International
Capital
Market
Association

EUROPEAN REPO AND COLLATERAL COUNCIL

<u>Minutes of the General Meeting of the ICMA European Repo and Collateral Council held on 27 September 2016, in London</u>

Location: L39, One Canada Square, Canary Wharf, London, E14 5AB, UK
Time: 2:00 pm – 5:00 pm

Presenting:
Mr. Martin Scheck, Chief Executive, ICMA
Mr. Mark Yallop, FICC Market Standards Board
Mr. Godfried De Vidts (ERCC Chairman), ICAP Securities Limited
Ms. Lisa Cleary, ICMA
Mr. Alberto Lopez, EMMI
Mr. Andy Hill, ICMA
Mr. Richard Comotto, ICMA Centre – Reading University
Mr. Erik van Dijk, Frontclear
Mr. John Burke, ICMA
Mr. Sylvain Bojic, Société Générale
Mr. Michael Manna, Barclays
Mr. David Hiscock, ICMA
Mr. Alexander Westphal, ICMA
Mr. Romain Dumas, Credit Suisse
Mr. Nicola Danese, JP Morgan
Mr. Phil McCabe, Bloomberg L.P.

Member firms represented at the meeting:
Please see Annex A.

1. Welcome

Mr. Martin Scheck delivered some introductory remarks. Firstly, on behalf of ICMA, welcoming everyone to the meeting; then thanking BondLend, and particularly Jonathan Hodder, for their kind hospitality in hosting the event.

Noting the turnout at the meeting, he next commented on the ERCC community's continued growth, both in the number and the diversity of the membership - which now includes a number of significant market participants from the buy side - asset managers and pension funds for example - and of course an increasing number of critical market infrastructures. The inclusiveness of the group is an essential component in its success and gives it real stature in representing the entire market.

ICMA's overall focus is on the effectiveness of capital markets, which it works to achieve with the input of its member firms who are representative of the entire value chain - including issuers, intermediaries, investors of all sorts, financial market infrastructures, law firms and also a number of public sector bodies from central banks to multilateral and national development banks and agencies. All have a vested interest in ensuring the capital markets work well.

Alongside important work in the primary debt markets and in the secondary markets, ICMA's work on repo and collateral is an essential element. This recognises that collateral, and repo as the tool for sourcing and using it, is at the beating heart of the capital markets. The breadth of the ERCC's work is immense and the objective is to cover all aspects which have, or could have, a material impact on repo and/or collateral. Thanks go to the ERCC Committee and its working groups; and specifically to Godfried De Vidts, Chair of the ERCC Committee and Council and also a board member of ICMA.

Mr. Scheck introduced Mr. Mark Yallop, the keynote speaker, who is the recently appointed chair of the FICC Market Standards Board (FMSB). The FMSB is a new institution formed as a result of the major review into wholesale markets launched by the Bank of England, HM treasury and the FCA in 2014, the Fair and Effective Markets Review (FEMR). Thanking Mr. Yallop for having agreed to speak, Mr. Scheck drew attention to Mr. Yallop's long and distinguished career at a very senior level as a practitioner in the capital market with a number of top flight institutions, including as the UK CEO of UBS. He was appointed as an independent member of the PRA's board in 2014 and took up his current position at the FMSB in July this year.

2. Keynote speech

Mr. Yallop gave the following speech.

Regulation, Ethics and Standards in Wholesale Financial Markets

It is a real pleasure to be here this afternoon and to have the opportunity to talk about why we need to re-think our approach to Standards in wholesale markets and what the FMSB is doing.

First, in case it isn't obvious, I must emphasise that I'm here to speak about the FMSB, in my capacity as its Chair, and not about the Bank of England or the PRA, on whose Board I also sit.

One of the small pleasures of taking up a new post is the (generally) kind and enthusiastic reviews you receive when the news of your appointment is broadcast. But sometimes the critics' judgements are not so kind. So I wasn't too surprised when IFR ran a column under the headline "*FICC Standards Board: another body to clog up the works*":

> "*Has Mark Yallop … just entered the market standards-cum-regulatory equivalent of that inane 'How many people can you fit in a Mini' challenge championed for so long by the equally inane Guinness World Records?*"

and asked some pointed questions:

> *Do Market Standards bodies – the hippies of the new banking ecosystem – really have a place? Do we need august bodies to spout platitudes or offer cute pearls of wisdom that basically tell you to do the right thing? Or to make toothless recommendations to banks about how various sub-segments of the FICC product complex should work; banks that will do just that on their own based on their own needs, business orientations and drive to make profits?*

In my opinion, the FMSB is in fact one of the boldest and most innovative developments in wholesale markets over the past 30 years. That may sound an extreme statement, but I will explain why I think it is fair. The FMSB fills a void left by regulation and addresses persistent, unresolved problems of collective action and unintended consequence that have bedeviled markets as long as I have been working. And it has the potential to make a decisive change in the way the markets on which large parts of the global economy rely work.

But I daresay that IFR voices concerns that others also hold privately. So I'm very glad to have this opportunity to set what the FMSB is attempting to achieve and why I think it is so important. I will try to address two questions:

1. Why do we need Market Standards as well as the rules and laws that govern a clearly heavily regulated industry?

2. What is the FMSB aiming to achieve and how?

The Case for the co-existence of Market Standards and Regulation

There is an oft-repeated, but in my view lazy, view among people who work in financial markets that there is no place for Standards in a well-regulated industry.

This argument runs as follows. Laws and the corpus of regulation make it clear what is allowed and what is not. Following the regulatory rule book is a safe recipe for market participants - indeed the only safe recipe. If the rule book prohibits it then don't do it. If the rule book permits it, or if the rule book doesn't explicitly prohibit it, then it's fair game. Any additional non-statutory "guidance" just muddies the waters and is unhelpful or positively dangerous, not least as it opens the door to the reinterpretation of the rules and law.

With the argument presented in this bald way, perhaps even the hardest-nosed free-marketeer may develop misgivings. But even for extremists the reality is that there are many powerful reasons why the law, and rules and regulation, can't provide all the answers.

