FMSB

FICC Markets Standards Board

ANNUAL REPORT 2017

Conduct

"Codes and Standards developed by the market for the market lie at the heart of efforts to build efficient, resilient, robust markets and to improve governance and firm culture. Markets are a powerful force for the common good and that is why the FICC Markets Standards Board's work to establish readily understood, widely followed Standards for global wholesale markets is so important."

Mark Carney, Governor Bank of England

"Good culture and trust go hand in hand. And trust is fundamentally about the honesty and veracity of commitments and the reliability of future promises to your customers, investors, creditors and the public authorities. By codifying agreed Standards that set out these commitments and are accepted by all its Members, FMSB is building an essential foundation for re-establishing public trust in markets again. I am a strong supporter of their work and am very pleased to see the progress made in 2016/17."

Andrew Bailey, Chief Executive Officer, Financial Conduct Authority

"Conduct has become a systemic issue for financial markets, central banks and regulators worldwide. And we must recognise that wholesale markets are global, not national. Formal regulation must be complemented by the highest standards of market practice across all jurisdictions if we are to ensure fair and effective markets for all. I am pleased to see the progress that the FMSB initiative to make market participants responsible for codifying these Standards is making."

Andreas Dombret, Executive Board of the Deutsche Bundesbank

"I'm delighted by the progress that FMSB and its Member firms have made this year. Conduct has become a systemic issue for financial markets and market participants and we are determined that the right lessons are learnt from the serious problems revealed in recent years. HM Treasury values the FMSB initiative to make market participants more responsible for clarifying and promoting the high standards of market practice that must underpin fair and effective markets."

Stephen Barclay, Economic Secretary to HM Treasury

"The collaborative work among private and public sector participants to develop global standards, like the recently announced Global FX Code and the work of the FICC Markets Standards Board, is essential to restoring the public's trust in financial markets. These critical markets support and sustain the health of the U.S. and global economies. After years of scandals, it is heartening that industry and regulators are taking tangible steps to reform these markets, enhance transparency and hold participants to higher standards."

William Dudley, President and Chief Executive Officer, Federal Reserve Bank of New York

FMSB: Key Facts and Issues

What is FMSB?

FMSB is a unique and innovative private sector, market led organisation constituted following the recommendations of the Fair and Effective Markets Review to raise standards of conduct in wholesale FICC markets. FMSB represents all sectors and users of the global FICC markets.

Over 200 senior market practitioners from 50 firms and organisations are engaged in the production of FMSB Standards and Statements of Good Practice. FMSB Members include international users of FICC markets such as corporate issuers, asset owners and asset managers, exchanges, custodians, intermediaries and investment banks, genuinely reflecting the diversity of market participants.

A Forward Looking Solution to Complex Practice Issues

Good regulation and a strong legal framework are necessary perquisites, but on their own are not sufficient to deliver fair and effective market outcomes: regulations and the law cannot provide the detailed, granular guidance needed by market practitioners to eliminate ambiguity as to acceptable conduct within the accepted bounds of law.

Best practice needs to be determined by senior market and technical experts from all sides of the wholesale markets debating and agreeing best practice Standards which balance the different interests of market makers and market users, and then committing to adopt those Standards in their daily businesses.

FMSB Standards clarify longstanding grey areas of market practice, as well as addressing specific abuses that have historically been difficult to eradicate and emerging vulnerabilities that may not yet have caused problems.

Rebuilding Trust

Our Members commit to adhere to FMSB Standards. Our Standards and guidance are also available for non-Members to use and we encourage the broadest adoption of them.

The production of Standards and commitment to them are significant and necessary steps towards rebuilding market discipline and public trust in FICC markets.

Members and Markets

Our Members

Aberdeen Asset Management
Allianz Global Investors
Bank of America Merrill Lynch
Barclays
BHP Billiton
BlackRock
Bloomberg
BNP Paribas
BNY Mellon
BP
Citadel Securities
Citigroup Global Markets Ltd
Crédit Agricole CIB
Credit Suisse
Deutsche Bank
Deutsche Börse
Goldman Sachs
HSBC
JP Morgan
Legal & General IM
Linklaters (Legal Advisor)
Lloyds Banking Group
LSE Group
M&G Investments
Morgan Stanley
National Australia Bank
NEX
Nomura
PGGM
RBS
Rio Tinto
Royal Bank of Canada
Royal Dutch Shell
Royal Mail Group
Scotiabank
Société Générale
Standard Chartered
Standard Life Investments
State Street
Thomson Reuters
TP ICAP
Tradeweb
UBS
Vodafone
XTX Markets

Our Markets

FMSB membership has grown to 50 institutions.	**Members** 50
FMSB Members undertake over 80% of sell side wholesale FICC market activity and 60% of inter-dealer broker volumes.	**Market Volume** 80%
FMSB buy side Members have over $10 trillion in assets under management.	**AUM** $10tr
FMSB corporate Members undertook over $100 billion of global bond issuance in 2016.	**Issuance** $100bn
FMSB technology providers and exchanges account for over 30% of EMEA market share and 45% of global listed derivatives turnover.	**Venues** 45%
FMSB custody banks have over $100 trillion in custody assets and a 60% global market share.	**Custody** 60%

FMSB has five Associate Members: the Association of Corporate Treasurers, the Banking Standards Board, the Hedge Fund Standards Board, KPMG and Oliver Wyman.

Representatives of our Associate Members attend FMSB Advisory Council and Board meetings along with representatives from the Bank of England and the Financial Conduct Authority.

Strategic Goals

Goal	Activities
Analyse and report on emerging FICC conduct vulnerabilities	• Scanning the horizon for wholesale FICC market conduct risks. • Creating a forum for open discussion between wholesale FICC market participants on common issues. • Engaging with regulators in an appropriate fashion.
Address areas of uncertainty in specific trading practices	• Producing appropriate Standards and other materials to create a common understanding of best market practice. • Maintaining a robust process for collecting, assessing and prioritising issues.
Promote adherence to Standards	• Ensuring Standards are practical and comprehensible. • Sharing and promoting good practice on governance, controls and incentives. • Giving guidance on minimum standards for training and qualification.
Contribute to international convergence of Standards	• Identifying gaps and inconsistencies in existing regulatory standards. • Working with other recognised standard setting bodies to develop consistent approaches.

"Multiple conduct failures over the last few years have led to a serious erosion of public trust in financial markets, which are vital to the real economy. IOSCO supports initiatives which aim to establish high standards of behaviour of market participants which can inspire trust and confidence in investors. IOSCO has recently been focused on misconduct in the wholesale markets, as is the FMSB, where some of the more egregious instances of misconduct have occurred. I therefore warmly welcome the FSMB's work for the financial industry to adopt Codes and Standards which are responsive to the need to restore public trust in its activities."

Ashley Alder, Chairman, IOSCO Board

"Misconduct in wholesale financial markets was allowed to become something of an endemic problem. Every step in combatting misconduct is a step towards re-establishing trust. These standards written for practitioners, by practitioners are relevant and timely and we encourage all banks and brokers to adopt them."

Mark Branson, Chief Executive Officer, FINMA

"No jurisdiction has been spared the hugely damaging impact of misconduct in wholesale markets in recent years, and earlier times. In Australia, we strongly support all efforts to create and codify high standards of market practice across global markets, such as the FX code. The FMSB initiative, which has enlisted the expertise of some of the most experienced individuals and firms right across markets, will make a powerful impact and we are delighted by the progress it is making."

Greg Medcraft, Chairman, Australian Securities and Investments Commission

Contents

Standards, Adherence and the Restoration of Market Discipline

One of the issues raised by the Fair and Effective Markets Review (FEMR) was that market discipline was not working effectively.

Part of the role of FMSB is to provide a structured forum within which market discipline is restored and developed. An important element of this undertaking is its forward looking, anticipatory approach to pre-empting potential future problems.

FMSB publishes Standards and Statements of Good Practice. Both types of publication are intended to complement formal regulation and to provide guidance that will help to re-establish market discipline.

Standards set out Core Principles and accompanying guidance on the most important aspects of practice where we believe ambiguity risks undermining fair and effective markets. All FMSB Members are expected to adopt the Standards in their businesses (where they are engaged in the relevant market or activity) and to evidence this through an annual Statement of Commitment. Examples of these publications are the Standards for Binary Options and for Reference Price Transactions (see: www.fmsb.com).

Statements of Good Practice set out guidance on what constitutes good or best practice in relation to broader areas of uncertainty in wholesale markets and in relation to oversight structures and methodologies. FMSB does not require formal adoption of these more general Statements of Good Practice. Examples of these publications include the Statements of Good Practice on Surveillance in FX Markets and on FICC Market Conduct Training (see: www.fmsb.com).

Statements of Commitment are only obligatory for FMSB Members; however, for clarity we encourage all market participants, irrespective of their membership in FMSB, to adopt and use our Standards and Statements of Good Practice in their businesses wherever they are relevant.

FMSB is not an inspection or enforcement agency. FMSB does not duplicate functions already performed by market regulators. We expect our Standards to provide a clear framework by which all market participants can raise standards of conduct and market discipline.

Statements of Commitment

Two Member firms stood down from the Board in the relevant period and six new Member firms joined. All Member firms at 31 July 2017 have provided Statements of Commitment in relation to Standards finalised in 2016.

"FICC markets require stronger collective processes for identifying and agreeing standards of market practice, consistent with regulatory requirements, that respond more rapidly to new market structures and trading patterns, apply to traditional and new players, and are more effectively monitored and adhered to within (and between) firms. The Review therefore supports the proposal in the Market Practitioner Panel's consultation response for the establishment of a new market-led body to address issues of market practice."

Fair and Effective Markets Review 2015

Chairman's Statement

Mark Yallop Chairman

"Everything we have seen and done so far has strengthened the Advisory Council's and the Board's conviction about the need for FMSB and the critical role that it has been created to perform. I am confident that FMSB's Standards will provide the guidance that is missing and, as they develop, raise standards of conduct in financial markets as a whole."

I am delighted to introduce the FICC Markets Standards Board's second Annual Report.

The past 12 months have seen FMSB make some significant and gratifying progress towards our goals. In particular, we have taken encouraging steps forward in our central aim: to raise standards of conduct in the wholesale financial markets for fixed income, currencies, and commodities, and improve outcomes for the users of those markets by making them more transparent, fair and effective.

We have significantly expanded our membership, which now numbers 50 institutions. The authority of FMSB itself, and our ability to define wholesale market practice and challenge the status quo of established customs, derives from the fact that we truly represent all sectors of the wholesale markets and their diverse requirements, not just the vested interests of one or more segment of the markets.

It was particularly pleasing therefore to see in the past year five more global corporations joining FMSB as well as two of the largest non-bank liquidity providers. FMSB is now more representative of all sectors of the global wholesale FICC markets than at any time in our history; and our Members collectively account for a very substantial share of the business conducted in wholesale markets worldwide.

This broader range of membership has borne immediate fruit in the quality and intensity of discussions that have led to the development of the new Standards already published, as well as those currently in production.

Our ability to maintain the highest standard of work is further strengthened by the Independent members of our Advisory Council and Board who bring deep market knowledge to our discussions but who are not affiliated to any Member firm. I am delighted that this group of individuals has been further strengthened during the year by the addition of Stephen O'Connor and David Tait.

Just as importantly, we have built for the first time FMSB's own stand-alone infrastructure, to ensure it can deliver on its ambitious programme in the months and years ahead. After a comprehensive search we appointed our first Chief Executive, Gerry Harvey, in August 2016. Gerry brings over 30 years' experience of global wholesale market practice and regulation to FMSB and a strong vision for the role that Standards need to play alongside formal regulation in these markets. Gerry has brought together a small but highly experienced executive team at FMSB who are already making great progress in addressing the organisation's goals.

