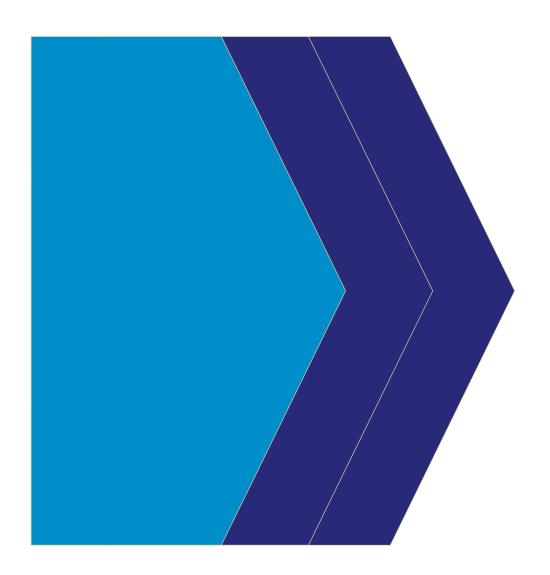


# **Future of financial markets**

September 2025





#### **Authors**

- Christopher Rich (Lead)
- Ted MacDonald
- Mimi Yan
- Daniel Mayston



We are grateful for the support of FMSB Partner Member Oliver Wyman in the preparation of this paper.

We would particularly like to thank:

- Benjamin Sacks, Partner
- Toby Pettman, Consultant



# Contents

Foreword	1
Executive summary	4
Introduction	7
Drivers of change	7
Evolution of financial markets	10
Theme 1: Market participation	10
Theme 2: Trade execution	15
Theme 3: New asset class frontiers	19
Theme 4: Shifting geography of markets	23
Risks to fair and effective markets	26
Fairness	26
Effectiveness	27
System functioning	28
Evolving role of FMSB	29
Conclusion	31
About FMSB	32



## **Foreword**

#### **Origins**

We are now ten years on from the Fair and Effective Markets Review (FEMR), published in 2015 in the wake of instances of serious market misconduct. Led by the UK Treasury, the Bank of England and the Financial Conduct Authority, it sought to restore confidence in the wholesale Fixed Income, Currencies and Commodities (FICC) markets. A key recommendation of FEMR was the creation of the Financial Markets Standards Board (FMSB), with senior participation from across London and other financial centres to drive improvements in standards of conduct in international markets.

Since then, trust in the sector has strengthened, standards of conduct have improved, and accountability regimes have addressed the perception of limited accountability. FMSB has played an important role in addressing the then-prevailing structural and cultural drivers of misconduct, driving changes in a way that leverages industry expertise and keeps pace with market developments, through practical, practitioner-led standards. However, the constantly changing nature of markets means that our work continues.

#### **Evolution**

Financial markets evolve rapidly. Following discussions with over 60 senior market practitioners and stakeholders, an outline of the possible future has emerged. Ongoing trends are expected to continue, including the rise of nonbank participants and private markets, the growing scale and expanding frontiers of FICC markets, the pervasive electronification of trading, the blurring of boundaries between institutional and retail participation, and the rising importance of regional market hubs. New, and less anticipated, shifts are also likely to arise, accompanied by new sources of risk that must be addressed proactively and collaboratively, harnessing expertise from across the industry.

#### **Our vision**

The need for FMSB's leadership is more important than ever. To maximise our positive impact, we must evolve with the market and the political and economic context in which we operate. This paper is intended to mark the beginning of an ongoing conversation about our future role. As Chair and CEO, we believe it is particularly important to:

- Broaden our membership to reflect the full diversity of market participants, with active encouragement from regulators and public authorities through formal agreements,
- 2. Ensure that lessons, hard learned in traditional markets, are applied in new contexts,
- Harness expertise from across the industry by driving collaboration amongst global standard setters and industry bodies to address challenges proactively and collaboratively, and
- 4. Deepen our international impact and strengthen our presence in the EU, Middle East and Asia.

#### Conclusion

As financial markets continue to expand and new asset classes develop in an increasingly interconnected financial system, we cannot afford a repeat of past misconduct and must be alert to the emergence of new threats that undermine confidence. FMSB remains committed to working with our Members and stakeholders to shape markets that are fair, effective, and resilient in the decade ahead.

Jonathan Moulds

Chair

**Myles McGuinness** 

CEO



## Contributors

This report has been prepared with input from the individuals listed below and others not explicitly named, provided both through conversations and written feedback. We are grateful to them all. The report reflects common themes that emerged from these discussions. However, the views expressed are not attributed to any individual, and contributors or their organisations may hold differing perspectives on particular points or predictions. It should be read as a synthesis of broad insights rather than a statement of consensus.

Organisation	Contributor
Aberdeen Group	· Gareth Murphy, Chief Risk Officer
Autoriteit Financiële Markten - Dutch Authority for the Financial Markets	· Hanzo van Beusekom, Executive Board member
Association for Financial Markets in Europe	· April Day, Head of Capital Markets
Australian Securities & Investments Commission	· Calissa Aldridge, Executive Director, Markets
AstraZeneca	· Jonathan Slade, Group Treasurer
Bank of America	· Mauricio Sada-Paz, Global Head of E-FICC Sales
Bank of Canada	· Harri Vikstedt, Senior Policy Director, Market Committees and Initiatives
Bank of England	· Sir Dave Ramsden, Deputy Governor, Markets and Banking
Barclays	<ul> <li>Asita Anche, Managing Director, Head of Systemic Market Making and Head of Data Science</li> </ul>
ВНР	Stewart Cox, Group Treasurer
Blackrock	<ul><li>David Morris, Head of Rates EMEA</li><li>Tyler Wellensiek, Global Head of Market Structure</li></ul>
Blackstone	<ul> <li>Dominic Ashcroft, Managing Director, European Head of Private Credit Origination</li> <li>Andrew Dowler, Managing Director and Head of Government Relations Europe</li> </ul>
Bloomberg	<ul> <li>Nicholas Bean, Global Head of Electronic Trading Solutions</li> <li>Harry Street, Global Head of European Credit in Electronic Trading Solutions</li> </ul>
Catena Digital	· Drew Bradford, CEO
Citadel Securities	<ul> <li>Stephen Berger, Managing Director, Global Head of Government and Regulatory Policy</li> <li>Shyam Rajan, Global Head of Fixed Income</li> </ul>
Citigroup	· Kieran Higgins, Head of Global Finance and Rates SM
Coinbase	· Tom Duff Gordon, Vice President of International Policy
Dubai Financial Services Authority	· Mark Steward, CEO
Financial Conduct Authority	· Simon Walls, Executive Director of Markets
Financial Stability Board	· Martin Moloney, Deputy Secretary General
HSBC	<ul><li>Richard Blackburn, Group Chief Risk and Compliance Officer</li><li>Chris Dickens, Head of Non-Financial Risk</li></ul>



Organisation	Contributor
International Capital Market Association	<ul> <li>Bryan Pascoe, CEO</li> <li>Natalie Westerbarkey, MD, Co-Head of Market Practice and Regulatory Policy</li> <li>Andy Hill, MD, Co-Head of Market Practice and Regulatory Policy</li> </ul>
Institute of International Finance	Tim Adams, President and CEO
Invesco	Karim Awenat, Head of EMEA & APAC Macro Trading
International Swaps and Derivatives Association	· Scott O'Malia, CEO
J.P. Morgan	<ul> <li>David A. Lewis, Managing Director, Global Head of the Supervisory and Transaction Management</li> </ul>
Lloyds of London	· Sir Charles Roxburgh, Chair
Loan Market Association	· Scott McMunn, CEO
Market Structure Partners	· Niki Beattie, CEO
Moody's Corporation	<ul> <li>Vincent Gusdorf, Associate Managing Director, Digital Assets and Al Analytics</li> </ul>
NatWest Markets	<ul> <li>Jared Noering, Managing Director, Global Head of Fixed Income Trading</li> <li>Phil Lloyd, Managing Director, Head of Non-Bank Financial Institutions</li> <li>Matthew Harvey, Managing Director, Head of Cross product Sales and Development</li> </ul>
Norges Bank Investment Management	<ul><li>Pauli Mortensen, Global Co-Head of Fixed Income Trading</li><li>Vegard Vik, Lead Market Structure and Strategy</li></ul>
Oliver Wyman	· Huw van Steenis, Vice Chair
Reserve Bank of Australia	· Andrew Hauser, Deputy Governor
Royal Bank of Canada	· Jim Byrd, Global Head of Macro Products
Schroders	· Dame Elizabeth Corley, Chair
SigTech	· Bin Ren, Founder and CEO
Securities and Futures Commission of Hong Kong	· Julia Leung, CEO
Société Générale	Mohamed Braham, Deputy Head of Fixed Income and Currencies
Tradeweb	· Jennifer Keser, Head of Regulation & Market Structure
UBS	<ul> <li>Christophe Patricot, Global Head Fixed Income Solutions, Structured Financing and Fund Financing</li> </ul>
UK Accelerated Settlement Taskforce	· Andrew Douglas, Chair
UK Debt Management Office	· Jessica Pulay, CEO
USS Investment Management	Ben Clissold, Head of Fixed income and Treasury
XTX Markets	· Jeremy Smart, Global Head of Sales
Zodia Markets	Nick Philpott, Co-Founder and Head of Partnerships
Other contributors include:	<ul> <li>David Hudson, former Co-head CIB Digital &amp; Platform Services J.P. Morgan</li> <li>Mark Yallop, former Chair of FMSB</li> <li>Ed Ocampo, FMSB Board member</li> <li>Peter Warne, FMSB Board member</li> <li>Michael Cole-Fontayn, FMSB Board member</li> </ul>



## **Executive summary**

Drawing on insights from more than 60 market practitioners and policymakers globally, this paper seeks to answer four key questions. First, how have markets evolved since the 2015 FEMR report and what has driven this evolution? Second, how do market practitioners expect markets to change over the next decade? Third, what risks might these changes present to fair and effective markets? And fourth, how should FMSB evolve in light of these shifting market dynamics?

#### Market evolution and drivers of change

There have been significant structural changes in financial markets since 2015. Although shaped by a combination of factors, the interaction of four primary drivers stands out: evolving societal trends, geopolitical shifts, technological advances, and in response to these, regulatory priorities.

#### **Looking back**

These drivers have given rise to four key thematic shifts in markets since 2015:

- 1. Market participation: Growth of non-bank financial intermediation and the shift away from the universal service provision model.
- **2. Trade execution**: Market electronification, the rise of platforms, data as a key enabler in markets, and early stages of advanced Al adoption in trading.
- **3. New asset class frontiers**: The expansion of traditional FICC markets and the emergence of new asset classes. Increasingly blurred boundaries between institutional and retail markets and the shifting perimeter of FICC.
- **4. Shifting geography of markets**: Evolving geographical distribution of market activity marked by the emergence of regional hubs in mainland Europe, the Middle East and Asia, as well as gradual de-dollarisation and increasing multi-polarity.

#### Looking ahead - the next decade

While the direction, pace and extent of change to markets is difficult to predict, many of the trends that have developed over the last decade are expected to continue and, in some instances, accelerate over the next decade. Recurring observations made by contributors on the future of markets include:

#### **Market participation**

- Liquidity provision: Provision of liquidity in data-rich instruments becoming increasingly concentrated in a smaller number of the largest bank and non-bank players. Regional banks and national champions adopting a narrower focus on domestic asset classes and relationship-driven business and limiting liquidity provision to targeted asset classes as 'white labelling' outside a firm's core markets becomes more common
- Service unbundling: Increasing unbundling of trading and financing services, driven by changing client demand and greater specialisation. Growth of bank financing businesses as customers seek greater leverage
- Role of compute power: Access to data and large-scale computing power becoming critical to generating trading volume and sustaining competitive edge
- Blurring lines between public-private markets: Improved data availability for private markets, more secondary market liquidity and the proliferation of hybrid funds increasingly blurring the lines between public and private credit markets
- Market interconnectedness: Expanding private credit markets growing more interconnected with banks, asset managers, insurers and pension funds

#### **Trade execution**

- **Electronification**: Electronification of execution continuing toward 80% market penetration of fixed income, having become the standard in equity markets
- Al in execution: Increasing adoption of Al in trading activities driving significant market structural changes including increasing turnover and asset correlations, faster market



reactions to new information, greater penetration of algorithmic trading strategies across asset classes, and potentially increased liquidity in more bespoke instruments

- Automation: Automatic and advanced Aldriven trading strategies leading to greater focus on model oversight, market access, and volatility controls to mitigate risk of dislocation and flash crashes
- **Digitisation**: Digitisation of all aspects of markets increasing focus on cyber-resilience for market participants and infrastructure

#### **New asset class frontiers**

- Market expansion: Existing bond/fixed income markets continuing to expand, driven by the requirements of government borrowing and ageing demographics coupled with a lack of political ability by western governments to reduce deficits
- **Stablecoins**: Stablecoins seeing increasing adoption, particularly for cross-border settlement and trade flows, with the possibility of stablecoin issuers becoming the second largest holders of US treasuries behind the NY Federal Reserve Bank itself, increasing risks related to a mass redemption event
- Unbacked crypto: Unbacked crypto markets bifurcating, with Bitcoin continuing to be seen in a category of its own. Other cryptocurrencies' existence and value becoming increasingly determined by their utility
- Tokenisation: Tokenisation of assets accelerating, but remaining contingent upon scale requirements of blockchain technology, regulatory clarity, interoperability and a secondary market

#### Shifting geography of markets

- Regionalisation: While traditional financial centres in the US and Europe remain key for major markets, particularly for trading activity, regional hubs becoming increasingly significant
- New centres: New financial centres, particularly in the Middle East and Asia, gaining prominence by promoting more favourable regulatory regimes and positioning themselves at the forefront of crypto, blockchain or advanced processing technology
- Emerging Markets: Emerging Markets (EM) and China continuing to capture a growing

- share of global market volumes, with intra-EM trading becoming more prevalent
- Role of USD: De-dollarisation trend continuing, although this may be offset by increased usage of USD backed stablecoins
- Supply chains: Regionalisation in commodity as well as financial markets for supply chain control, competitiveness and sovereignty reasons

#### Risks to fair and effective markets

The defining features of *fair markets* - consistency of standards, transparency, open access, merit-based competition, and integrity of conduct - are being tested in new ways. Expanding retail access and growth in private markets are creating fresh transparency and oversight challenges, while technological scale is concentrating market-making activity in fewer firms. The rise of machine-led markets also raises conduct and governance concerns. Diverging regulatory regimes and political fragmentation further risk undermining consistent global application of standards.