It's appropriate that we are in London today. This city is not only the most systemically important financial centre in the world and the epicentre of wholesale financial markets, but also the spiritual home of Standards. If you turn your eyes right and are well positioned by a window, you will see in the middle distance, a little to the right of the Shard, one of London's most iconic features – Tower Bridge - with its levered sections of road. The designer of Tower Bridge, Victorian engineer Sir John Wolfe Barry, made his name with this project and the 700,000 tons of concrete, 11,000 tons of steel and twin steam engines used to raise and lower the road made it a real wonder of its age. What is less well known about Barry, but is arguably more wonderful still, is that he was also a passionate pioneer of Standards: 115 years ago, in 1901, he set up the first ever national standards body, now known as the British Standards Institute, here in London.

Numerous other national and international standards bodies have been established across the globe in the century that has passed since then; and it is no exaggeration to say that virtually every aspect of our lives today is touched by private sector-set standards.

By whatever means you travelled to this meeting today; wherever you live and work; wherever and however you spent your vacation this last summer; whenever and wherever you shop; by whatever means you communicate with family, friends, the office and your bank; however, your elderly relatives are cared for – and in literally thousands of other ways - you will have, maybe unwittingly, relied on private sector-set standards.

Today, tens of thousands of private sector standards sit alongside national and international laws and regulation and determine among other things: safety standards for air pollution, nuclear energy and the transport of live animals; the treatment of waste water in agriculture; sustainable procurement for corporations; the measurement and reporting of greenhouse gasses; the design and energy efficiency of buildings, ships and aircraft; standards in customer complaint handling, staff training and IT privacy and protection; traffic and travel information systems, electronic fee collection on toll roads and automatic vehicle and equipment recognition systems; magnetic ink character recognition, PIN management and security, XML messaging, personal financial planning; and yes, even the design of yacht harbours and care systems for grandma and grandpa.

Everywhere we look, private sector-set standards determine how we live our lives and trade with each other. And all this started here in London, just up the river from here. And yet - fewer than 0.5% of the Standards issued by the International Standards Organisation relate to financial services. Indeed, what strikes one most about wholesale financial markets, in comparison with other major industries, is the rarity of private sector market Standards to complement national laws and public sector regulation. There are exceptions to this rule, including the US Treasury Market Practitioners Group, the Hedge Fund Standards Board and indeed the noble work of ICMA; but across the entire wide spectrum of FICC markets, they are rather few and quite a long way between. Is there something unique about financial markets which make it unnecessary or inappropriate to develop market standards alongside regulations and law, when this approach is so widely adopted in other spheres? I think not.

So why do we need Standards in FICC markets?

In fact, those of us who work in the industry know well that public law, rules and regulation all leave a substantial void between the high level, general principles that they set and the actual detail of day to day market practice. I'm told that if you print out the FCA rule book it will make a 2.5-metre high stack of A4 paper. This stack addresses a multitude of operational requirements, but not how to do a deal. Despite their voluminous quantity, regulations don't provide practical detailed guidance to practitioners on how to address the myriad challenges that FICC market users face, day to day, in the live market place, for example:

- how should a syndicate desk act in managing the allocation process for a new bond deal fairly, taking into account the views of the issuer? What information might the desk share with potential investors about the state of the book ahead of pricing?
- how might this advice change if the deal is being co-led by several banks acting together?
- how might this advice change if the deal is being co-led by syndicate desks in jurisdictions outside London?
- how should a trader who has sold a barrier option hedge his position as the market approaches the barrier level?
- what actually is the difference between legitimate hedging of barrier risk and market manipulation?
- what safeguards should a firm executing a reference price transaction have so as not to disadvantage its customer?
- how should bidders and those managing bids on behalf of others in a government bond auction act so that demand is accurately portrayed to investors?
- what safeguards should firms offering illiquid corporate bonds to the Bank of England Asset Purchase Facility offer their clients?

I could go on, but I think you get the point.

When a trader asks for advice he or she cannot be told "make sure you treat your customer fairly" or "make sure you act with due skill, care and diligence". These are important – vital – principles: but what he or she needs as well is clear, well-articulated guidance that speaks to their specific market and situation. In the absence of clear, detailed guidance a multitude of practices develop and, as we know to our cost, sometimes become perverted. So there is a pressing need for simple, practical, focused measures that can, as rapidly as possible, restore confidence, trust, predictability and transparency to wholesale markets.

Measures that are based on unarguable principles of fairness and transparency.

Measures that are not so proscriptive that they stifle innovation.

Measures that acknowledge the fact that FICC markets are as complex as their real economy drivers, and are specific, targeted and granular.

There is a saying: "to a hammer everything looks like a nail." So, for some regulators and lawmakers the solution to the regulatory void is simple: create more laws and write more regulation. But if we really want to reduce the risks that we know lie in an inconsistent global regulatory framework for a large scale and highly incentivized industry the answer does not lie in higher mountains of more prescriptive regulation. So my first point is this: we need something else, alongside and complementing regulation and the letter of the law, to fill the void beyond the regulatory perimeter. That thing is called Market Standards.

Market Participants' self interest in Standards

The next point I want to make is that these Standards should not need to be inflicted on a reluctant industry by the Bank of England, the FCA or anyone else: market participants have a powerful self-interest to develop new market Standards. Unfair and manipulated markets erode trust. They create uncertainty and chill trading. They impoverish the less-informed, less-capable and smaller market participants. They slow innovation. They reduce liquidity and increase opacity. Lack of clarity about what standards are expected of participants also creates confusion and hesitancy in markets - which in turn erodes confidence, undermines liquidity, and degrades transparency and predictability. When participants in markets compete only on conduct standards, everyone loses. In all these ways – and this is the crucial point - unfair and manipulated markets without Standards have a direct negative impact on the profitability of the firms that participate in them. Further, given the huge scale and crucial transmission role of FICC markets in the global economy, such markets also have a chilling effect on economic growth.

So I am not here to make a philanthropic appeal or preach a doctrine of loving kindness. Ethics-free and standards-free markets are less profitable than those with a clear basis of ethical behaviour and Standards; they impair economic growth more widely which impoverishes everyone; and market participants have a clear economic incentive to fix the problem.

In my experience, many in wholesale markets have been aware (even if dimly) of these facts long before the manipulation of benchmarks and other problems were revealed in recent years. But those individuals were caught in a bind: an extreme form of collective action problem in which the short-term rewards, personal and corporate, were so great, and the discount factors on longer term rewards were so punitive, that collaboration with others to change the system was never, or hardly ever, a viable strategy. The FMSB can help to unlock this collective action problem – and provide a solution to the dilemma that keeps market participants economic prisoners of their situation – by providing commonly agreed, clearly articulated and unambiguous standards for all users of wholesale markets: professional market makers and price takers, issuers and investors, hedgers and speculators, banks, corporations, asset managers and asset owners. This is why I think the FMSB initiative is such a bold and significant development for wholesale markets: if it succeeds it will shift the basis on which wholesale FICC markets work decisively for the better.

