for modelling fire sales where banks face both liquidity and solvency constraints and choose which assets to sell in order to minimise liquidation losses. Banks constrained by the leverage ratio prefer to first sell assets that are liquid and held in small amounts, while banks constrained by the risk-weighted capital ratio and the LCR need to trade off assets' liquidity with their regulatory weights. The authors calibrate the model to the UK banking system and find that banks' optimal liquidation strategies translate into moderate fire-sale losses, even for extremely large solvency shocks. By contrast, severe funding shocks can generate significant losses. Thus, models focusing exclusively on solvency risk may significantly underestimate the extent of contagion via fire sales. Moreover, when studying combined funding and solvency shocks, they find complementarities between the two shocks' effects that cannot be reproduced by focusing on either shock in isolation.

On 30 April, the ESRB published *A Review of Macroprudential Policy in the EU in 2018*, which provides an overview of the measures of macroprudential interest that were adopted in the EU in 2018. Most Member States adopted macroprudential measures in 2018 and for the EU as a whole more measures were taken than in 2017. Apart from the activation of the countercyclical capital buffer (CCyB) and the increase in the CCyB rate in several EEA Member States, nine Member States introduced a systemic risk buffer (SyRB) or recalibrated the SyRB rate. After that, the most frequently introduced measure in 2018 pertained to caps on debt service-to income ratios. Changes to the methodology used to identify SIIs and set their buffers were also made relatively often. An increase over 2017 can be observed also in reciprocation measures.

Published on 2 May, *Has Regulatory Capital Made Banks Safer? Skin in the Game vs Moral Hazard* is an ESRB staff working paper, in which the author evaluates the impact of macroprudential capital regulation on bank capital, risk taking behaviour, and solvency. The identification relies on an exogenous policy change in bank-level capital requirements across systemically important banks in Europe. A one percentage point hike

in capital requirements leads to an average CET1 capital level increase of 13 percent improving their loss absorption capacity. Evidence of costs due to reduction in assets is not found. The paper documents robust evidence on the existence of substitution effects toward riskier assets. Consistently with arguments on agency costs and gambling for resurrection, the risk-taking behaviour is predominantly driven by large and less profitable banks, with large wholesale funded banks showing less risk-taking. In terms of overall impact on solvency, the higher risk-taking crowds out the positive effect of increased capital.

Published on 6 May, *Inefficient Fire-Sales in Decentralized Asset Markets* is an IMF staff working paper. The author considers that classic models of fire-sales that emphasize liquidity-constrained natural buyers cannot fully account for the asset fire-sales during the Financial Crisis of 2008. He presents a model to demonstrate that fire-sales may happen even when there is a sizable pool of natural buyers and in the absence of asymmetric information, due to a coordination failure among buyers. In particular, he shows that when trade is decentralized and participation is endogenous, constrained asset demand and liquidity needs that are expected to increase over time create complementarity among buyers' decisions to wait. This complementarity makes competitive markets prone to coordination failures and fire-sales which may be inefficient. He also discusses various policy options to eliminate the risk of fire-sales in such a setup.

Published on 10 May, *CoMap: Mapping Contagion in the Euro Area Banking Sector* is an IMF staff working paper. The authors present a novel approach to investigate and model the network of euro area banks' large exposures within the global banking system. Drawing on a unique dataset, the paper documents the degree of interconnectedness and systemic risk of the euro area banking system based on bilateral linkages. They develop a contagion mapping model fully calibrated with bank-level data to study the contagion potential of an exogenous shock via credit and funding risks. They find that tipping points shifting the euro area banking system from a less vulnerable state to a highly vulnerable state are a non-linear function of the combination of network structures and bank-specific characteristics.

Published on 15 May, *Bank Capital Forbearance* is an ESRB staff working paper, in which the authors analyse the strategic interaction between undercapitalized banks and a supervisor who may intervene by preventive recapitalization. Supervisory forbearance emerges because of a commitment problem, reinforced by scale costs and constrained capacity. Private incentives to comply are lower when supervisors have lower credibility, especially for highly levered banks. Less credible supervisors (facing higher cost of intervention) end up intervening in more banks, yet producing higher forbearance and systemic costs of bank distress. Importantly, when public intervention capacity is constrained, private recapitalization decisions become strategic complements, leading to equilibria with extremely high forbearance and high systemic costs of bank failure.

Also published on 15 May, *How Does the Interaction of Macroprudential and Monetary Policies Affect Cross-Border Bank Lending?* is a BIS staff working paper. The authors combine a rarely accessed BIS database on bilateral cross-border lending flows with cross-country data on macroprudential regulations. They study the interaction between the monetary policy of major international currency issuers (USD, EUR and JPY) and macroprudential policies enacted in source (home) lending banking systems; and find significant interactions. Tighter macroprudential policy in a home country mitigates the impact on lending of monetary policy of a currency issuer, eg macroprudential tightening in the UK mitigates the negative impact of US monetary tightening on USD-denominated cross-border bank lending outflows from UK banks. Vice-versa, easier macroprudential policy amplifies impacts. The results are found to be economically significant.

Furthermore, on 15 May, ESMA published its latest *Risk Dashboard* for the EU's securities markets, covering the first quarter of 2019. It finds that the risk landscape in Q1 2019 remains largely unchanged compared to Q4 2018. In Q1 2019 EU securities markets were characterised by stock market recovery, combined with higher liquidity in bond markets and low volatility levels. The key risk area remains a substantive overvaluation, as the significant market correction that occurred at the end of 2018 has been reversed since the start of 2019 – market risk therefore remains very high. Investors' long-standing expectations of interest rate rises have been adjusted according to recent announcements by key central banks.

In addition, although the 10 April EU Council conclusions regarding the UK exit from the EU mitigated key no-deal Brexit risks in the short term, uncertainty about the terms of the UK exit still lingers. Subdued growth prospects for the EU and the global economy, global trade tensions, uncertainty surrounding the outcome of Brexit and the fading expectations of monetary policy normalisation continue as the most important drivers of risk in the coming months.

Published on 22 May, *Rules and Discretion(s) in Prudential Regulation and Supervision: Evidence from EU banks in the Run-up to the Crisis* is an ECB staff working paper. Prior to the financial crisis, prudential regulation in the EU was not implemented uniformly across countries, as options and discretions allowed national authorities to apply a more favourable regulatory treatment. The authors exploit the national implementation of the CRD and derive a country measure of regulatory flexibility (for all banks in a country) and

Securities markets were characterised by stock market recovery, combined with higher liquidity in bond markets and low volatility levels.

of supervisory discretion (on a case-by-case basis). Overall, they find that banks established in countries with a less stringent prudential framework were more likely to require public support during the crisis. They instrument some characteristics of bank balance sheets with these prudential indicators to investigate how they affect bank resilience. The share of non-interest income explained by the prudential environment is always associated with an increase in the likelihood of financial distress during the crisis. Prudential frameworks also explain banks' liquidity buffers even in absence of a specific liquidity regulation, which points to possible spillovers across regulatory instruments.