For effective markets, predictability, resilience, robust infrastructure, and efficient price discovery are being reshaped by new technologies and trading behaviours. Cyber risks and the coexistence of legacy and digital infrastructures heighten operational vulnerabilities, while liquidity fragmentation and concentration in technologically advanced firms could impair functioning under stress. The growth of dark venues and speculative dynamics amplified by digital channels influence how capital and risk are allocated.

As markets continues to evolve, familiar risks to fair and effective market functioning will persist, albeit in new forms, and may be accompanied by new sources of risk. Addressing these challenges will benefit from a proactive and collaborative approach, harnessing expertise from across the industry to ensure markets continue to deliver fair outcomes and operate effectively in a rapidly changing environment.

#### **Evolving role of FMSB**

FMSB's objectives of identifying emerging risks, addressing uncertainty in market practices, and supporting consistent standards, remain important as institutional markets evolve. However, like other market stakeholders, FMSB will need to adapt to a changing landscape. The growing role of non-bank intermediaries, private



capital, data and venue providers, and new entrants across asset classes means standards must reflect a broader range of perspectives. Ensuring engagement from this wider community will help maintain relevance and promote consistency across increasingly diverse markets.

Rapid innovation, the expansion of new asset classes, and the blurring of institutional and retail activity are reshaping the perimeter of wholesale markets. In this context, standards can complement regulation by offering timely guidance where formal rules may lag. FMSB will need to work more inclusively, respond with greater agility, and engage ever more widely to address emerging risks and areas of ambiguity.

At the international level, fragmentation of liquidity and diverging regulatory approaches create additional challenges. Common standards can help foster confidence and consistency across borders, but this will require stronger global engagement by all parties. FMSB will need to deepen international dialogue and ensure its standards remain practical, adaptable, and aligned with the needs of an interconnected financial system. This may lead to FMSB establishing a presence in other key financial centres.

FMSB must evolve with the changing contours of markets to best deliver on its mission to promote fair and effective markets. This paper, coinciding with the ten-year anniversary of FEMR, marks the beginning of a dialogue around the organisation's future role.



## Introduction

- n. Markets are dynamic, they 'expand, evolve and reinvent themselves in step with the ideas and technology of their time'. This is true of the decade since FEMR and will undoubtedly hold true for the next decade. While it is inevitable that markets will not stand still, the pace and extent of change driven by advances in compute power, a shift in regulatory focus, geopolitical considerations and broader societal factors is less predictable.
- 2. This paper, developed through extensive engagement with practitioners and policymakers from across the market, explores how markets have evolved over the past decade and considers how they may develop over the next ten years. In light of significant shifts in market participation, trade execution, asset class frontiers and the geography of markets, we assess the implications for FMSB's role as a standard-setter and how it can best support fair and effective markets in this changing environment.
- 3. While the primary focus has been on fixed income, currencies and commodities which are institutional and corporate in nature, the trends described are also applicable to broader financial markets and participants.
- 4. There were a range of views on the evolution of markets. Some believe that we are on the cusp of a generational shift accompanied by a 'digital finance revolution'2. Most expect a continuation, and potential acceleration, of existing trends including the shift of market risk from banks to asset owners and non-bank intermediaries, a continued expansion of both traditional FICC and new forms of digital assets as well as a proliferation in the underlying technologies and a shifting geography of finance. Contributors noted that attention should focus on how the real economy will benefit from innovation and efficiency gains in markets, and that new and heightened risks to the fair and effective functioning of markets will also emerge.

## Drivers of change

- 5. When FEMR was published in 2015, markets were still in the long shadow of the Global Financial Crisis. Recent memory of systemic fragility had driven an intense regulatory response, while an extended period of nearzero interest rates compressed margins and reshaped business models. These conditions created strong demand for efficiency, catalysing greater electronification and accelerating the adoption of new technologies.
- 6. While many forces shape markets, the past decade has been defined above all by four: societal trends, geopolitics, technology and regulation – where global coordination is increasingly giving way to national priorities. Together, these forces have driven significant change across financial markets and look poised to continue to influence their evolution in the years ahead.

<sup>&</sup>lt;sup>1</sup> Atkins, P, American Leadership in the Digital Finance Revolution, 31 July 2025



#### Societal trends

Since 2015, societal dynamics have shifted, thereby influencing how end customers, including public institutions, investors and stakeholders, interact with financial systems.

**Demographic changes,** including an ageing population in many developed economies, have increased the importance of fixed income markets in capital allocations toward long-term savings vehicles, such as pensions and retirement funds.

A younger, more risk-tolerant generation seeking greater rewards, is amplifying swings in investor sentiment and creating new dynamics in how capital is deployed and influenced by public perception.

Cheaper hardware, the availability, cost, and speed of data transmission and the coming-of-age of social media has transformed **information flow**, enabling real-time dissemination of news, opinion, but also speculation. Platforms once seen primarily as communication tools have evolved into powerful forces shaping investor behaviour, political discourse, and public trust – exacerbated by their susceptibility to manipulation, including by bad actors.

Technology has also contributed, alongside economic inequality and rapid cultural change, to increased **populist sentiment** across many advanced economies, in addition to **dissatisfaction with traditional institutions**. This has contributed to declining trust in central authorities, from governments to financial institutions, as well as political polarisation. These same dynamics have supported the rise of decentralised technologies, most notably cryptocurrencies including Bitcoin, which was originally conceived as a peer-to-peer system designed to operate without central intermediaries.

Concerns around **climate change** have also shifted to become a key investor priority over the last decade, leading to the rise of ESG investing and growing expectations around corporate climate responsibility. While recent years have seen some pushback, climate concerns are likely to regain prominence as the need for urgent action intensifies along with a need to understand the sustainability risks associated with investments.

#### **Geopolitics**

The global macroeconomic and geopolitical environment is changing profoundly with farreaching implications for the structure and functioning of financial markets.

The 2008 financial crisis heralded an extended era of low inflation, ultra-low interest rates and central bank quantitative easing, extending through the start of this decade due to the COVID pandemic. This epoch has ended as supply chain disruptions have contributed to a period of **higher and more volatile inflation**, prompting central banks globally to raise interest rates to levels seen before the financial crash and introduce quantitative tightening.

**National debt levels** have risen sharply across advanced and emerging economies, driven by successive rounds of fiscal stimuli, pandemicrelated spending and longer-term demographic pressures.

The **era of globalisation has ended** as we enter a new phase of growing fragmentation accelerated by geopolitical tensions, the reimposition of tariffs, and widespread use of sanctions, particularly in response to conflicts such as the war in Ukraine. These developments have disrupted supply chains and encouraged many governments to prioritise **economic self-reliance** through onshoring and the reshoring of critical industries. Multilateral organisations such as the UN and G20 have declined in significance without the support of key stakeholders, even as global challenges demand greater collective action, including the escalating physical impacts of climate change.

The global monetary order is also in flux. Efforts to boost local or regional markets have led to a gradual trend of **de-dollarisation**, as global economic and geopolitical influence is beginning to shift away from western economies. Asia Pacific contributed 60% of global GDP growth in 2024, and Emerging Market economies are achieving industrial-scale production capabilities and exerting greater influence on trade, capital markets, and commodities. The elevated demand for gold by central banks in recent years is one indicator of de-dollarisation.

Questions are growing around the role of the US. A decade ago, a retreat of the world's largest economy back into isolationism seemed most unlikely. Even if still a remote possibility, the potential impacts could be unprecedented for the FX markets, liquidity, and global economy as a whole.

Taken together, these trends signal a transition from a largely integrated global system to one increasingly defined by regional blocks, strategic competition, and a more complex, **multipolar economic landscape**.



#### **Technology**

Technological progress has accelerated rapidly, transforming how financial institutions operate, communicate and compete.

Advances in **computing power**, machine learning, and low-latency infrastructure have enabled real-time information processing and increasingly complex automated decision-making. The emergence of more advanced forms of **artificial intelligence**, particularly generative AI such as large language models (LLMs), has further enhanced workflow automation. This has been enabled by the volume and variety of data created by electronic systems, creating both opportunities and challenges for firms in managing and leveraging this information successfully.

Falling costs in cloud computing and the growth of open-source tools have broadened access to sophisticated technologies. This has created a **democratisation** effect, allowing smaller firms to experiment with advanced systems, though often without the scale of larger institutions. Firms reliant on legacy infrastructure are facing increasing pressure from players with newer technology optimised for speed. Businesses have also become more dependent on a small number of cloud and cybersecurity providers, introducing new operational risks and raising questions around **concentration and resilience**.

More specific to the financial landscape, **Distributed Ledger Technology** (DLT) and tokenisation are laying the groundwork for more efficient issuance and settlement processes – although some debate remains around the benefits compared to the scale of the initial hurdle to adoption and downside risks. Meanwhile, increased use of APIs and open data standards is streamlining system connectivity and access to services, and the expanding access to standardised data is changing firms' ability to assess risk and develop strategies.

However, access to the most advanced tools, such as high-end GPUs and proprietary AI models, remains more limited and costly – potentially **concentrating control** over these technologies in a limited number of hands. This has also contributed towards geopolitical tensions arising from the scarcity of both raw materials and manufacturing capabilities of their base components.

Finally, technology is continuing to evolve faster than its long-term value or risks can be fully assessed, while the political desire to harness its potential upside has led to limited regulation. This uncertainty is driving both innovation, and volatility, across financial services.

#### Regulation

Regulatory frameworks have continued to evolve significantly, with a strong focus on strengthening systemic resilience, transparency, and governance across financial markets. The phase-in of Basel III accords that started in 2009 has progressively raised **capital and liquidity requirements** on both the asset and liability sides, to strengthen bank balance sheets. In the U.S., the Dodd-Frank Act introduced **enhanced oversight of systemically important institutions** and comprehensive reforms to OTC derivatives trading.

Transparency and conflict of interest reforms have been central. The Volcker Rule (part of Dodd-Frank) restricts U.S. banks from proprietary trading and private fund investments, while TRACE reporting was extended in 2017 to cover all U.S. Treasury securities, improving price transparency. In the EU, MiFID II (2018) introduced rigorous preand post-trade transparency rules, the revised EMIR (2019) enhanced risk controls for OTC derivatives and the MiFIR review adopted in 2024 should set the conditions for the establishment of a consolidated tape in bonds with parallel and similar reforms underway in the UK. The EU Benchmarks Regulation (2018) also established governance standards for newly created benchmark administrators.

Conduct risk reform has accelerated. Dodd Frank and the consumer protection act granted the CFTC authority to enforce standards of conduct amongst major players in the swaps market, and the EU's Market Abuse Regulation (MAR) similarly improves market integrity and internal controls. The proliferation of individual accountability regimes around the world has placed accountability on senior individuals across financial services.

**Resilience** has become a growing focus. Globally, the Uncleared Margin Rules (UMR), implemented from 2016, require collateral exchange on noncentrally cleared derivatives to reduce systemic risk. The EU Digital Operational Resilience Act (DORA), introduced in 2022, aims to ensure firms can withstand technology-related disruptions.

While some new asset classes have attracted specific new regulations, a shifting regulatory philosophy is gaining traction. This is characterised by **regulatory simplification** or **deregulation** leading to a less interventionist and more disclosure-led approach. Revisions have been made to Dodd-Frank and Volcker in the U.S. and post-Brexit reforms in the UK and EU, as regulation shifts toward promoting growth, market efficiency and competitiveness between jurisdictions.



## Evolution of financial markets

7. This section examines the key structural changes in financial markets since FEMR and considers how these existing trends may continue over the next decade. We identify four primary areas of evolution:

Theme 1: Market participation

Theme 2: Trade execution

Theme 3: New asset class frontiers

Theme 4: Shifting geography of markets

#### **Theme 1: Market participation**

#### **Summary:**

- Shift of intermediation from banks to nonbanks. This is expected to continue, although banks will still play a major role in providing liquidity
- Rapid rise of proprietary trading firms, particularly in more liquid asset classes.
   Future activity is expected to concentrate amongst the most sophisticated trading firms
- Increased competition may continue to compress margins, incentivising further investment in automation across front, middle and back-office systems
- Growth and consolidation among the largest asset managers, pension funds and hedge funds reflect the increasing market power of the buy-side as well as the cost pressures this segment faces
- As trading environments become more volatile, active management may see a renaissance
- Private markets have grown markedly with private credit expanding to fill the lending gap left by banks. Over the next decade the boundaries between public and private credit markets are likely to become increasingly blurred

#### Rise of proprietary trading firms

- 8. Over the past decade, the composition and roles of participants in markets have undergone a notable expansion. Despite these shifts, banks remain central to market functioning. They continue to underpin overall market liquidity, by intermediating large, complex, and/or illiquid trades which smaller, more specialised, firms may not be able to absorb. In particular, banks' capacity to warehouse risk, maintain long-term client relationships, and provide services across trading, clearing, settlement, and advisory remains important. Banks also play a critical role in lending markets, particularly outside the US, where smaller deals and SME financing rely heavily on relationship-based models that non-bank lenders are often less equipped to support.
- 9. While banks remain the primary providers of liquidity in many fixed income markets, evolving client demand, the refinement of business models to provide more targeted client services, advances in technology and computing power and regulatory constraints on bank balance sheets, have supported the emergence of proprietary trading firms as key players.
- 10. As a result, proprietary trading firms have been able to act on market opportunities with greater speed and efficiency. Having initially established a foothold in more liquid products such as US equity and FX markets, proprietary trading firms are now becoming increasingly active in government bond and credit markets.<sup>3</sup> Non-bank Liquidity Providers (NBLPs) now account for 80% of trading volumes in fixed-income ETFs and are increasingly taking on roles previously associated with investment banks, including block trades and client facilitation.<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> Citadel Securities currently facilitates 25% of all US trades; Financial Times, Citadel Securities profits jump 70% on surge in trading revenues. 2025

 $<sup>^{\</sup>rm 4}$  International Financing Review, Banks target new frontier in bond trading fight: ETFs, 2023



#### The future

- n. Our contributors expect that banks will remain central. However, non-bank participants, particularly proprietary trading firms, are expected to play an ever more prominent role. By expanding into less liquid products, leveraging technological advantages to offer tighter bid-offer spreads, and processing higher trading volumes enabled by further electronification, these firms are expected to place sustained pressure on bank margins.
- 12. Furthermore, leading proprietary trading firms with a first-mover advantage will continue making large scale investments in advanced technology and data centres to support higher trading volumes at greater speed in data-rich asset classes. Most banks, aside from the largest global players, are unlikely to be able to match this level of investment.
- outsource liquidity provision in standardised, smaller or more liquid securities to proprietary firms or larger banks, retaining client relationships while focusing their own trading resources on large or illiquid transactions. This 'white labelling' of liquidity will increase the interconnection of banks and proprietary firms, and accelerate the bifurcation of roles, with proprietary firms accompanied by a small number of banks becoming pre-eminent in liquid markets, and others specialising in less liquid, larger or more complex transactions.
- 14. Over time, this may drive further consolidation among non-bank liquidity providers and concentrate market power among a few major players. This shift may introduce new risks and vulnerabilities in the financial system. Unlike banks, proprietary trading firms often have centralised ownership structures placing significant market influence in the hands of a small number of individuals.