Other reasons to want Market Standards: avoiding unintended consequences and promoting professionalism, competition and efficiency

But there are other problems with relying just on public law and rules and regulation to improve the operation of financial markets. First, laws and regulation have unintended consequences. Since I sit on the board of the Prudential Regulation Authority I should make clear that I'm not here to undermine formal regulation. Good regulation has a crucial role to play in wholesale markets; and a great deal has been achieved in the past 8 years.

But there are clear limits to what regulation can achieve, even in principle, that can perhaps best be summarised as follows. To avoid legal challenge and to be seen to interpret their mandate faithfully, regulators and the Courts have to apply their rules and the law precisely, which in practice means somewhat narrowly; and market participants anticipate this. A narrow application of the law and rules in turn creates incentives for regulatory arbitrage, as participants develop ways to achieve their economic goals in a form that don't offend the law or rule makers – often, an unintended consequence for the regulator. I know, watching the prudential regulatory process in the UK, and having been a practitioner in markets for 3 decades that such regulatory arbitrage is widespread. Please note that I'm not suggesting that regulatory arbitrage is an offence; but the poor behaviours that it can unintentionally encourage are sometimes a high price for the authorities to pay to achieve their financial and market stability objectives. The fact is that rules are always open to interpretation; and those who look for clever interpretations and creative loopholes will always find them.

The risks that this pose are far greater in financial services than they are in other industries because of the scale of markets, the corporate and personal incentives to pursue arbitrage, and the social costs of market failure. And also because the speed of circulation of staff in the industry and retirement rates mean that collective memory fades quickly. In some firms there are Managing Directors who can't remember the last time interest rates were above 1%, let alone what caused the collapse of Long Term Capital. Standards, almost by definition, don't suffer from the unintended consequences problem because they are determined by the market practitioners themselves and therefore designed to eliminate this risk.

The second reason we can't be relying just on regulation and laws is the question of professionalism, knowledge and trust. Participants in wholesale financial markets have highly asymmetric knowledge; some are considerably better informed about what is going on than others. How this knowledge is acquired by the well-informed, and maintained and acted on, is a key determinant of the professionalism of those market participants. It is central to the idea of "the professional" that he or she acquires duties and obligations to others as a result of the power bestowed on him or her by his or her greater knowledge. An obligation, that is, to act responsibly and with due care for the interests of others who are less knowledgeable. The one matches the other; and how professionals balance that power with their knowledge defines their professionalism. If power and knowledge are not balanced then trust between buyer and seller, principal and agent, adviser and client - the essence of professionalism - is lost. That relationship of power and knowledge can be corrupted by individual practitioners in markets; but also by the organizations that employ them. Individuals, and the organisations they work for, need "guardrails" to safeguard the use of professional knowledge, and the power that that knowledge creates. Market Standards are those guardrails.

The third reason why we need to embrace Standards is the question of efficiency. Consider the following. Laws and regulation are (generally) set nationally and have to operate within a defined jurisdiction. As we know, individual countries, politicians and regulators inevitably have differing priorities. Anyone working in a global or international institution who has to wrestle with an inconsistent patchwork of regulation and legal frameworks across the world in order to do business knows this. By contrast, wholesale financial markets – especially those for fixed income, currencies and commodities – are global and many of the firms working in them are organized and operate globally. It is much easier for Standards, which can be developed and adopted internationally, to address the global nature of wholesale markets than nationally determined laws and regulation.

Much of regulation – which is concerned with the safety and soundness of firms and the system and the protection of consumers – is by definition only distantly concerned with efficiency. Indeed, many regulators will argue that improving efficiency subverts the more important objective to protect firms, people and the system at large. Standards by contrast, sitting alongside the legal and regulatory apparatus, are naturally well-placed to promote efficiency. And because they are driven by practitioners who know what works and how it works – and what doesn't work - not by policemen concerned with stopping abuse, Standards have a strong natural bias to efficiency. It is interesting, for example, that the second meeting of the very first national Standards Board that I mentioned earlier – founded in London by Sir John Wolfe Barry – agreed to a reduce the number of London tram gauges from 75 to 5, thereby increasing the interoperability of tram networks, shortening the lead time for producing new rails, reducing costs for tram companies and increasing the markets for tram rail manufacturers. Today, banks have an urgent need to reduce costs and complexity in their operations. There are many obstacles to doing this, but one of the problems with, for example, creating industry utilities to perform shared tasks more cheaply, is lack of standardization in bank processes. If the work FMSB does accelerates a move towards greater standardization, thereby facilitating process re-engineering and cost cutting, then this will be an important fringe benefit; although it is not our core mission!

Finally, I think its also worth noting that Standards setting bodies are less likely to fall prey to the kind of politicization and other deadlocks that can bedevil the processes for creating new laws and regulation. They can thus be inherently more efficient, and react faster to new developments, than the legal and regulatory processes that they complement.

In summary: Standards are an essential complement to the law and formal regulation

So there you have it. Financial services generally, and wholesale markets in particular, are unusual in not having embraced Standards as other industries have. The huge quantities and mobility of capital that can be deployed in financial markets, the corporate profits and scale of the remuneration available to participants and the downside risks to society when things go wrong make it more important for activity in financial services to be guided by behavioural and ethical Standards as well as by the letter of regulation than is the case in many other industries where risks, incentives and the downside are all smaller.

Setting Standards is the only way to anticipate and avoid the unintended consequences of regulatory arbitrage that formal regulation inevitably creates. Setting standards supports the goals of professionalism and greater efficiency that all firms will endorse. Standards also facilitate competition for those who are innovators. Naturally, Standards have some cost. Even though Standards acquire their authority by being derived from collective expertise, rather than from the threat of sanctions, they must be supported by a convincing "adoption" or "compliance" framework else they become devalued and ignored. Standard setting bodies need to establish legitimacy of some sort in order to be credible, since they don't derive power from statute. These and other requirements create some overhead. But this overhead is very materially lower than the costs of additional regulation or laws that would otherwise take the place of industry-agreed Standards.