On 29 May, the ECB published its latest semi-annual Financial Stability Review (FSR), noting that:

(i) materialisation of downside risks to economic growth could spark greater financial market volatility;

(ii) persistent downside risks to growth reinforce the need to strengthen balance sheets of highly indebted firms and governments; and

(iii) bank profitability prospects remain subdued given slow progress in addressing structural issues.

This FSR also reports on continued high risk-taking in the non-bank and fund sector, with there being signs that more funds are increasing their leverage and their exposure to higher-yielding assets with commensurately higher credit risk – a renewed sudden repricing of financial assets could trigger large outflows and possibly result in forced asset sales by investment funds, thereby amplifying stress in less liquid markets. The FSR contains three special features, including one that looks at the financial stability challenges stemming from climate change, amongst other things reflecting on the measurement of risks from physical manifestations of climate change as well as transition risks on the way towards meeting internationally agreed climate objectives.

Concentration in Cross-Border Banking is a feature article published, on 4 June, in the *BIS Quarterly Review*. It discusses the facts that cross-border bank credit is dominated by a small number of very sizeable links between banks in one country and borrowers in another. The largest-sized cross-border banking links are mainly between major advanced economies. Concentration increased up until the great financial crisis (GFC) and has abated only slightly since. It is higher for interbank credit than for credit to the non-bank sector. Despite the substantial decline in interbank credit in the aftermath of the GFC, concentration in the interbank segment has remained high.

Also on 4 June, the ESRB's Advisory Scientific Committee (ASC) published a report discussing how excessive regulatory complexity can contribute to systemic risk and possible ways to address the issue, in view of the existing significant complexity and uncertainty in the financial system. The report starts with an explanation of the recent perceived increase in regulatory complexity and tries to identify the factors behind it. It then presents the channels through which regulatory complexity can contribute to systemic risk and the downsides of a simple regulatory framework. While it does not question the need for or extent of financial regulation, the report considers that the observed degree of complexity in financial regulation may limit its effectiveness in dealing with systemic risk.

Some actions to address the current degree of regulatory complexity are presented in the last section of the report. In order to address systemic risk optimally, the report concludes that current financial regulation should be made more robust to uncertainty. To that end, the report establishes seven broad principles that would help make financial regulation more robust: adaptability, diversity, proportionality, resolvability, systemic perspective, information availability and non-regulatory discipline.

Published on 7 June, *The Procyclicality of Banking: Evidence from the Euro Area* is an ECB staff working paper. The authors find that loan loss provisions in the euro area are negatively related to GDP growth, ie they are procyclical, and that loan loss provisions tend to be more procyclical at larger and better capitalized banks. The procyclicality of loan loss provisions can explain about two-thirds of the variation of bank capitalization over the business cycle. The authors estimate that provisioning procyclicality in the euro area is about twice as large as in other advanced economies. This difference reflects a larger procyclicality of provisioning in euro area countries already prior to euro adoption, and the divergent growth experiences of euro area countries following the global financial crisis.

Published on 17 June, *Optimally Solving Banks' Legacy Problems* is an ESRB staff working paper, in which the authors characterize policy interventions directed to minimize the cost to the deposit guarantee scheme and the taxpayers of banks with legacy problems. NPLs with low and risky returns create a debt overhang that induces bank owners to forego profitable lending opportunities. NPL disposal requirements can restore the incentives to undertake new lending but, as they force bank owners to absorb losses, can also make them prefer the bank being resolved. For severe legacy problems, combining NPL disposal requirements with positive transfers is optimal and involves no conflict between minimizing the cost to the authority and maximizing overall surplus.

On 25 June, the EBA published the 2020 EU-wide stress test draft methodology, templates and template guidance, which will be discussed with the industry. The 2020 exercise will assess EU banks' resilience to an adverse economic shock and inform the 2020 supervisory review and evaluation process. The methodology covers all risk areas and builds on the methodology prepared for the 2018 exercise, while improving some aspects based on the lessons learnt. The preliminary list of institutions participating in the exercise as well as the timeline were also released. The final methodology will be published by the end of the year, with the EU-wide stress test then being launched in January 2020 and the results published by the end of July.

Published on 28 June, *Impact of Higher Capital Buffers on Banks' Lending and Risk-Taking: Evidence From the Euro Area Experiments* is an ECB staff working paper. The authors study the impact of higher bank capital buffers, namely of the Other Systemically Important Institutions (O-SII) buffer, on banks' lending and risk-taking behaviour. The O-SII buffer is a macroprudential policy aiming to increase banks' resilience, however, higher capital requirements associated with the policy may likely constrain lending and thus pose costs for economic activity. Moreover, by changing the relative attractiveness of different asset classes, a higher capital requirement could also lead to risk-shifting and therefore promote the build-up (or deleverage) of banks' risk-taking. Relying on confidential granular supervisory data, between 2014 and 2017, to study the effects of the O-SII buffer, the authors' findings suggest that the discontinuous policy change had limited effects on the overall supply of credit, although they do find evidence of a reduction in the credit supply at the inception of the macroprudential policy. This result supports the hypothesis that the implementation of the O-SII's framework could have a positive disciplining effect by reducing banks' risk-taking while having only a reduced adverse impact on the real economy.

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Credit rating agencies

On 20 May 2019, the Joint Committee of the ESAs published a second amendment to the ITS on the mapping of credit assessments of ECAIs for credit risk under the CRR. The amendment reflects the outcome of a monitoring exercise on the adequacy of existing mappings. The Implementing Regulation on the mapping of ECAIs under the CRR, adopted by the European Commission on 7 October 2016, specified an approach that establishes the correspondence between credit ratings and the credit quality steps (CQS) defined in the CRR, together with providing mappings for 26 ECAIs.

This amendment to the ITS reflects the outcome of a monitoring exercise on the adequacy of the mappings, based on the additional quantitative and qualitative information collected after the original Implementing Regulation entered into force. In particular, the ESAs proposed to change the CQS allocation for two ECAIs, and to introduce new credit rating scales for ten ECAIs. The ESAs also addressed the mappings of CRAs recently registered in accordance to the CRA Regulation and that are related to previously mapped ECAIs.

Also on 20 May, ESMA issued the official translations of its Guidelines on the application of the endorsement regime under Article 4(3) of the CRA Regulation. These guidelines apply to credit ratings issued on or after 1 January 2019 and to existing credit ratings reviewed after that date. CRAs must make every effort to comply with the guidelines and ESMA will assess their application by the CRAs through its ongoing supervision and monitoring of CRAs' periodic reporting.

