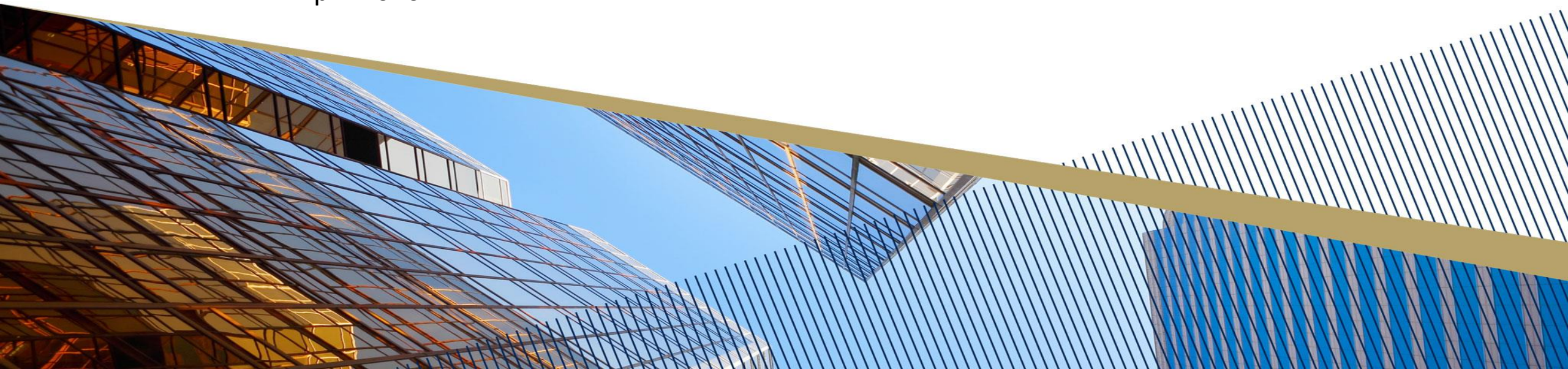


Webinar

FinTech developments in the debt capital markets and potential implications for Asia-Pacific

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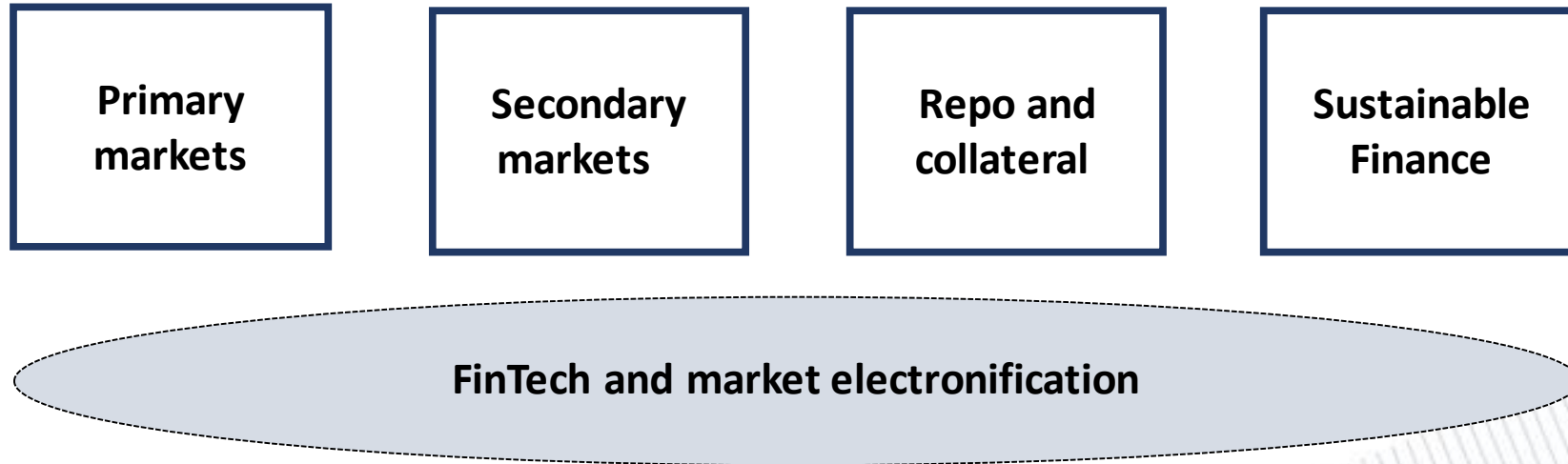


Agenda

- 1) Overview of ICMA's work on FinTech and market electrification
- 2) Technology trends in primary, secondary, repo and collateral markets
- 3) Digital standards – Extending the ISDA Common Domain Model to repos and bonds
- 4) Distributed ledger technology (DLT) in bond markets
- 5) Regulatory approaches to FinTech and innovation in capital markets
- 6) Q&As

ICMA's work on FinTech and market electronification

- ICMA's work in fixed income is focused on:



Dedicated committees and working groups:

- ICMA FinTech Advisory Committee (FinAC)
- Electronic Trading Council (ETC)
- CDM Working Group

ICMA's work on FinTech and market electronification (cont.)