FMSB Goals and work Plan

Now for the question of how we make the change that we want to see actually happen. The UK Fair and Effective Markets Review, which reported in 2015, did an outstanding job of identifying what would make wholesale markets better places to do business. That Report listed a number of imperatives for "fair" and "efficient" markets. They need to:

- have clear standards of market practice;
- provide transparency and predictability for market users;
- offer competitive pricing and open access for market participants;
- ensure competition between participants on the basis of merit;
- only entertain participants who behave with integrity;
- provide robust trading and post trade infrastructure;
- enable proper allocation of capital and risk by participants.

The FMSB was set up to improve the quality, clarity and market-wide understanding of FICC trading practices and help our industry to raise standards of conduct in wholesale FICC markets, and make markets fairer and more effective. It is practitioner-led and practical; owned and operated by the major participants in wholesale markets, for the wholesale market. It is independent of regulators but complements their work.

The organisation is now just one year old, but has achieved a lot in that brief period. It has a membership of 36 institutions, most of them global, representing all sides of the wholesale markets: sell side, UK and international commercial and investment banks; buy side, real money asset managers and hedge funds; corporations; exchanges and OTC trading venues; custodians and other market infrastructure providers. The FMSB also has the enthusiastic and active support of the UK authorities – the Bank of England, HM Treasury and the Financial Conduct Authority and is developing relationships with other Standards Boards and overseas authorities. Mark Carney and Minouche Shafik both spoke at recent FMSB events. It has a well-established and active Board and Advisory Council populated by Chief Executives and Chairmen, Investment Bank CEOs and Global Business Heads. Both bodies therefore have the highest level of commitment from our member firms.

The legitimacy of the FMSB is critical to its success: in my view this legitimacy derives not primarily from its backing by the authorities but from the breadth and inclusiveness of its membership base, the seniority of the people from member firms who sit on its Board and Advisory Council, and the authority of the market practitioners who make up its technical Working Groups. Seven Working Groups of senior market practitioners are responsible for producing Standards and Statements of Best Practice that will fill the "void" that I mentioned earlier. Decisions about where to focus attention are made by reference to a 'horizon scan' prioritization of 'grey areas' and emerging problems in wholesale markets, as well as data on historic problems that have already been encountered. Two Standards have already been published in draft form; and a further Standard and two Best Practice Statements are currently in production. These cover topics as wide ranging as the trading of barrier options, surveillance of FICC markets and training of FICC professionals at member firms.

We have an ambitious programme over the next 3 years to:

- extend our membership;

- assist members with adoption of the Standards we produce throughout their businesses;
- accelerate the production of further Standards that cover all contentious areas of wholesale market practice; and
- promote international adoption of the Standards where they are relevant in other wholesale market centres - we already have strong interest in the work of FMSB from Canada, Australia and South Africa.

Toothless standards are ineffective - and the FMSB is explicitly not a policing organization. But we will report publicly each year on the rate of adoption of FMSB Standards. I expect that market forces will play an important positive role in fostering adoption of Standards as market users – Central Banks, asset managers and corporations - demand to transact according to the new Standards. And regulators will also be pushing for adoption; here in the UK the FCA has stated that it will use FMSB Standards in its implementation of the Senior Managers Regime. Overseas we will work with relevant local authorities to promote the adoption of FMSB Standards that are tuned to local market needs and regulation.

One of the reasons the FMSB has been successful thus far is that it is focused: the FMSB is not preaching about culture; it is not engaging in any industry lobbying; it is not concerned with any aspect of financial services or markets outside the wholesale world of FICC. It is not seeking to replace regulation or interpose itself between firms and their regulators. But it is concerned with markets globally, not just here in the UK. We will work with and share ideas and Standards with any other body that is willing to do so. In due course I would like to see FMSB Standards discussed and adopted worldwide wherever they can help to illuminate best practice and fair and efficient markets, resting alongside and complementing local rules and regulation, and fostering confidence and high standards of trading among all market participants, fulfilling the ambitious expectations originally placed in them by the Bank of England and others.

People often throw around “once in a lifetime” language about events that are in reality quite unremarkable. The FMSB has so far adopted a low profile, which I think has been appropriate. But in my view the FMSB is the unremarkable-sounding event that will really be a “once in a generation” change for wholesale markets and the financial services industry more generally. In my view it was brave of the UK authorities to support this initiative. I hope you in turn can help us grasp the opportunity we have been given and support the FMSB team in delivering its vision.

Ladies and Gentlemen, thank you for your attention.

3. Remarks by the Chairman of ICMA’s ERCC Committee

The Chairman welcomed everyone to the ERCC general meeting and thanked Mr. Yallop for an enlightening speech; and also thanked BondLend for hosting the meeting.

The Chairman then called Mr. Danny Corrigan to the podium, who delivered a short tribute to mark the recent passing of Mr. Mark Mazzonelli, who had been influential in the development of the repo market in Europe. This was followed by a minute’s silence.

The Chairman then gave a short presentation. Highlighting the ongoing wave of financial market regulation, intended to herald financial stability, he warned that there nevertheless seem to now be all the ingredients ready for a perfect storm. Despite the experience of a series of financial crises which have been weathered during the Chairman’s 40+ year career today’s extended low, and increasingly negative, interest rate environment is something that has not before been experienced and is proving to be a challenge to all.

Commenting on having read *The End of Power* by Moisés Naím, the Chairman said that although it was heavy reading it was actually rather enjoyable - just as Bill Clinton wrote on the cover "*The End of Power will change the way you read the news, the way you think about politics, and the way you look at the world*." The Chairman then drew attention to the very last paragraph in the book:

> *"Another, even more sweeping, wave of innovations is building, one that promises to change the world as much as the technological revolutions of the last two decades did. It will not be top-down, orderly, or quick, the product of summits and meetings, but messy, sprawling, and in fits and starts. Yet it is inevitable. Driven by the transformation in the acquisition, use, and retention of power, humanity must, and will, find new ways of governing itself."*

This brings to mind Fintech, with ideas such as distributed ledger technology currently much in the press. ICMA is currently looking into Fintech, with the ERCC Operations Group having set up a Fintech working group, in order to keep abreast of these new initiatives.

The Chairman then commented on a series of current focus topics, several of which are elaborated on in the presentations given during the course of this General Meeting. These topics included derivative margining requirements, growing non-bank repo activity and ERCC buy-side engagement, secured benchmarks, the routing of repos to CCPs and intraday liquidity.