On 27 May, ESMA announced that it had registered Inbonis SA as a CRA under the CRA Regulation, with immediate effect. Inbonis SA is based in Madrid and intends to issue corporate ratings on corporate issuers not considered a financial institution or insurance undertaking. With this latest addition, the total number of CRAs registered in the EU is 29 CRAs – amongst which four operate under a group structure, totaling 19 legal entities in the EU, which means that the total number of CRA entities registered in the EU is 44. In addition, there are four CRA's certified in accordance with the EU CRA Regulation.

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

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OTC (derivatives) regulatory developments

On 1 April 2019, the European Commission announced that it had recognised a number of Singaporean trading venues authorised by the Monetary Authorities of Singapore (MAS) as eligible for compliance with the EU trading obligation for derivatives. This decision follows the agreement between the Commission and the MAS on a common approach regarding certain derivatives trading platforms, set out in a joint EU-MAS announcement on 20 February 2019 (as described in this section of Issue no 53 of the ICMA Quarterly Report). MiFIR sets out that certain liquid derivatives have to be traded on trading venues, to make this trading safer and more transparent. This decision allows EU investment banks to operate as swap dealers in Asia in compliance with this EU trading obligation and in line with the G20 reforms for standardised derivatives. In tandem, MAS has adopted regulations to exempt certain MTFs and OTFs in the EU from the requirements under Singapore rules. This will in turn allow Singapore counterparties to engage with EU counterparties on EU trading venues in compliance with Singapore's derivative trading obligations.

On 3 April, ESMA published the framework for its third EU-wide CCPs' stress test, marking the launch of its latest CCP stress test exercise. For this third CCP stress test, ESMA has further developed its framework, adding a new component to the exercise on concentration risk, in addition to assessments on credit and liquidity risks. This new component will be used to assess the impact of liquidation costs for concentrated positions. ESMA will also carry out additional analyses on the degree of inter-connectedness of CCPs, concentration of CCPs credit and liquidity exposures and a clearing member knock on analysis. This new exercise will cover the 16 CCPs authorised in the EU, including the three UK CCPs, unless there is a no-deal Brexit. The publication of the final report and results is scheduled to take place in Q2 2020.

On 5 April, ESMA issued the official translations of its *Guidelines on CCP Conflict of Interest Management*. NCAs supervising CCPs, to which these guidelines apply, should comply by incorporating them into their supervisory practices and monitor whether CCPs comply with them. Such NCAs must notify ESMA whether they comply or intend to comply with the Guidelines, within two months. In the absence of a response by this deadline, NCAs will be considered as non-compliant.

On 15 April, ESMA issued the official translations of its *Guidelines on EMIR Anti-Procyclicality Margin Measures for Central Counterparties*. NCAs supervising CCPs, to which these guidelines apply, should comply by incorporating them into their national legal or supervisory frameworks as appropriate. Such NCAs must notify ESMA whether they comply, intend to comply, or do not intend to comply with the Guidelines, within two months. In case of non-compliance, competent authorities must also notify ESMA of their reasons for not complying with the guidelines.

Following its adoption through the EU legislative process, EMIR REFIT was published in the EU's *Official Journal* on 28 May, with the regulation then entering into force on 17 June and applying from that date (save for certain specified provisions which shall apply from 18 December 2019, 18 June 2020 & 18 June 2021 respectively). This new regulation amends and simplifies EMIR with the intention of addressing disproportionate compliance costs, transparency issues and insufficient access to clearing for certain counterparties.

In particular, it introduces a new category of "small financial counterparties" which will be exempted from the obligation to clear their transactions through a CCP, while remaining subject to risk mitigation obligations. Smaller non-financial counterparties will also have reduced clearing obligations. In addition, the text extends by another two years (further extendable twice by an additional year) the temporary exemption from the clearing obligation of pension scheme arrangements. The updated rules also streamline the existing reporting obligations in order to improve the quality of the data reported.

EMIR 2.2 enhances the recognition regime for third country CCPs (TC-CCPs), introducing a dedicated regime for those TC-CCPs which are determined to be, or likely to become, systemically important for the financial stability of the EU or of one or more of its Member States – named Tier 2 CCPs. Tier 2 CCPs will need to comply with the requirements under EMIR or ask for comparable compliance, where compliance with the requirements in a third country satisfies compliance with the requirements under EMIR. EMIR 2.2 also introduces a fee system for TC-CCPs to fund the relevant activities. ESMA has received provisional mandates for technical advice on tiering, comparable compliance and fees and accordingly, on 28 May, has published three applicable consultation papers, for comment by 29 July.

ESMA has published a letter, dated 7 June, to the European Commission concerning an issue related to the implementation of the new EMIR Refit Regime with regards to the calculation of the month-end average positions of financial counterparties (FC) in non-financial groups, which is then used to determine whether these FCs are subject to the clearing obligation when they are above the clearing thresholds. ESMA considers that from a policy point of view it would make sense that if an NFC can apply a hedging exemption for its positions, then the FCs in their group could also apply the same hedging exemption when taking into account the position of the NFCs at group level. ESMA is of the view that it may be useful for market participants if the Commission could provide a clarification.

In view of ESMA's statutory role to build a common supervisory culture by promoting common supervisory approaches and practices, ESMA has

The text extends by another two years (further extendable twice by an additional year) the temporary exemption from the clearing obligation of pension scheme arrangements.

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 14 June.

ESMA's list of CCPs authorised to offer services and activities in the EU, in accordance with EMIR, was last updated on 9 April; its list of third-country CCPs recognised to offer services and activities in the EU was last updated on 24 June; but its (non-exhaustive) list of CCPs established in non-EEA countries which have applied for recognition has not been updated since on 24 January. ESMA's *Public Register for the Clearing Obligation* under EMIR has not been updated since 6 December and its public register of those derivative contracts that are subject to the trading obligation under MiFIR was last updated updated on 13 June.

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Market infrastructure

ECB: Advisory Groups on market infrastructure

Meetings of the ECB's two advisory groups on market infrastructure, AMI-SeCo and AMI-Pay, were held on 13-14 May. The programme stretched over two days and consisted of a shorter joint session on 14 May as well as separate meetings of the two groups on 13 May. The common session focused on some of the ongoing ECB infrastructure projects with relevance to both groups, ie mainly the ongoing consolidation of the two platforms T2 and T2S, as well as the usage of common modules by T2S and a number of resulting change requests. The separate AMI-SeCo session on 13 May had a more extensive agenda and spread over a whole day. As usual, a key focus was on the extensive work undertaken in relation to collateral management harmonisation and the next steps. In addition, members also discussed progress in relation to the Eurosystem Collateral Management System (ECMS) which is on track to go live in November 2022 as planned and reviewed a recent discussion paper by AFTI, the French securities markets association, on the harmonisation of issuance processes in Europe. Last but not least, AMI-SeCo members received a de-briefing from the latest workshop on settlement efficiency organised by the CSD Steering Group (CSG) a sub-group under the AMI-SeCo umbrella. A full summary of the meeting and other related documents are available from the AMI-SeCo webpage. The subsequent AMI-SeCo meeting took place on 4 July.