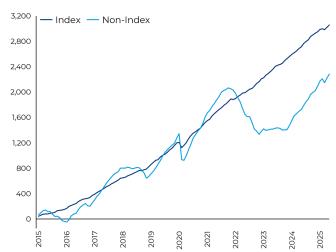
15. As the role of non-bank institutions expands, greater transparency and collaboration will be important to help mitigate the risks of disruptive conduct or market shocks, particularly during periods of stress.

#### **Buy-side consolidation**

- 16. On the buy side, fee pressures and economies of scale have shifted the balance towards a 'winner takes most' market structure, characterised by a smaller number of very large asset managers whose influence has grown alongside the rise of index-based investment strategies, in part driven by low volatility making alpha creation more challenging for active managers.
- increasingly important. Index-based bond funds (chart 1) have attracted US\$2.8 trillion in cumulative inflows since 2007, compared to about US\$2.3 trillion for active funds.<sup>5</sup> While this has broadened access to fixed income markets, including for retail investors, it has also increased the influence of a small number of firms where a handful of players have become systemically important to both market behaviour and liquidity dynamics.<sup>6</sup>

Chart 1: Active vs index-based global bond fund cumulative flows<sup>7</sup>

**USD** Billion



18. Large pension funds have become increasingly influential. Of the top 300 funds, the top 20 funds account for 42% of total assets under management as of 2023,

<sup>&</sup>lt;sup>5</sup> Financial Times, the passive attack on bond markets, 2024

<sup>&</sup>lt;sup>6</sup> Blackrock now oversees over US\$10 trillion in assets, including US\$2.7 trillion in fixed income

 $<sup>^7</sup>$  Morningstar, Worldwide open-ended funds, money market funds, and ETFs, excluding funds of funds and feeder funds



allocating 35% of their portfolios to fixed income. Driven by demographic trends such as ageing populations and rising contributions, the top 300 pension funds now manage US\$22.6 trillion in assets, a 50% increase since 2015. These funds are becoming increasingly active in the market, with direct bond holdings and internal trading operations enabling them to shape price dynamics and liquidity, especially in longer-duration securities.

19. The hedge fund community has also witnessed consolidation with the rise of multimanager funds or 'pod shops'. AUM of the largest funds has grown significantly with their role in the market amplified through the use of leverage. These funds may be connected to both the banks, through their provision of financing, and asset managers through e.g. participation, as counterparties, in the 'basis trade' in US treasuries<sup>10</sup>.

#### The future

- 20. The upcoming decade is likely to see a period of prolonged quantitative tightening, after high levels of government debt issuance during Covid-19. This will amplify the importance of asset managers, pension funds and other investors in providing liquidity and avoiding volatility in government bonds.
- 21. Simultaneously, strong demand for indexbased fixed income products will likely drive the expansion of low-cost offerings, in turn enabling clearer comparisons with active strategies and putting pressure on underperforming managers.
- 22. However, as market volatility rises, driven by geopolitical tensions and higher interest rates, skilled active managers may identify opportunities to deliver benchmark-beating returns and regain prominence. This may enhance market discipline by improving capital allocation and issuer scrutiny.
- 23. Meanwhile, index-based funds may continue to support market liquidity and turnover, but their structure could also distort pricing, particularly if heavy inflows into specific

credit tiers outstrip supply. In such cases, index-driven buying could push prices above fundamental value, reducing price sensitivity and shifting capital flows toward index inclusion rather than credit quality.

#### Rise of private credit

- 24. Private credit is structurally different from bank lending and has grown into a core segment of fixed income, filling the funding gaps left by banks constrained by post-2008 prudential regulations. Private credit is increasingly executing transactions once reserved for syndicated lending. These changes are redistributing risk across the financial system from highly regulated banks, toward non-bank financial institutions.
- responsible for nearly all of the UK's £425 billion net increase in corporate lending. 11 Globally, non-banks now account for approximately 50% of financial assets. 12 While their focus remains on bespoke, high-yield opportunities (e.g. 70% of LBO transactions in 2024), private credit has become a more mainstream alternative to bank lending. In 2024, 71% of corporate treasurers reported difficulty accessing bank financing, with over half turning to private equity or private credit. 13 As a result, assets under management in the private credit market have roughly tripled in the last decade. 14
- 26. The private credit market has also diversified in its sources of capital and deployment strategies, reducing liquidity mis-match risk and extending reach. Large firms are now underwriting transactions at scales traditionally reserved for the syndicated bank market, while smaller managers continue to operate in higher-risk, higher-yield segments of the market. 15 Insurers, which have very long-term horizons, have become a large source of capital which serves to reduce costs for this sub-sector. Private wealth has also become an increasingly important source of funding, accounting for 12% of assets for major managers, and more than doubling in the last

<sup>&</sup>lt;sup>8</sup> Thinking Ahead Institute & Pensions & Investments, Global top 300 pension funds. 2024

<sup>&</sup>lt;sup>9</sup> Reuters, World's top 300 pension funds see assets pass \$15 trillion, 2015

 $<sup>^{\</sup>mbox{\tiny 10}}$  Bloomberg UK, Matt Levine, Pod shops are the new banks, 28 August 2025

 $<sup>^{\</sup>rm II}$  Bank of England, Non-bank risks, financial stability, and the role of private credit – speech by Lee Foulger, 2024

 $<sup>^{12}</sup>$  FSB, Global monitoring report on non-bank financial intermediation, 2024

<sup>&</sup>lt;sup>13</sup> Maher, Woolard et al., Regulatory focus on non-bank finance: considerations for financial services providers, 2025

<sup>&</sup>lt;sup>14</sup> Preqin database, 2025

 $<sup>^{\</sup>rm 15}$  For example, Apollo's £4.5 billion facility to EDF to finance the UK's Hinkley Point nuclear power plant



three years. <sup>16</sup> The rise of evergreen funds, which are open-ended vehicles offering periodic liquidity, has further supported growth. As a result, 'dry powder' in the sector has grown fourfold since 2014, enhancing market depth and increasing the influence of private credit, but potentially also introducing new, less transparent sources of financial risk. <sup>17</sup>

#### The future

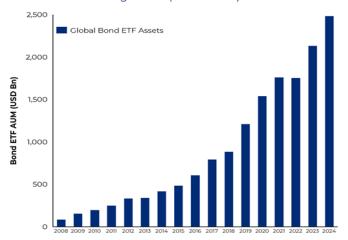
- 27. Private credit is expected to continue to expand further over the next decade, driven by record levels of available capital to deploy, investor demand for alternative sources of financing, and constrained bank lending under Basel III. Given the ability to be structurally innovative and offer longer terms, the sector will continue broadening into adjacent areas such as real estate and infrastructure debt, while diversifying funding sources, including increased funding from retail investors.
- 28. The sector's growing scale is also leading to deeper interconnections with the banking system, as credit risk shifts away from the banks toward non-bank financial institutions. Joint ventures between banks and private credit managers are already emerging and are likely to continue in the next decade. While these ventures will facilitate off-balance sheet lending, they may also increase the potential channels for risk to return to the banking system, alongside existing derivatives and credit lines.
- 29. The lines between public and private fixed income are likely to become increasingly blurred, driven by improved data availability and liquidity in private markets and the potential proliferation of hybrid ETF funds investing in both public and private credit.
- 30. Retail participation in private credit is also rising, especially through evergreen fund structures. While these vehicles improve accessibility, they raise potential conduct risks, as managers are responsible for valuing illiquid assets without the transparency of public markets. The inclusion of private credit in retirement vehicles such as pension funds and 401(k) plans may further increase the real world consequences of market stress in this asset class.

31. Although default rates remain relatively low, the combination of rising interest rates, increased leverage, and declining coverage ratios are contributing to growing concerns about underlying vulnerabilities. Providers are regulated, but concerns could prompt central banks to consider expanding their oversight frameworks.

#### **Retail participation**

- 32. Retail participation in fixed income markets has increased significantly since 2015, driven by a combination of higher interest rates, improved digital access, and the growth of bond exchange-traded funds (ETFs) (chart 2). Bond ETFs now represent a key access point for individual investors, offering diversified, low-cost exposure to fixed income through a liquid and transparent structure. Global assets in bond ETFs have grown from US\$50 billion in 2015 to over US\$2 trillion in 2025, with 5 of the 20 largest fixed income vehicles globally now structured as ETFs. 18 Flows into these products have remained resilient despite recent market volatility.
- 33. Digital platforms have further lowered barriers to entry. Some new providers now offer fractional bond investing, while major institutions are developing self-directed platforms for retail clients. As a result, U.S. households and non-profits now hold US\$2.9 trillion in US treasuries, a tenfold increase since 2015, a growing retail footprint in markets historically the preserve of institutional investors.<sup>19</sup>

Chart 2: Growth of bond ETFs to become a US\$2tr asset class<sup>20</sup> Assets under management (USD Billion)



<sup>&</sup>lt;sup>16</sup> Oliver Wyman, Private credit is reshaping wealth portfolios, 2025

 $<sup>^{\</sup>mbox{\tiny 17}}$  Federal Reserve, Private credit: characteristics and risks, 2024

<sup>&</sup>lt;sup>18</sup> Financial Times, ETFs are eating the bond market, 2024

<sup>&</sup>lt;sup>19</sup> Federal Reserve Bank of St Louis, Households and non-profit organisations: treasury securities, 2025

<sup>&</sup>lt;sup>20</sup> Morningstar, Worldwide fixed income ETF Funds, 2025



#### The future

- 34. While bond ETFs still account for just 2% of the global bond market, comparisons with equity ETFs, which now represent over 10% of equity market capitalisation, suggest further room for growth.<sup>21</sup> Projections show that bond ETF assets could reach US\$6 trillion by 2030.<sup>22</sup>
- 35. Private credit is expected to attract growing inflows from retail investors. Many wealthy investors are starting to adopt a "barbell" strategy combining low-cost bond ETFs at one end with higher-yielding, less liquid private credit at the other.
- 36. Increased retail participation introduces new challenges. Studies suggest that many retail investors lack a full understanding of credit risk and may over-rely on headline yields or credit ratings, 23 although this is likely to remain true for other products as well.
- 37. As retail access expands, there will be a growing need for improved transparency and standardisation in all relevant products, to support effective market participation and reduce the risk of retail-driven dislocations in fixed income markets.

#### **Commodities trading**

38. Over the past decade, the structure of global commodity markets has altered markedly. The space once supported a diverse ecosystem of commodity-focused hedge funds that sought to profit from price movements in raw materials. However, extended periods of low and stable prices, combined with subdued volatility in many key commodities, eroded opportunities for speculative trading. As a result, many of these funds exited the market. In their place, large physical commodity trading houses expanded their role, leveraging control over supply chains, storage, and logistics to support integrated trading. Consolidation has increased the influence of a small number of global players in both physical and derivatives markets. Regulators have become increasingly concerned about

the potential risks posed by such entities, particularly given their scale, cross-market linkages, and potential financing needs during periods of market stress. More recently, precious industrial metals (rare earths) have become more politicised as governments seek to improve access, inventories and pricing benefits as well as improve the competitiveness of those industries which are reliant on these specialist metals.

#### Role of central banks

39. The role of central banks has shifted significantly over the past decade. During the post crisis era, central banks became major, price-insensitive buyers of sovereign debt under quantitative easing (QE) programmes. By 2017, six major central banks held approximately 20% of their domestic government bonds worth US\$9 trillion, having held less than US\$1 trillion in 2008.24 This exerted a dampening effect on yields and market volatility. However, with the return of quantitative tightening (QT), following a temporary reversion to QE during the pandemic, central banks have begun reducing their holdings. For example, the Federal Reserve has cut its holdings of US Treasuries by roughly a third since 2022. This retreat has partly facilitated an increase in bond yields and led to the private sector absorbing more issuance.