4. Approval of the minutes of ICMA's ERCC Annual General Meeting held on 27 January, 2016 in Luxembourg

The Chairman said that all ERCC and ERCC Committee meetings are minuted. The aim is to be as transparent as possible, with further efforts also made to regularly update the ERCC's members - for instance through relevant articles in the ICMA's Quarterly Report.

The Chairman asked for approval of the minutes of ICMA's ERCC Annual General Meeting held on 27 January, 2016 in Luxembourg. The minutes were unanimously approved without comment.

5. Legal update

Ms. Cleary reported that in 2016 ICMA published update opinions for over 60 jurisdictions, as well as the publication of the first industry opinion for Malaysia and a bespoke opinion for Georgia. ICMA has also published an interim update for Germany, prompted by a German Supreme Court decision that potentially has adverse effects on netting enforceability, which should be reviewed alongside the 2016 ICMA German legal opinion.

The GMRA remains the foremost agreement for documenting cross-border repo transactions, with the GMRA 2011 representing the most recent level of development. Plans for the future discontinuation of coverage of the GMRA 1995 in the legal opinions should focus market participants on updating older GMRA documentation. ICMA has maintained coverage of the GMRA '95 in the 2016 opinions and will do so in the 2017 update. However, the market should start to prepare now for the discontinuation of the coverage of the GMRA '95 in the 2018 opinions.

An efficient way to update older GMRA documentation is to use the GMRA 2011 protocol, which enables parties to a GMRA '95 or 2000 to update certain provisions to the GMRA 2011 standard on a multilateral basis. A party may adhere to the protocol by signing an adherence letter in the form published by ICMA and sending it to ICMA's Zurich office.

Following the recommendation of the ERCC committee, ICMA is developing an industry-standard GMRA annex with the aim of opening up the repo market to a wider range of counterparty types, particularly corporates. The annex would set out principal contractual terms which supplement the standard form GMRA, and a working group has already been established to develop the idea. A wider market consultation will be essential to validate the draft. The annex will not be suitable for all transactions but will aim to go some way to dealing with the perception that repo is an inaccessible product, at least from a documentation perspective.

6. Development of a new repo index

Mr. Lopez delivered a presentation on the development of a new pan-European repo index – a project which the European Money Markets Institute (EMMI) has been working on in order to provide a suitable replacement for the old Eurepo index that was discontinued in 2015.

Mr. Lopez outlined how EMMI had gathered data from three ATS's, namely MTS, BrokerTec and Eurex Repo, and commissioned the University of St. Gallen to study the data to understand whether data from those platforms could be used as the basis of a credible and robust benchmark for the repo market. The study concluded that there is sufficient data to create a robust transaction-based index on one-day tenors, so a benchmark built on overnight, tom-next and spot-next trades. According to the analysis, it would be a reliable representation of the secured money market. It would capture different market segments and it would reflect the trades that cover the whole secure money market.

After this study was completed, EMMI carried out a public consultation to understand whether such a repo index would actually be useful. Considering the 41 responses and following further discussions and work, including to investigate the possible use of a wider pool of transactions, EMMI decided to proceed on the basis of CCP-cleared, ATS-executed trades only. To take things forward, EMMI has formally constituted a Secured Benchmark Task Force, information about which (including the current membership of the task force – which includes one observer from the ECB and two members who have been nominated, from amongst its members, by the ICMA ERCC Committee) will be available on EMMI's website.

EMMI expects to develop the benchmark in 2017 and is currently working on the transaction-based methodology with the University of St. Gallen, with further data provided by MTS, BrokerTec and Eurex Repo.

7. Remaking the corporate bond market

Mr. Hill reported on ICMA's, July 2016, publication of its second study into the current state and future evolution of the European corporate bond market. Having first outlined the way in which the study was conducted, Mr. Hill then presented the key findings. The general perception is that market liquidity is declining, though the story is more nuanced as liquidity depends on the client, i.e. whether they are a tier one firm compared to a tier two or tier three firm. Liquidity also depends on the market, i.e., euro compared with sterling, and it can also vary based on the trade. Overall it is becoming more difficult and more challenging to either provide liquidity or to source liquidity.
An ICMA buy-side liquidity survey conducted for the study provides results which are illustrative of the perceived deterioration in bond market liquidity. Interestingly, for smaller trades the perception

is not so bad. However, for larger trades market conditions are becoming more difficult. It is becoming harder to move blocks and they are taking longer to execute. But, what do we actually mean by bond market liquidity? This is generally defined as the ability to get a price in the size you require when you want it; and without significantly moving the market. But these are qualitative statements, which leads to the issue of how you quantify liquidity. A number of measures have been explored and several are being produced. For its part, ICMA now publishes, on a quarterly basis, a liquidity tracker for the various corporate bond markets, including high yield, based upon ICE Data Services liquidity measures.

There are a number of determinants used in attempts to model liquidity – bid-ask spread, market depth, time to execute, market impact, historical volume, etc. But, what ICMA understand from market participants is that these data points do not represent liquidity and are not particularly useful in measuring liquidity. It is not what trades that tells the story, but rather what does not trade.

Illustrating issuer concerns, Mr. Hill presented a bar chart showing euro non-financial, investment-grade corporate bond issuance, overlaid with a plot of the iTraxx main index. Issuance is pretty healthy until the beginning of 2016, when the issuance market largely closed as the sharp sell-off in the credit market at the end of 2015 started to accelerate. But then, immediately following the announcement of the ECB's corporate sector purchase programme, credit spreads tightened and issuance increased again.

Regarding the issue of causality and why liquidity is declining, it is clear that there is a significant regulatory impact. Due to the heterogeneous nature of the bond market and the fact the bonds sometimes do not trade even twice a year, liquidity has to come from the market making model. If you need immediacy as a client, you go to a market maker. There are four essential ingredients for the market-making model to work – capital, balance sheet, an efficient and liquid derivatives market (as you need to be able to hedge that exposure) and an efficient and liquid repo market (in order to fund that position). Often overlooked, you also need the skills and experience of the trader.

Looking at how regulation has impacted these essential ingredients, it is clear that balance sheet now costs a lot more. The single name CDS market is falling apart in Europe because of Basel, EMIR, and NSFR; and, similarly, the leverage ratio, NSFR and negative interest rates have adversely impacted the repo market. Finally, there has been ongoing attrition of experienced staff. How is all of this changing the market-making model? Trading desks are moving from being traditional principle traders to principle brokers. These changes mean that the market is losing immediacy and liquidity.