ECB: Collateral management harmonisation

As mentioned above, the work undertaken in relation to collateral management harmonisation remains a key priority for AMI-SeCo. The related work is coordinated by a dedicated Task Force on Collateral Management Harmonisation (CMH-TF). The group was launched in early 2017 and includes several members of the ERCC Operations Group, who have been actively contributing to the different CMH-TF work streams. So far, the work has focused on three areas: (i) triparty collateral management, (ii) corporate actions, and (iii) CSD billing. All three areas are of particular relevance in preparation for the launch of the Eurosystem Collateral Management System (ECMS) which is scheduled for November 2022. Detailed harmonisation standards have been put forward and approved by AMI-SeCo. While the proposals in relation to triparty and billing have been relatively uncontentious, some more work is still needed on the corporate action side given the wide range of stakeholders involved and the broad scope of the measures. A more detailed status update by the ECB on progress achieved so far and next steps was delivered at the latest AMI-SeCo meeting and is available on the webpage.

As the standards are being finalised and subsequently implemented, the focus of the CMH-TF is shifting to other areas of interest that had been identified earlier in the process as potential areas for harmonisation. Among other things, this covers bilateral collateral management processes and collateral sourcing, two areas of particular interest to ICMA's ERCC. A number of the topics covered by these work streams have a direct link with the work undertaken by the ERCC over the past years, in particular in relation to intraday liquidity management and the sequencing of settlement, but also in relation to settlement cut-off times. On the latter topic, the ERCC has been asked to update some findings from a previous survey. This work is currently under way and the survey should be launched in the next weeks. Any findings from the survey will feed back into the CMH-TF work.

ECB: Other market infrastructure-related initiatives

A number of other important ECB initiatives in the area of market infrastructure are currently under way. In particular, the ECB is seeking to further develop and improve its services offered in relation to the TARGET infrastructure. One such initiative is the development of the TARGET Instant Payment Settlement (TIPS) service, an extension of existing payment services related to the TARGET2 platform which will enable payment service providers to offer fund transfers to their customers on a real-time basis and 24/7. The list of banks connected to TIPS is growing steadily to a current total of 22. Another interesting development is the planned incorporation of Swedish krona into TIPS from 2021, which the Swedish Riksbank announced on 11 June.

A second important market infrastructure project driven by the ECB is the consolidation of the two TARGET platforms, T2 and T2S, and the streamlining of the related services. As mentioned above, this project is progressing well and on track to be concluded in Q4 2021, as planned. A more detailed status update on the consolidation project is available on the AMI-SeCo webpage.

More recently, the ECB launched another relevant initiative in the area of market infrastructure which has received significant attention given its potentially far-reaching implications for the market. On 27 May, the ECB issued a public consultation on a potential European mechanism for the issuance and initial distribution of debt securities, the so-called EDDI initiative. The initiative is still in a very early stage and therefore not yet well defined. However, the main aim is to create a centralised hub within T2S, operated by the Eurosystem, to issue debt securities. EDDI would sit on top of the domestic CSDs that participate in T2S.

The stated objective of EDDI is to create a single pan-European, neutral and harmonised channel for the issuance and initial distribution of debt securities in central bank money. This is hoped to be an important step towards a truly "domestic" capital market in Europe, that can help to overcome some of the long-standing barriers to further integration, which have been subject to long and recurring discussions in Brussels over the past years. While the objectives of EDDI on the post-trade side are therefore quite well understood, the proposals on the pre-trade side which are perhaps even more far-reaching are less clear and more contentious. Further details on the EDDI initiative are included in the Primary Market section of this Quarterly Report. ICMA has worked, together with the different stakeholders within the association, on a coordinated response to the consultation which was submitted to the ECB by the deadline of 9 July.

ECB: Market contact groups

Members of the Bond Market Contact Group (BMCG) last met on 12 June in Frankfurt. During the meeting members reviewed, as usual, recent bond market developments and the further outlook. This part of the meeting was introduced by Mediobanca. A particular focus of the meeting was this time on sustainable and responsible investing. This included two presentations, an update by Muzinich & Co and a view from an insurance investment perspective delivered by Allianz. A second focus of the meeting was on the ongoing transition of risk-free rates and IBOR reform. The discussion was introduced jointly by BlackRock and Commerzbank. In addition, the ECB also updated members on the next steps in relation to the transition to €STR as new euro risk-free rate. The meeting was closed by ECB Executive Board Member Benoit Coeuré who reflected on the effects of APP reinvestments on euro area bond markets. The next meeting of the BMCG is scheduled for 20 November.

The latest meeting of the Money Market Contact Group (MMCG) was held on 25 June. Besides the usual money market outlook, the agenda for the meeting included discussions on market expectations in relation to the ECB's monetary policy measures, developments in the euro money market curve and bank intermediation, the impact of NSFR and LCR on the euro repo market, as well as an update on the transition of risk free rates. The related meeting documents should be available in due course. The next quarterly meeting of the MMCG is scheduled for 24 September.

ESMA: Post-trading

ESMA continues its important work in relation to the implementation of the CSD Regulation (CSDR) and the SFT Regulation (SFTR). Given the particular importance of both Regulations to members, ICMA continues to closely monitor the process and is in close contact with ESMA to support their work and help to mitigate potential negative market impacts.

As regards SFTR, on 28 May, ESMA launched a public consultation on draft Reporting Guidelines, as part of the so-called Level 3 measures which complement the technical standards published in the Official Journal earlier this year. ICMA's ERCC, through its dedicated SFTR Task Force, is currently reviewing the Guidelines and will respond by the deadline on 29 July (see Repo and Collateral section above for more details). Alongside the Guidelines, ESMA also published an updated version of the SFTR Validation Rules. Once the Guidelines are finalised later this year, ESMA is furthermore expected to publish additional Level 3 implementation

guidance in the form of Q&As. These will complement Guidelines and Validation Rules and pick up questions that have not yet been addressed.

Equally important is ESMA's work in relation to CSDR. The mandatory buy-in discussions are covered more in detail in the Secondary Markets section of this Quarterly Report. However, from an ESMA perspective this is far from being the sole area of focus. One important further aspect, for example, is the reporting of internalised settlement under article 9 of CSDR. On this topic, ESMA produced a set of detailed Guidelines. The official translations of these Guidelines were published on 30 May, triggering the two-month deadline for NCAs to notify ESMA whether they intend to comply with the recommendations. As for other laws, ESMA also maintains detailed Q&As for CSDR, which are regularly updated and extended. The latest update to the Q&As was posted on 18 June.

