International
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Association

Minutes of the general meeting of the European Repo Council held on 19 November 2014 in London

Location: **London Stock Exchange**
10 Paternoster Square, London, EC4M 7LS

Time: **10:30 – 13:00**

1. Opening of the meeting by the Chairman of the European Repo Committee, Godfried De Vidts

The Chairman welcomes everyone to the semi-annual European Repo Council meeting and thanks MTS for hosting the event.

The Chairman observes that the high level of interest in the important repo segment of the market, within which the ERC's members are involved, is evidenced by the size of the audience assembled for this latest semi-annual ERC meeting. The Chairman notes the increased need for the active involvement of a broad group of people in the work of the ERC, given all the different issues which need to be covered.

The Chairman then offers an overview of some of the challenges being faced by the ERC. Reflecting a message heard at AFME's 9th Annual European Government Bond Conference, in Brussels on 3 November, the Chairman flags a number of financial reforms impacting repo markets. These can be considered under two broad categories, (i) securities regulations, such as the SSR, EMIR, MiFID II/MiFIR, CSDR and SFTR; and (ii) prudential regulations, such as leverage, LCR, NSFR and AIFMD/UCITS/MMFR. Each of these worthy measures flows from a specific workstream, creating a problem in respect of the lack of impact assessment taking account of the interaction between measures. Given the broad range of impacts on the repo market, this problem is being highlighted more and more by the ERC; and associated discussions with officials will continue.

The Chairman draws attention to a set of other issues. Firstly, the formation of a new ECB contact group called the Macroprudential Policies and Financial Stability Contact Group ("MFCG"). This complements other ECB market contact groups, a number of which are good fora in which to air concerns, with policymakers and central bankers, regarding the damage being done to market liquidity. Secondly, a new ICMA secondary market study concerning the current state and future evolution of the European investment grade corporate bond secondary markets, is about to be published; and will further highlight market liquidity concerns. Some rules may need to be adapted, which is awkward since the EU does not have the flexible tool of "no-action letters" – the word in the US which is used for making changes or acknowledging they got something wrong.

Thirdly, greater buy-side activity in the repo market is being embraced by the ERC. This increase in buy-side involvement is partly driven by the new rules under EMIR but also stems from the impact of some of the other new requirements. And, fourthly, modernisation of the

ERC Committee election procedures is being debated within the ERC Committee. This may lead to the introduction of electronic voting and foreshadow involvement in the Committee of buy-side ERC members.

2. Approval of the minutes of the ERC Meeting held on January 22, 2014 in Luxembourg

The council unanimously approves the minutes of the ERC annual general meeting held on January 22, 2014.

3. TARGET2-Securities ("T2S")

The Chairman comments that the market is in a state of evolution, responsive to which the ERC is doing a lot to adapt to new requirements and practices. T2S is one important piece of forthcoming change, so effort has been made to seek to increase the market's focus on T2S and to draw attention to its significance. The Chairman introduces Mr David Field, representing Rule Financial and thanks him, together with the others who have been actively involved, for their collaborative work on T2S which will now be presented. Mr Nicholas Hamilton, co-Chair of the ERC Operations Group, mentions that this work, including a survey of market participants, has allowed a better understanding of the industry target operating model ("iTOM") and has highlighted areas for development and harmonisation. A webinar delivered on 10 November, a replay of which can be accessed via the ICMA website, and today's presentation offer insight to the outputs from the work performed.

Mr Field begins by noting that the survey was conducted during summer 2014, with the findings then being analysed and an iTOM designed. The iTOM considers how it might be desirable to operate post T2S. The starting point is to look at post trade mechanics as they are today. These involve different message formats and timings, numerous instructions, connectivity to multiple CSDs, multiple cash accounts and fragmentation of collateral inventory. The iTOM anticipates direct connection to T2S, which will allow the removal of many instructions passing through the chain to issuer CSDs, connectivity to a single settlement location (i.e. T2S), a single set of settlement rules, linkage to one dedicated cash account and the opportunity for a single securities account consolidating collateral inventory and improving collateral liquidity. An illustration of this alongside of today's mechanics clearly shows that even a "simple" cash trade in today's landscape can be complex and could become much simpler post T2S. The key question is whether these efficiencies will be realized?