Gerry and his team have led a strategic review and horizon scanning exercise for the Board and Advisory Council, described below, which have introduced new thinking about the market practice challenges FMSB is addressing. This work has been invaluable and laid a secure foundation for the next three years.

We have made significant progress as well this year in the production of Standards and Statements of Good Practice, building on the encouraging start made last year, and I have been very pleased to see how broadly these publications have been welcomed by industry practitioners.

The work behind these publications has been overseen by several individuals who have made exceptional contributions to FMSB by chairing Working Groups this year and I would like to pay tribute particularly to the contributions in this regard of: Andrew Morton of Citigroup Global Markets, Jonathan Brown of Barclays, Rob Rooney of Morgan Stanley, Sally Dewar of JP Morgan, Marc Bailey of Sucden Financial, Nat Tyce of Barclays, Nick Collier of Thomson Reuters, Chris Purves of UBS and Zar Amrolia of XTX Markets.

We have also made significant strides in developing the Standards Adherence process, under which our Member firms undertake publicly to adhere to FMSB Standards as they are published.

Everything we have seen and done so far has strengthened the Advisory Council's and the Board's conviction about the need for FMSB and the critical role that it has been created to perform. I am confident that FMSB's Standards will provide the guidance that is missing and, as they develop, raise standards of conduct in financial markets as a whole.

This work is as timely as it is important; we believe, as outlined in this report, that financial markets are as exposed and vulnerable to misconduct as they have ever been.

Uncertainties about how to do business, even in regulated markets, are one category of problem. Changes in market structure, both evolutionary and those forced by new regulation, also create challenges. One of the most significant of these is the potential unintended consequences of electronic trading. There are many benefits attached to electronic trading: increased transparency, lower costs and improved auditability to name just three. But e-trading does not eliminate the opportunities for misconduct and market abuse. I expect that the conduct, control and behavioural challenges that electronic trading raise will occupy a significant amount of FMSB time in the next two to three years.

The FICC markets are global, not national. The Standards we develop have to recognise this fact and the extensive cross-border nature of trading activity in these markets. While London has a uniquely broad pool of talent and expertise in markets for FMSB to draw on in developing Standards, and as the largest multi-currency capital market trading centre in the world is the ideal place for FMSB to be based, we need to ensure that our Standards receive acceptance in all major FICC markets.

With this in mind we have conducted briefing sessions with many international central banks and market regulators, to present our plans and work, holding 57 meetings in the past year with individuals in the US, France, Germany, Switzerland, Spain, the Netherlands, Sweden, Norway, Malaysia, Australia and South Africa as well as a number of meetings with the two global standards bodies – the Financial Stability Board (FSB) and International Organization of Securities Commissions (IOSCO).

We have also been able to present FMSB at 28 conferences and academic meetings during the past year, as well as to the international media.

I have a great many people to thank for the early success of FMSB. First, to all the Associate Members who have supported us. In particular I would like to thank Oliver Wyman, KPMG and Linklaters, all of whom have provided invaluable staff or other assistance to FMSB this year.

Second, I must thank a number of regulators in Britain and overseas for engaging with us so constructively and encouraging our work. In this group, the ongoing commitment and support of Mark Carney, Minouche Shafik during her term as Deputy Governor at the Bank of England, Andrew Bailey both during his time at the PRA and as CEO of the Financial Conduct Authority, and Charles Roxburgh at HMT have all been particularly helpful and welcome. We have also been very pleased by the encouragement we have received from, among many others, President Dudley of the Federal Bank of New York, Andreas Dombret of the Deutsche Bundesbank and Mark Branson of the Swiss Financial Market Supervisory Authority.

Finally, I would like to thank especially all our primary Members, whose commitment to FMSB through Advisory Council and Board representation, and by the contributions of market experts in our Working Groups, have made possible the progress that we have achieved this year.

Mark Yallop
Chairman, FICC Markets Standards Board

CEO's Statement

Gerry Harvey CEO

"It is clear that we must enhance our thinking and our approach to the management of market conduct and add complementary initiatives to existing frameworks. Merely repeating the same formulas will not achieve different outcomes. FMSB is one element, the practitioner led element, of a new approach which emphasises the alignment of behaviour, conduct, governance and culture."

Today there is clear recognition that conduct risk is systemic risk. In the past five years, banks globally have paid some $375 billion in conduct fines, about 80% of which related to wholesale markets. If that money had been retained as capital it would have supported some $5 trillion of bank lending to the global economy. But this is clearly not just a matter of economics as perhaps the most serious effect of misconduct has been the damage to trust in financial services and erosion of the social licence that banks and others in the financial system need to operate.

How did this happen? The reasons are complex, but there are contributing factors which we have learned from about how we have approached and managed conduct risk in the past.

Whilst laws and regulations have been introduced and adapted to seek to deal with market misconduct, conduct issues have continued to occur in forms very similar to those which occurred previously. Existing regulatory approaches to conduct have tended to fall into two camps: principles-based and rules-based. High level principles provide regulatory flexibility, but insufficient practical detail to guide practice in the actual marketplace. Detailed legalistic rules risk being incomprehensible to individual traders and cannot possibly cover all of the detailed scenarios that arise in dynamic wholesale markets. It is rare that the answer to the question "Can I do this deal?" can be found by reference to a statute or rulebook.

The Fair and Effective Markets Review (FEMR) recognised this, noting "…a lack of market-wide agreement on the standards of market practice implied by regulations and market codes". What is acceptable and unacceptable in daily conduct and practice is implied by, but is not listed in, rules. Rules may mean that certain practices are permissible (or not), but they do not describe what those practices are.

It is clear that we must enhance our thinking and our approach to the management of market conduct and add complementary initiatives to existing frameworks. Merely repeating the same formulas will not achieve different outcomes. FMSB is one element, the practitioner led element, of a new approach which emphasises the alignment of behaviour, conduct, governance and culture. This is where FMSB's Standards fit. Standards do not replace or duplicate laws or rules – they describe what principles, codes and rules mean in practice.

FMSB has gained significant momentum in the last year. We have developed and agreed our strategy and workplan for the coming years, increased our membership and produced our first Standards and Statements of Good Practice. The Board and its Committees are engaged in the production of Standards across a broad horizon of issues and now have over 200 industry leaders and senior practitioners from all disciplines and participant sectors engaged to deliver their goals. Work in progress includes reviews of structural and conduct risks in electronic trading, government bond auctions, risk management transactions relating to bond issuance, information sharing in primary bond markets and communications and the provision of market colour in FICC markets. Further Statements of Good Practice are also in preparation and include front office oversight tools, communications monitoring and the identification and submission of suspicious transaction and order reports.

It is often assumed that the horizon of potential malpractice behaviours in markets are limitless; in the words of the Judges in a now famous US enforcement case:

> "The methods and techniques of manipulation are limited only by the ingenuity of man."
> Cargill, Incorporated v. Hardin (1971).

An issue for consideration in this regard is evidence. Enforcement cases, of which there is now a significant body, provide details of the patterns of behaviour used in actual cases of misconduct. This information is publicly available but to date the patterns of behaviour in them have not been analysed, compared, collated and published. At FMSB we call this Behavioural Cluster Analysis (or BCA).

BCA establishes that the horizon of malpractice techniques is more limited. Analysis of over 400 recorded domestic and international misconduct cases indicates that a core group of some 26 behavioural patterns repeat over time.

As it transpires, this conclusion is not new. Following the 1929 Crash, the US Senate Committee on Banking and Currency took 10,000 pages of evidence relating to market practices for its report published in 1934 (the Pecora Report). This report identified many of the same behavioural patterns evident in enforcement matters today. More recently, the FEMR itself noted that "…one of the Review's most striking findings has been that, although the specific aspects of individual misconduct may have varied substantially across traders, firms and markets, the underlying behaviours were remarkably similar in many cases and relatively straightforward to describe."

That a number of different authorities have at different times drawn the same conclusions supports the value of the approach. However, and importantly, the objective of the exercise is not academic. It is entirely practical. BCA provides a methodology to identify the core group of misconduct techniques which have repeatedly formed the basis of misconduct across multiple jurisdictions. Identifying malpractice techniques is an essential step to forestalling them.

A further consideration in relation to conduct is the growing impact which technology is having on market structures and practice. It has been suggested that moving trading markets to electronic platforms addresses conduct risk, that computers are more trustworthy than humans and misconduct can be "coded out". I would sound a note of caution in this regard. Electronic trading platforms have been operating for some time – and so we already have a corresponding body of enforcement cases relating to misconduct in that environment.

The formation of FMSB recognises that a new and complementary approach is required which provides market participants with clearer practical context to laws, principles and rules. For this to work effectively, all sectors of the markets must be represented and FMSB Members do represent all sectors with an interest in standards in FICC markets: corporate users, buy side investors, sell side institutions, exchanges and infrastructure providers and intermediaries. The work produced to date and which is currently under way is evidence of the commitment of the industry to resolve the conduct failures of the past and ensure they do not get repeated again in time.

The work of FMSB is most ably supported by my colleagues in the Secretariat. Our capabilities in this regard have been enhanced this year by the addition of two Senior Technical Advisors: David McClean, who has over 30 years' experience in trading roles in FICC markets, and Craig Beevers, who has 25 years' experience in rates and structured product markets and as a risk manager. This enables the Secretariat to leverage a range of skills, combining legal, regulatory and risk management with senior front office trading experience. I extend my thanks to the team for all of their effort and support this year.

Gerry Harvey
CEO

Members and Organisation

The formation of FMSB recognises that senior market and technical expertise is required to address conduct and behaviour in markets and to drive and embed change.

FMSB has achieved strong support from all corners of the industry. Over 200 senior practitioners across markets and market disciplines are engaged in the production of FMSB Standards and Statements of Good Practice.