GLEIF

On 4 April 2019, the Global Legal Entity Identifier Foundation (GLEIF) and the Association of National Numbering Agencies (ANNA) piloted the first daily open-source relationship file that links newly issued International Securities Identification Numbers (ISINs) and Legal Entity Identifiers (LEIs). The daily ISIN-to-LEI relationship files, which are publicly available on the GLEIF website, currently include new ISINs issued by 11 early mover national numbering agencies (NNAs). A more detailed overview of progress so far on this initiative is available in the GLEIF blog.

On 28 May 2019, the FSB published a detailed *Thematic Review on the implementation of the LEI* based on a peer-review process. The report stresses the important achievements and benefits of the global LEI implementation so far, but also clearly highlights a number of challenges and drawbacks. In particular, the report finds that the LEI coverage remains uneven across jurisdictions and is generally still too low to encourage new industry or regulatory uses or to reach a tipping point where voluntary take-up by market participants would suffice to propel further adoption. The report also identifies obstacles to further LEI adoption and puts forward possible ways of addressing these, eg by minimising the cost and administrative burden of LEI registration and maintenance and exploring new use cases.

BIS: Committee on Payments and Market Infrastructures (CPMI)

As reported in previous editions of the Quarterly Report, a lot of work is being undertaken by CPMI-IOSCO to develop a globally harmonised framework for unique identifiers and other data elements for derivatives reporting. This covers Unique Trade Identifiers (UTIs), Unique Product Identifiers (UPIs), as well as other critical data elements. While currently focused on OTC derivatives, many aspects will be relevant for other asset classes too, in particular the work on UTIs. While most of the technical guidance in relation to UTIs, UPIs and other data elements has already been finalised, the work to implement them at a global level continues. On 2 May an important practical step was made in relation to the UPI, as the FSB designated The Derivatives Service Bureau (DSB) Ltd as single service provider for the administration of the identifier. As part of the mandate, DSB will be the sole issuer of UPI codes, and also perform the function of operator of the UPI reference data library.

CPMI jointly with IOSCO continue to monitor the implementation of the 2012 *Principles of Financial Market Infrastructures* (PFMI), a set of international standards for payment systems, CSDs and securities settlement systems, CCPs and trade repositories. The latest report in this context was published on 31 May, assessing progress in the US in relation to the consistency between the national legal, regulatory and oversight frameworks for payment systems, CSDs and SSSs and the PFMI's recommendations.

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FinTech in International Capital Markets

by Gabriel Callsen

FinTech regulatory developments

BIS: set-up of Innovation Hub for central banks

On 30 June 2019, the BIS approved the establishment of a BIS Innovation Hub to foster international collaboration on innovative financial technology within the central banking community complementing the already well established cooperation within the existing committees. The role of the Hub will be to identify and develop in-depth insights into critical trends in technology affecting central banking; develop public goods in the technology space geared towards improving the functioning of the global financial system; and serve as a focal point for a network of central bank experts on innovation. The Hub will span multiple locations. As a first step toward implementation, Hub Centres will be set up in Basel and Hong Kong, making use of existing BIS facilities. A third Hub Centre will be established in Singapore, subject to the completion of the necessary institutional arrangements, also as part of the initial phase.

GFIN: "one year on" report

On 25 June 2019, the Global Financial Innovation Network (GFIN) published a report setting out the progress made in its first year, the challenges it has faced, and its ambitions and plans for the future. It also describes the work done to engage with stakeholders. GFIN comprises a network of international regulators and related organisations committed to supporting financial innovation and to creating a framework for cooperation between regulators to share experiences and approaches to innovation. It has rapidly grown over the past year from its 12 founding members, to be a global dialogue with 35 member regulators and 7 observers from 21 jurisdictions.

BIS: Annual Economic Report – Big Tech In Finance: opportunities and risks

On 23 June 2019, a chapter of this year's BIS Annual Economic Report on *Big Tech in Finance* was pre-released, followed by the full Annual Economic Report, and the Annual Report 2018/19, on 30 June

2019. The entry of large technology firms ("big techs") such as Alibaba, Amazon, Facebook, Google and Tencent into financial services, including payments, savings and credit, could make the sector more efficient and increase access to these services, but also introduces new risks. In a special chapter on big tech in finance, the BIS notes that these companies offer many potential benefits, including enhanced efficiency of financial services provision, facilitating financial inclusion and promoting associated gains in economic activity. However, big techs' entry into finance introduces additional elements into the risk-benefit equation. Some are old issues of financial stability and consumer protection in new settings, but a new element is big techs' access to data from their existing platforms. This could spark rapid change in the financial system through the emergence of dominant players that could ultimately reduce competition.

IOSCO: final report on cyber standards and frameworks used by IOSCO members

On 18 June 2019, IOSCO issued a final report that provides an overview of three internationally recognized cyber standards and frameworks used by IOSCO members. It also identifies potential gaps in the application of these standards and seeks to promote sound cyber practices across the IOSCO membership. The report examines how IOSCO member jurisdictions apply three internationally recognized cyber standards which are termed the Core Standards in the report. These standards consist of the CPMI-IOSCO Guidance on Cyber Resilience for Financial Market Infrastructures; the National Institute of Standards and Technology Framework for improving Critical Infrastructure Cybersecurity; and the International Organization for Standardization 27,000 series standards. The report does not propose new cyber standards or guidance.

FSB: report on decentralised financial technologies

On 6 June 2019, the FSB published a report on decentralised financial technologies. This report considers the financial stability, regulatory and governance implications of the use of decentralised financial technologies such as those involving distributed ledgers and online peer-to-peer, or user-matching, platforms. The report notes that the application of decentralised financial technologies – and the more decentralised financial system to which they may give rise – could benefit financial stability in some ways. It may also lead to greater competition and diversity in the financial system and reduce the systemic importance of some existing entities. At the same time, the use of decentralised technologies may entail risks to financial stability. These include the emergence of concentrations in the ownership and operation of key infrastructure and technology, as well as a possible greater degree of procyclicality in decentralised risk-taking. New uncertainties concerning the determination of legal liability and consumer protection may also affect public trust in the financial system. Recovery and resolution of decentralised structures may be more difficult.

ECB: third phase of Stella project completed

On 4 June 2019, the ECB published the third report from the Stella project – a collaborative project with the Bank of Japan that focuses on the possible use of distributed ledger technology (DLT) for financial market infrastructures. The third phase of the Stella project examines how cross-border payments could potentially be improved by new technologies, especially in terms of safety. The report considers the credit risk if one of the parties to the payment fails before the cross-border transfer is complete. After experimenting with several types of payment method, the report concludes that only payment methods with an enforcement mechanism, either through the ledger itself or through a third party, can ensure the safety of the principal amount of money being transferred.