Mr Field then reports on the survey, which covered a broad cross section of the industry. Nearly half of the survey respondents were from sell-side institutions, whilst buy-side respondents represented just over 10%; and survey respondents represented a good cross section of business functions. They were mainly from the eurozone, but also included a good number of other European and US participants and even reached to Asia. For starters, the survey found that most people are aware of T2S, with over 75% of respondents agreeing or strongly agreeing that they were aware of the implications of T2S and less than 20% believing that doing nothing in preparation for T2S is a viable option; and significant benefits are anticipated.

More than 80% of respondents felt that T2S will have a significant impact on their organization, with the sell-side generally at the higher end of the impact scale, whilst the buy-side sit more in the middle. The survey found that this view of impact varies by business function, with operations being most positive about the impact, whilst funding groups were quite positive and network management groups were more neutral in their views. From a front office perspective, both repo trading and cash trading groups are overall positive in their view of the impact, with repo traders seeing more potential benefits in T2S – which is likely to be a reflection of increased liquidity collateral, via more efficient settlement and the harmonisation of settlement deadlines.

Mr Field goes on to report that the majority of respondents have plans and initiatives underway in response to T2S, with many reviewing their network management and custodian arrangements and steps being taken to train staff. Perhaps of some concern, however, 10% report having no measures put in place in preparation for T2S. The bulk of the organisational changes in preparation for T2S are in the payments and cash management areas of organisations (62%), whilst lower activity in settlements is likely to stem from the decision by many participants to remain indirectly connected via existing providers. Major liquidity benefits are foreseen, with respondents feeling that the impact of T2S will have most significance regarding collateral pooling, increased liquidity, triparty interoperability and a decrease in the number of agent banks.

The majority of participants will connect to T2S indirectly, but a significant minority of institutions (29%) indicated that they will review this within 2 years. Nevertheless, there are still major technology impacts, with most organisations feeling that costs will either increase or not change. Electronic Messaging (e.g. SWIFT) and agent networks together with connection to T2S, are areas of investment that are likely to be the drivers for increased technology spend. Mixed views were found on the challenges arising from the phased approach to T2S implementation, with most custodians anticipating operational challenges whilst the sell-side and others are unsure.

Turning more specifically to repo, Mr Field explains that no clear opinion was found in the survey regarding whether T2S should be modified to cater specifically for repo, with the exception being that the custodians were clearly not in favour. Mr Field then summarises the survey’s findings, covering points related to infrastructure and planning; connectivity; commercial impact and other impacts.

Mr Field concludes that T2S appears to be a missed opportunity for repo. T2S will improve settlement efficiency, timeliness and remove complexity; but it will not improve repo end leg settlement, nor lifecycle events. Accordingly, suggested recommendations for future development are (i) introduce transaction type usage in T2S (repo, cash, buy/sell back, triparty etc.), to provide the ability to track beneficial owners, to better manage corporate actions and so that T2S has the functionality to act as a repository for repo trade data; (ii) introduce a common repo ID to link repo “on” and “off” legs, to ensure all firms can explicitly track closure of multi-leg trades; and (iii) provide a central interest calculation facility, to reduce the risk of exceptions between parties on multi-leg trades at off-leg settlement and reduce failed trades.

Mr Field closes by highlighting that the survey results should give industry participants comfort that the implementation of T2S is well understood, but should also be seen as a call for timely action – since T2S will have a significant impact on businesses which will require careful planning. Noting that changes to T2S functionality cannot be expected ahead of completion of the fourth implementation wave, the Chairman thanks Mr Field for his involvement in and presentation of this T2S work.

4. SWIFT messaging

The Chairman introduces Mr Frank Versmessen, who will discuss how existing ISO message standards used on SWIFT might play a valuable part in helping ERC members to deal with the evolving reporting burdens associated with the conducting of repo activities.