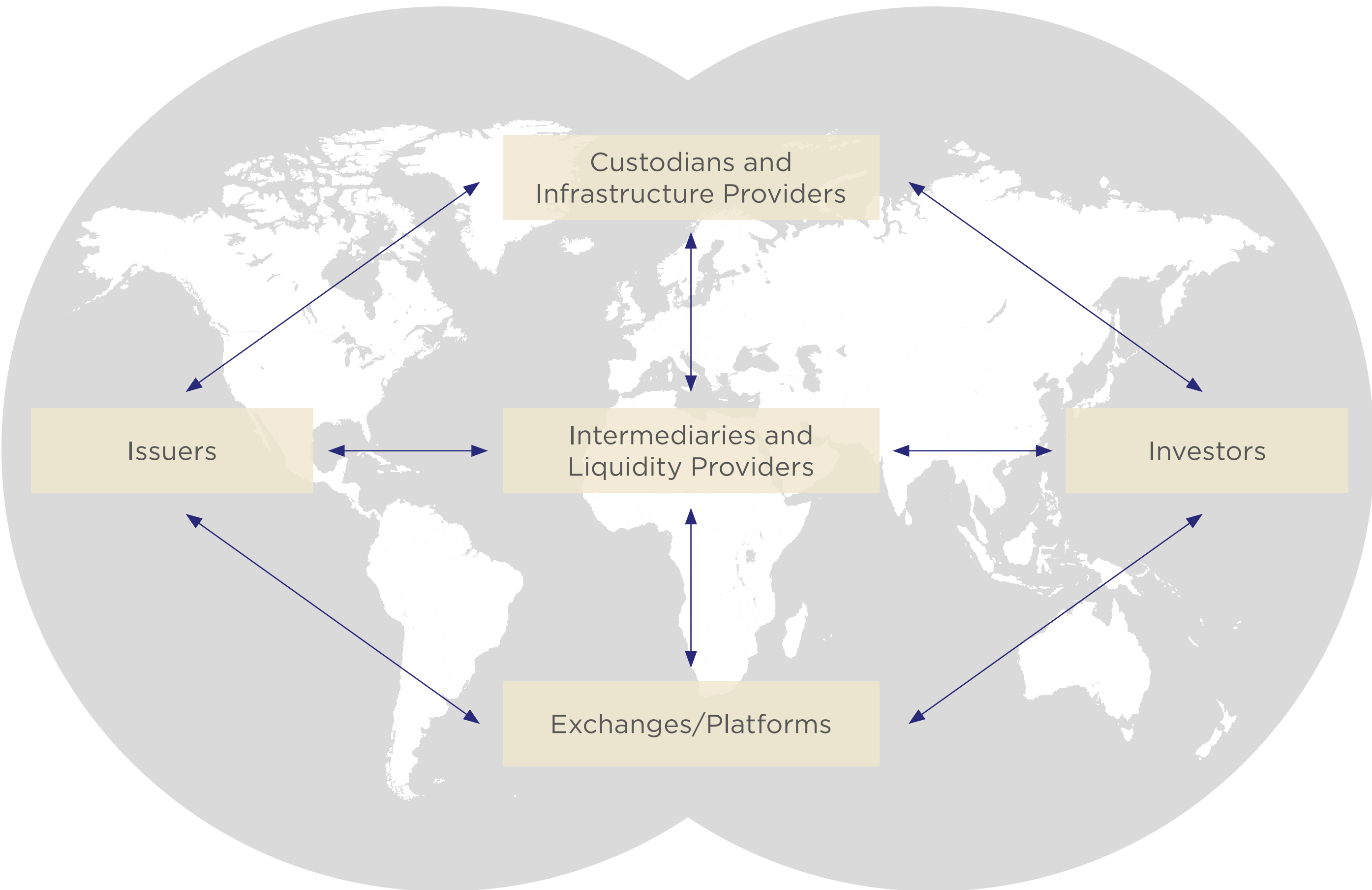
FMSB is an industry driven collective response to the market conduct problems revealed in recent years. It brings together senior industry leaders from all market participant sectors in one organisation with the single objective of enhancing FICC market Standards. Members include international users of the markets such as corporations, asset owners and asset managers and market infrastructure providers such as exchanges, custodians and investment banks, genuinely reflecting the diversity of participants in the wholesale FICC markets.

This is the first time this has happened.

FMSB Members account for over 80% of sell side wholesale FICC market activity. Buy side Members have over $10 trillion in assets under management. Corporate Members undertook over $100 billion of global bond issuance in 2016. Technology providers and exchanges account for over 30% of EMEA market share and 45% of global listed derivatives turnover. Custody banks have over $100 trillion in custody assets and a 60% global market share.

FMSB is owned and financed entirely by its Members.

FMSB Members Represent All Market Sectors



Organisational Structure

Advisory Council

Advisory Council members represent and commit their firms to the progression of FMSB objectives. The Advisory Council owns and approves the FMSB strategic framework and plan, reviews performance and determines FMSB fees and resources. The Advisory Council reviews and approves the Board Terms of Reference and reviews and approves the FMSB Annual Report and the Annual Adoption Report to the public authorities. The Advisory Council commits members to Standards adoption and assists with promotion and sponsorship of FMSB. This includes assistance with outreach and convergence activities.

Representatives of the Bank of England and the Financial Conduct Authority attend FMSB Advisory Council meetings.

Standards Board

The Board develops the FMSB strategy and plan for Advisory Council approval as well as developing and approving the annual workplan and prioritisation. The Board manages and approves the production of Standards and Statements of Good Practice, ensuring quality and appropriate balance. Board members socialise FMSB outputs within firms and ensure timely feedback to Committees. The Board assists with the maintenance of a balanced membership profile. The Board produces the Annual Report to the Advisory Council and the Annual Adoption Report to the public authorities.

Representatives of the Bank of England and the Financial Conduct Authority attend FMSB Board meetings.

Structure	Summary Roles and Responsibilities
Advisory Council	**Advisory Council:** comprises representatives from and commits all Member firms. Reviews and approves FMSB strategy and performance. Commits Member firms to Standards adoption and adherence.
Standards Board	**Standards Board:** rotating membership of senior market practitioners. Develops and executes the FMSB strategy. Reviews and approves Standards and Statements of Good Practice.
Rates / Spreads / Currencies / Commodities	**Market Practices Committees:** asset class and market committees for each of the Rates, Spreads, Currencies and Commodities markets.
Electronic Trading and Technology	**Electronic Trading and Technology Committee:** addresses specific market-wide and thematic conduct issues relating to electronic trading and to technology in general.
Conduct and Ethics	**Conduct and Ethics Sub-Committee:** reviews matters relating to governance, controls, oversight functions and methodologies across markets.
Codes and Standards Convergence	**Codes and Standards Convergence Sub-Committee:** supports centralised international outreach and convergence contribution activities.
Working Groups	**Working Groups:** technical experts producing FMSB Standards and Statements of Good Practice. Formed at the request of the Committees.
Secretariat	**Secretariat:** supports FMSB's organisational structure and production of Standards and Statements of Good Practice. Assists with horizon scanning and engages in international outreach.

How FMSB Operates

How FMSB Works

FMSB was established with a mandate to improve the quality, clarity and market-wide understanding of FICC trading practices and develop Standards designed to improve conduct and raise practice standards in the wholesale FICC markets.

Risk Identification

The identification of areas of risk is a key step in framing responses to conduct aberrations in markets. Efforts at identification must keep pace with market evolution. Practitioners initiate that evolution and can develop standards in parallel with it.

Process

FMSB discharges its mandate through its membership and membership fora. Issues that need to be addressed are identified by methodologies such as horizon scanning and Behavioural Cluster Analysis and through industry consultation, and are pursued through the production of FMSB Standards and Statements of Good Practice. FMSB will build up a body of Standards over time, prioritising those areas where there is a lack of clarity in the standards of behaviour expected of market participants, or a lack of understanding of the issues relevant to a product or transaction type, or if there is evidence of poor conduct.

Standards and Statements of Good Practice

Standards and Statements of Good Practice are produced by FMSB cross-sectoral Committees and Working Groups, each of which follows a rigorous production, review and transparency process. FMSB Member firms commit to adhere to the Core Principles contained in FMSB Standards under the FMSB adherence process.

Standards are made public and are shared with non-Member firms who are encouraged to consider them and conduct their FICC market activities in a manner consistent with them. Information on Standards and Statements of Good Practice are made available to users of the wholesale FICC markets (e.g. corporates and end-investors) so that they are aware of FMSB's expectations of market conduct.

> "We must find more collaborative ways to harness the technical knowledge and innovation of market participants, while using the powers available to the authorities to hold firms to their responsibilities."
>
> *Fair and Effective Markets Review 2015*

Case Study: An example of how FMSB reacts to an identified market issue

Market Issue

The FEMR identified that improvements were required to the corporate bond issuance process. In particular, market participants believed that the allocation policies used by bookrunners require a more consistent level of transparency.

FMSB Response

The FMSB Board agreed that the FMSB Fixed Income Spreads Sub-Committee should undertake to draft a market Standard for the new issue process for fixed income bonds. This Sub-Committee consisted of some 20 senior market practitioners from investors, investment banks and corporate users of the market directly involved in the new debt issuance process. The Sub-Committee was originally chaired by Rob Rooney (CEO, Morgan Stanley International) and later by Jonathan Brown (Head of Investment Grade Syndicate, EMEA APAC, Barclays).

A Standard was drafted over a period of nine months and following review and challenge by the FMSB Board was made publicly available as a Transparency Draft for two months until 17 January 2017. Feedback requests were made directly to over 88 institutions and trade associations.

Outcome

A final market Standard was published on 2 May 2017. The final Standard sets out 10 Core Principles to be adhered to during the mandate, marketing, execution and post-launch stages of a new issue. The allocation policy issue was dealt with in a Core Principle as follows:

Core Principle 1: Lead banks should describe and make their allocation policies, or a summary of such policies, available to issuers. The allocation policy, or a summary of such policy, should also be made publicly available to all market participants. In determining the allocation objectives for a specific deal, lead banks should take note of the issuer's allocation preferences (if any). This discussion should take place before the book opens, noting that when book building is complete the issuer's allocation decisions must take precedence.

The Standard is available on the FMSB website, www.fmsb.com.

Governance

The Advisory Council met on four occasions during the reporting period. The Board met on seven occasions during the reporting period. The Market Practices Sub-Committees met on 13 occasions during the reporting period and the Electronic Trading and Technology Committee met twice. The Conduct and Ethics Sub-Committee and its Working Groups met on 29 occasions and the Codes and Standards Convergence Sub-Committee met on two occasions.

Industry Standards Board

FMSB represents all sectors of the market. This is the first time that market-wide representation with a sole focus on conduct standards has been achieved. FMSB leverages the practical expertise of the most senior market practitioners to identify and address key conduct issues and areas of practice opacity. FMSB maintains a regular dialogue with relevant regulatory authorities. All Standards are publicised for feedback as "Transparency Drafts".

No Turf – Open Licence

FMSB is a "No Turf – Open Licence" organisation. All FMSB outputs are available to any international regulatory or standards body or industry participant. FMSB will share information that permits and assists interested international bodies to respond to conduct matters as they deem necessary.

What FMSB is Not

FMSB is not a regulator, nor is it a representative body, trade association, think tank or lobby group. Standards must be and are developed free from representative or market sectoral positions and considerations. FMSB does not duplicate or replicate the activities of legislators or regulators. FMSB is not an enforcement agency. Regulators already have enforcement powers where these are required to be exercised.

The FEMR established four key principles for the operation of FMSB. They are:

1 Dialogue

FMSB should maintain a regular dialogue with relevant regulatory authorities and put in place appropriate governance structures to ensure that both its work programme and the materials it produces take into account relevant regulatory standards and initiatives.

2 Balanced Membership

FMSB membership should comprise a balanced representation of all types of market participant, including buy side firms, sell side firms, infrastructure providers, corporate end-users and independents.

3 Seniority and Independence

FMSB Members should be senior business leaders with extensive experience of FICC markets who should represent their own views rather than those of their firms.

4 Authority

FMSB Members should have sufficient authority to engage their firms' senior management to marshal resources to support FMSB's activities, and to muster their institutions' endorsement of proposed recommendations.

Progress in the Year

Reporting Period

This report covers the activities of FMSB completed or in progress in the period from 1 August 2016 to 31 July 2017.

Horizon Scanning

FMSB has completed an initial horizon scan and segmentation of potential practice areas which require clarification by way of Standards and/or Statements of Good Practice. FMSB has produced three Standards and two Statements of Good Practice. The Board is presently working on the production of five Standards and five Statements of Good Practice. The Board is also engaged in thematic work in relation to electronic trading and technology in markets and in relation to the identification of common recurring abusive trading practices.

The initial horizon scan drew upon three key sources: the issues identified by the Market Practitioner Panel in response to the FEMR ("Market Practitioner Panel sources"); the deployment of Behavioural Cluster Analysis to over 400 UK and international cases of abusive conduct; and a wide ranging review of trading practices performed by FMSB Committees and Working Groups ("FMSB scan").

Horizon scanning forms the basis of the FMSB workplan. The issues arising in the horizon scan are prioritised by the Board based on a number of factors, including:

- Priority: whether the matter is a Member or market identified priority;
- Impact: the potential market and cross-market impact of the conduct area in question; and
- Pre-emption: whether FMSB action is likely to have a clear pre-emptive effect and the nature of any apparent barriers to desired outcomes.

Some issues identified through this process are specific to a single market or asset class; others are more complex cross-market thematic issues that affect multiple asset classes. The horizon scan established a substantial agenda for the Board to address. The figure opposite provides an overview of the work completed this year and the body of work that is currently under way.