 $<sup>^{\</sup>rm 21}\, {\rm JP}$  Morgan, From evolution to revolution: The power of active fixed income ETFs, 2025

<sup>&</sup>lt;sup>22</sup> Blackrock, Innovation meets opportunity, 2025

<sup>&</sup>lt;sup>23</sup> deHaan, Retail bond investors and credit ratings, 2023

<sup>&</sup>lt;sup>24</sup> Financial Times, Central banks hold a fifth of their governments' debt, 2017. The six major central banks include: Federal Reserve, Bank of Japan, Bank of England, European Central Bank, Swiss National Bank, Sveriges Riksbank



#### Theme 2: Trade execution

#### **Summary:**

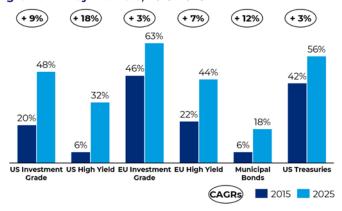
- Growth in electronic trading has been significant for liquid assets, but some voice trading will continue for the most illiquid, complex products
- In fixed income markets, a small number of platforms have become key intermediaries.
   Liquidity provision in FX remains more fragmented
- Regulation has driven a surge in data volume thereby improving transparency.
   Data has become a key enabler throughout the markets
- Machine learning is being used in trading, but to date, advanced AI has primarily been used for operational efficiency gains
- Shortening of settlement cycles reducing exposure to risk and corresponding margin requirements, leading to more efficient deployment of capital and liquidity across the wider market
- As digitisation of markets progresses, cyber risk will become a primary threat to financial market stability

#### **Electronic trading**

- of instruments and participants, the last decade has seen a marked shift towards electronification, driven by the need for efficiency in a fee-constrained environment, and spurred by sustained technological progress. Key enablers include advances in machine learning, low-latency infrastructure, the falling cost and wider availability of cloud computing and open-source tools, and the evolution of Al. These developments have supported a transition from traditional voice-based trading to electronic and platform-based execution.
- 41. In 2015, electronic trading in fixed income markets was limited, with only 20% of US investment grade and 6% of US high yield bonds trading electronically (chart 3).<sup>25</sup> The majority of transactions were executed through dealer-to-client models, facilitated by

bilateral, voice-based negotiation. Price discovery, transparency and liquidity provision relied heavily on the relationships between market participants and dealers.

Chart 3: Fixed income electronic trading adoption – growth in key markets, 2015-2025<sup>26</sup>



- 42. Rapid advances in data infrastructure, algorithmic technology and platform functionality have fundamentally altered the landscape. As of 2025, approximately 50% of trading in major fixed income markets is conducted electronically (chart 3), with notable increases in both trade frequency and trade size. Algorithmic pricing and execution have become increasingly mainstream, with algorithmic pricing for block trade inquiries in European bond markets growing from 4% in 2017 to 62% in 2023.27 Furthermore, the market standard for Request For Quote (RFQ) functionality has evolved significantly, with 96% of RFQs receiving automated responses in 2025.28
- 43. Facilitated by advances in algorithms and electronic trading, portfolio trading has seen significant growth in the last 10 years, with volumes in the US now ten times higher than in 2018. This allows investors to trade baskets of bonds in a single transaction, across sectors, credit ratings and liquidity profiles. A key advantage of portfolio trading is its ability to blend illiquid bonds with more liquid ones in the same portfolio, creating a more liquid bond market overall. By 2024, portfolio trading accounted for 20% of all dealer-to-client bond trading, with monthly volumes reaching US\$100 billion.<sup>29</sup>

 $<sup>^{\</sup>rm 25}$  Coalition Greenwich, Ten years of fixed-income market structure evolution, 2025

 $<sup>^{\</sup>rm 26}$  Coalition Greenwich, Ten years of fixed-income market structure evolution, 2025

 $<sup>^{\</sup>rm 27}$  Barclays, The human touch: why the bond market will continue to have a voice, 2024

 $<sup>^{\</sup>rm 28}$  Euromoney, The future of fixed income trading: redefining the role of human judgement, 2025

<sup>&</sup>lt;sup>29</sup> Financial Times, Portfolio Trading is reshaping credit markets, 2024



#### The future

- 44. Although electronification in FICC markets has increased dramatically in the last 10 years, there may be a limit to how far this can go. Industry estimates suggest that up to 80% of fixed income trading may eventually become electronic. However, given the breadth of tradeable instruments, the remainder will continue to rely on human negotiation, particularly in times of market stress, constrained by the bespoke, illiquid or capital-intensive nature of certain instruments.<sup>30</sup>
- 45. As electronic and algorithmic trading proliferates, the nature of trading risks will evolve. While traditional algorithmic systems can help reduce individual conduct risks by automating compliance with regulations and removing discretionary human judgement, they also introduce new vulnerabilities related to automation, cyber resilience and technology failures.
- 46. Given the technical expertise required, it may also become increasingly challenging for regulators to effectively supervise increasingly complex algorithmic systems in real time. As a result, industry engagement with public authorities will be essential given that those within the industry possess the hands on experience necessary to understand and control algorithmic behaviour effectively.

#### Al in trade execution

47. Traditional machine learning techniques have been used in trading activity for decades. Firms are exploring the use of increasingly complex techniques for trading activity but this remains in its infancy. Technologies such as Large Language Models (LLMs) and generative AI are to-date primarily being used to drive productivity gains in non-trading functions. Due to slower processing speeds, it is unlikely that GenAI will be used directly in trading applications in the near term. Instead, LLM outputs may serve as inputs into other models, supporting decision-making rather than executing trades.

#### The future

- 48. The adoption of AI, particularly generative AI, has the potential to significantly influence the structure and functioning of markets, although widespread transformation may be some years away.
- 49. In the short term, GenAI is expected to continue to be applied as an efficiency tool. Areas where it may have a direct or indirect impact on markets include enabling greater penetration of algorithmic trading strategies across asset classes and potentially increased liquidity in more bespoke instruments. This can be achieved through applications that quickly review and synthesise text-based product documentation in an accessible manner. broadening understanding among market participants and fostering greater engagement from both buyers and sellers. This may improve liquidity in illiquid credit products that receive limited analyst coverage. Over time, AI could also assume a more substantial role in enhancing price discovery, increasing turnover and asset correlations, enabling faster market reactions to new information, strengthening real-time risk assessment, and streamlining operational processes across markets.
- 50. However, this shift from traditional, rules-based algorithmic models to more complex generative Al-driven trading systems could introduce new challenges. First, concerns around collusion and market manipulation may emerge in new forms. Second, unlike standard algorithms, which are relatively easy to audit and validate, advanced generative Al models are much more difficult to interpret. This could reintroduce problems once associated with human voice trading, such as limited accountability and auditability of decision making.

#### **New Intermediaries**

51. The structure of liquidity provision has also evolved. Where once banks served as the principal intermediaries, electronic trading platforms and all-to-all venues in fixed income markets now facilitate a larger share of liquidity, enabling a broader range of

<sup>&</sup>lt;sup>30</sup> Financial Times, The limits of bond market electronification, 2024



participants, including non-bank entities, to contribute directly. Execution practices have shifted from a bilateral model to one where platform-based trading has become the primary channel of interaction, with competitive RFQ formats increasingly prevalent. This has redefined the role of traditional dealers, who increasingly focus on client relationships and advisory services rather than pure liquidity provision.<sup>31</sup>

52. Intra-day liquidity patterns have also shifted with activity in some asset classes becoming more concentrated around closing auctions or index re-balancing dates. This is linked to the rise of ETFs and related trading activity being driven by index replication and the need to minimise tracking errors. The continued growth of bond ETFs suggests this will be an ongoing market trend.

#### The future

- 53. Alternatives to execution through electronic platforms in fixed income are likely to broaden, complementing competitive RFQs with more direct connectivity between liquidity providers and clients, as buy-side demand, anonymity, and cost pressures shape trading dynamics.
- 54. Greater electronification of markets combined with the increased use of automated intelligent execution protocols may help further reduce the market impact of trading activity which is critical in fixed income markets.

#### Increased data and transparency

55. Following an earlier trend in equities, the electronification of FICC markets has significantly increased data volume and availability, enhancing market transparency, a key objective of FEMR. In 2015, voice-based trading systems concentrated information advantages within banks facilitating trade flow. Since then, the expansion of electronic trading platforms and regulations such as MiFID II, which mandates near real-time publication of pre- and post-trade data, have broadened data distribution and accessibility. This has democratised data access but also shifted market power toward platforms,

creating new commercial dynamics. Platforms are increasingly monetising data, establishing it as a substantial revenue source, while independent data providers are emerging in credit markets.

#### The future

- 56. Following TRACE in the US, the adoption of a consolidated tape in UK and European fixed income markets which, even with deferrals, will present an aggregated market picture, is likely to improve the ability of investors to conduct market impact analysis and help further advance the development and sophistication of new trading protocols. Better data quality and availability will also likely drive further market efficiencies.
- 57. As data access becomes concentrated among a few players, concerns are rising regarding data pricing, competitive fairness, and equitable access. How this evolves remains to be seen.

#### **Settlement efficiency**

- 58. The increase in electronic trading and data standardisation has also facilitated post-trade efficiencies, contributing to the rise in automation and Straight-Through-Processing. The commensurate reduction in processing time has also changed expectations around settlement speed. Ten years ago, Europe had just completed its migration to T+2 settlement, with American markets about to follow in 2014. With T+1, the order has reversed, with American markets (including the US, Canada, Mexico and Argentina) migrating in May 2024, and the UK and Europe set for October 2027.
- 59. Alongside the benefits to individual market participants, faster settlement reduces exposure to risk and corresponding margin requirements, leading to more efficient deployment of capital and liquidity across the wider market.

<sup>&</sup>lt;sup>31</sup> Platforms such as MarketAxess exemplify this trend, now accounting for 19% of US investment grade and 13% of US high yield bond trading volumes. MarketAxess, Annual Report, 2024



#### The future

- 60. Will T+O or even instantaneous settlement become the end state? While Russia and the Chinese markets already operate on same day settlement, further truncation of the post-trade processing window is more challenging for larger and more interconnected markets using "traditional" infrastructure. Same day settlement further reduces the time available to fix exceptions. while instantaneous settlement creates a more fundamental challenge: efficient management of assets today often involves multiple trades to reduce liquidity needs and associated costs, with net settlement after clearing being market practice. Settling instantaneously involves settling gross, meaning huge additional costs.
- GI. The rise of DLT may provide a solution.

  Tokenisation enables instantaneous transfer of title via a change of record on the ledger, and smart contracts allow for automatic execution if and only if certain conditions are fulfilled, allowing for transactions conditional upon one another to be completed simultaneously.
- 62. However, these benefits are not without significant challenges. Settlement finality rules may need to be revisited, CSDs modernised to operate on a 24/7 basis and major changes in data records and processes undertaken across the whole market. Nevertheless, alongside the other potential benefits that DLT could bring, such as increased transparency and trust, governments and market participants are beginning to explore the steps towards implementation in greater detail. The eventual end state may be 24/7 continuous net settlement with hourly processing, which may negate some of the costs outlined above.



#### Theme 3: New asset class frontiers

#### **Summary:**

- Traditional markets have expanded significantly, driven by sovereign debt issuance, and ageing demographics. These trends are expected to drive continued growth
- Stablecoins may become increasingly systemically important, e.g. through use in cross-border trade, and as sizeable holders of US treasuries
- While digital assets are currently a small fraction of the global wholesale financial system, tokenisation may transform the inter-relation of FICC assets with the wider financial system, if it can overcome blockchain scalability and adoption challenges
- Commentators are split on the speed of adoption, both of new products and the underlying infrastructure supporting such products

#### **Growth in traditional markets**

63. Since 2015, FICC markets have expanded in size and significance. Between 2015 and 2023, the global stock of debt securities grew from US\$85 trillion to US\$141 trillion (chart 4), with annual issuance rising from US\$19 trillion to US\$25 trillion. Foreign exchange turnover increased from US\$5 trillion to US\$8 trillion a day by 2022 (chart 5), and the notional value of OTC derivatives rose from US\$620 trillion in 2014 to US\$700 trillion in 2024 (chart 6). Similarly, equity market transaction volume in the US has increased 2.4x over the last decade. 32

Chart 4: Global Fixed Income market outstanding and issuance<sup>33</sup>



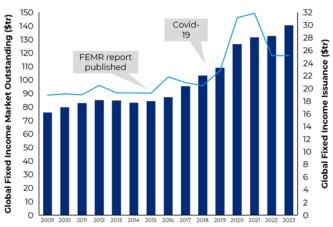


Chart 5: Benchmarked annual daily FX trading volumes 34

USD Trillion, ending Oct 2022

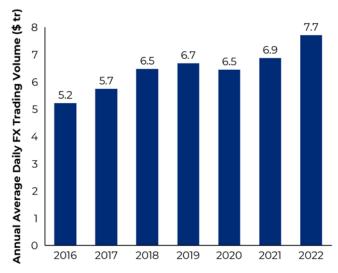
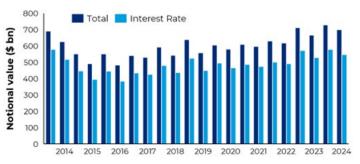


Chart 6: FICC OTC derivatives – notional value<sup>35</sup>

**USD Trillion** 



<sup>32</sup> Cboe, Historical market volume data (January monthly)

 $<sup>^{\</sup>rm 33}$  Bank for International Settlements (BIS), Debt securities outstanding, 2025

<sup>&</sup>lt;sup>34</sup> Bank for International Settlements (BIS), The global foreign exchange market in a higher-volatility environment, 2022

 $<sup>^{\</sup>rm 35}$  Bank for International Settlements (BIS), OTC derivatives statistics, 2025



- 64. This growth has been driven by rising government bond issuance, increased investment demand, and an environment of heightened geopolitical uncertainty such as the response to the COVID-19 pandemic. The average government debt in advanced economies now stands at 110% of GDP, having remained above 100% since the global financial crisis. Emerging market debt has also risen from 43% of GDP in 2015 to 73% in 2024.<sup>36</sup>
- 65. Governments have sought to tap into changing patterns of investor demands by the creation of new financing instruments and strategies for example, the UK DMO has used increased syndication, as well as introducing the Green Gilt and UK Sukuk.