Mr Versmessen introduces his presentation by explaining that the issue is that recent regulatory developments have significant implications for securities financing transactions ("SFTs"). In particular the buy-in process stipulated in the CSDR includes partial exemptions for repo trades and other SFTs; and recent reports from the FSB, together with the upcoming SFTR show that more transparency is required for SFTs in the EU and globally. Mr Versmessen proposes that part of the solution to these challenges is to put in place standardised identification of repos and other SFTs in post trading and settlement processes, thus enabling the partial exemptions included in the CSDR regulation to be leveraged. Furthermore, proper identification of repos and other SFTs in the post trade process will also ensure easier implementation of new reporting requirements when, at a later stage, these start to apply. In conclusion, SFTs must be clearly identified in post trade processes, particularly when communicating to service providers.

Mr Versmessen explains that the good news is that the codes and standards to achieve the standardised messaging, necessary to realise such post trade identification of repos and other SFTs, have already been thought through and are available to be utilised.

A simple illustration of messaging flows for settlement of a repo trade show the typical string of messages which need to be exchanged. The efficiency of this could potentially be enhanced by including settlement details in trade confirmations. In technical terms, settlement instructions under ISO 15022 can reflect securities sales using MT543 messages and securities purchases using MT 541 messages. Correct usage of these message formats includes population of a mandatory field which identifies the type of settlement instruction. A review of existing usage shows that most users are populating this type field with TRAD, which simply represents settlement instruction of a plain vanilla cash trade; and are not much utilising the type fields REPU and RVPO, which would signify repo and reverse repo settlement instructions. The picture is slightly better when looking at the use of MT540 and MT 541 messages, which are used for securities' settlement free of payment (as opposed to securities' settlement against payment trades); and where there is a reasonable amount of usage of the type field SECL (securities lending).

In addition, Mr Versmessen explains that the global Securities Market Practice Group (SMPG) has established and documented market practices, which are available at www.smpg.info. But, the market's failure to fully utilise these, means that an existing opportunity is being missed. There is a need to create more awareness about the availability of these standards and to ensure their proper implementation by the industry, which will allow service providers (intermediaries and settlement systems) to properly process these transactions. In case adoption of more widespread usage shows up any shortcomings, the SMPG can be used to help identify how to upgrade and improve the currently established practices in order to ensure that what is available is fully fit for purpose. [Given the technical nature of this intervention, a short SWIFT paper to complement the presentation given at the meeting, "*Identification of Securities Financing Transactions Using Standard Message Formats*", is appended to these minutes.]

5. Recent trends in the European repo market and what we have to look forward to

The Chairman explains that Mr Richard Comotto is unfortunately sick and therefore unable to attend; and then proceeds to quickly review the most recent semi-annual ICMA European repo market survey.

Before getting onto the survey output, the Chairman expresses the view that the failure of some ERC members to participate in the survey is a missed opportunity. Those who have set themselves up properly to support their participation enjoy the possibility to leverage their reporting capability such that a single integrated data platform can support the delivery of both internal and external reporting requirements. Everyone is going to need such capabilities and ought already to be getting the experience of building them up.

Turning to the survey output, the Chairman notes that it is based on a snapshot of data taken as at close of business on 11 June 2014. Whilst it had been expected that the numbers might show a further decline following the previous survey, this was not evident. But there did appear to be some indication of a shift of business from the bigger firms to smaller players. The Chairman observes that there is a general trend to increased electronic trading and CCP usage; and that the buy-side is expected to be seen using triparty.

The Chairman comments that euro currency collateral remains unsurprisingly dominant and that about 80% of European repo remains government bond collateralised, although in CCP cleared repos the proportion of other collateral is higher than is the case in non-CCP repo. Considering the term structure of the market, it remains more correct to talk about the bulk of the market being of up to three months; and incorrect to assert that it is all overnight.

The Chairman draws attention to the fact that the next semi-annual ICMA European repo market survey will report the value of repo contracts still outstanding at close of business on 10 December 2014.