> "…the absence of a common understanding on certain issues of trading practice contributed to a drift in standards of behaviour over time."
>
> *Fair and Effective Markets Review 2015*

Scanning the Horizon

Sources

Fair and Effective Markets Review, Behavioural Cluster Analysis and FMSB Members

Horizon Scan Outputs

The Market Practitioner Panel sources indicated some 27 issues for consideration. Behavioural Cluster Analysis indicated 26 repeat behavioural clusters and the FMSB scan indicated a further 20 areas for review – a total of 73 topics.

The topics comprised a range of issues from broad cross-market and asset class themes to idiosyncratic practice issues in particular markets and oversight and control arrangements in markets.

FMSB Segmentation

Horizon scan outputs were segmented in four groups:

- Generic issues: issues arising from or impacting multiple markets or asset classes;
- Conduct thematic issues: repeat malpractice behaviours evident in markets;
- Idiosyncratic issues: issues relevant to particular markets or practices; and
- Mitigation initiatives: the development of oversight toolkits and methodologies.

1 Fair and Effective Markets Review

Issues identified by Market Practitioner Panel (2014) and the Fair and Effective Markets Review (2015).

Identified issues

27

2 Behavioural Cluster Analysis

Analysis of 400 UK and international conduct cases from 1814 to 2017.

Identified issues

26

3 FMSB Members

Initial horizon scan performed by FMSB Working Groups in 2015. Updated annually and reviewed by the FMSB Board using both quantitative and qualitative measures.

Identified issues

20

Total issues 73

Generic

- **Market Relationships:** clarity of trading relationships between dealers and end-users.
- **Technology:** conduct issues arising in e-trading and pre/post-trading platforms.
- **Suitability:** lack of granular market-wide standards.
- **Governance and Controls:** best practice in FICC governance and business controls.
- **Training and Qualifications:** guidance on minimum standards of UK training and qualifications.

Thematic

- Collusive Trading
- Wash/Matched Trades
- Compensation Trades
- Crosses
- Closing Prices
- Reference Prices and Fixes
- Ramping
- Spoofing
- Layering
- Squeezes and Corners
- New Issue/Offering Support
- Best Execution
- Execution Conflicts
- Client Information
- Rumours
- Bull/Bear Raids
- Soundings
- Inside Information
- Portfolio Trades
- Pre-Hedging
- Front Running
- Order Flow Information
- Market Colour
- Last look

Idiosyncratic

- Auctions
- Payments for Order Flow
- Hedging Practices
- Internalisation
- Loan Market Information
- Best Execution: Illiquid Markets
- Asset and Liability Management
- Order Book Disclosure to Secondary Desks
- Research
- Non-Public Information
- Physical Commodities Markets

Mitigation

- Training
- Surveillance
- Three Lines of Defence
- Suspicious Transaction Reporting (STORs)
- PA Dealing
- Conduct Metrics
- Whistleblowing

Progress in the Year

Work Completed – Standards

Reference Price Transactions

Participants in fixed income markets enter into a type of transaction known variously as a closing price order, end of day order or reference price transaction. The common characteristic of these transactions is that all terms except the execution price are specified and agreed at the outset of the transaction. There is a risk that market activity following agreement (including any dealer hedging) could result in price movements before the reference time. This Standard establishes expected behaviours in relation to the execution and hedging of reference price transactions.

Commodities Binary Options

Binary options have a discontinuous pay-off profile. This means that their value increases or decreases as a step function when the reference price breaches a specified level. Discontinuities are most extreme at or near option expiry (or at the end of a barrier window). Where a discontinuity exists, it can create a commercial conflict between the buyer and the seller of the option, either of whom may benefit from movements in price. This characteristic means commodities binary options can create particular challenges in conflicts management which this Standard seeks to describe and address.

New Issue Process

This Standard seeks to clarify and define principles of good conduct for new bond issues. Key issues addressed include the transparency of allocation policies, policies on the selection of potential investors for market soundings and investor road shows, the agreement of strategy for book disclosure frequency and the introduction of a 15 minute window at the end of the book-building period during which significant changes to issue terms should not be made. It is made clear that investors should ensure that all orders be a true representation of demand.

Work Completed – Statements of Good Practice

Surveillance

This Statement of Good Practice establishes principles for the development and establishment of an effective surveillance function in FICC markets generally and with specific reference to foreign exchange markets. Considerations include the need for dynamic assessment of conduct risks, functional resourcing and appropriate investigation, escalation and reporting and quality assurance. It provides for continuing horizon scanning of market incidents to inform risk assessments and enhance surveillance capabilities.

Training

This Statement of Good Practice establishes principles for the development of risk-based conduct training programmes. It includes the requirement for clarity in the organisational structure for the delivery of conduct training and for clear definition of roles and responsibilities in respect of training and resource allocation. It sets out key topics for inclusion in conduct-based training programmes.

Work Planned

Planned cross-market work includes description and clarification of the common order types given and received in FICC markets. Planned idiosyncratic work includes review of the government bond auction process, best execution in illiquid credit markets, loan market information in primary and secondary credit markets and inside information in commodities markets. Planned work in the mitigation area includes the development of conduct metrics, training case studies and PA dealing.

Work in Progress

Technology

The impact of technology on FICC markets is a key area of interest for FMSB. Key issues for consideration include principles for controls and responsibilities in the management of trading algorithms, controls and risk management relating to the deployment of algorithms, version control and change management processes and record keeping, and the training of responsible staff. Also under consideration is the examination of trading rulebooks and system outages.

Rates

The Rates Sub-Committee is preparing a Standard for the execution of risk management transactions related to new issuance in the bond market. This will set out the rationale for, and the types of, such transactions and Core Principles for the management of potential conflicts which may arise as a result of this activity. The Sub-Committee will also consider conduct in relation to government bond auctions.

Spreads

The Spreads Sub-Committee is preparing a Standard in relation to information flows between primary and secondary market business units, issuers and investors in relation to new bond issues.

Surveillance of Communications

Surveillance of communications is a key activity undertaken by firms to identify and prevent instances of market misconduct. Statements of Good Practice will be produced concerning the surveillance of electronic communications on firm-owned devices (e.g. desktops, laptop computers, mobile phones etc.). These will also include guidance on organisational aspects of communication surveillance and processes for maintaining effective monitoring lexicons.

First Line of Defence

A Working Group is currently reviewing the demarcation of roles in the "Three Lines of Defence" control and oversight structure to establish common best practice operating models.

Supervision

A Working Group is preparing a Statement of Good Practice which sets out principles for front office supervision. Front office supervision is a fundamental first line of defence responsibility for mitigating risks directly related to employee conduct and business activities. The Statement of Good Practice will address issues including delegation, escalation procedures, clarity of supervisory hierarchies and supervisory coverage.

Behavioural Cluster Analysis

Behavioural Cluster Analysis is an evidence-based methodology identifying common recurring abusive behavioural patterns in markets. Analysis of domestic and international sources indicates that the same patterns of adverse behaviour recur over time and do so across asset classes, markets and jurisdictions. This work makes these patterns transparent and will assist firms to focus oversight efforts on the key behaviours which underlie abusive practices.

Why Standards Will Help

Designed by experts	• Standards designed by practitioners who know how markets work and can get more easily to the heart of problematic practices. The risk that one group of experts dominates is mitigated by FMSB's inclusive membership base and governance processes. • Experts who have developed Standards have a natural incentive to "own" and implement them in a thorough way.
International, agile and efficient	• FMSB can develop Standards quickly and can react speedily to the often rapid pace of market developments. It is easier for Standards to apply pre-emptively. • Standards are naturally aligned with markets, not geographical or jurisdictional boundaries, and hence are aligned with the global nature of FICC markets and are easier and faster to promulgate internationally.
Supporting professionalism	• Formal regulation, particularly that focuses on rulebooks, risks creating unintended consequences and promoting regulatory arbitrage. • Empowering people, by allowing them to develop and implement Standards, underpins the greater sense of professionalism that is a desirable goal of industry reform post crisis.
Aligned to, not competing with, regulation	• The new approach by regulators is to align behaviour, conduct, compliance, culture and governance. standards are conduct and behaviourally focused and so align naturally with this approach. • FMSB is committed to clarifying and defining best practice in areas not covered by regulation. It will not duplicate formal regulation. • By reducing uncertainty where there is no formal regulation, Standards improve market functioning and support other regulatory objectives (e.g. supporting economic growth), and promote a pre-emptive approach to conduct risk management and regulation.

Changing Outcomes

Conduct Regulation and the Law

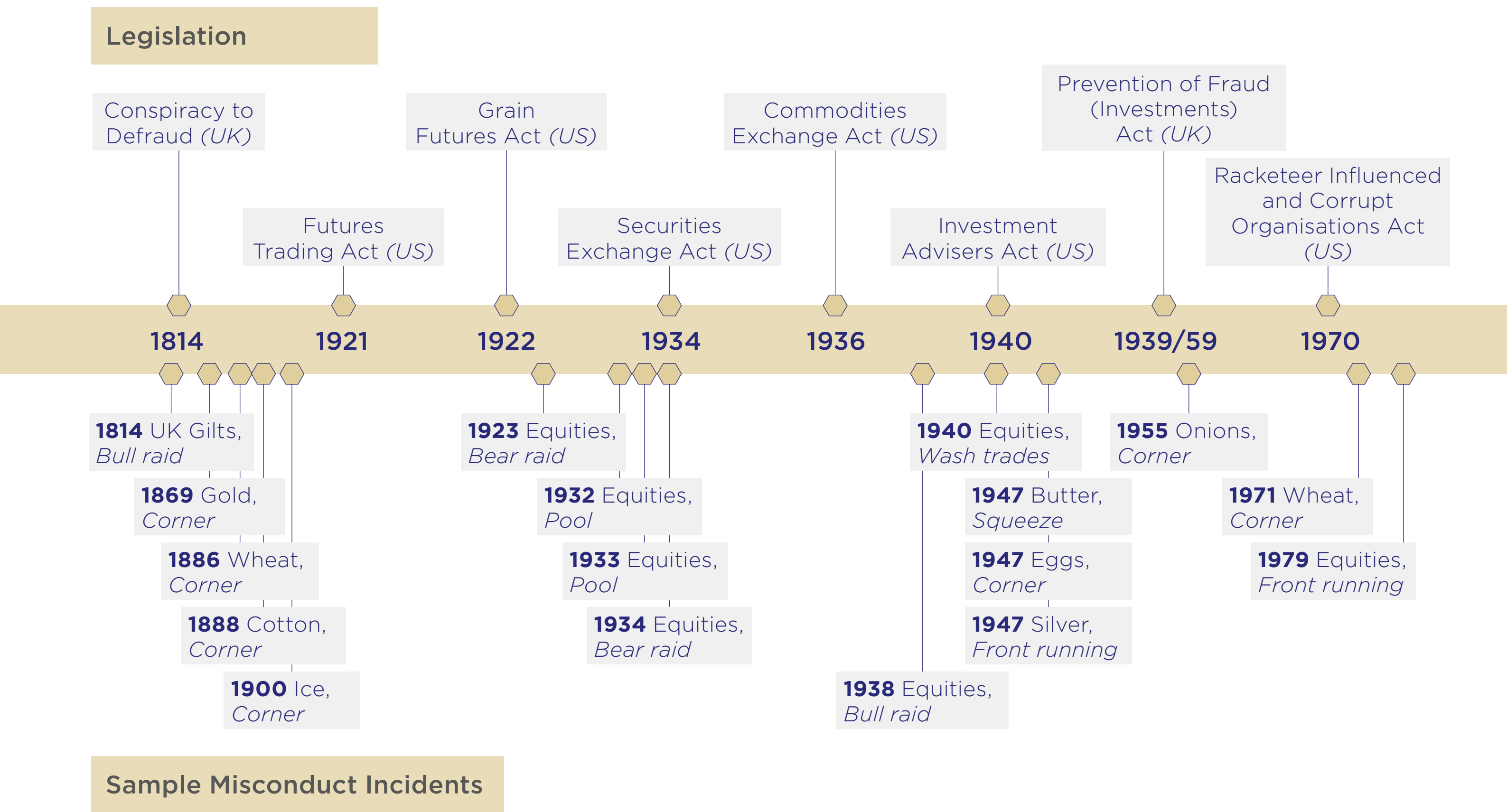
Good regulation and sound legal and regulatory frameworks are essential foundations for fair and effective wholesale markets.