Key drivers of electronification in cross-border capital markets

| Key drivers | Primary markets | Secondary markets | Repo and collateral markets |
|------------------------------|-------------------------------|-------------------------------------|------------------------------------------------------------|
| Efficiency and STP | Emerging technology solutions | Electronic trading | Electronic trading & FinTech solutions for repo operations |
| Liquidity sourcing | - | Platforms & Information networks | Emerging RFQ platforms (D2C) |
| Regulatory compliance | MiFID II/R - Record keeping | MiFID II/R - Reporting | SFTR - Reporting |
| Data management | Predictive analytics | MiFID II/R - Transparency data; TCA | Reconciliation |

Source: ICMA, [Market electronification and FinTech](#) (October 2017)

Technology trends in primary, secondary, repo and collateral markets (cont.)

▪ Primary markets:

- Number of solutions listed in ICMA Primary markets technology mapping directory grew from 20 to over 30 between Dec-18 to Sep-19.
- Increased digitisation of legal and operational processes (roadshows, origination, book building, syndication, private placements i.a.) across a range of debt instruments.
- Regional solutions – few global offerings.
- Use of AI and DLT in early stages.

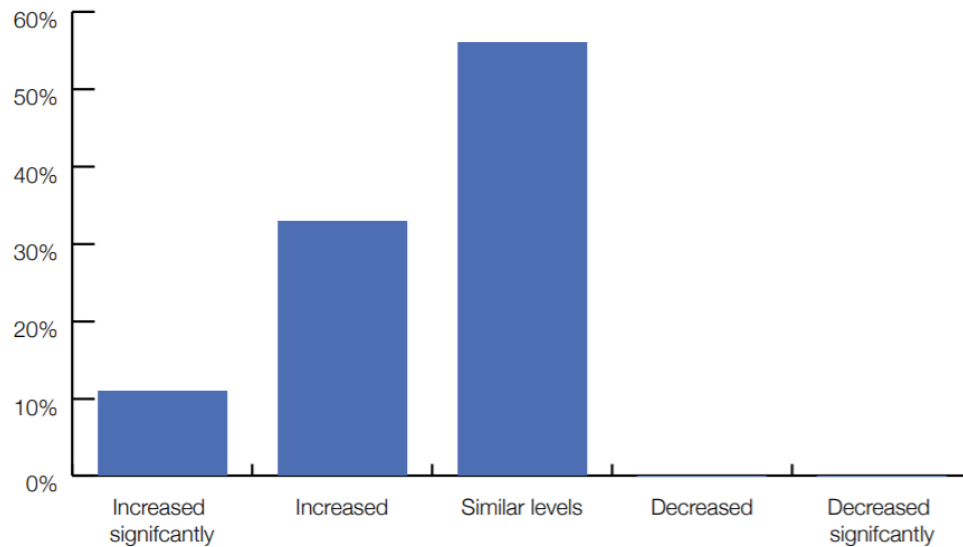
▪ Secondary markets:

- The Electronic Trading Platform (ETP) directory was initially launched in Oct-15.
- It references a total of 43 electronic execution venues, Order Management Systems (OMS), and information networks, for bonds since its latest review in Nov-19.
- Relative saturation of competition in an increasingly difficult market for new entrant platform providers.

Technology trends in primary, secondary, repo and collateral markets (cont.)