#### The future

- 66. Our contributors expect sustained growth in both government and corporate bond markets, underpinned by structurally higher interest rates, and growing investment needs. Leverage, primarily provided by banks, will support this growth.
- 67. Today, over 3.4 billion people live in countries that spend more on servicing debt than on healthcare or education. Climate adaptation, defence and infrastructure, are expected to add to the increasing fiscal demands.
- 68. Corporates will also need to continue investing heavily, especially in technology, as AI transforms business operations.
- 69. Risks may emerge, by way of persistently high debt-to-GDP ratios, which could eventually erode investor confidence in sovereign debt, increasing borrowing costs and triggering a self-reinforcing cycle of fiscal pressure.
- 70. Greater macroeconomic volatility and geopolitical instability are also likely to drive higher demand for derivatives and FX products to manage risk.

#### **Cryptocurrencies**

- 71. New forces are beginning to reshape the landscape. Distributed Ledger Technology has enabled the creation of new asset classes, both financial and non-financial. These new instruments, including both backed and unbacked crypto assets, originally conceived as decentralised alternatives to traditional finance, reflect a broader convergence of societal distrust in traditional institutions, rapid technological innovation, and speculative fervour amongst a new generation of younger, technologically advanced investors.
- 72. These drivers have helped crypto assets to expand from a market capitalisation of c. US\$5 billion in 2015 to US\$4 trillion today. Despite this growth, they remain a small part of the broader ecosystem, with average daily trading volumes of US\$62bn in 2024, less than 1% of global FX daily turnover.<sup>37</sup>

#### The future

- 73. Although crypto assets are likely to remain a small part of the wider financial system in the short to medium term, they are starting to become increasingly interconnected with mainstream finance.
- 74. First is the increase in demand, driven by retail, often amplified by social media.

  Second, 95% of cryptocurrencies, including Bitcoin, lack underlying assets, deriving their value mainly from market sentiment which leaves them prone to sharp corrections. Integration of crypto into traditional markets has also begun such as the approval of spot Bitcoin ETFs and the commencement of direct trading by major banks.<sup>38</sup>
- 75. Systemic risks linked to crypto's volatility are likely to become increasingly important to the wider financial system and will require increasing levels of oversight from regulators to manage these risks.

<sup>&</sup>lt;sup>36</sup> IMF, General government debt, 2025

<sup>&</sup>lt;sup>37</sup> Coingecko, Global cryptocurrency market cap charts

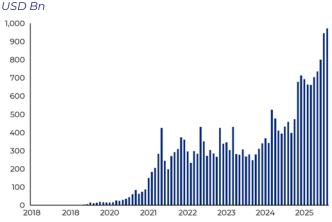
<sup>&</sup>lt;sup>38</sup> Standard Chartered has begun allowing institutional clients to directly trade Bitcoin and ether, Financial Times, Standard Chartered launches crypto trading for clients, 2025



#### **Stablecoins**

76. Since their introduction in 2014, annual stablecoin transfer volumes have reached US\$27.6 trillion, surpassing those of Visa and Mastercard combined in 2024, and transaction volumes (chart 7) have tripled over the last two years.<sup>39</sup> Tether and USD Coin are the largest by market capitalisation and geographic reach, with 99% of stablecoins pegged to the US dollar. The sector's rapid growth has drawn increasing regulatory scrutiny, particularly due to concerns around stablecoins' use in illicit activity. In response, legislation such as the US GENIUS Act and the EU's MiCA framework is introducing anti-money laundering and operational standards to improve market confidence.

Chart 7: Stablecoin transaction volume 40



#### The future

77. Stablecoins are designed to offer greater price stability and are increasingly coming under regulatory oversight, which may help build confidence in their use. Stablecoin's role in FX, and cross-border transfers, could therefore emerge as a challenger to traditional banking. If interest-bearing stablecoins emerge, they could attract retail deposits, weakening banks' funding base and lending capacity. Widespread use of dollar-backed stablecoins in trade could also reduce the number of actively traded currencies, shrinking FX volumes and hedging needs.

- 78. Rapid growth in stablecoins will present new risks for financial institutions and governments. Over 80% of stablecoin reserves are held in US treasuries.<sup>41</sup> In 2024, stablecoin issuers purchased US\$40 billion in treasury bills, rivalling major money market funds and surpassing many foreign sovereign holders. 42 Tether alone holds US\$120 billion in US government debt. surpassing the US debt holdings of Germany. 43 If the stablecoin market grows to US\$2 trillion by 2028, as some forecasts suggest, this could drive demand for US\$1.2-1.6 trillion in treasuries, making stablecoin issuers the second largest holders, second only to the Federal Reserve.44
- 79. This concentration of demand in treasuries introduces new risks, particularly the potential for large-scale redemptions, which could trigger a fire sale and inject volatility into the treasury market.

  Nevertheless, stablecoins' link to the US dollar could reinforce its global role and partially offset concerns about dedollarisation.
- and China are developing Central Bank Digital Currencies (CBDCs) to protect monetary sovereignty and reduce reliance on private, dollar-linked digital assets. While wider adoption of stablecoins could enhance the dollar's global standing and reduce U.S. borrowing costs, it may also limit policy autonomy for other countries and deepen global dependence on U.S. financial infrastructure in third party markets, raising both financial and geopolitical challenges.

<sup>&</sup>lt;sup>39</sup> World Economic Forum, Stablecoin surge: here's why reservebacked cryptocurrencies are on the rise, 26 March 2025

<sup>&</sup>lt;sup>40</sup> Allium, Adjusted stablecoin transaction volumes 2025

<sup>&</sup>lt;sup>41</sup> Reuters, US treasuries face stablecoin-driven demand surge as supply looms, 2025

 $<sup>^{\</sup>rm 42}$  Bank for International Settlements (BIS), Stablecoins and safe asset prices, 2025 Tether, Q1 Attestation report, 2025

<sup>&</sup>lt;sup>43</sup> Tether, Q1 Attestation report, 2025 Bloomberg, Stablecoin sector may reach \$2 trillion: Standard Chartered, 2025

<sup>44</sup> Bloomberg, Stablecoin sector may reach \$2 trillion: Standard Chartered. 2025



#### **Tokenisation**

- 81. DLT has also enabled the tokenisation of existing assets, the digital representation of real-world assets, which has gained traction, albeit from a very low base. There remains a philosophical debate around the role of DLT in markets whether making more traditional models of markets more efficient, or a wholesale move to democratisation and the downsizing of the role of intermediaries overall. Stable and developed economies broadly favour the former, and the use of the latter as areas of greater instability is discussed in the following chapter.
- 82. Governments, central banks and asset managers are piloting experiments, and tokenised funds held over US\$2 billion in assets as of 2024.<sup>45</sup> In the gold market, the World Gold Council is seeking to launch a digital form of gold allowing it to be used as collateral in the broader ecosystem.
- 83. However, despite a high level of interest, most projects remain experimental due to key challenges. While the technical infrastructure for tokenised securities already exists, scalability remains a concern, and the benefits over existing systems remain unclear. While assets can be tokenised, a major barrier is often the 'cash leg', where payments typically still rely on traditional rails, preventing seamless, real-time settlement. Regulatory uncertainty, inconsistent global frameworks, use in illicit activity and manual onboarding processes are also continuing to hinder broader adoption. Nevertheless, the potential for more effective and faster settlement, potentially near instantaneous, means that tokenisation is likely to remain an area of focus.

#### The future

- 84. Although still in its early stages, tokenisation of real-world assets has the potential to transform capital markets. Benefits could include real-time settlement, greater transparency via shared ledgers and fractional or time-based ownership of assets. Investors could also gain direct control through self-custody, while smart contracts could automate key processes, significantly reducing operational costs and administrative burdens.
- access and liquidity by enabling seamless exchange across asset classes and geographies, achieving complete interconnection between assets and streamlining collateral movements. Some estimates suggest that tokenisation could reduce transaction costs in US equities by over 30%, suggesting substantial potential efficiency gains.<sup>46</sup>
- 86. However, widespread adoption remains constrained by technical, regulatory, and operational barriers. Notably, the initial costs of moving onto shared leger settlement platforms is high, either decreasing margins for the intermediaries, or raising costs for the end users while benefits are not immediately clear before a critical mass of adoption.
- 87. If adoption accelerates for any product, transitional risks could emerge as traditional and tokenised systems operate in parallel. For example, tokenisation could disintermediate market makers, increasing the risk of liquidity fragmentation. During periods of stress, this could lead to on-chain assets continuing to trade while off-chain markets freeze, potentially leading to pricing dislocations and arbitrage opportunities.

 $<sup>^{\</sup>rm 45}$  Chan, Tang, Lin et al., Tokenized funds: The third revolution in asset management decoded, 2024

 $<sup>^{\</sup>rm 46}$  Malinova & Park, Learning from DeFi: Would automated market makers improve equity trading, 2023



#### Theme 4: Shifting geography of markets

#### **Summary:**

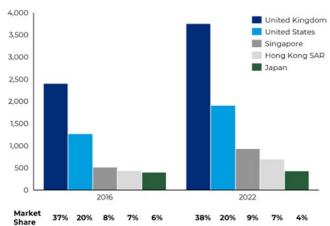
- Established financial centres continue to maintain their positions in FICC trading, particularly London in FX and derivatives and New York in equities and private capital
- New financial hubs continue to grow in the Middle East and Asia, driven by demographic shifts, the adoption of new technologies such as digital assets and innovation-friendly regulatory environments
- Rapid growth of China's bond market.
   Foreign investor participation remains limited, but set to open up further to international investors
- Emerging market domestic bond markets are expanding quickly but remain a small share of global issuance. We expect intra-EM trading and domestic bond markets to see continued growth
- Central banks are gradually reducing dollar reserves. De-dollarisation trend to persist but partly offset by the rise of USD-backed stablecoins. Although, with no heir apparent, the dollar is likely to remain dominant

#### **Traditional centres**

88. At the time of the FEMR report, London was the global centre for FX, derivatives, and international bond markets. A decade on, the UK has reaffirmed this position (chart 8), facilitating about twice the volume of US dollar FX transactions than the US itself as of 2022.<sup>47</sup> The world's top 5 trading hubs continue to drive the majority of global activity (chart 9), accounting for 79% of FX turnover and 89% of derivatives transactions, with the UK holding market leadership in both categories.<sup>48</sup> In international bond markets, the US dollar, Euro and GBP continue represent the vast majority of outstanding debt.

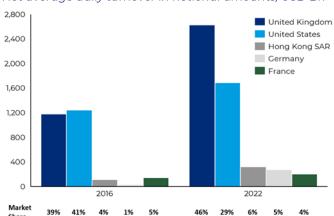
## Chart 8: Foreign exchange turnover in the largest trading centres<sup>49</sup>

Net average daily turnover in notional amounts, USD Bn



## Chart 9: Interest rate derivative turnover in the largest trading centres<sup>50</sup>

Net average daily turnover in notional amounts, USD Bn



#### Regionalisation

89. While traditional financial centres in the US and Europe remain key for major markets – particularly for trading activity - regional hubs are becoming increasingly significant to the global economy. This shift has been driven by strong GDP growth (particularly in Asia and the Middle East), investment in technological infrastructure unencumbered by legacy systems, geopolitical instability in parts of the West, and a regulatory environment that has enabled smaller centres to position themselves as innovation-friendly alternatives.

<sup>&</sup>lt;sup>47</sup> TheCityUK, Key facts about the UK as an international financial

 $<sup>^{48}</sup>$  Bank for International Settlements (BIS) Triennial Survey, Foreign exchange turnover and OTC interest rate derivatives turnover by country, 2022

 $<sup>^{\</sup>tiny{49}}$  Bank for International Settlements (BIS) Foreign exchange turnover by country, 2022

 $<sup>^{\</sup>rm 50}$  Bank for International Settlements (BIS) OTC interest rate derivatives turnover by country, 2022



- 90. Emerging Markets have made significant progress in developing local capital markets, enabled by economic growth, stronger sovereign credit profiles, and pandemic era fiscal expansion (chart 10). These developments are enabling EM governments and corporates to issue more debt in local currencies, reducing reliance on external borrowing as well as trade some FX locally.
- 91. Notably, the Chinese onshore bond market has grown at a 15% compound annual rate since 2015, with initiatives like the China Interbank Bond Market (CIBM) and Bond Connect (enabling overseas institutional investors to participate in Chinese bonds using mainland China and Hong Kong financial infrastructure and institutions), encouraging foreign participation.<sup>51</sup> As a result, China has been included in major global bond indices, boosting passive inflows and pushing foreign holdings of Chinese sovereign bonds from near-zero in 2015 to a peak of roughly 11% in 2021, before moderating due to geopolitical tensions and economic uncertainty.<sup>52</sup>
- 92. Similar reforms, such as India's Fully Accessible Route, are serving to open other EM bond markets to global investors. While EM domestic bonds still only account for 5% of global issuance, their relevance to global portfolios and systemic importance are growing.<sup>53</sup>

Chart 10: 2015 and 2023 global Fixed Income market Outstanding, by geography<sup>54</sup>

**USD Trillion** 60 2015 2024 50 40 30 20 10 ЕМ US ΕU China Japan DM 6% 4% 14% 0% 7% 1% 20% CAGR 9% 13% 8% 7% Share 2015 41% 21% 2% Share 2024 40% 18% 17%

93. Cities such as Dubai, Abu Dhabi, Singapore and Hong Kong are increasingly challenging the hegemony of traditional centres and

- investing substantially in their own growth. For example, Hong Kong's investment in the Central Moneymarkets Unit (CMU OmniClear) is expanding its central securities depository services and has signed Memorandums of Understanding with SIX and the UAE to establish cross-border connections between their respective markets.
- 94. These hubs also benefit from competitive tax regimes and proactive talent recruitment, which are drawing global capital and encouraging the establishment of asset managers and hedge funds in the region. Furthermore, many of these jurisdictions have strategically positioned themselves at the forefront of emerging asset classes, particularly digital finance, crypto-assets, and stablecoins, aiming to capture growth in the continuing wave of financial innovation.