Many people assume that the legal framework, and the detailed regulation that has been developed to complement this over time, provide a clear description of practices in markets – and how markets should work. In fact, this is not the case. The Fair and Effective Markets Review stated that "…there has often been a lack of market-wide agreement on the standards of market practice implied by regulations and market codes".

Today, wholesale market conduct regulation tends to fall into one of two camps: principles-based or rules-based. As noted in the Fair and Effective Markets Review, the advantage of high level principles is that they are concise, adjust to market developments and allow for innovation. However, their application to market practice requires judgement and this may create uncertainty about how principles apply to particular issues. In contrast, detailed rules are more precise, but their precision means that they may hinder innovation, need to be regularly updated to address new developments in markets and can incentivise "gaming" behaviour. As a result, there can sometimes be a tendency for rulebooks to become increasingly long, legalistic and complex. The Fair and Effective Markets Review stated:

> "Neither extreme is ideal in a trading context: high level principles, on their own, may provide insufficient practical detail; detailed rulebooks risk not being comprehensible to individual traders."

Sample Market Legislation and the Incidents of Misconduct 1814–2016



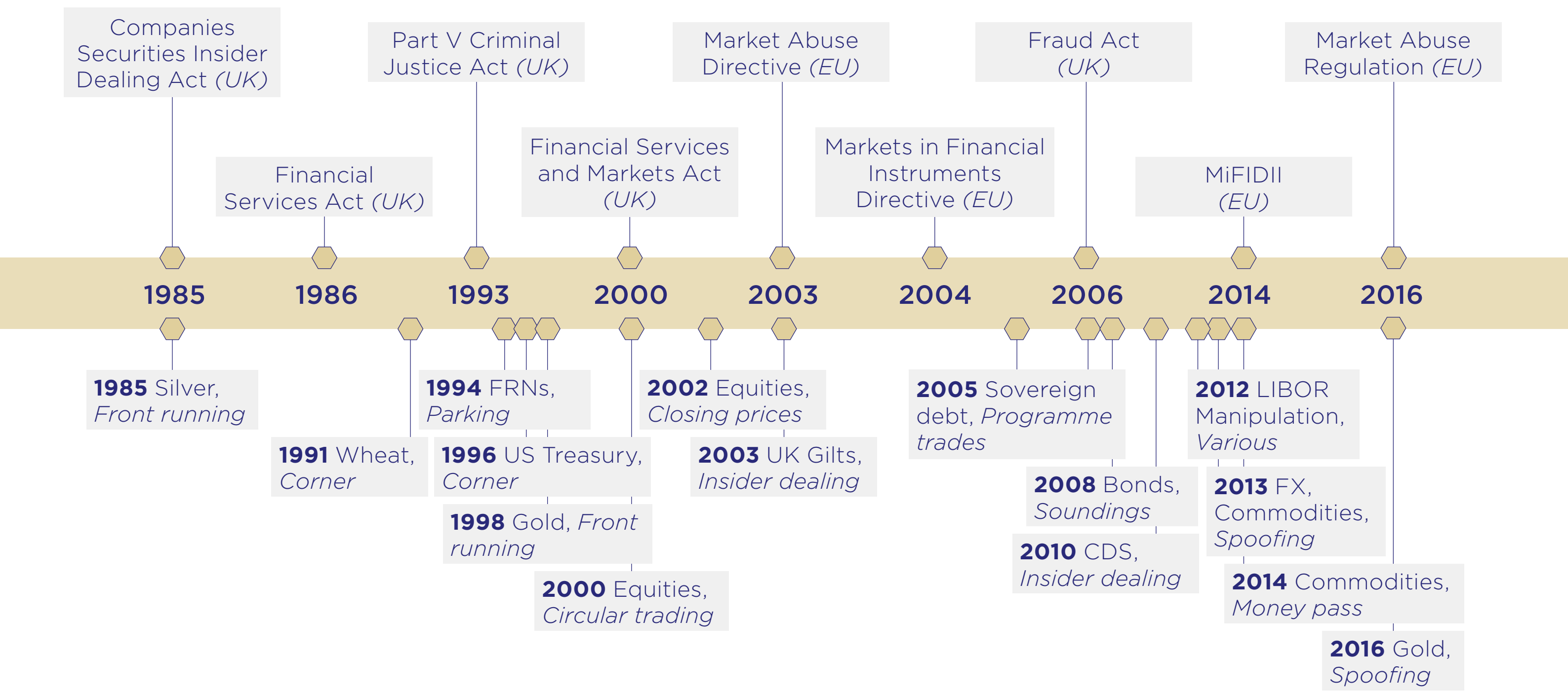
The result of this is that both the law and regulation are silent on significant areas of market practice and cannot cover all of the detailed scenarios and complex practices that arise in innovative and rapidly evolving global wholesale markets. Rules may mean that it is legal or illegal to conduct certain practices but do not specify what those practices are or should be.

Good regulation and a sound legal framework are necessary pre-conditions for markets to operate fairly and effectively, but more is required to ensure that users of markets will always receive the best of outcomes. Regulation and the law need to be complemented by market Standards which lay out the principles of market practice and how practitioners should deal with each other in situations where regulation and the law are not able to guide them.

Legislation Does Not Prevent the Problem

As the timeline below shows, considerable effort has been expended on producing laws and regulation to address market conduct over the past 200 years. The case for a new and additional approach to the conduct problem is underlined by the fact that despite this regulatory and legislative effort, misconduct has not only continued, but the same patterns of behaviour have repeated and developed.

> "…high level principles, on their own, may provide insufficient practical detail; detailed rulebooks risk not being comprehensible to individual traders."
>
> *Fair and Effective Markets Review 2015*



Changing Outcomes

Breaking the Cycle

Conduct regulators have adjusted their approach to the management of conduct issues, emphasising the importance of the interaction between behaviour, conduct, governance and culture. The development of this approach requires a focus upon market conduct and not just upon process and "rules". Firms operating in wholesale markets are also developing new methodologies for managing conduct risk. Market Standards of the sort that FMSB is producing align naturally with these new approaches by both firms and regulators. This was acknowledged by the Fair and Effective Markets Review which noted:

> "The Review has therefore concluded that there is a strong case for drawing up a common set of standards, designed to articulate the core objectives of principles and rules in practical terms that are relevant to the key behaviours that individual traders in wholesale markets should uphold in their interactions with clients and counterparties. These high level standards should be drafted in a concise self-standing form, in language that can be readily understood."

"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 2015

Bolstering Collective Memory

The repeating nature of market conduct problems is also a function of the frailty of collective memory. No matter how intense the experience of failures, as time passes memories recede and those who were witnesses move on from the industry. The lessons learnt by one firm or one generation do not necessarily pass to the next. Creating clear and widely adopted market Standards which set out best and unacceptable market practice in enduring form will help to perpetuate market Standards over time and across markets.

Clarification and Pre-Emption

FMSB is attempting to clarify "grey areas" of market practice where ambiguity as to (for example) the appropriate assessment of conflicts of interest between counterparties to a trade creates poor outcomes for market users and undermines fair and effective markets.

Much attention is inevitably paid to high profile cases of conduct abuse, often perpetrated by an individual or a network of individuals who find loopholes in the legal or regulatory frameworks and firm control environments. Regrettably, there will always be incentives and opportunities for this; the determined actors may find ways around even the best designed controls. These types of deliberate, intentional, abuse are unlikely to be eliminated solely by market Standards. Nevertheless, by clarifying grey areas of market practice, our Standards should help to pre-empt such malpractice and make it harder to engineer.

Market Discipline

One of the issues raised by the Fair and Effective Markets Review was that market discipline was not operating effectively. Part of the role of FMSB is to provide a structured forum within which market discipline is restored and developed. Market Standards make it easier for market users to insist on appropriate practices and to take the initiative in doing so. In the past, market participants have not necessarily understood the significance of ambiguous practices or have relied on market regulators to address these. But the size, speed and cross-border complexity of trading relationships in wholesale markets makes this challenging. Markets will be fairer and more effective if users, as well as liquidity providers, understand how trading protocols should operate and market discipline operates effectively alongside the regulatory framework. By promulgating clear market protocols, Standards take an important step to re-establishing market discipline.

A Level Playing Field

Competition on the basis of merit is a key element of fair FICC markets. Market misconduct is by definition inconsistent with competition on the basis of merit. It is distortive and operates to the detriment of market users. It has broader societal impact. It tarnishes the reputation and perception of the markets at large. By agreeing standards of practice for FICC markets and clarifying grey areas of conduct, FMSB seeks to underpin the level playing field and to provide a firmer foundation for competition on the basis of merit in FICC markets to the benefit of market users.

The Conduct Void

1. Experience shows that wholesale market conduct problems recur in similar formats over time and in multiple jurisdictions.

2. Repeated conventional attempts by legislators to solve the problem have manifestly not worked effectively, or permanently.

3. Existing regulatory approaches to conduct fall into two camps: principles-based and rules-based. Both of these struggle to address the causes of conduct failure.

4. The high level "principles" approach does not guide specific market practice at a granular enough level to show market participants what is acceptable behaviour in real life situations.

5. But neither does the multiplicity of low level, complex operational rules that the "rulebook" approach takes show market participants how to transact or how to behave. The detailed rulebook approach also tends to lag market developments, risks "fighting the last war" and can emphasise "hindsight enforcement" over forward looking prevention.

6. There is a void between high level principles and low level rules which needs to be filled with better guidance for market participants if the root causes of conduct problems are to be addressed.

7. This void, coupled with uncertainty about the direction of regulation, also creates "conduct anxiety" which inhibits activity in wholesale markets to the detriment of economic growth because the key transmission mechanisms of FICC markets are weakened.

8. A different approach to addressing wholesale market conduct is required.

Market Behaviours

Identifying Behaviours

Regulators globally have generated a significant body of enforcement actions and cases. Attention is usually focused on the perpetrator and the fine. However, this source material also provides evidence as to the types and patterns of behaviour and activity that occur and comprise market misconduct. It describes how market misconduct is undertaken – what the practices actually are.

These materials are frequently underutilised. They have not been subject to analysis that focuses on the evident behavioural patterns and have not been collated and published as a single point of reference for, and as an input to, governance and oversight structures and methodologies. Importantly, there has been no comprehensive analysis of these materials over time to establish the effectiveness of responses to incidents of misconduct. This is despite calls from market authorities in this regard (e.g. the Financial Conduct Authority and the "market read across" and "credible deterrence" approaches).

FMSB – Behavioural Cluster Analysis

FMSB has developed a methodology called Behavioural Cluster Analysis (BCA) to commence this work. This is the first time that a review of this type has been undertaken.

BCA methodology is simple. Enforcement cases and source materials describing actual adverse conduct are reviewed to ascertain the pattern of behaviour indicated in each case. These are compared to determine whether the same behaviours repeat or whether the underlying behaviours are unique or different in each case. The outcomes are then compared to those in other jurisdictions to establish if similarities exist.

BCA is an evidence-based methodology. It uses the patterns of behaviour evident in actual market conduct cases brought by regulatory and other enforcement authorities and is therefore derived from real cases of market misconduct. BCA is behavioural and is aligned to, supports and advances the conduct and behavioural agenda of the regulatory authorities.