FSB: report on work underway to address crypto-asset risks

On 31 May 2019, the FSB published a report on crypto-assets, which considers work underway, regulatory approaches and potential gaps. International organisations are working on a number of fronts, directly addressing issues arising from crypto-assets. As described in the report, they are mainly focused on investor protection, market integrity, anti-money laundering, bank exposures and financial stability monitoring. They are monitoring and analysing developments in these markets, setting supervisory expectations for firms and clarifying how international standards apply to crypto-assets. The report notes that gaps may arise in cases where such assets are outside the perimeter of market regulators and payment system oversight. To some extent, this may reflect the nature of crypto-assets, which may have been designed to function outside established regulatory frameworks. Gaps may also arise from the absence of international standards or recommendations. The report concludes with a recommendation that the G20 keep the topic of regulatory approaches and potential gaps, including the question of whether more coordination is needed, under review.

FSB: G20 update on FSB's work related to cyber incident response and recovery

On 28 May 2019, the FSB published a progress report on its work on

developing effective practices for financial institutions' response to, and recovery from, a cyber incident. As part of its work programme to enhance the cyber resilience of financial institutions, the FSB is developing a toolkit of effective practices relating to a financial institution's response to, and recovery from, a cyber incident. The toolkit also aims to help supervisors and other relevant authorities in supporting financial institutions before, during and after a cyber incident. As part of its outreach, the FSB will launch an online survey in July which will help to identify effective practices at financial institutions. A public consultation on the report will be launched in early 2020, and the toolkit of effective practices will be finalised in late 2020.

IOSCO: request for feedback on key considerations for regulating crypto-asset trading platforms

On 28 May 2019, IOSCO published the consultation report titled *Issues, Risks and Regulatory Considerations Relating to Crypto-Asset Trading Platforms* (CTPs), which describes the risks and issues that IOSCO has identified regarding CTPs. The report sets out key considerations that are intended to assist regulatory authorities in evaluating CTPs within the context of their regulatory frameworks. The primary topics covered include: access to CTPs; safeguarding participant assets; conflicts of interest; operations of CTPs; market integrity; price discovery; and technology. Many of the issues related to the regulation of CTPs are common to traditional securities trading venues, but may be heightened by how CTPs are operated. Where a regulatory authority has determined that a crypto-asset is a security and falls within its remit, the basic principles or objectives of securities regulation should apply. The report, therefore, sets out that the IOSCO Principles and Methodology provide useful guidance for regulatory authorities considering the identified issues and risks. The consultation is open until 29 July 2019.

IMF and World Bank: FinTech: the experience so far

On 17 May 2019, the IMF and World Bank published the report, *FinTech: The Experience So Far*. Following the Bali FinTech Agenda, the paper takes stock of country fintech experiences and identifies key fintech-related issues that merit further attention by the membership and international bodies. The paper finds that while there are important regional and national differences, countries are broadly embracing the opportunities of FinTech to boost economic growth and inclusion, while balancing risks to stability and integrity. The paper identifies key areas for international cooperation – including roles for the IMF and World Bank – and in which further work is needed at the national level and by relevant international organizations and standard-setting bodies (SSB). Priorities include cybersecurity; anti-money laundering and combating the financing of terrorism (AML/CFT); development of legal, regulatory, and supervisory frameworks; payment and securities settlement systems and cross-border payments.

GFIN: cross-border testing pilot – next steps

On 29 April 2019, the Global Financial Innovation Network (GFIN) – a network of 35 organisations committed to supporting financial innovation in the interests of consumers – announced the next steps of its cross-border testing pilot. In total, 44 unique applications were submitted across the 17 participating regulators. A high number of applications were from firms with RegTech and crypto-asset related business models. Every regulator participating in the pilot was the subject of at least one application. After this initial screening, GFIN members will continue working with eight firms. The next phase is for the firms to develop testing plans with the relevant regulators for their cross-border trial, some of which will involve live transactions. Firms that develop a testing plan satisfactory to each jurisdiction's criteria will take part in the pilot testing phase.

ESAs: joint advice on information and communication technology risk management and cybersecurity

On 10 April 2019, the ESAs published two pieces of Joint Advice in response to requests made by the European Commission in its March 2018 FinTech Action Plan: (i) Joint Advice on the need for legislative improvements relating to Information and Communication Technology (ICT) risk management requirements in the European Union (EU) financial sector, and (ii) Joint Advice on the costs and benefits of a coherent cyber resilience testing framework for significant market participants and infrastructures within the EU financial sector. Regarding the need for legislative improvements, in developing the Joint Advice the ESAs' objective was that every relevant entity should be subject to clear general requirements on governance of ICT, including cybersecurity, to ensure the safe provision of regulated services. Regarding the costs and benefits of a coherent cyber resilience testing framework, the ESAs see clear benefits of such a framework. However, at present there are significant differences across and within financial sectors as regards the maturity level of cybersecurity. In the short-term, the ESAs advise to focus on achieving a minimum level of cyber-resilience across the sectors, proportionate to the needs and characteristics of the relevant entities.

European Commission and ESAs: launch of new platform to improve cooperation on technological innovation in the financial sector

On 2 April 2019, the European Commission and ESAs launched the European Forum for Innovation Facilitators (EFIF), with the objective to improve cooperation and coordination in support of the application of new technological developments in the EU financial sector. Innovation facilitators usually take the form of "innovation hubs" and "regulatory sandboxes". The EFIF is intended to provide a platform for participating authorities to collaborate and share experiences from engagement with firms through innovation facilitators. The establishment of EFIF follows up on the 2019 ESA's joint report on regulatory sandboxes and innovation hubs and it is in line with the Commission's FinTech Action Plan's objectives to support the competitiveness of the European financial sector and contribute to make Europe a hub for future innovation in FinTech. The ESAs and National Competent Authorities will be the members of the EFIF. In addition, and on ad-hoc basis, representatives from third-countries' competent authorities will be invited to participate in the EFIF meetings.

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ICMA FinTech Forum

On 25 June 2019, ICMA held its inaugural FinTech Forum – *How is Technology Shaping International Fixed Income Markets?* – in London. The event was hosted by UBS and brought together over 240 industry stakeholders across the whole value chain of international debt capital markets, representing ICMA's broad membership, as well as regulators.

The main topics addressed were: (i) What are the implications of FinTech for financial market structure, dynamics, and stability? (ii) How will FinTech, including Distributed Ledger Technology and Artificial Intelligence, impact issuers, investors, and intermediaries, and how will they need to transform their operating models? and (iii) How is the regulatory framework evolving to deal with FinTech and BigTech?

The Forum featured keynote presentations by UBS on FinTech and innovation in capital markets, the FSB on the impact of BigTech, and the World Bank on the capital markets of the future. Three panels addressed the impact of technology and direction of travel in primary markets, secondary and Repo Markets, as well as FinTech and regulation. Further information on the agenda and speakers can be found on ICMA's events webpage.