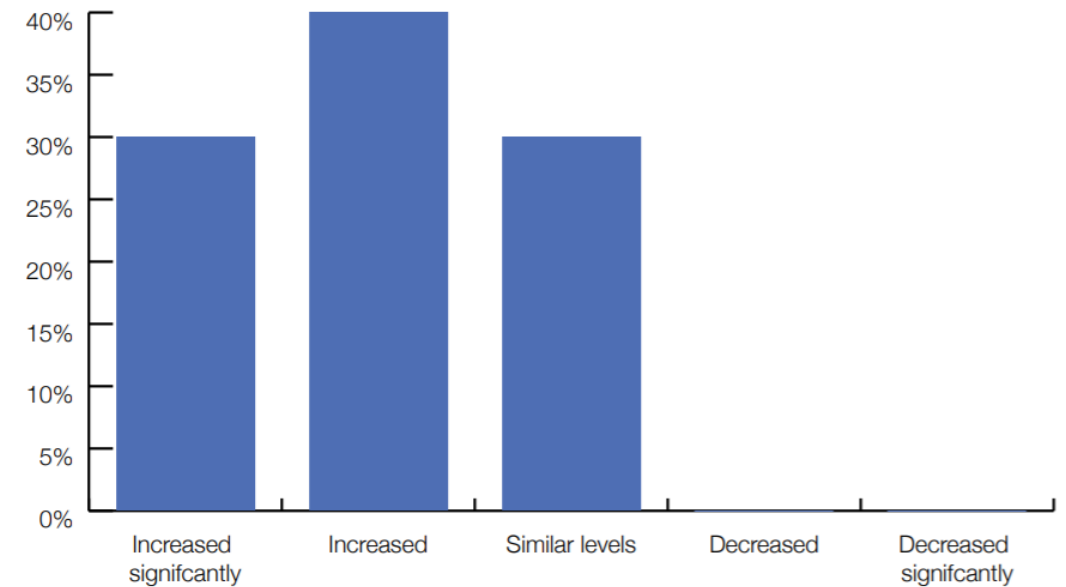
- Selected findings from [Time to Act: ICMA's 3rd study on the state of the European investment grade corporate bond secondary market](#) (Mar-20)

Survey Q: [buy-side] use of rules-based, fully automated electronic execution ("auto-execution"), compared with 3 years ago?
Use of auto-execution



p. 27-28

Survey Q: [sell-side] use of auto-quoting technology compared with 3 years ago?
Trends in auto-quoting

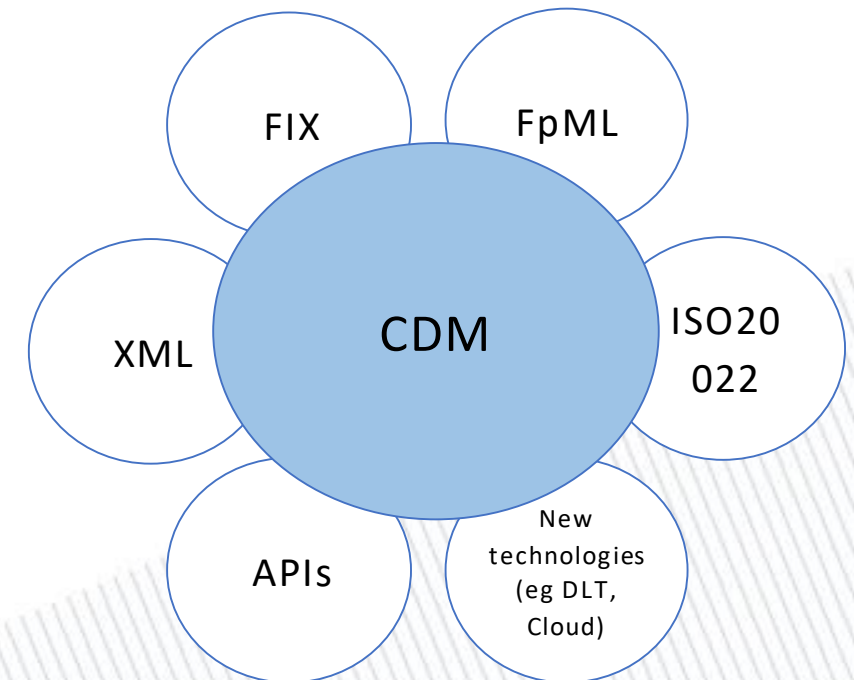


Technology trends in primary, secondary, repo and collateral markets (cont.)

- Secondary markets (cont.):
 - Continued increase in electronic trading and diversification of trading protocols to source liquidity (RFQ-to-All, All-to-All) in smaller sizes and IG bonds on the more liquid spectrum.
 - Direct connectivity (or ‘direct access trading’) appears to be gaining more traction.
- Repo and collateral markets:
 - FinTech mapping directory for repo and cash bond operations initially published in Nov-17. References over 100 solutions for collateral management, exposure agreement, intraday liquidity monitoring, amongst other categories.
 - High level of process automation in middle and back office.
 - Repo trading technology directory launched in Apr-20 – covering 13 electronic repo trading platforms.
 - Trend towards electronification driven in particular by EU regulation on Securities Financing Transactions (SFTR) and greater demand for STP.