Yet we are seeing a lot of innovation in the trading platform space with new developments around the RFQ pricing model, however, 95% of the market is still RFQ. What is more interesting is platforms that are not quote-driven but are axe-driven. Such platforms are more focused on putting buyers and sellers and potential buyers and sellers in touch with each other and the parties may not even trade on the platform. It is all about connectivity and data.

There are also changes in buy-side behaviour. As there is more liquidity in the primary market than the secondary market, there is more emphasis on primary purchases. The buy-side is becoming more passive, with a trend towards buy-to-hold and less active management. Dealer relationships are also becoming more important; and rather than being passive takers of prices through RFQs, buy-side are increasingly putting their axes out there and saying, "Here is a price. I want to trade." Buy-side firms are also internalising liquidity and outsourcing, with tier two and tier three firms now routing their orders through tier one clients. There has also been growing use of alternative products such as bond ETFs, CDS indices and bond index total return swaps.

Before closing, Mr. Hill pointed out that the study also makes some recommendations to improve liquidity. First, the study recommends capital relief for market making, not just on the cash bond positions, but also for repo and related hedging. The study also recommends finding ways, such as central clearing and capital relief, to revitalise the single name CDS market. Third, it recommends that harmful regulations such as pre-trade transparency and mandatory buy-ins are reviewed and reassessed. Finally, and perhaps most importantly, it recommends that all market constituents - issuers, market makers, asset managers, technology and infrastructure providers, the authorities, regulators and policy makers - start pulling together to find solutions to make this market work.

8. Results of the 31st semi-annual repo survey

Starting by thanking everyone who contributes data to ICMA's semi-annual repo survey, Mr. Comotto presented the results of the 31st survey - based on, 67 responses.

The headline number for the amount of repo outstanding on the books of participants was just under EUR 5.4 trillion, down from EUR 5.6 trillion in December 2015, a decline of 4.1%, largely due to firms dropping out of the survey. It is also important to be aware that the repo survey measures outstandings, which is a snapshot on a specific date (i.e. at close of business on the second Wednesday of June and December each year) rather than measuring flow. There are a number of advantages to using outstanding, but care is needed because it can miss peaks and troughs in business between survey dates, especially of very short-term transactions.

Using a constant sample of banks to eliminate the effect of changes in the survey sample, it is estimated that the market actually grew over the previous six months by 0.5%, although the year-on-year change was -1.6%. The increase in the business of those institutions who had participated in the last three surveys is a reflection of the fact that, while proportionately more banks decreased the size of their repo books, those that increased their repo books did so by larger percentages. Those repo books which increased the most were predominantly those of G-SIFIs with significant investment banking franchises.

Mr. Comotto the review graphs showing the trading analysis, geographical analysis, CCP clearing, currency analysis, collateral analysis, maturity analysis and rate analysis. The next survey is to be taken as on 7 December 2016; and this next survey will extend to Asia. In cooperation with ASIFMA, ICMA will be asking for information from cross border and regional players in the Asian markets to do a survey similar to the European repo survey. In fact, already the latest survey did include some questions about Asian business - asking how much Japanese and Asian currency and collateral is used, but it will take some time to build up this new data to a reliable level.

9. Repo in developing markets

Mr. Comotto made a few brief remarks relating to his presentation on repo in developing markets. In many parts of the developing world there is interest to develop repo, yet there is a significant lack of understanding of a repo - with many in fact using the term for something which is more in the way of a secured loan.

ICMA is helping to address this and to get to grips with the legal challenges, advocating the use of the GMRA. And frequently looking at documented sell/buy-backs can be a way to solve or potentially solve a number of operational and legal issues.

10. Repo in practice

Mr. van Dijk gave a presentation of Frontclear. Interbank markets operate on the assumption of fully mitigated credit risk through HQLA collateral (G7 cash/government securities), however, emerging market financial institutions can offer local currency collateral at best - exposing their transacting counterparties to country and market risk (if correlated: wrong-way risk). The consequent lack of access to interbank markets fails to unlock comparative advantages and leads to higher borrowing costs and/or lack of liquidity in the local market. Therefore, Frontclear tried to bridge the gap.

Frontclear is a financial markets development company focused on catalysing stable and inclusive interbank markets in emerging and frontier markets. Frontclear facilitates access to financial markets for local institutions to local and global markets through the provision of credit guarantees to cover their counterparty credit risk. The use of two alternative models provides Frontclear with substantial flexibility to provide bespoke risk solutions according to market needs. In both structures Frontclear is focused on absorbing financial risk whilst Beneficiaries or partners manage operational risk.

Frontclear also provides technical assistance, training and workshops on repo markets, to provide emerging markets with the skills they need to trade reop. Substantial resources are also provided to help develop the legal systems and infrastructure to facilitate the trading of repo; and ICMA is supporting Frontclear in this regard. If there is legal uncertainty, Frontclear can help to obtain the necessary legal opinion, which is what they did in relation to Georgia and are working towards in Zambia; and a lot of work is also being done in Kenya. Frontclear is supported by the EBRD, TCX, KfW and a range of other partners as well as ICMA.

11. CCP repo trade capture

Mr. Burke gave a presentation of an ICMA ERCC study on trade registration models of CCPs, which had just been published. This focuses on the 'counterparty gap' which is borne by market participants, but not always knowingly; and contains recommendations for best practice. To conduct the study, the six major CCPs for repo clearing in Europe – BME, CC&G, Eurex, LCH Limited, LCH SA, and Nasdaq - completed a questionnaire; and from the responses the issues pertaining to the counterparty gap issue were distilled.

Over time a number of changes have been made to the CCPs' trade registration processes and the exact timing when they become counterparty to the trades routed to them for clearing. The CCPs' motivation for these changes has principally been to manage their operational risk. To understand the entire risk picture of the trade registration process it is important to understand the interplay between the dealer, the ATSs/intermediaries and the CCPs. Any trade that is sent to a CCP that uses the 'receipt and acceptance' trade registration model poses a question as to the legal status of the trade during the period between execution and the point where the CCP assumes counterparty responsibility. Furthermore, an equivalent counterparty gap risk exists if a trade is rejected by a CCP for any reason. In both circumstances, the original trade counterparties are left with two critical risk questions: does my trade exist and, if so, who is my counterparty?