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ICMA Capital Market Research

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

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

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

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

MiFID II/R and the Bond Markets: the First Year
Published: 6 December 2018
Editor: Andy Hill, ICMA

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

ICMA Discussion Paper: CSDR mandatory buy-ins and securities financing transactions
Published: 3 October 2018
Author: Andy Hill, ICMA

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

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

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

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

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

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

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

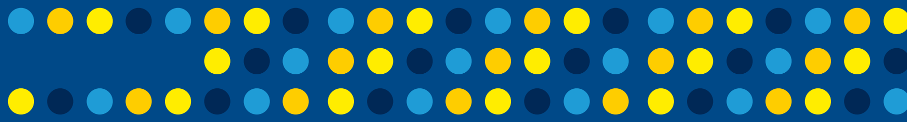
Use of Leverage in Investment Funds in Europe
Published: 19 July 2017
Authors: AMIC/EFAMA Joint Paper

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

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

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

ICMA Annual General Meeting and Conference



Stockholm

Almost 1,000 of our members, press, officials and others joined us for the 51st AGM and Conference in Stockholm in May. Speakers and panellists addressed a wide range of capital market themes from the challenging geopolitical environment through to the transformational effect of FinTech on all areas of market activity. The single thread which ran through virtually all of the presentations was the importance of sustainability and the role that financial institutions can play in meeting the challenges of climate change and environmental degradation.

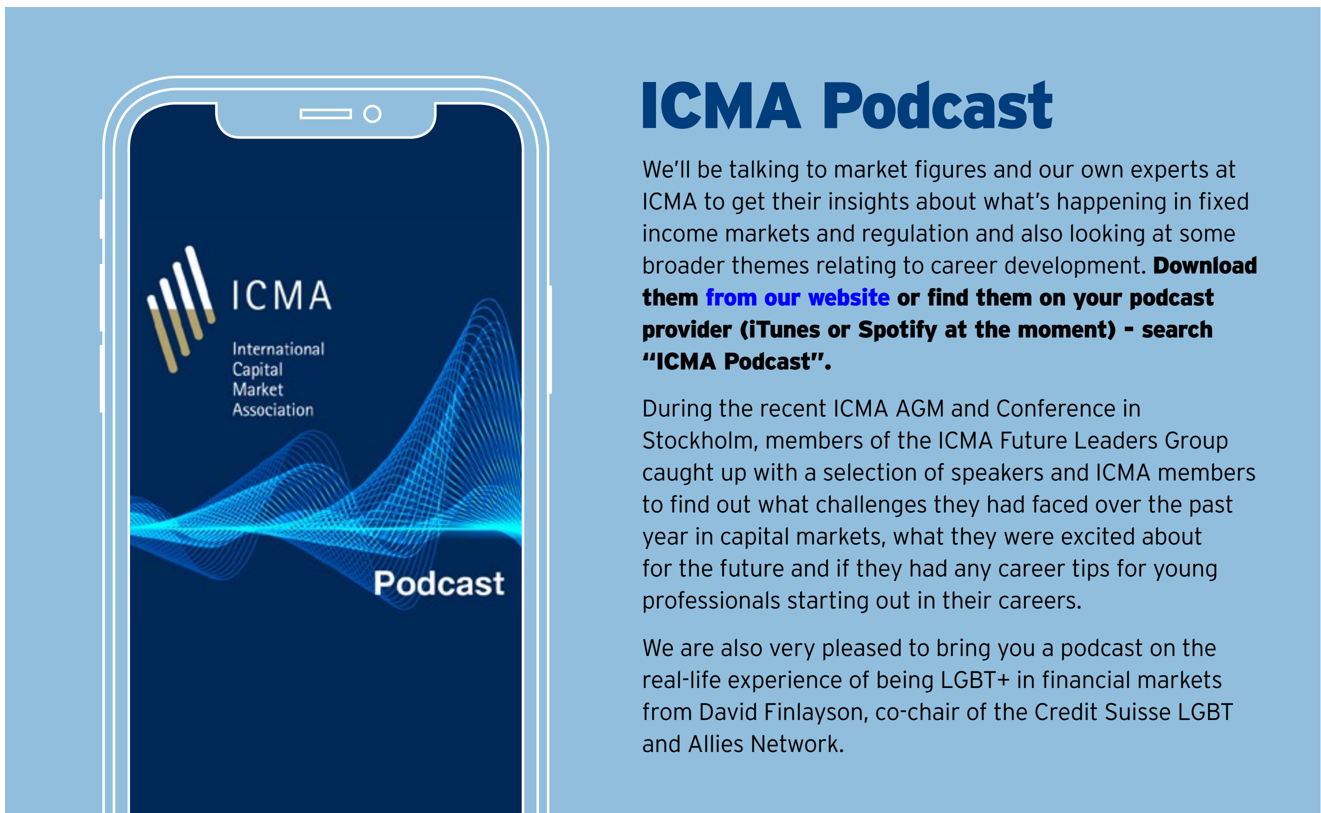
Speeches by Verena Ross, Executive Director of ESMA, and Alexander Stubb, Vice President of the European Investment Bank, are among the highlights of the conference available from the ICMA website.

Save the Date | Vienna

June 24 to 26, 2020

ICMA Annual General Meeting & Conference

For agenda and sponsorship enquiries contact: **shannelle.rose@icmagroup.org**



ICMA Podcast

We'll be talking to market figures and our own experts at ICMA to get their insights about what's happening in fixed income markets and regulation and also looking at some broader themes relating to career development. **Download them from our website or find them on your podcast provider (iTunes or Spotify at the moment) – search "ICMA Podcast".**

During the recent ICMA AGM and Conference in Stockholm, members of the ICMA Future Leaders Group caught up with a selection of speakers and ICMA members to find out what challenges they had faced over the past year in capital markets, what they were excited about for the future and if they had any career tips for young professionals starting out in their careers.

We are also very pleased to bring you a podcast on the real-life experience of being LGBT+ in financial markets from David Finlayson, co-chair of the Credit Suisse LGBT and Allies Network.

ICMA Repo Workshops

We now run a series of workshops on various aspects of the repo product, the market and legal documentation.

For a full overview of the product and market we recommend our two day Professional Repo and Collateral Management Course, which runs once a year (the 2019 course is in Frankfurt on 11-12 September). Get a thorough introduction to all aspects of repo from our experienced course director and hear presentations from invited speakers from the market on topical issues.

Repo and securities lending under the GMRA and GMSLA has a slightly different focus, looking at how repo and securities lending transactions operate in the framework of the Global Master Repurchase Agreement (GMRA) and the Global Master Securities Lending Agreement (GMSLA), the two master agreements which are the essential foundations of these markets. (Autumn date to be announced).

Our two-day GMRA Masterclass (London, 23-24 September) systematically reviews the Global Master Repurchase Agreement (GMRA) 2011 clause by clause, giving a thorough grounding in all of its key provisions and the most commonly-used Annexes. An experienced repo negotiator conducts a case study of a typical negotiation of Annex I, offering hints and tips on the most effective approach for both sell-side and buy-side counterparties. This one is more for legal and documentation professionals and assumes that you are already familiar with the core commercial, operational and legal aspects of repo and the GMRA.