Practicalities

The objective of BCA is practical, not academic – it is used to aid identification of the most common behavioural patterns for the purposes of recognition and oversight.

This analysis is a work in progress. To date, FMSB has reviewed over 400 cases from 19 countries over a 200 year period arising in all of the main asset classes. Some 250 of these cases have arisen in the period 2000–2017. An extensive time period is used to caputre potentially relevant patterns and to indicate the recurring nature of those patterns. This work has established that malpractice behaviours are consistently similar over time, across asset classes and across jurisdictions.

Results

BCA has yielded a number of thematic findings.

Finding 1: There are a Limited Number of Repeat Behavioural Patterns

Review of the source materials indicates that there are some 26 behavioural patterns evident in market misconduct cases. These patterns repeat and recur over time and across markets despite the continuing promulgation of legislation and regulation.

Finding 2: Behaviours are Jurisdictionally and Geographically Neutral

These behavioural patterns do not respect national or jurisdictional boundaries – they are evident internationally.

Finding 3: The Same Behaviours Occur in Different Asset Classes

These behavioural patterns are not specific to particular asset classes. The same behaviours are evident in different asset classes. This is rational: asset classes do not generate conduct risks – people do.

Finding 4: Behaviours Adapt to New Technologies and Market Structures

Behavioural patterns readily adapt to new market structures and technologies.

FMSB will publish materials indicating each relevant pattern and the source cases from which these are derived, case studies for each pattern and the database of the relevant enforcement cases for reference purposes.

Behavioural Cluster Analysis

Classifying Market Behaviours

The Fair and Effective Markets Review considered the behaviours evident in recent conduct cases and established "behavioural similarity" as a hypothesis.

> "...one of the Review's most striking findings has been that, although the specific aspects of individual misconduct may have varied substantially across traders, firms and markets, the underlying behaviours were remarkably similar in many cases and relatively straightforward to describe."

Fair and Effective Market Review 2015

The FMSB BCA supports this finding. The analysis has established that a number of behavioural clusters repeat and recur over time and adapt to market structural change.

This is not new. It is notable that the US Senate Committee, which examined the conduct causes of the 1929 Crash and which led to the Securities and Exchange Act 1934, took over 10,000 pages of evidence relating to market conduct. The market conduct patterns identified by the US Senate Committee in 1934 are strikingly similar to those evident in conduct cases today.

Examples of the behavioural clusters evident from BCA analysis are set out below. A glossary of terms is provided on page 38.

Pools	Wash Trades	Matched Trades
Compensation Trades/ Money Passes	Wash Trades (Fraud)	Crosses
Closing Prices	Reference Prices, Fixes	Ramping
Spoofing	Layering	Squeeze/Corner
New Issue/M&A Patterns	Parking/Warehousing	Execution Conflicts
Front Running	Client Information	Rumours – Bull/Bear Raids
Insider – Market	Insider – Corporate/Advisor	Insider – Relationships/Groups
Cherry Picking	Portfolio Trades: Pre-Hedging	Window Dressing
Soundings	MNPI Disclosure/Research	

Market Behaviours

Introduction

A typical wash or matched trade involves a purchase and sale of securities that match in price, size and time of execution, and involves no change in beneficial ownership or transfer of risk.

An Illustration of How BCA Works: Wash and Matched Trades

There are a number of variations in transaction patterns by which this outcome can be achieved.

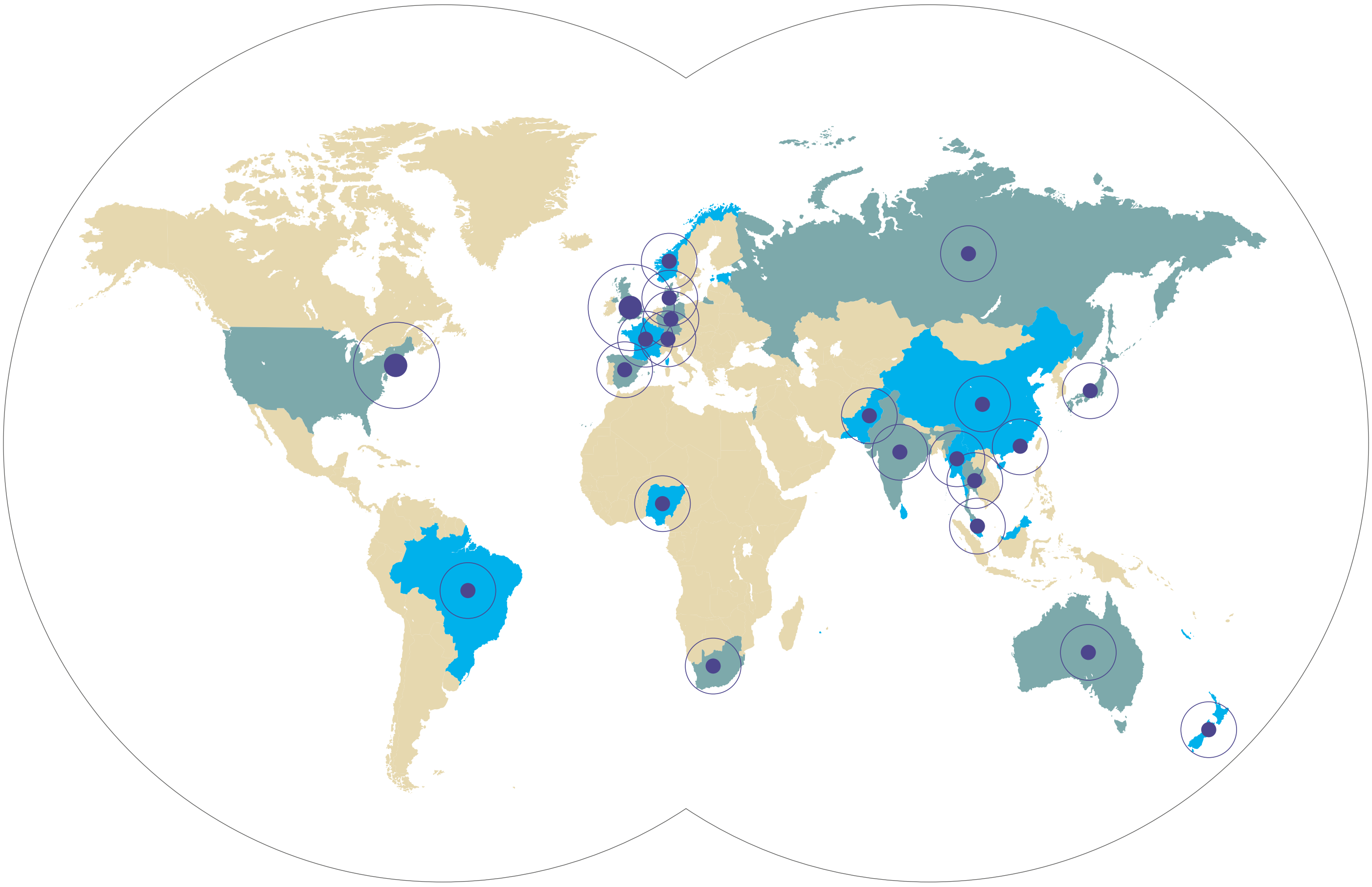
These techniques have been persistent and resilient. They have been deployed stand alone or in conjunction with other techniques to advance a range of aberrant outcomes.

The sample cases below demonstrate that wash trades recur over time. In addition, the cases show that the trading pattern has occurred in multiple jurisdictions. This technique has been adapted to and used in technological trading environments.

Year	Case	Product	Jurisdiction
1994	Place, Morgan, Smith	Floating rate notes	UK
1995	Haynes, Broumas	Equities	US
2000	Butler, Felton, Katsis	Oil futures	UK
2001	Cole	Bonds	UK
2002	Dynegy	Electricity	US
2002	Swift Trade	Equities	UK
2005	Wong Chee Kheong, Bun Lit Chun	Equities	Malaysia
2005	MarketXT	Equities	US
2008	Johannes Albertus van Zyl	Sunflower seeds	South Africa
2011	Fu Kor Kuen	Warrants	Hong Kong
2012	SMP Bank	Options	US
2014	Brian Henry	Equities	New Zealand
2015	Boonchai Jirapongtrakul	Equities	Thailand
2015	Nigel Heath	Contracts for difference	Australia
2015	Li, Kering	Eurodollars	US
2015	TeraExchange	Bitcoin NDFs	US
2015	RP Martin	Rates	UK
2016	Chayanont Weerayuthkosol	Equities	Thailand
2017	Tang Hanbo	Equities	China

As is evident, wash trades have been detected in a range of different asset classes, from equities to commodities. The behaviour is asset class neutral. Behaviours evident in one asset class can be used in others. Behavioural Cluster Analysis demonstrates that it is important to consider not just the market and asset classes where particular patterns are evident, but whether those patterns are possible across markets. As we note in the Emerging Vulnerabilities section, manipulation techniques evident in traditional markets have adapted to new technology-based market structures.

Jurisdictions and Geographies



As the map indicates, behavioural clusters do not respect national or jurisdictional boundaries and the behaviours do not differ by virtue of geography. The map denotes where spoofing, wash trades, ramping and reference and closing price manipulation have been detected.

Spoofing

Spoofing has been detected in, for example, China, Hong Kong, Japan, Myanmar, New Zealand, Singapore, South Africa, Pakistan, the UK and the US. The Myanmar stock exchange was open for just 16 weeks and had just two listed stocks before it issued its first warning against spoofing.

Wash Trades

Wash trades have been detected in Australia, Hong Kong, Malaysia, New Zealand, Russia, South Africa, Thailand, the UK and the US.

Ramping

Incidents of ramping have been detected in India, Malaysia, South Africa, the UK and the US.

Reference and Closing Prices

Incidents of the manipulation of reference and closing prices have been detected in Australia, Denmark, Hong Kong, South Africa and the US.

By definition, individual legislative responses must respect jurisdictional boundaries; misconduct does not. Importantly, and in a world in which markets are closely interconnected, it is apparent that behaviour in one jurisdiction can have adverse impacts in others (e.g. Libor, FX). Recognition of these factors is required and associated responses must be capable of addressing market practice evolution in the international context.

Emerging Vulnerabilities

Introduction

One of the strategic goals of FMSB is to analyse and report on emerging vulnerabilities in FICC markets.

Significant work has been undertaken in this area in the past year. The Behavioural Cluster Analysis referred to earlier, which formed a key part of our 2017–2019 strategy process and was subsequently expanded, was one initiative. The current market practice and conduct horizon scan that was undertaken with FMSB Working Groups was a second initiative. The FMSB Secretariat has also been discussing directly with Members, and with regulators, further instances of potential or actual market vulnerability.

The list of over 70 issues determined during the 2017–2019 strategy setting process, and which forms the basis for our current workplan (see page 13), represent one "snapshot" view of FICC market vulnerabilities. This snapshot will be updated in future reviews of the FMSB strategy.

Cyber threats to financial institutions and their activities are growing in scale; but FMSB is concerned with market practice and conduct risk, not with cyber-crime in general. Our framework for analysing emerging vulnerabilities distinguishes between two types of risk:

— Adaptations of existing manipulative techniques to new markets; and
— Vulnerabilities created by new trading and post-trade protocols.

Each of these is outlined below.

Adaptations of Existing Malpractice Techniques to New Markets

Until recently, the principal conduct threats in FICC markets were almost always adaptations of poor practices already evident elsewhere in wholesale markets. Indeed, Behavioural Cluster Analysis reveals the extent to which a relatively small number of basic abusive techniques have been used and adapted repeatedly.

There are some 26 such generic techniques (see page 13). Examples include:

Spoofing

The practice of placing orders in the market with the intention to cancel these orders prior to their being filled. The practice is used to ramp prices and give false impressions of market depth.