The presentation provided a quite detailed summary of the study and laid out its recommendations as to best practices. At the heart of these recommendations lies the view that, in order to avoid any uncertainty related to the counterpart gap, all trades intended for CCP clearing should be contingent upon the CCP's acceptance and will otherwise be cancelled - for ATS trades, the ATS should make this clear within its rules/documentation; and for bilateral trades this should be agreed between the parties and reflected in writing.

12. Amendments to the Guide to Best Practice in the European repo market

Mr. Bojic spoke briefly to explain to ERCC members that he and others were part of a working group to update the ICMA Guide to Best Practice in the European repo market. Work started earlier in the year and the working group has been identifying what needs to be updated because market practice has changed, what outstanding questions need to be addressed and any new issues that have not been tackled before, such as the issues mentioned earlier by Mr. Burke. The group has been meeting monthly and considerable progress has been made. It is important to keep in mind that this ICMA document is not a legal framework but is a guideline as to recommended best practices.

The main issues that the group has tackled so far include incorporating into the Guide the recommendation on CCP contingent trades; along with detailed guidance on what should in a repo confirmation and the process to be followed when sending out confirmations. The recommendation on open repo deadlines has been further refined and the recommendation on negative repo rates and fails has been thoroughly reviewed. Clarification on netting and margining has also been added.

13. Impact of regulation on repo

Mr. Manna gave a presentation regarding the impact of regulation on repo, seeking in doing so to present an optimistic view on repo. Following the events of 2008 there was little doubt that the regulatory pendulum would swing towards a more uncompromising application of regulation in order to promote potential stability. So, the real question is where is the direction of travel, going forward? Whilst there are still elements of the regulatory programme which continue to propel the pendulum, there are now new facts and observable unintended consequences - in light of which regulators are starting to ask questions, which may see the pendulum now moving towards some state of equilibrium.

I can confirm that this work is being done and they are seeking data. Later this year they are going to be discussing the impact of regulation on the repo market. We also have a consultation from the Basel community who are looking at making some suggested changes to the leverage ratio but also asking for suggestions, on which we have all replied.

It is also important to look at where the new challenge is. If you read some of the extracts from the report, in principle the leverage ratio requirement is currently calibrated to constrain only firms with relatively low risk weighted assets on average. Crucially, however, the impact depends on the business level at which it is applied - as has already been officially recognised *"However, if the leverage ratio were viewed as binding on individual business lines, this may create incentives for a dealer to increase margins, or reduce volumes, on lower-risk activities such as repo" (Duffie 2016).* This is exactly where the challenge then lies, with the repo business pretty much outperforming most other services when you look at return on risk but being highly constrained when you look at return on leverage.

The UK FPC's recommended adjustments to the leverage ratio will have a positive effect in reducing the leverage exposure measure. What it doesn't change is the actual quantum or cost of the capital that you have supported. To recalibrate the overall leverage ratio target could be one solution, but it may have undesirable effects. A more targeted approach may be to apply a leverage measure discount which would consider activities and asset classes that are vital to macro prudential stability.

Turning to collateral - the wait is finally over. The margin requirement for uncleared derivatives was finally launched officially - though its implementation was delayed in Europe and Japan, whilst in the US it was a soft launch. With uncleared derivatives you need to post gross margin to each other, so the big question that emerged was how much collateral was going to be needed for this? And it was the large estimates for this which largely prompted discussion of a potential collateral shortage.

A way to look at this differently is to consider a series of adaptive steps - housekeeping, education, resource allocation and repricing, client adaptation and innovation. The potential move to this fifth step comes when the cost is so high that it justifies the investment in innovation. In conclusion, only time will tell what happens but successful product and service evolution will result in activity levels decreasing and innovation taking root. If that comes to pass it will reduce the need for capital to support exposure and improve the return profile. And less exposure will require less collateralisation, thus reducing demand for collateral and possibly leading to a rather different, more manageable future level of required collateral.

Mr. Hiscock then gave a presentation to flag some of the things ICMA has been doing over the course of the past year. In November 2015 ICMA published a very important study on the repo market, authored by Mr. Hill, which talks about the concern that repo/collateral market liquidity is challenged by regulation. This is a message that ICMA has been continuing to press with the official sector, in particular in response to the European Commission's call for evidence that took place earlier this year. The study underpins and lies at the heart of much of our work and discussion about how different rules and regulations impact upon market liquidity - there is a need for liquid repo/collateral markets in order to ensure a secure financial system that everyone can rely on, however, this will require regulations to be correctly calibrated.

A topic we have not heard so much about yet, but which we will have to watch out for, is haircuts. The FSB has made quite reasonable recommendations, but in Europe and particularly from the ESRB we have seen a push to go further with this and to have macroprudential controls with countercyclical mandatory haircut levels. This is something ICMA will be continuing to watch very closely and work upon.

There have been a couple of other specific pieces of work we have done that focus on market liquidity. Firstly, on the leverage ratio and secondly on the NSFR, where we put in specific responses to consultations and put forward specific recommendations - not to get rid of these regulations but to think again about the details of how these regulations are formulated, in order to try to find ways in which they might work better within the market context.

Turning to MiFID there is good news, as there will be no pre- or post-trade transparency imposed on repos and almost no transaction reporting – though we are still trying to resolve the last details on the interplay between MiFID transaction reporting and SFTR. However, you will need to be aware of how MiFID best execution rules impact on repo. What MiFID best execution means in the repo context is still very confusing and will need further work. Additionally, if you are involved in repos with retail counterparties you need to be very aware that MiFID states that you cannot enter into title transfer collateral arrangements (TTCA) with retail counterparties. As the GMRA is a TTCA, this is a significant point if you are engaged in repos with retail counterparties.

Mr. Westphal, the secretary of the ERCC Operations Group, then briefly presented. There are three initiatives that are keeping the Operations Group busy. The first is the SFTR. ESMA is currently working on 'Level 2' technical standards in relation to the extensive SFTR reporting requirements. Once these have been finalised there will be a further year before actual reporting starts (currently expected in Q4 2018). ESMA is required to deliver its technical standards by 13 January 2017 which looks increasingly unlikely. In March, last year ESMA published its first discussion paper, to which the ERCC Operations Group submitted a detailed response. A second consultation is expected shortly, which will include the actual draft technical standards.