Digital standards – Extending the ISDA CDM to repos and bonds

- The CDM is essentially a model for trade processing that is machine readable and executable.
- Initially developed by ISDA for derivatives to ensure consistency in the way lifecycle events are represented in different systems internally and across the market.
- Key benefits include:
 - 1) Enhanced interoperability & STP between market infrastructures and market participants.
 - 2) Greater internal efficiencies for firms' various processes and IT applications.
 - 3) Consistency of regulatory reporting and better regulatory oversight; and
 - 4) A common foundation for developing innovative solutions.
- The CDM can be considered an interface with existing standards and enabler of solutions.



Digital standards – Extending the ISDA CDM to repos and bonds (cont.)

Selected commonalities & gaps between derivatives and repos in the CDM

| CDM lifecycle components & terminology | Derivatives | Repo | Gaps |
|------------------------------------------------|-----------------------------------|--------------------------------------|-----------------------------------------------------------------------------------|
| Cash Transfer event Security Transfer event | Interest payment | Cash leg and Securities leg (DvP) | Securities-related cashflows (eg coupon payments) |
| Exercise event Cancellable provision | Swaption Call option in a swap | Termination of an open repo | Different processes and underlying logic (eg notice periods, exercise date) |
| n/a | n/a | Collateral substitution | Specific to repo |
| ISDA documentation | Eg Master agreement, CSAs | GMRA | GMRA product definitions and terminology |

- See further background and workshop materials on ICMA's [CDM webpage](#).
- ICMA Member firms who are willing to commit time and resources for the development of the CDM for repo are welcome to get in touch!

Distributed ledger technology (DLT) in bond markets

- Continuous increase in proofs of concepts, tests and live transactions in debt capital markets in the last few years.
- Selected examples in Asia-Pacific include:
 - World Bank bond-i issuance (08/18), secondary market transactions (05/19), and tap (08/19)
 - Monetary Authority of Singapore (MAS), Singapore Exchange (SGX) et al. – Project Ubin (since 11/16)
 - Bursa Malaysia securities lending PoC (11/19)
 - Thai SEC Master Blueprint – Corporate bond pilot projects (11/19)
 - Japan Exchange Group (JPX) and Japan Securities Depository Center: post-trade information sharing pilot (03/20)
- DLT in capital markets – towards more centralization?
- See further details on [New FinTech applications in bond markets](#) webpage

Distributed ledger technology (DLT) in bond markets (cont.)

- ICMA DLT Regulatory Directory launched in Dec-19.
- Objective: Provide a non-exhaustive overview of recent DLT regulatory guidance, legislative initiatives, as well as related strategy papers and publications in selected jurisdictions across Europe, North America, and Asia-Pacific.
- Scope: Capital markets, however, relevant guidance and developments related to crypto-assets have been considered insofar as they relate to the underlying technology.
- Key areas addressed can be split into (i) legal status, (ii) interoperability & standardised protocols, and (iii) security/resilience & corporate governance.
 - Selected examples:France: Legislative measures to enable recording and transfer of ownership of securities based on DLT (Decree No. 2018-1226, Dec-18, amongst others)
 - Australia: Evaluating distributed ledger technology - Information Sheet 219 (INFO 219), ASIC, issued Mar-17, last updated May-19
 - China: Cyberspace Administration of China (CAC) released regulations on the Management of Blockchain Information Services, taking effect Feb-19
 - ISO: First Blockchain/DLT standards ISO/TR 23455:2019 published in Sep-19.

Regulatory approaches to FinTech and innovation in capital markets

- Regulatory sandboxes – implications for capital markets
- UK: FCA Regulatory Sandbox (May-2016): Approx. 140 solutions overall, with lower but increasing number of capital markets applications based on DLT for bonds, loans equities. Majority of solutions appear to be retail-focused.
- Hong Kong: HKMA Fintech Supervisory Sandbox (launched in Sep-16). Pilot trials of 126 fintech initiatives executed (until end of Mar-20). Focus on RegTech (nearly 50%), API services, DLT, amongst others.
- Singapore: MAS FinTech regulatory sandbox (set up in Jun-16) and sandbox express (Aug-19). Initial focus on robo-advice, wealth management, Forex/money transfers/remittances, Insurtech, and more recently bond markets.
- Global Financial Innovation Network (GFIN), launched in Jan-19, comprising 50 organisation, for cross-border testing. Appears to be on hold.

Source: ICMA, [Regulatory approaches to Fintech and innovation in capital markets](#) (September 2018), recent research.

Further information

- ICMA FinTech landing page, including mapping directories, research and other resources:

<https://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/fintech/>

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Any questions?

If you are joining using Zoom:

- You can use the "Q&A" button to send your questions to us.

If you are dialing in:

- Please email your questions directly to Wing Wong at wing.wong@icmagroup.org

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