Closing Price Manipulation

A closing price is a reference price – it is a benchmark against which positions are valued and can determine derivative strike prices etc. Marking (or "banging") the close involves deliberately buying or selling securities and/or derivatives contracts at the close of the market to alter the closing price of the security or derivatives contract or index. This can be undertaken using strategies such as wash trades.

Bull or Bear Raids

The practice of taking a position in a security, publishing false information and closing the position once the security price has reacted to the information. This was the basis for the first recorded prosecution for manipulation of the UK Gilt market (R v. de Berenger and others, 1814).

Wash Trades

A typical wash trade involves the purchase and sale of securities in separate transactions that match in price, size and time of execution, and involves no change in beneficial ownership or transfer of risk. There are a number of variations in transaction patterns by which this outcome can be achieved.

It is clear that all FICC markets remain vulnerable to attempts to manipulate prices and volumes using these techniques and variants of them. FMSB will be publishing guidance in the second half of 2017 on the risks posed by these types of techniques.

Execution Conflicts

Technological trading has added new dimensions to execution conflicts, notably in cases where technology houses run client and proprietary businesses within the same group. There have been a number of cases in which confidential client "dark pool" information has been disclosed through networks to proprietary trading affiliates and operations with the latter either front running or executing against client orders.

Front Running

Screen-based trading makes the practice of front running more transparent and more difficult. The methodology has now adapted. Rather than dealing ahead of pending orders themselves, there is now evidence of primary actors disclosing pending orders to third parties (and sometimes withholding execution of the disclosed orders) who then execute the front running trades. This makes the front running order more difficult to identify in a screen-based trading environment.

Vulnerabilities Created by New Trading and Post-Trade Protocols

Since the 1990s, and particularly in the past decade, electronic trading of FICC products and new post-trade protocols (e.g. central clearing) have grown very significantly. In some wholesale markets, electronic execution now accounts for up to 90% of all trading volumes. Electronic trading received a major boost from the G20 driven post-crisis regulatory reforms in the past 10 years and it has delivered many benefits, not least lower cost of execution and improved transparency and auditability.

Electronic trading does not automatically eliminate market abuse and misconduct; this cannot be simply "coded out". Some types of long-established manipulation techniques evident in voice markets have simply migrated to electronic markets; and electronic markets also create new types of vulnerability for FICC market users that have not been a feature of voice markets historically.

Case Studies: Adaptation

Traditional Spoofing

In the CFTC case of Ecoval Diary Trade, Inc. (2011) the actors manipulated the market in Non Fat Dry Milk futures contracts in the CME trading platform by lifting offers and then immediately bidding a higher price than just paid on the offer side; placing both bids and offers above prevailing market prices across multiple contract months in order to establish higher price ranges in the market; consistently placing bids above the opening price or the prevailing price across multiple contracts and bidding, and then quickly cancelling the bids, without the intent to have the bids filled (spoofing).

Traditional Closing Price Manipulation

Bertrand Fleurose was found guilty of manipulating the FTSE 100 Index close and thereby avoiding his firm having to make a payment that would have been required as part of a binary option contract.

Between 4.22 pm and the close at 4.30 pm, Fleurose placed successive waves of sell orders for a total of 35,000 shares in the top five component companies of the Index. In part due to these orders the FTSE dropped 38 points in the last minute of trading on 28 November 1997 and the strike price of the binary option was avoided.

Automated Spoofing

In the CFTC case of Coscia (2013), the actor developed and deployed an algorithm specifically designed to automatically spoof markets. Coscia employed a technologist who created trading spoofing algorithms under Coscia's direction. Coscia manipulated the Globex-based futures markets in energy, metals, interest rates, agricultural products, stock index products and foreign currency and commodities, including for example the Light Sweet Crude Oil futures contract, Natural Gas, Soybeans, Soybean Oil, Soybean Meal and Wheat.

Automated Closing Price Manipulation

In the CFTC case of Optiver (2008), the actors developed a program tool called "The Hammer", which was designed to rapidly enter a series of orders into Globex and used to manipulate closing prices in NYMEX Light Sweet Crude Oil, New York Harbor Heating Oil and New York Harbor Gasoline futures contracts.

Emerging Vulnerabilities

Electronic Wholesale FICC Markets

Set out below is our classification of potential sources of concern in electronic wholesale FICC markets. It is certainly not the case that conduct problems exist today, or might develop, in all these areas. Rather this categorisation is a taxonomy for analysing potential emerging market vulnerabilities.

Governance of E-Trading Venues

Electronic trading venues are sometimes single platforms owned and operated by one provider ("single dealer"). But platforms can also be owned and/or operated by multiple providers ("multi-dealer"). The commercial arrangements, incentives and rebate structures for liquidity providers that lie behind both types of platform can be complex, as can be the platform rules about who can see market indications of interest, bids/offers and executed orders. Such arrangements need to operate in a way that promotes fair and effective markets and good outcomes for market users.

System Development Disciplines

In voice markets, participants have over time developed extensive controls governing the approval, development and introduction of new products. In electronic markets, the equivalent controls may be less well established. Further, electronic market controls need to cover novel types of risk, for example relating to the age and quality of computer code, the documentation, change management and testing of that code in development and live environments, and safe repositories for source copies of code. Outcomes for market participants are being determined as much by the IT programmers who write the code underlying electronic markets as by the human traders who may specify the systems. The mechanisms designed to control these types of risk need also to promote fair and effective markets and good outcomes for market users.

Governance of Algorithms

Algorithmic, or high frequency, trading is an increasingly important category of electronic trading and source of pricing and liquidity in electronic FICC markets. Controls over the development and deployment of algorithmic engines is therefore particularly critical to effective market functioning and the fairness of pricing and liquidity provision by market makers. The roles played by front office trading management, "second line" risk management and "third line" audit functions need to be particularly clear and effective given the much higher frequency environment and significantly greater volumes of orders in electronic markets.

Market Mechanism and Structure

Many electronic markets have execution protocols that mimic the voice markets that preceded them, for example rules that match bids and offers in the sequence in which they are received by the order book. Such protocols can favour certain types of electronic trader and create opportunities for electronic versions of flash orders, spoofing, manipulation of closing market prices and other abusive techniques seen in slower voice markets. But techniques to counter the advantages afforded by speed (e.g. randomising the order book) can also create problems. The logical mechanisms that lie at the heart of electronic markets must have regard for the effectiveness and fairness of markets for users.

Order Type Proliferation

Electronic trading platforms frequently offer a large number of order types beyond the simple "buy" or "sell" traditionally used in voice markets. These may, for example, allow some conditionality in the execution of an order, facilitate follow-on trading after an order has been filled, allow queue jumping in certain circumstances, or shield larger overall orders from lit markets. These order types can offer valuable trading functionality for market users. But they need to be implemented in ways that support the fairness and effectiveness of markets overall and the quality of the liquidity observed by users.

Parallel Market Pricing

The development of electronic markets and algorithmic trading in which orders are generated and executed by machine creates the possibility for separate liquidity pools to co-exist simultaneously for three types of execution methods: "pure" voice only, "hybrid" voice/electronic and "pure" algorithmic. The liquidity characteristics of each execution approach may vary significantly and information flow and arbitrage between the three may or may not work. These factors may impact the fairness and effectiveness of these markets and the outcomes that users experience.

Market Infrastructure

Concerns that algorithmic trading engines can malfunction (e.g. by creating "flash" and "splash" crashes) have led to the deployment of a variety of controls intended to mitigate such problems, for example "kill switches" and "speed bumps". The risk of unauthorised trading by individuals logging in to systems using false identities and of authorised traders overriding authorised position limit controls must also be considered. The way in which controls to manage these risks operate needs to be clear to market participants and to be designed to underpin fairness and effectiveness in markets for users.

Next Generation Conduct Issues

Electronic markets have introduced new forms of conduct risk, alongside the automated versions of traditional voice misconduct. For example, the use of "dark pools" in which selected participants trade with other chosen participants outside the glare of public lit markets may fragment liquidity. Controls over who is able to trade in and view order flow into and out of dark markets need to support the fair and effective operation of markets overall for users. Similar issues could arise in relation to the practice of "direct market access" in which market users are given direct electronic channels to allow them to trade in certain markets.

Data Management

Electronic markets generate very significant volumes of market data. Issues ranging from the accuracy of time stamps to the visibility (or lack) of market depth, latency of reporting of executed orders and the quality and capability of market data infrastructure can all have potential impact on the fairness and effectiveness of electronic markets for their users.

Post-Trade Processes

Most conduct attention is focused on execution venues, but it is also possible that issues arising in post-trade processes can create unexpected vulnerabilities for wholesale market users. Potential examples include variations in pricing and liquidity for centrally cleared products, caused by different clearing venues having imbalanced open interest positions.

These topics represent a major strand of FMSB work over the next two to three years. In the first instance, we will be publishing Standards relating to the governance of algorithms during the second half of 2017.

> "…the style and structure of current regulatory and other standards sometimes makes it difficult for market practitioners to understand how the standards apply to specific market practices…a new body could perform a useful role in producing written materials which explain good trading practices, through guidelines and case studies, in areas where market participants perceive there is less understanding of how standards should apply in practice."
>
> *Fair and Effective Markets Review 2015*

Outreach and Convergence

An objective of FMSB is to contribute to the international convergence of standards.

FMSB seeks to contribute to the international convergence of standards. FMSB Standards and Statements of Good Practice are freely available to all regulatory and standards bodies and all market participant firms.

Conduct risk is cross-border risk; it does not respect national or jurisdictional boundaries. There are differences in the structure and operation of international markets which can give rise to differences in practice. However, international sources indicate that the same abusive behaviours arise across asset classes, market structures and jurisdictions. This establishes a clear commonality in focus upon conduct standards – the issues are universal.

The provision of information and analysis assists convergence in itself. For example, Behavioural Cluster Analysis is new – there has never been an attempt to collate this type of information by any other body. It is evident that while there is much material available as to market regulation, little of it is generated by actual practitioners to address conduct and practice. The provision of information to regulatory and standards bodies in itself assists convergence and serves as a basis for dialogue. It also demonstrates what is being done by FMSB and why.

During the past year FMSB has met with many international regulatory authorities in order to explore the benefits of adding Standards to the existing suite of conduct management methodologies. Meetings have been held with central bank and regulatory authorities in the United States, the European Union, Italy, France, Germany, Switzerland, the Netherlands, Sweden, Norway, Malaysia, Australia, Hong Kong and South Africa as well as a number of meetings with the two global standards bodies – the Financial Stability Board (FSB) and International Organization of Securities Commissions (IOSCO).

The figure opposite shows a summary of engagement with international organisations.

FMSB maintains regular dialogue with the Banking Standards Board and with the Hedge Fund Standards Board, both of which are Associate Members. As noted, FMSB does not (and may not) undertake lobbying or representative work. This does not preclude the maintenance of open communications with industry bodies including AFME, The Investment Association, ICMA, ICSA, Finance UK and GFMA, all of which have provided valuable inputs and feedback on FMSB Standards and Statements of Good Practice.

International Programme

Country/Region	Organisation
Australia	Reserve Bank of Australia
Canada	Bank of Canada
European Union	European Banking Authority
European Union	European Central Bank
European Union	European Investment Bank
European Union	European Securities and Markets Authority
France	Autorité des Marchés Financiers
Germany	BaFin
Germany	Deutsche Bundesbank
Hong Kong	Securities and Futures Commission
Italy	Banca d’Italia
Malaysia	Bank Negara Malaysia
The Netherlands	AFM (The Dutch Authority for the Financial Markets)
Norway	Finanstilsynet (The Financial Supervisory Authority of Norway)
Singapore	Monetary Authority of Singapore
South Africa	Financial Services Board
South Africa	Reserve Bank of South Africa
Sweden	Finansinspektionen (Swedish Financial Authority)
Sweden	Sveriges Riksbank
Switzerland	FINMA (Swiss Financial Market Supervisory Authority)
United States	U.S. Commodity Futures Trading Commission
United States	Federal Reserve Bank of New York
United States	Securities and Exchange Commission
United States	US Treasury Department
International	Financial Stability Board
International	International Organization of Securities Commissions

Our Mission

Our mission is to enhance standards of behaviour in FICC markets by developing clear standards and guidelines on conduct which fill the gap between high-level principles and detailed regulation.