#### The future

- evolve, Asia and the Middle East are set to play an increasingly prominent role. As governments issue higher volumes of debt, emerging markets will continue to encourage foreign investment in their domestic bond markets. Combined with further potential index inclusion of emerging market bonds, this would make these regions more central to global capital flows, increasing the impact of dislocations in these markets in global portfolios.
- 96. Rising intra-EM trading and improved local infrastructure could reduce the cost of capital and accelerate economic development. However, regulatory divergence between jurisdictions could create arbitrage opportunities, where more business-friendly conditions in certain jurisdictions draw investment and activity away from traditional financial centres.
- 97. The Middle East in particular could benefit from its geographical positioning, acting as a neutral hub amid rising tensions between East and West, especially in emerging areas like crypto assets, where early investment may establish it as a global leader.

 $<sup>^{\</sup>rm 51}$  Bank for International Settlements (BIS), Debt securities outstanding, 2025

 $<sup>^{52}</sup>$  Bank of Finland Institute for Emerging Economies (BOFIT), Despite economic headwinds, China's bond market continues to grow, 2025

 $<sup>^{\</sup>rm 53}$  Bank for International Settlements (BIS), Debt securities outstanding, 2025

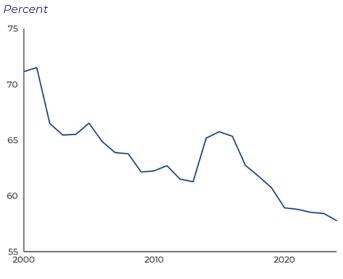
 $<sup>^{\</sup>rm 54}$  Bank for International Settlements (BIS), Debt securities outstanding, 2025



#### Role of the US dollar

98. Global reserve management is evolving.
Central banks have gradually diversified their
FX reserves away from the dollar, although the
dollar is still dominant (chart 11). However,
central banks have not transitioned towards
traditional alternatives such as the Euro or
Pound, but into a broader mix of 'nontraditional' currencies, such as the Australian
dollar, Chinese Renminbi, South Korean won,
and various Nordic currencies. This trend has
been enabled by advances in digital market
infrastructure, which has improved access and
liquidity across a wider range of assets.

#### Chart 11: US dollar share of FX reserves<sup>55</sup>



#### The future

- 99. The regionalisation of bond market growth, investment in local trading infrastructure, and diversification of reserve portfolios could foster greater fragmentation or 'balkanisation' within global markets.
- 100. Potential implications include a gradual erosion of dollar dominance in trade and reserves (although this could be mitigated by the prominence of US dollar backed stablecoins), rising complexity for global market participants, and heightened sensitivity to regional shocks.
- the dominant reserve currency could, over time, make it more challenging for the US to finance its large deficit. The corresponding increase in the role of alternative currencies could lead to the expansion of FX products in those markets, leading to a more fragmented global foreign exchange environment. Another challenge is the potential of a hostile BRIC alliance issuing coins in USD or any other currency outside of the US (cf. emergence of Eurodollar market in the 1970s).
- 102. Additionally, the growth of decentralised technologies such as tokenisation could further democratise access to capital markets. Individuals worldwide could gain direct access to assets, such as US treasuries, via blockchain networks, challenging traditional regulatory frameworks. While this could open up new opportunities for market inclusion and liquidity, it also raises complex questions about oversight, authority, and risk management, particularly where different legal and regulatory standards apply in different jurisdictions.

 $<sup>^{\</sup>rm 55}$  International Monetary Fund (IMF), Currency composition of official foreign exchange reserves, 2025



## Risks to fair and effective markets

103. This paper has described a substantial market evolution since FEMR which is expected to continue. Drawing on the FEMR definitions, we consider what this evolution means for fair and effective markets.

Fair FICC markets are those which: (i) have clear, proportionate and consistently applied standards of market practice; (ii) are transparent enough to allow users to verify that those standards are consistently applied; (iii) provide open access (either directly or through an open, competitive and well-regulated system of intermediation); (iv) allow market participants to compete on the basis of merit; and (v) provide confidence that participants will behave with integrity.

**Effective** FICC markets are those which also: (i) allow end-users to undertake investment, funding, risk transfer and other transactions in a predictable way; (ii) are underpinned by robust trading and post-trade infrastructures enabling participants to source available liquidity; (iii) enable market participants to form, discover and trade at competitive prices; and (iv) ensure proper allocation of capital and risk.

Fair and Effective Markets Review, Final Report, pp.18, June 2015.

#### **Fairness**

# Consistently applied standards of market practice

- no4. As the nature of participants in institutional markets changes, it will be necessary to ensure that standards of market practice are consistently applied across markets and not limited to traditional market makers.
- 105. Existing standards need to be applied to new markets and lessons learned should be read across to other businesses to avoid a repeat of historic misconduct in new places or by new participants.

106. As the geography of financial markets shifts there is increased risk of inconsistent standards across key financial centres. Political divergence and supervisory arbitrage will further complicate global coordination, influencing where activity migrates.

#### Transparency and information asymmetries

- 107. While transparency, driven by regulation, has materially increased in fixed income markets, the growth of alternative asset classes and private markets is creating new transparency and oversight challenges.
- 108. Democratisation of access is leading to increasing retail participation in markets. This may give rise to concerns around new information asymmetries and questions as to whether investors adequately understand the products they are using. The integration of private assets into the financial system and distributed to retail is an example.

#### Access and competition based on merit

- 109. Market-making activity is becoming increasingly concentrated in firms with technological scale and compute power, a trend likely to accelerate with the broader adoption of AI and data-driven trading.
- 110. Huge financial resources are needed to build competitive compute power meaning barriers to entry are likely to rise. This is likely to be compounded as firms that have a competitive edge now can re-invest profits at scale to further improve technological capabilities.
- III. Demand for specialised talent is global and scarce. As a result, the costs of talent are likely to rise which will increasingly present a competitive advantage alongside compute power.

#### **Conduct and market integrity**

112. There is a significant shift from human-driven to machine-driven markets. The ways in which conduct risks manifest are therefore likely to be different as the role of the trader evolves.



- 113. This could give rise to issues around accountability or new routes for market manipulation. A shift to 24/7 trading and corresponding periods of lower liquidity and heightened volatility could present new opportunities for misconduct.
- 114. Increasingly complex models used in trade execution may begin to present challenges to 'human-in-the-loop' controls.
- Declining public trust in institutions and the proliferation of misinformation via digital channels are increasing conduct and reputational risks. The ability of bad actors, through technology, to have a scalable impact on markets through the dissemination of false information or the manipulation of markets is likely to increase.
- structures are likely to facilitate faster and longer term decision-making. However, it may also mean there is a reliance on a small number of people to moderate culture and to provide requisite challenge where necessary.
- 117. Governance standards will need to continue to be sufficient for the scale of the business undertaken especially for new entrants and high-growth firms.

#### **Effectiveness**

#### Infrastructure robustness and liquidity

- 118. As DLT gains traction, the co-existence of new and old infrastructure, or otherwise the proliferation of permissioned networks, could lead to a fragmentation of liquidity.
- The digitisation of all aspects of financial markets will widen the plane of attack for cyber criminals with key infrastructure being potential targets. A successful attack on market infrastructure could have hugely detrimental impacts on overall market functioning.
- 120. The growing reliance on third party providers, especially in AI, cloud services and core infrastructure, is also introducing new concentration risks. Many financial institutions are expected to continue their dependence on a small number of external providers, with limited ability to switch during an outage. This could create potential single points of failure, where disruption to one service provider could have widespread implications for markets functioning effectively.

- 121. Concentration of power in a few large market participants may raise challenges to market efficiency if activity is unilaterally suspended, especially in less-liquid markets or in times of stress.
- 122. Credit markets are becoming more equity-like, with ETFs and electronic platforms enabling broader access and faster execution. This trend enhances flexibility but also has the potential to introduce new risks, especially in less liquid segments.

#### Competitive price discovery

- 123. The growth of very large actors on the buyside may lead to greater use of in-house netting which could impact price discovery.
- 124. Fragmentation of liquidity pools across multiple execution channels could present best execution challenges.
- 125. Price discovery can be impaired by slippage from on-screen prices when a client seeks to execute.

#### Proper allocation of capital and risk

- of new asset classes and the rise of multimanager hedge funds are increasing demand for leverage, which is likely to be met primarily by larger institutions. Large portfolio liquidations concentrated in a limited number of such institutions could therefore have broader implications for market dynamics.
- 127. Markets driven by very short-term time horizons of trading desks may not always adequately price in longer term risks.
- 128. Given ongoing speculative fervour, a significant market correction, accelerated by social media, could result in disproportionate capital flight.



#### **System functioning**

- 129. As the market continues to evolve, familiar risks to fair and effective market functioning will persist but perhaps in new forms. These may be accompanied by new sources of risk which must be addressed in a proactive and collaborative manner harnessing expertise from all areas of industry.
- 130. Beyond the implications of trends underway for the fairness and effectiveness of markets, recent history has shown that the most impactful shocks are often those that are not widely anticipated. It is therefore important to ensure that the financial system as a whole is robust in ways that generalise across a wide variety of shocks.
- In addition to these unanticipated shocks, known risks to the overall functioning of financial markets include levels of sovereign debt and the possibility of a buyer's strike leading to a sharp re-pricing of government bonds, the increase in cyber-attacks and their impact globally, linked to heightened geopolitical tensions and the digitisation of all aspects of markets, and the possible manifestation of climate risk and rapid repricing of assets driven by 'tipping points' and non-linear evolution of climate change.
- 132. At a macro level, heightened vulnerabilities, from debt accumulation and climate shocks to cyber risks and misinformation, could erode trust in market integrity and undermine perceptions of fairness. Meanwhile, the speed, scale, and complexity of disruption in more interconnected, technology-driven markets may impair their effectiveness in allocating capital and managing risk.



## Evolving role of FMSB

- 133. Institutional markets are undergoing a period of rapid structural change. All market stakeholders need to evolve to respond to this shift. This section considers what it means for FMSB.
- 134. FMSB's core objectives are to: (i) horizon scan and identify emerging risks and trends in wholesale markets; (ii) address areas of uncertainty in trading practices; (iii) drive adherence to standards; and (iv) contribute to the international convergence of standards.
- 135. Given the pace of change described in this paper, it is important to consider how FMSB can best fulfil its mandate in the future. Set out below are a series of questions and initial observations arising from the four key themes in this paper and how they may inform our work.

**Market participation:** How can FMSB ensure its outputs reflect the increasingly diverse range of participants across wholesale markets?

- 136. FEMR stated that FMSB should have 'participation from a broad cross-section of global...firms and end users' in wholesale FICC markets.
- 137. The profile of wholesale market participants is changing. We are witnessing the growing prominence of alternative liquidity providers, private capital firms, venue and data providers and non-bank intermediaries—trends that are likely to continue. The traditional role of banks in FICC markets is evolving, with market share increasingly distributed across a broader set of actors. Similarly, the expansion of new asset classes brings new entrants to a wider FICC landscape.
- 138. FMSB needs to develop standards with input from the full spectrum of market participants. New entrants should contribute to the development of industry standards that will ultimately shape the various markets and how they operate within them.
- 139. Regulators and public authorities should actively encourage new participants to engage in the standard-setting process. Without this, FMSB's impact will be narrowed and standards will not be consistently applied across markets.

**New asset class frontiers:** Growth in new asset classes, new market participants and increasing interconnectedness mean that the boundaries of FICC markets are shifting. How should FMSB's perimeter and areas of focus evolve considering the shifting landscape?

- 140. Rapid digital innovation is re-shaping institutional FICC markets.
- 141. New asset classes are growing, notably stablecoins, unbacked crypto and other digital assets. Historically, FMSB has had limited engagement with participants in this space. However, as links between traditional and decentralised finance grow and there is increasing connectivity between the instruments traded, further consideration will need to be given to FMSB's role and the implications of these trends for institutional markets.
- 142. It is in the interests of all market participants to ensure that lessons learned in more developed asset classes do not re-emerge in new places and that standards of conduct and management of conflicts are consistently applied.



**Trade execution:** Electronification, the continued rise of platforms, digitisation and automation are changing how market counterparties interact. How do we ensure that our work reflects these new structures and means of execution?

- 143. Trading activity is increasingly conducted electronically. This shift from human-driven to machine-driven markets will impact how and where conduct risks may manifest.
- work reflects the changing nature of trade execution and associated risks.
- 145. In fixed income markets, a handful of platforms now act as key intermediaries between asset managers and liquidity providers. These firms are a key element of the broader ecosystem and it is increasingly important that they are proactively engaged in standard-setting in relevant markets.
- 146. Markets are experiencing a sharp increase in their 'metabolic rate', fuelled by asset tokenisation and fractionalisation, 24/7 trading, and faster settlement. These shifts will expand trading opportunities for both institutional and retail participants. FMSB, which has been active in setting post-trade standards, must remain closely engaged with these infrastructural changes given their importance to market effectiveness.

# **Shifting geography of markets:** What is FMSB's role in contributing to global convergence of market standards in an increasingly fragmented landscape?

- 147. Financial markets and the clients served by these markets are global. To the extent possible, standards of conduct and the way clients are treated should be consistent across these financial centres.
- 148. The fragmentation of global liquidity across more centres, accompanied by the decentralisation of wholesale markets, poses significant challenges for regulators and standard setting bodies. Additionally, we have reached a high cyclical watermark of regulation as the focus on growth and competitiveness across key financial centres drives regulatory simplification.
- 149. Standard setters need to ensure that they are equipped for this new world. In such an environment, the role of common standards becomes more important. Well-crafted industry standards can serve as global guardrails promoting consistent conduct, supporting investor confidence, and enabling comparability in how clients are treated across jurisdictions.
- 150. Although FMSB was established as a UK initiative, international convergence has always been a central pillar of its mission. FMSB Members operate internationally, and bring cross-border knowledge to discussions, which in turn means FMSB is well-placed to identify key points of divergence across markets, and proactively seek to address these concerns ahead of, or instead of, regulation.
- 151. To continue fulfilling this objective, FMSB will need to deepen its engagement with regulators and firms in all major financial centres. This can be achieved through more active dialogue or formal agreements with regulatory authorities. Over time, this may also require FMSB to establish a physical presence in other key financial centres.