Finally, if you are in a back office role and just beginning to think about the complexities of reporting repo transactions under the EU Securities Financing Transactions Regulation (SFTR), then this one day workshop on the practical aspects of SFTR reporting (London, 18 July) highlighting the challenges and suggesting solutions developed by the ICMA SFTR Task Force, could be for you, or if you are in the Asia-Pacific region the SFTR and Implications for Asia-Pacific Workshop in Singapore on 3 September.

If you are just starting to learn about repo (and you don't have time for a longer course) then the one day Intensive workshop on repo & the European repo market (London, 27 September) is a swift but detailed introduction to the product, how the market operates, the regulatory context and legal requirements.

ICMA Women's Network
Networking. Progression. Support.

Mental health in the workplace

The ICMA Women's Network recently held an event focused on mental health in the workplace. Kindly hosted by Freshfields, it was attended by more than 90 people from across ICMA's membership.

Over the last five years, the IWN has held 25 events in 11 countries and built a network of over 2,700 members, but never has an event opened up a more candid conversation than this one. Inspired by the courage and authenticity of the speakers in sharing their own stories, attendees felt empowered to have an honest discussion about their own experiences of dealing with mental health issues in the workplace.

In their fireside chat, speakers, Poppy Jamman (CEO of the City Mental Health Alliance) and Joanne Theodolou (Legal counsel at Simply Business and a member of the Board of Trustees at Mind), talked about how pervasive mental health issues are in our society, highlighting the shocking fact that there are more than 6,000 deaths each year through suicide in the UK and Ireland alone. This issue is increasingly on the City agenda, with firms seeking both to safeguard the wellbeing of their employees and improve the performance of their firms. Yet there is still an enormous amount of stigma surrounding mental health at work.

On the question of mental health support and more generally mental health issues in the professional environment, our speakers agreed that line managers have an important role to play in detection and management. Fortunately, many companies are becoming aware of this and are offering practical mental health skills and awareness training to support employees' own mental health and that of colleagues, while encouraging them to access resources which can help them.

They strongly advocated that mental health should be taken as seriously as physical health, noting that, while we are accustomed to taking care of ourselves physically through exercise, sleep and nutrition, we are less good at mental health self-care. The speakers identified a number of helpful resources from Mind, City Mental Health Alliance, Mental Health First Aid and others which we have made available from our website.

During the networking session, people recognised that not having the appropriate vocabulary is often a barrier to meaningful discussion of mental health issues and they were extremely interested to learn about practical steps that could be taken to tackle this. If the response to this event is anything to go by, the indications are positive that there is a genuine desire to improve the way our industry recognises and deals with mental health issues.

Contact: **ICMAWomensNetwork@icmagroup.org**

Poppy Jamman (CEO of the City Mental Health Alliance) and Joanne Theodolou (Legal counsel at Simply Business).

Structured networking discussions.

Diary

ICMA workshops and courses

ICMA Workshop: Bond syndication practices for compliance and middle office professionals
London, 8 October 2019

ICMA Training Course: Introduction to Green Bonds
London, 14-15 October

ICMA Workshop: European Regulation: An Introduction for Capital Market Practitioners
London, 10 October 2019

ICMA Mentoring Platform

ICMA's unique mentoring platform for professionals in the cross-border debt capital markets connects people across the industry and across regions with access open to employees at all 571 of ICMA's member firms in 62 countries.

The platform is built on mentoring and e-learning tools, that not only match mentors with mentees, but also support them with a wide range of learning and development resources that are accessible from a smartphone, tablet, laptop or desktop computer. 350 mentors and 130 mentees are signed up with 120 currently being mentored. The platform lets you specify the area where you can help (as a mentor) or where you need career advice (as a mentee), including, improvement of management or communication skills. We recently added sustainable finance as an option.

The International Capital Market Association (ICMA) and the Japan Securities Dealers Association (JSDA) will hold their 3rd joint conference on Developments in Green, Social and Sustainability Bond Markets in Tokyo on 9 October 2019 following the remarkable scale and seniority of attendance at the 2018 event and the Japanese market's strong growth.

The Asia-Pacific green bond market is growing faster than any other region (35% increase in issuance from 2017 to 2018) and has the most issuers (222) of any region. The Japanese market has been amongst the most dynamic, with issuance growing by around 66% to US$4 billion equivalent in 2018. In the context of the vast scale and global importance of the Japanese bond market, growing Japanese activity in sustainable finance is attracting widespread attention.

The Tokyo conference will once again bring together issuers, underwriters, investors, policy makers, market infrastructure and service providers who are active in the Asian green and social bond markets.

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Courses 2019

New ICMA Executive Education Specialist Programme: Portfolio Construction

With yields low, rates expected to stay low but then eventually rise, and many credit spreads at historically tight levels, construction of fixed income portfolios requires careful balancing of risks. Within this context, portfolios must be implemented to reflect client needs and objectives. Benchmarks are generally not perfectly replicable, risk exposures change as time passes, portfolio cashflows may need to be reinvested and fixed income factors are not transparent, all posing additional challenges. For many pensions and insurance clients, portfolios also need to be constructed to meet future cashflow needs and within evolving regulatory requirements around funding and solvency.

For funds providing daily trading, portfolio construction must consider the liquidity of the investments and cash requirements to meet redemptions in normal and stressed conditions, all of which is covered by existing and new regulations.

ICMA Executive Education is launching a new course on Portfolio Construction that will help portfolio managers, investment consultants and client-facing asset and wealth managers develop a range of techniques used to construct fixed income portfolios.

This one-day course has been developed and is taught by Lindsey Matthews, Head of Investment Risk and UK CRO at UBS Asset Management and previous Head of Risk at UBS Delta.

Course details
London, 25 November 2019
Cost: £950 for ICMA members and £1,200 for non-ICMA members

Book now for these ICMA Executive Education Courses

Collateral Management
London, 7-8 October 2019

Introduction to Primary Markets Qualification (IPMQ)
London, 9-11 October 2019

Introduction to Fixed Income Qualification (IFIQ)
London, 9-11 October 2019

Securitisation – An Introduction
London, 14-15 October

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

Financial Markets Foundation Qualification (FMFQ)
London, 6-8 November 2019

ICMA Primary Market Certificate (PMC)
London, 11-15 November 2019
Hong Kong, 25-27 November 2019

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

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

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

Fixed Income Portfolio Management
London, 21 - 22 November 2019

Portfolio Construction
London, 25 November 2019

Compliance in Fixed Income
London, 29 November 2019

The role of technology in financial markets
London 02 - 03 December 2019

OTC Derivative Operations: Products, Collateral, EMIR
London 02 - 03 December 2019

Contact: **education@icmagroup.org**

GLOSSARY

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

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