Secretariat

Mark Yallop
Chairman

Mark Yallop is the Chairman of FMSB and an external member of the Prudential Regulation Committee. Mark was UK Group CEO for UBS from 2013–2014. Prior to this he was Group COO for ICAP plc from 2005–2011 and spent 20 years at Deutsche Bank from 1984–2004 where he was instrumental in building its investment banking business and served as Group COO from 2002–2004. He has been a member of numerous financial services industry bodies.

Gerry Harvey
CEO

Gerry Harvey is the CEO of FMSB. Gerry was Group Head of Compliance for the ICAP Group from 2010–2015. Prior to ICAP he worked at a number of organisations, including the Global Banking and Markets Division of RBS, Nikko Europe, LIFFE and NatWest Markets. Gerry is a qualified Solicitor and worked at Cadwalader, Wickersham & Taft and Milbank, Tweed, Hadley & McCloy in London.

Roger Acton
KPMG Secondee

Roger Acton is currently on secondment from KPMG where he is a Senior Manager in the Risk Consulting practice. Roger is a CFA charterholder and has 10 years' experience of working with a wide range of large banking institutions, advising on risk governance, front office control frameworks and prudential risk. At KPMG Roger is responsible for the delivery of client engagements, including regulatory Skilled Person reviews, wholesale conduct remediation and other advisory work.

Craig Beevers
Senior Technical Advisor

Craig Beevers has over 25 years' experience in the financial markets, on both the buy side and the wholesale sell side. Craig has experience trading a variety of interest rate products and structuring a range of interest rate derivatives and other structured products, both as a trader and on the buy side for several major private equity funds. In addition, Craig has spent over 10 years of his career in risk management, including as Head of Global Risk for Nikko Europe (now part of Citigroup). Craig has provided a range of advisory and consultancy services to fund investors and expert testimony on several high profile commercial disputes in the financial markets.

David McClean
Senior Technical Advisor

David McClean has worked in the wholesale financial markets for over 30 years in London, New York and Tokyo. David has held senior trading roles in fixed income and treasury at various investment banks, including Nomura from 1999–2005 and UBS from 2005–2008; from 2009–2014 he worked in investment management, including being a partner at Ruffer LLP. He is a CFA charterholder and has provided expert opinion and consultancy services in several commercial disputes in the financial sector.

Leslie Fasulo
Office Manager

Leslie Fasulo joined FMSB in July 2016. Previously Leslie worked at HSBC in business management for the Asset Management Technology group. Prior to HSBC, Leslie was with Triton Partners, a European private equity firm, where during her tenure she held a variety of operations related roles.

Hanna Mutawa
Administrative Support

Hanna Mutawa joined FMSB in May 2017 from W4i Investment Advisory Limited. At W4i Hanna supported the company directors and managed the office. Hanna has also held administrative and Human Resources positions at Hope Charity and at Shell Exploration & Production.

Associate Member and Pro Bono Support

FMSB is greatly assisted by our Associate Member firms and pro bono supporters who provide resources to support the work of the Board.

KPMG

Bill Michael

Bill represents KPMG on the Advisory Council.

Karim Haji

Karim represents KPMG on the Board and is a member of the Conduct & Ethics Sub-Committee and was a member of the former Surveillance Working Group. Karim contributed to the drafting of the Statement of Good Practice for Surveillance in Foreign Exchange Markets.

Roger Acton

Roger is currently a secondee to the FMSB Secretariat from KPMG.

Matthew Jarman

Matthew was formerly seconded to the FMSB Secretariat from KPMG.

Andrew Davidson

Andrew is a member of the Codes & Standards Convergence Sub-Committee.

Anthony Donohoe

Anthony is a member of the First Line of Defence Working Group.

Lucas Ocelewicz

Lucas is a member of the Electronic Trading & Technology Committee, the Conduct & Ethics Sub-Committee as well as the Supervision Working Group.

Rob Weston

Rob is a member of the Surveillance Working Group.

Linklaters

Robert Elliott

Robert represents Linklaters on the Advisory Council.

Michael Kent

Michael represents Linklaters on the Board and is the Legal Advisor to FMSB.

In addition, many Linklaters staff have been actively engaged in the review and production of FMSB Standards and Statements of Good Practice.

Oliver Wyman

Christian Edelmann

Christian represents Oliver Wyman on the FMSB Advisory Council.

Serge Gwynne

Serge represents Oliver Wyman on the FMSB Board and on the Commodities Sub-Committee. Serge contributed to the drafting of the Binary Options standard for the Commodities Markets. Serge is also a member of the Currencies Sub-Committee.

Nick Studer

Nick formerly represented Oliver Wyman on the FMSB Advisory Council.

Marine Warsmann

Marine was formerly seconded to the FMSB Secretariat from Oliver Wyman.

Hiten Patel

Hiten is a member of the Electronic Trading & Technology Committee.

Jennifer Tsim

Jennifer is a member of the Surveillance Working Group.

PwC

Rukshan Permal

Rukshan was a member of the former Surveillance Working Group and contributed to the drafting of the Statement of Good Practice for Surveillance in Foreign Exchange Markets.

Deloitte

David Strachan

David was a member of the former Surveillance Working Group and contributed to the drafting of the Statement of Good Practice for Surveillance in Foreign Exchange Markets. David is also a member of the Codes & Standards Convergence Sub-Committee.

FMSB Membership

Member Organisations
Aberdeen Asset Management
Allianz Global Investors
Bank of America Merrill Lynch
Barclays
BHP Billiton
BlackRock
Bloomberg
BNP Paribas
BNY Mellon
BP
Citadel Securities
Citigroup Global Markets Limited
Crédit Agricole CIB
Credit Suisse
Deutsche Bank
Deutsche Börse
Goldman Sachs
HSBC
JP Morgan
Legal & General Investment Management
Linklaters (Legal Advisor)
Lloyds Banking Group
LSE Group
M&G Investments
Morgan Stanley
National Australia Bank
NEX
Nomura
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Standard Chartered
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State Street
Thomson Reuters
TP ICAP
Tradeweb
UBS
Vodafone
XTX Markets

Associate Member Organisations
Association of Corporate Treasurers (ACT)
Banking Standards Board (BSB)
Hedge Fund Standards Board (HFSB)
KPMG
Oliver Wyman

Constitution

FMSB is formally governed by way of a Legal Entity, FICC Markets Standards Board Limited, a company registered in England and Wales (registered number 09732893) with the registered office at One Silk Street, London, EC2Y 8HQ. The auditors to FICC Markets Standards Board Limited are BDO LLP. FICC Markets Standards Board Limited is a not-for-profit organisation funded by Member subscriptions.

How to Become an FMSB Member

FMSB Members represent all FICC market participants. Our current membership includes banks, brokers, infrastructure providers, asset managers, asset owners and corporations. We would be pleased to discuss membership with interested FICC markets participants. Please contact the FMSB Secretariat at secretariat@fmsb.com or at +44 (0) 203 861 6440 for further information. The contact address for FMSB is 63 St Mary Axe, London, EC3A 8AA.

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Thomson Reuters	Nick Collier
Tradeweb	Enrico Bruni
UBS	Chris Purves
Vodafone	Neil Garrod
XTX Markets	Zar Amrolia

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Financial Conduct Authority	Edwin Schooling Latter
Bank of England	Chris Salmon

Committee and Sub-Committee Chairs	
Committee Name	**Chair**
BCA Sub-Committee	David Flowerday, Citigroup Global Markets Limited
Codes & Standards Convergence Sub-Committee	Nick Collier, Thomson Reuters
Commodities Sub-Committee	Marc Bailey, Independent
Conduct & Ethics Sub-Committee	Sally Dewar, JP Morgan
Currencies Sub-Committee	James Kemp, GFMA
Electronic Trading & Technology Committee	Zar Amrolia, XTX Markets
	Chris Purves, UBS
Fixed Income, Rates Products Sub-Committee	Nat Tyce, Barclays
Fixed Income, Spreads Products Sub-Committee	Jonathan Brown, Barclays

Glossary

Bull/bear raid	The practice of taking a position in a security, publishing false information and closing the position once the security price has reacted to the information.
Cherry picking	The practice of executing a client order and withholding the allocation to the client pending assessment as to whether the execution is a winning or losing trade. If the price moves adversely, the trade is allocated to the client. If the price moves positively, the trade is taken by the firm or trader for his personal account.
Closing prices	A closing price is a reference price – it is a benchmark against which positions are valued and can determine derivative strike prices etc. Marking (or "banging") the close involves deliberately buying or selling securities and/or derivatives contracts at the close of the market to alter the closing price of the security or derivatives contract or index. This can be undertaken using strategies such as wash trades.
Compensation trades	Wash trades between two parties to enable a cash payment to one party using the securities transaction as the medium to effect the payment.
Corner	A corner arises where a party attempts to achieve a dominant controlling position in a commodity, security or related derivatives to influence the price and to profit from that activity. This can be undertaken to move prices in an enviable direction or to prevent them moving adversely.
FICC markets	The Fixed Income, Currencies and Commodities markets.
Insider dealing	Using price sensitive privileged information that is not generally available to the market to deal ahead of a price movement expected once the information becomes public.
Layering	The practice of entering a sequence of orders at increasingly higher or lower prices to ramp or depress market prices. These can be spoof orders.
Matched trades	A form of wash trade between two different persons intermediated by a third party, typically a broker acting on behalf of one or more counterparties. The tactics may also involve sales and repurchases by a party through two different brokers or two parties through a single broker.
New issue support	Attempts to support or increase the price of newly issued securities. This can arise in the case of underwriting sticks and failed distributions. It can be achieved by using CFD hedges on issued securities.
Parking	The sale of securities subject to an agreement or understanding that the securities will be repurchased by the seller at a later time and at a price which means that the economic risk of the securities never transfers from the seller.
Pools	A coordinated multi-party dealing ring. Pools involve concerted marketing campaigns and multiple collusive and pre-arranged transactions between the parties within the pool to give a false impression of market activity and/or to ramp prices and subsequently close positions at a profit.
Ramping	Artificially raising or depressing the market price of securities. A typical ramping scheme might involve the serial purchase of small lots at increasing prices prior to the sale of a large lot holding at the higher price.
Reference prices	Reference prices include exchange delivery settlement prices for financial and commodity derivatives and other financial and commodity benchmarks against which valuations and cashflows are determined. Reference price manipulation involves deliberately buying or selling securities and/or derivatives contracts at or around the time that the reference prices is set in order to influence the price of the security or derivatives contract or index. This can be undertaken using strategies such as wash trades.
Spoofing	The practice of placing orders in the market with the intention to cancel these orders prior to their being filled. The practice is used to ramp prices and give false impressions of market depth.

Squeeze	A squeeze arises where a party does not seek dominance but attempts to gain control of sufficient amounts of a commodity or security to impact prices.
Wash frauds	Wash trade strategies can be used to undertake fraud when wash trade transactions at off-market prices between accounts are used for the illicit transfer of monies from one account to another.
Wash trades	A typical wash trade involves the purchase and sale of securities in separate transactions that match in price, size and time of execution, and involves no change in beneficial ownership or transfer of risk. There are a number of variations in transaction patterns by which this outcome can be achieved.

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