## Conclusion

- 152. Ten years later, the long term objectives of FEMR remain important. It is essential that standards of practice in markets are transparent, fair and effective and in the long-term interests of society on a global basis.
- 153. We are also reminded of the importance of making sure markets are and remain as resilient as possible.
- 154. For as long as we value innovation in financial markets, we acknowledge that new risks may emerge, and existing ones exacerbated, as the impact of these developments are felt across the market. Standard bodies such as FMSB must evolve in response.
- 155. This paper marks the beginning of a dialogue around the organisation's future role. We will be working with all our stakeholders to:
  - Broaden our membership to reflect the full diversity of market participants, with active encouragement from regulators and public authorities through formal agreements
  - Ensure that lessons hard learned in traditional markets are applied in new contexts
  - Convene expertise from across the industry to support collaboration amongst global standard setters and industry bodies seeking to address challenges proactively
  - Deepen our international impact and footprint.



## **About FMSB**

Financial Markets Standards Board Limited (FMSB) is a private sector, market-led organisation created in light of the recommendations in the Fair and Effective Markets Review (FEMR) Final Report in 2015.

One of the central recommendations of FEMR was that participants in the wholesale markets should take more responsibility for raising standards of behaviour and improving the quality, clarity and market-wide understanding of trading practices. Producing guidelines, practical case studies and other materials that promote the delivery of transparent, fair and effective trading practices will help increase trust in wholesale markets.

FMSB brings together people from a broad crosssection of global and domestic market participants and end-users. In specialist committees and working groups, industry experts debate issues and develop FMSB Standards and Statements of Good Practice and undertake Spotlight Reviews that are made available to the global community of financial market participants and regulatory authorities.