The European Post-Trade Forum (EPTF) was launched by the Commission as part of the CMU initiative with the aim of reviewing any remaining barriers to cross-border clearing and settlement in the EU. This builds on the Giovannini work from the early 2000s. The good news is that the ERCC is now formally part of the EPTF and can contribute more directly to the work. The work is being split into two phases. Phase one is a stock-taking exercise which has now nearly been concluded. Phase two, which has also been launched, is about the identification of the remaining barriers. ICMA expects a final EPTF report to be collated in spring next year.

Finally, the ECB's COGESI work on collateral management was launched in November 2015 and covers three work streams. The first is focused on collateral mobility; the second is looking at collateral holding and segregation; whilst the third is examining collateral messaging. Whilst involved in all three streams, it is this third work stream where the ERCC Operations Group is in the lead - working closely with market infrastructures who are also represented in the group.

14. Panel: Liquidity – taking stock of the debate

Introducing the discussions, the Chairman said that liquidity is a real concern. ESMA wants to know what is liquid and what is not liquid, but liquidity is not only important for regulatory reasons. CCPs have a huge amount of collateral do not really know whether it is liquid or not, which is an important risk management issue. The Chairman then turned to his three expert panelists, Mr. Danese, Mr. Dumas and Mr. McCabe, to share their views about liquidity, how it can be measured, and what should be done about it.

Mr. Danese reported that liquidity is a topic that was discussed at a recent ERCC Committee meeting. A first issue, which was well highlighted in Mr. Hill's earlier presentation, is how to define liquidity. No doubt a vote in the room on how to define liquidity would find a significant number of different definitions. But, is liquidity an absolute or relative concept, should it be adjusted for different asset classes? For instance, should there be the same thresholds to define a liquid government bond and a liquid corporate bond? Regulators have introduced a number of regulations, across liquidity and capital, but have not yet actually set out how to define liquidity. Banks and financial institutions in general are called to implement these regulatory frameworks and there are increasingly important definitional questions to be considered.

Mr. Dumas suggested that market practitioners can recognize something as being liquid as and when they see it, but that the challenge is the need to have objective tools to be used by regulatory capital and risk departments. There are examples of objective tools in the equities markets, which are exchange traded markets. These tools can be daily volumes of the specific name on the exchange or of the main Index to which the name belongs to. In practice these tools do not apply well to the fixed-income markets, which are OTC markets and price differently – you price a fixed income rate product as a spread to another, more liquid rate product. So, there is a need to find new tools. To get a price in size, when you want it, is a good model to try and use for the cash bond market. The depth of a repo market is also an objective marker of liquidity and tools to consider liquidity in the repo markets are needed as well.

How can you hedge your portfolio? It is widely accepted that looking at the liquidity of ISINs does not work. Could you look at the liquidity of whole issues and the issuers, as tends to be accepted for government bonds? This concept probably needs to be expanded to encompass the derivatives markets, which are deep, highly liquid and exchange traded in the case of core government bond futures and interest rate swaps; and represent very good hedges for rate products. For example, if you receive a lot of 10 year German government bonds, you would hedge these immediately by selling 10 year Bund futures, which is the most liquid market in the world - so shouldn't you capture that in your assessment of your liquidity? Shouldn't you overall include the concept of hedgeability in your assessment of liquidity, as it determines the ability to neutralize the economic impact of a portfolio – thus avoiding the risk of a disruptive fire sale. Yet whilst the hedging takes care of the economic impact it does not address the funding requirement – hence, hedgeability and the depth of the repo market in which to fund the position, are taken together the two tests we would propose as an alternative to measure the liquidity of a bond portfolio.

Mr. McCabe asserted that liquidity is a rather ambiguous concept. Having examined many papers on liquidity, there seems to be neither consistent definition nor agreement on how to measure it. Of course, looking at data is one potential way in which to assess how liquid something is. But, this is not straightforward, since when you start to look at market offers, all you can readily reference relates to standard size trades in the most liquid bonds. Whilst this tells you something about the most liquid bonds, it does not immediately get you anywhere in terms of understanding how liquid any other bonds are, or how non-standard size trades may affect market liquidity or pricing. One approach to this problem is to examine the complete set of available data in order try to find similarities between different bonds and using statistical techniques to weight the most significant information regarding any such similarities. Information modelled in this way can then be used to extrapolate from what is known about the most liquid bonds in order to try and draw conclusions about the relative liquidity of other bonds and how market price may be affected by trading.

The Chairman thanked the panelists, noting that the time available had only permitted a limited reflection on this topic; and there is much more about it to be considered and discussed.

15. AOB

The Chairman reported that the next Annual General Meeting of the ERCC will take place at the end of March, picking up discussions from where this General Meeting has concluded.

The Chairman:	The Acting Secretary:
Godfried De Vidts	David Hiscock

Annex A

The following member firms were represented at the meeting:

Aviva Investors Global Services Limited

Banco Bilbao Vizcaya Argentaria, S.A.

Banco Santander, S.A.

BANKIA, S.A.

Barclays Capital Securities Limited

Bayerische Landesbank

Belfius Bank & Insurance

Blackrock Investment Management (UK) Limited

BNP Paribas

Canadian Imperial Bank of Commerce London Branch

Cecabank, S.A.

Citadel Securities (Europe) Limited

Citigroup Global Markets Limited

Commonwealth Bank of Australia

Crédit Agricole Corporate and Investment Bank

Credit Suisse Securities (Europe) Limited

Deutsche Bank AG

DNB Bank ASA

DZ Bank AG Deutsche Zentral-Genossenschaftsbank

EquiLend LLC

Eurex Repo GmbH

Euroclear Bank S.A./N.V.

EuroMTS Limited (trading as MTS Markets)

European Bank for Reconstruction and Development

Goldman Sachs International

HSBC Bank plc

ICAP Securities Limited

ING Bank N.V.

J.P. Morgan Securities plc

LCH.Clearnet Limited

Lloyds Bank plc

Macquarie Bank Limited

Merrill Lynch International

Morgan Stanley & Co. International PLC

MUFG Securities EMEA plc

NATIXIS

NBC Global Finance Limited

Nomura International plc

Nordea Bank Danmark A/S

Prudential Capital PLC

RBC Europe Limited

Société Générale S.A.

The Bank of New York Mellon

The Norinchukin Bank London Branch

The Northern Trust Company

The Royal Bank of Scotland plc (trading as NatWest Markets)

Tradition (UK) Limited (trading as Elixium)

UBS AG

UBS Limited

Xtrakter Limited (Trading as Trax)