#### **Board of FMSB**

Jonathan Moulds, Chair

Niki Beattie

Michael Cole-Fontayn

Myles McGuinness, CEO

**Charles Nichols** 

Stephen O'Connor

Ed Ocampo

Peter Warne



### **Advisory Council**

Aberdeen Group plc         6 Gareth Murphy           Association of Corporate Treasurers         2 Annette Spencer           AstraZeneca         9 Jonathan Slade           Australia and New Zealand Banking Group Limited         9 Paul Moore           Australian Financial Markets Association         9 Brett Harper           BAE Systems         9 Raj Patara           Bank of America         4 Muraari Vasudevan           Barclays         4 Satia Anche           BHP         9 Stewart Cox           BlackRock         1 Joen McHale           BNP Paribas         1 Hubert de Lambilly           BP         1 Colin Adams           Citigroup Global Markets Limited         1 Tiina Lee           Commonwealth Bank of Australia         1 Kinis Mclachlan           Crédit Agricole CIB         4 Waltany Vijayaratna           Deutsche Bank         4 Vathany Vijayaratna           DTCC Europe Limited         1 Richard Blackburn           JP, Morgan         2 Vathany Vijayaratna           MCC Europe Limited         1 Richard Blackburn           JP, Morgan         2 Nick Hughes           Macquarie Bank Limited, Commodities and Global Markets         2 Arun Asumall           Moody's Corporation         1 Nick Miller           Moody's Corporation	Member Name	Advisory Council Member Name
AstraZeneca . Jonathan Slade Australia and New Zealand Banking Group Limited . Paul Moore Australian Financial Markets Association . Brett Harper BAE Systems . Raj Patara Bank of America . Muraari Vasudevan Barclays . Asita Anche BHP . Stewart Cox BlackRock . Jatin Vara Bloomberg LP. BNP Paribas . Hubert de Lambilly BP . Colin Adams Citigroup Global Markets Limited . Tiina Lee Commonwealth Bank of Australia . Chris Melachlan Crédit Agricole CIB Deutsche Bank DTCC Europe Limited . Michalis Sotiropoulos HSBC J.P. Morgan . Vathany Vijayaratna DTCC Europe Limited . Richard Blackburn J.P. Morgan . David A Lewis KPMG . Richard Blackburn J.P. Morgan . Nick Hughes Macquarie Bank Limited, Commodities and Global Markets . Arun Asumall Moody's Corporation . Nick Miller Morgan Stanley & Co. International Plc Norural Bank Markets . Donal Quaid Nomura International . John Coff Oliver Wyman . Christopher Beatty Shall plc Santander CIB . Sam Critchlow Société Générale . Mohamed Braham Starling Trust Sciences, LLC . Steine Rottles . Ben Clissold USS Investment Management . Christophe Petricot USS Investment Management . Ben Clissold	Aberdeen Group plc	· Gareth Murphy
Australia and New Zealand Banking Group Limited	Association of Corporate Treasurers	· Annette Spencer
Australian Financial Markets Association	AstraZeneca	· Jonathan Slade
BAE Systems	Australia and New Zealand Banking Group Limited	· Paul Moore
Bank of America         Muraari Vasudevan           Barclays         Asita Anche           BHP         Stewart Cox           BlackRock         Joe McHale           Bloomberg LP.         Doe McHale           BNP Paribas         Hubert de Lambilly           BP         Colin Adams           Citigroup Global Markets Limited         Tiina Lee           Commonwealth Bank of Australia         Chris McIachlan           Crédit Agricole CIB         Valthany Vijayratna           Deutsche Bank         Vathany Vijayratna           DTCC Europe Limited         Michalis Sotiropoulos           HSBC         Richard Blackburn           J.P. Morgan         David A. Lewis           KPMG         Karim Haji           Lloyds Corporate Investment Bank         Nick Hughes           Macquarie Bank Limited, Commodities and Global Markets         Nick Hughes           Macquarie Bank Limited, Commodities and Global Markets         Nick Miller           Morgan Stanley & Co. International Plc         Christopher Beatty           National Australia Bank         Donal Quaid           Natwest Markets         Donal Quaid           Nomura International         Christian Edelmann           Rio Tinto         David Niotakis           Sant	Australian Financial Markets Association	· Brett Harper
Barclays         - Asita Anche           BHP         - Stewart Cox           BlackRock         - Jatin Vara           Bloomberg LP.         - Joe McHale           BNP Paribas         - Hubert de Lambilly           BP         - Colin Adams           Citigroup Global Markets Limited         - Tiina Lee           Commonwealth Bank of Australia         - Chris Mclachlan           Crédit Agricole CIB         - Walid Assaf           Deutsche Bank         - Vathany Vijayaratna           DTCC Europe Limited         - Michalis Sotiropoulos           HSBC         - Richard Blackburn           J.P. Morgan         - Bark Lewis           KPMG         - Karim Haji           Lloyds Corporate Investment Bank         - Nick Hughes           Macquarie Bank Limited, Commodities and Global Markets         - Nick Miller           Morgan Stanley & Co. International Plc         - Nick Miller           Morgan Stanley & Co. International Plc         - Christopher Beatty           National Australia Bank         - Donal Quaid           Nomura International         - John Goff           Oliver Wyman         - Christian Edelmann           Rio Tinto         - David Niotakis           Santander CIB         - Michael Bagguley	BAE Systems	· Raj Patara
BHP         : Stewart Cox           BlackRock         : Jatin Vara           Bloomberg LP.         : Joe McHale           BNP Paribas         : Hubert de Lambilly           BP         : Colin Adams           Citigroup Global Markets Limited         : Tiina Lee           Commonwealth Bank of Australia         : Chris Mclachlan           Crédit Agricole CIB         : Walid Assaf           Deutsche Bank         : Vathany Vijayaratna           DTCC Europe Limited         : Michalis Sotiropoulos           HSBC         : Richard Blackburn           JP. Morgan         : David A. Lewis           KPMG         : Karim Haji           Lloyds Corporate Investment Bank         : Nick Hughes           Macquarie Bank Limited, Commodities and Global Markets         : Arun Asumall           Morgan Stanley & Co. International Plc         : Christopher Beatty           Motyan Stanley & Co. International Plc         : Christopher Beatty           National Australia Bank         : Donal Quaid           Nomura International         : John Goff           Oliver Wyman         : Christian Edelmann           Rio Tinto         : David Niotakis           Santander CIB         : Michael Bagguley           Shell plc         : Sam Critchlow	Bank of America	· Muraari Vasudevan
BlackRock       - Jatin Vara         Bloomberg LP.       - Joe McHale         BNP Paribas       - Hubert de Lambilly         BP       - Colin Adams         Citigroup Global Markets Limited       - Tiina Lee         Commonwealth Bank of Australia       - Chris Mclachlan         Crédit Agricole CIB       - Walid Assaf         Deutsche Bank       - Walid Assaf         Deutsche Bank       - Wichalis Sotiropoulos         BTSC       - Richard Blackburn         JP. Morgan       - Barid Blackburn         JP. Morgan       - Barid Blackburn         KPMG       - Karim Haji         Lloyds Corporate Investment Bank       - Nick Hughes         Macquarie Bank Limited, Commodities and Global Markets       - Arun Asumall         Moody's Corporation       - Nick Miller         Morgan Stanley & Co. International Plc       - Christopher Beatty         National Australia Bank       - David Bateman         NatWest Markets       - Donal Quaid         Nomura International       - John Coff         Oliver Wyman       - Christian Edelmann         Rio Tinto       - David Niotakis         Sand Crithlow         Société Générale       - Michael Baggulley         Stell ple       - Sam Cr	Barclays	· Asita Anche
Bloomberg LP.  BNP Paribas  Pheribas  Citigroup Clobal Markets Limited  Commonwealth Bank of Australia  Crédit Agricole CIB  Deutsche Bank  Deutsche Bank  DTCC Europe Limited  TRAIN BANG  TRAIN BANG	ВНР	· Stewart Cox
BNP Paribas  Province of Colin Adams  Citigroup Global Markets Limited  Commonwealth Bank of Australia  Crédit Agricole CIB  Commonwealth Bank of Australia  Crédit Agricole CIB  Cutsche Bank  Cutsche Bank Blackburn  Cutsche Bank Limited, Commodities and Global Markets  Cutsche Bank Limited, Commodities and Global Markets  Macquarie Bank Limited, Commodities and Global Markets  Mick Miller  Morgan Stanley & Co. International Plc  Cutristopher Beatty  National Australia Bank  NatWest Markets  Donal Quaid  Nomura International  Cutristan Edelmann  Rio Tinto  David Niotakis  Santander CIB  Shell plc  Société Générale  Sam Critchlow  Société Générale  Mohamed Braham  Standard Chartered  John Newman  Starling Trust Sciences, LLC  The Toronto Dominion Bank  Brian Perry  UBS  USS Investment Management  Cutristophe Patricot  USS Investment Management	BlackRock	· Jatin Vara
BP Citigroup Global Markets Limited Commonwealth Bank of Australia Crédit Agricole CIB Cutsche Bank Deutsche Bank DEUTSCHEURDE Limited DICC Europe	Bloomberg L.P.	· Joe McHale
Citigroup Global Markets Limited       • Tiina Lee         Commonwealth Bank of Australia       • Chris Mclachlan         Crédit Agricole CIB       • Walid Assaf         Deutsche Bank       • Vathany Vijayaratna         DTCC Europe Limited       • Michalis Sotiropoulos         HSBC       • Richard Blackburn         J.P. Morgan       • David A. Lewis         KPMG       • Karim Haji         Lloyds Corporate Investment Bank       • Nick Hughes         Macquarie Bank Limited, Commodities and Global Markets       • Arun Asumall         Moody's Corporation       • Nick Miller         Morgan Stanley & Co. International Plc       • Christopher Beatty         National Australia Bank       • David Bateman         NatWest Markets       • Donal Quaid         Nomura International       • John Goff         Oliver Wyman       • Christian Edelmann         Rio Tinto       • David Niotakis         Santander CIB       • Michael Bagguley         Shell plc       • Sam Critchlow         Société Générale       • Mohamed Braham         Standard Chartered       • John Newman         Starling Trust Sciences, LLC       • Stephen Scott         The Toronto Dominion Bank       • Brian Perry         UBS       • C	BNP Paribas	· Hubert de Lambilly
Commonwealth Bank of Australia Crédit Agricole CIB Crédit Agricole CIB  Deutsche Bank Credit Agricole CIB  Devid A. Lewis  KPMG Credit Alewis  KPMG Credit Agricole CIB  Lloyds Corporate Investment Bank Credit Agricole Cib  Mick Hughes Credit Agricole Cib  Nord A. Lewis  KPMG Credit Agricole Cib  Nord Hughes Credit Agricole Cib  Nord A. Lewis Credit Agricole Cib  Nord Hughes Credit Agricole Cib  Nord A. Lewis Credit Agricole Cib  Nord Hughes Credit Agricole Cib  Nord A. Lewis Credit Agricole Cib  Nord Hughes Credit Agricole Cib  Nord A. Lewis Credit Agricole Cib  Nord Hughes Credit Agricole Cib  Nord A. Lewis Credit Agricole Cib  Nord A. L	ВР	· Colin Adams
Crédit Agricole CIBWalid AssafDeutsche BankVathany VijayaratnaDTCC Europe LimitedMichalis SotiropoulosHSBCRichard BlackburnJ.P. MorganDavid A. LewisKPMGKarim HajiLloyds Corporate Investment BankNick HughesMacquarie Bank Limited, Commodities and Global MarketsArun AsumallMoody's CorporationNick MillerMorgan Stanley & Co. International PlcChristopher BeattyNational Australia BankDavid BatemanNatWest MarketsDonal QuaidNomura InternationalJohn CoffOliver WymanChristian EdelmannRio TintoDavid NiotakisSantander CIBMichael BagguleyShell plcSam CritchlowSociété GénéraleMohamed BrahamStandard CharteredJohn NewmanStarling Trust Sciences, LLCStephen ScottThe Toronto Dominion BankBrian PerryUBSChristophe PatricotUSS Investment ManagementBen Clissold	Citigroup Global Markets Limited	· Tiina Lee
Deutsche Bank. Vathany VijayaratnaDTCC Europe Limited. Michalis SotiropoulosHSBC. Richard BlackburnJ.P. Morgan. David A. LewisKPMG. Karim HajiLloyds Corporate Investment Bank. Nick HughesMacquarie Bank Limited, Commodities and Global Markets. Arun AsumallMoody's Corporation. Nick MillerMorgan Stanley & Co. International Plc. Christopher BeattyNational Australia Bank. David BatemanNatWest Markets. Donal QuaidNomura International. John GoffOliver Wyman. Christian EdelmannRio Tinto. David NiotakisSantander CIB. Michael BagguleyShell plc. Sam CritchlowSociété Générale. Mohamed BrahamStandard Chartered. John NewmanStarling Trust Sciences, LLC. Stephen ScottThe Toronto Dominion Bank. Brian PerryUBS. Christophe PatricotUSS Investment Management. Ben Clissold	Commonwealth Bank of Australia	· Chris Mclachlan
DTCC Europe Limited  HSBC  Richard Blackburn  J.P. Morgan  David A. Lewis  KPMG  Nick Hughes  Macquarie Bank Limited, Commodities and Global Markets  Macquarie Bank Limited, Commodities and Global Markets  Moody's Corporation  Morgan Stanley & Co. International Plc  National Australia Bank  NatWest Markets  David Bateman  NatWest Markets  Donal Quaid  Nomura International  Oliver Wyman  Rio Tinto  Santander CIB  Santander CIB  Shell plc  Société Générale  Scoiété Générale  Standard Chartered  Standard Chartered  Standard Chartered  Standard Stander CIB  Santander CIB  Santander CIB  Société Générale  Standard Chartered  Standard Chartered  Standard Chartered  Standard Chartered  Standard Chartered  Standard Chartered  Standard Standard Standard  Standard Chommodities and Global Markets  Rich Hughes  Arun Asumall  Aru	Crédit Agricole CIB	· Walid Assaf
HSBC . Richard Blackburn  J.P. Morgan . David A. Lewis  KPMG . Karim Haji  Lloyds Corporate Investment Bank . Nick Hughes  Macquarie Bank Limited, Commodities and Global Markets . Arun Asumall  Moody's Corporation . Nick Miller  Morgan Stanley & Co. International Plc . Christopher Beatty  National Australia Bank . David Bateman  NatWest Markets . Donal Quaid  Nomura International . John Coff  Oliver Wyman . Christian Edelmann  Rio Tinto . David Niotakis  Santander CIB . Michael Bagguley  Shell plc . Sam Critchlow  Société Générale . Mohamed Braham  Standard Chartered . John Newman  Starling Trust Sciences, LLC . Stephen Scott  The Toronto Dominion Bank . Brian Perry  UBS . Christophe Patricot  USS Investment Management . Sem Clissold	Deutsche Bank	· Vathany Vijayaratna
J.P. Morgan  KPMG  KPMG  Kerim Haji  Lloyds Corporate Investment Bank  Macquarie Bank Limited, Commodities and Global Markets  Macquarie Bank Limited, Commodities and Global Markets  Moody's Corporation  Morgan Stanley & Co. International Plc  Morgan Stanley & Co. International Plc  National Australia Bank  NatWest Markets  Donal Quaid  Nomura International  Nomura International  Oliver Wyman  Christian Edelmann  Rio Tinto  David Niotakis  Santander CIB  Sam Critchlow  Société Générale  Standard Chartered  Standard Chartered  Stanling Trust Sciences, LLC  The Toronto Dominion Bank  Uss Investment Management  Edwis Hagi  National Australia  National Markets  Arun Asumall  Arun Asu	DTCC Europe Limited	· Michalis Sotiropoulos
KPMG Lloyds Corporate Investment Bank Lloyds Corporate Investment Bank Macquarie Bank Limited, Commodities and Global Markets Moody's Corporation Norgan Stanley & Co. International Plc National Australia Bank NatWest Markets Donal Quaid Nomura International Nomura International Oliver Wyman Cliver Wyman Nei Tinto David Niotakis Santander CIB Shell plc Société Générale Shell plc Société Générale Stanlard Chartered Starling Trust Sciences, LLC The Toronto Dominion Bank Usick Hughes Arun Asumall Chartered Christopher Beatty Christophe Patricot USS Investment Management  Starling Trust Sciences, LLC Christopher Patricot USS Investment Management  Starling Trust Sciences Christopher Patricot Chris	HSBC	· Richard Blackburn
Lloyds Corporate Investment Bank Macquarie Bank Limited, Commodities and Global Markets Moody's Corporation Norgan Stanley & Co. International Plc Christopher Beatty National Australia Bank David Bateman NatWest Markets Donal Quaid Nomura International Oliver Wyman Christian Edelmann Rio Tinto David Niotakis Santander CIB Shell plc Société Générale Standard Chartered Starling Trust Sciences, LLC The Toronto Dominion Bank Uside Michael Bark Nick Hughes Arun Asumall Chartered David Miller Christopher Beatty Christopher Beatty David Bateman David Bateman Christopher Beatty David Bateman David Bateman David Bateman David Niotakis Sam Critchlow Société Générale David Niotakis Sam Critchlow Société Générale David Niotakis Sam Critchlow Société Générale Brian Perry UBS David Rimana Stanlard Chartered Brian Perry UBS David Rimana Stanlard Patricot Ben Clissold	J.P. Morgan	· David A. Lewis
Macquarie Bank Limited, Commodities and Global Markets  Moody's Corporation  Morgan Stanley & Co. International Plc  National Australia Bank  NatWest Markets  Donal Quaid  Nomura International  Oliver Wyman  Rio Tinto  David Niotakis  Santander CIB  Shell plc  Société Générale  Standard Chartered  Standard Chartered  Starling Trust Sciences, LLC  The Toronto Dominion Bank  Worgan Stanley & Co. International Plc  Christopher Beatty  Arun Asumall  Nick Miller  Christopher Beatty  David Bateman  David Bateman  Christian Edelmann  David Niotakis  Sam Critchlow  Sam Critchlow  Société Générale  Mohamed Braham  Standard Chartered  John Newman  Starling Trust Sciences, LLC  Stephen Scott  The Toronto Dominion Bank  Brian Perry  UBS  Christophe Patricot  USS Investment Management  Ben Clissold	KPMG	· Karim Haji
Moody's Corporation. Nick MillerMorgan Stanley & Co. International Plc. Christopher BeattyNational Australia Bank. David BatemanNatWest Markets. Donal QuaidNomura International. John GoffOliver Wyman. Christian EdelmannRio Tinto. David NiotakisSantander CIB. Michael BagguleyShell plc. Sam CritchlowSociété Générale. Mohamed BrahamStandard Chartered. John NewmanStarling Trust Sciences, LLC. Stephen ScottThe Toronto Dominion Bank. Brian PerryUBS. Christophe PatricotUSS Investment Management. Ben Clissold	Lloyds Corporate Investment Bank	· Nick Hughes
Morgan Stanley & Co. International Plc  National Australia Bank  NatWest Markets  Donal Quaid  Nomura International  Oliver Wyman  Rio Tinto  David Niotakis  Santander CIB  Shell plc  Société Générale  Société Générale  Standard Chartered  Starling Trust Sciences, LLC  The Toronto Dominion Bank  USS Investment Management  Christopher Beatty  David Bateman  Charide Badyuley  Michael Bagguley  Sam Critchlow  Sam Critchlow  Mohamed Braham  Standard Chartered  Stephen Scott  The Toronto Dominion Bank  Brian Perry  UBS  Ben Clissold	Macquarie Bank Limited, Commodities and Global Markets	· Arun Asumall
National Australia Bank  NatWest Markets  Donal Quaid  Nomura International  Oliver Wyman  Christian Edelmann  Rio Tinto  David Niotakis  Santander CIB  Michael Bagguley  Shell plc  Sam Critchlow  Société Générale  Mohamed Braham  Standard Chartered  John Newman  Starling Trust Sciences, LLC  The Toronto Dominion Bank  USS Investment Management  David Bateman  Christian Edelmann  Michael Bagguley  Michael Bagguley  Sam Critchlow  Sam Critchlow  Sam Critchlow  Christophe Patricot  Ben Clissold	Moody's Corporation	· Nick Miller
NatWest Markets  Nomura International  Nomura International  Oliver Wyman  Rio Tinto  David Niotakis  Santander CIB  Michael Bagguley  Shell plc  Sam Critchlow  Société Générale  Mohamed Braham  Standard Chartered  John Newman  Starling Trust Sciences, LLC  The Toronto Dominion Bank  USS Investment Management  Donal Quaid  Dohn Coff  Stellmann  Christian Edelmann  David Niotakis  Sam Critchlow  Sam Critchlow  Sam Critchlow  Sam Critchlow  Brian Perham  Christophe Patricot  USS Investment Management	Morgan Stanley & Co. International Plc	· Christopher Beatty
Nomura International . John Goff Oliver Wyman . Christian Edelmann Rio Tinto . David Niotakis Santander CIB . Michael Bagguley Shell plc . Sam Critchlow Société Générale . Mohamed Braham Standard Chartered . John Newman Starling Trust Sciences, LLC . Stephen Scott The Toronto Dominion Bank . Brian Perry UBS . Christophe Patricot USS Investment Management . Ben Clissold	National Australia Bank	· David Bateman
Oliver Wyman : Christian Edelmann Rio Tinto : David Niotakis Santander CIB : Michael Bagguley Shell plc : Sam Critchlow Société Générale : Mohamed Braham Standard Chartered : John Newman Starling Trust Sciences, LLC : Stephen Scott The Toronto Dominion Bank : Brian Perry UBS : Christophe Patricot USS Investment Management : Ben Clissold	NatWest Markets	· Donal Quaid
Rio Tinto : David Niotakis  Santander CIB : Michael Bagguley  Shell plc : Sam Critchlow  Société Générale : Mohamed Braham  Standard Chartered : John Newman  Starling Trust Sciences, LLC : Stephen Scott  The Toronto Dominion Bank : Brian Perry  UBS : Christophe Patricot  USS Investment Management : Ben Clissold	Nomura International	· John Goff
Santander CIB  Shell plc  Société Générale  Standard Chartered  Starling Trust Sciences, LLC  The Toronto Dominion Bank  UBS  USS Investment Management  · Michael Bagguley  · Sam Critchlow  · Sam Critchlow  · Mohamed Braham  · John Newman  · Stephen Scott  · Stephen Scott  · Brian Perry  Christophe Patricot  · Ben Clissold	Oliver Wyman	· Christian Edelmann
Shell plc : Sam Critchlow  Société Générale : Mohamed Braham  Standard Chartered : John Newman  Starling Trust Sciences, LLC : Stephen Scott  The Toronto Dominion Bank : Brian Perry  UBS : Christophe Patricot  USS Investment Management : Ben Clissold	Rio Tinto	· David Niotakis
Société Générale · Mohamed Braham Standard Chartered · John Newman Starling Trust Sciences, LLC · Stephen Scott The Toronto Dominion Bank · Brian Perry UBS · Christophe Patricot USS Investment Management · Ben Clissold	Santander CIB	· Michael Bagguley
Standard Chartered . John Newman Starling Trust Sciences, LLC . Stephen Scott The Toronto Dominion Bank . Brian Perry UBS . Christophe Patricot USS Investment Management . Ben Clissold	Shell plc	· Sam Critchlow
Starling Trust Sciences, LLC  The Toronto Dominion Bank  UBS  USS Investment Management  • Stephen Scott  • Brian Perry  • Christophe Patricot  • Ben Clissold	Société Générale	· Mohamed Braham
The Toronto Dominion Bank  UBS  Christophe Patricot  USS Investment Management  Ben Clissold	Standard Chartered	· John Newman
UBS · Christophe Patricot USS Investment Management · Ben Clissold	Starling Trust Sciences, LLC	· Stephen Scott
USS Investment Management • Ben Clissold	The Toronto Dominion Bank	· Brian Perry
· · · · · · · · · · · · · · · · · · ·	UBS	· Christophe Patricot
Westpac Banking Corporation • Max Bulloch	USS Investment Management	· Ben Clissold
	Westpac Banking Corporation	· Max Bulloch



#### **Standards Board**

Member Name	Standards Board Member Name
Aberdeen Group plc	· Louise Drummond
Association of Corporate Treasurers	· James Winterton
Australia and New Zealand Banking Group Limited	· Paul Moore
Australian Financial Markets Association	· Brendan Harper
Bank of America	· Mauricio Sada-Paz
ВНР	· Stewart Cox
BlackRock	· David Morris
Bloomberg L.P.	· Wayne Barlow
BNP Paribas	· Alexandre Benech
Citigroup Global Markets Limited	· Mark Meredith
Commonwealth Bank of Australia	· Mark Baillie
Crédit Agricole CIB	· Pierre Scemla
Deutsche Bank	· Daniel Morley
DTCC Europe Limited	· Michalis Sotiropoulos
Global Financial Markets Association	· James Kemp
Goldman Sachs	· Nikhil Choraria
HSBC	· Chris Dickens
Invesco	· Karim Awenat
J.P. Morgan	· Samuel Pannetier
KPMG	· Peter Rothwell
Lloyds Corporate Investment Bank	· Rob Hale
Macquarie Bank Limited, Commodities and Global Markets	· Jason Hope
Moody's Corporation	· Nick Miller
Morgan Stanley & Co. International Plc	· Daniel Aksan
National Australia Bank	· Hugh Whitworth
NatWest Markets	· Phil Lloyd
Nomura International	· David Leigh
Rio Tinto	· David Niotakis
Royal Bank of Canada	· Christophe Coutte
Santander CIB	· Jan Lundstrom
SBAI - Standards Board for Alternative Investments	· Thomas Deinet
Standard Chartered	· Chris Stanton
Starling Trust Sciences, LLC	· Erich Hoefer
The Toronto Dominion Bank	· Campbell Gilbert
UBS	· Jonathan Fletcher
USS Investment Management	· Ben Clissold
Westpac Banking Corporation	· Andrew Martin
World Gold Council	· David Tait