6. Paper on the interaction of regulation on repo and collateral markets

Mr David Hiscock, ICMA, observes that the ICMA European repo market survey has, for over thirteen years, provided a very useful snapshot view of outstanding repos as at the semi-annual survey dates. Nevertheless, regulators and other officials want to know more about the market and there will be requirements to provide more data, in order to make the repo market sufficiently transparent. At the same time, there is a broad range of regulations which are having various impacts on the repo market. Each of these new measures is well-intentioned, but there is significant concern that their collective impact is creating a problem – with market liquidity, and consequently collateral fluidity, being constrained. ICMA's April 2014 paper, "*Collateral is the new cash: the systemic risks of inhibiting collateral fluidity*", already elaborated on these concerns.

The ICMA ERC continues to articulate these concerns to the authorities and seeks to encourage that the regulations be carefully calibrated as they are finalised, in order to best balance the benefits they aim to deliver against the problems they may create. Quite reasonably, the authorities want to see evidence that there are problems; and since anecdotally we believe that some of these problems are already showing up we are seeking a way to show this. Accordingly, Mr Comotto has been asked to look at the behaviour of repo rates over time and was to report on his efforts this morning.

Given Mr Comotto's indisposition, Mr Hiscock explains his understanding of the work being done and how this is progressing. As a start point the focus has been on looking at the behaviour of overnight rates for CCP cleared repos against German government bonds. Alongside looking at the evolution of the daily rates reflected in this data set, the volatility of the daily rate has been examined. Efforts have been made to identify any correlations with factors which might be expected to prompt fluctuations, such as changes in the ECB's activities, but as yet no firm conclusions have been reached. More work is being done to try and understand the data and to look at some other cases.

One preliminary observation which is of interest is that the number of incidents of spikes in the daily volatility of the repo rate has been higher in more recent months; and the magnitude of these volatility spikes appears to be increasing. It may then be that this is indicative of the repo market showing signs of stress, with a possible cause of the rate volatility spikes being a shortage of market liquidity at points in time. Further examination is being conducted to see to what extent there may be any pattern associated with these incidents, including the possibility that they may be associated with reporting dates at month and quarter ends. If the continued work can produce sufficiently robust conclusions, this will be very valuable evidence to review with regulators.

Mr Hiscock goes on to describe that, to complement this data analysis, he has already started work on putting together a draft paper for future publication. The aim of this would be to build on the line of concern already articulated in relation to market liquidity and collateral fluidity which, notwithstanding some positive developments such as the shift to T2S, are under pressure from the continued stream of regulations. An important role for market based finance is now a major aspect of the official sector's thinking, so it is very relevant to continue highlighting the important role of the repo market and the pressures it is facing.

7. Secured benchmarks

Mr Romain Dumas, member of the ICMA ERC Committee, takes the floor to report on work in relation to secured benchmarks. The importance of seeking to have in place a widely accepted repo index representative of the European repo market is directly related to the significance of the European repo market, in which today the secured segment accounts for almost 80% of interbank lending and borrowing transactions. Currently there is no such benchmark, so there is need for a pan-European effort to establish a widely-accepted standard in order to increase market transparency; enhance visibility for regulators; help market participants manage risks; and facilitate monitoring of the monetary policy transmission mechanisms.

Looking to the US, the DTCC GCF Repo Index provides an interesting example. This index tracks the average daily interest rate paid for the most-traded GCF Repo contracts for US Treasury, federal agency and mortgage-backed securities issued by Fannie Mae and Freddie Mac. These are instruments that clear at the Government Securities Division of the Fixed Income Clearing Corporation. The index's rates are par-weighted averages of daily activity in the GCF Repo market and reflect actual daily funding costs experienced by banks and investors, per underlying asset class. Futures referencing the Treasury GCF index are quoted on LIF-LIFFE and a swap market has also emerged.

Mr Dumas goes on to explain that, in considering adaptation of best practices to the reality of the Eurozone, it is important to recognise that there are a number of key differences from the US market, including heterogeneous nature of the market; the existence of wrong way risks faced by CCPs (highlighted by the Eurozone sovereign crisis) and data ownership questions. It is also important to take note of the fact that there are already a number of parallel private sector initiatives to create secured benchmarks.

A working group of the ICMA ERC has discussed the need for, and features of, a suite of secured benchmark indices reflective of the European repo market. In doing so, a series of guiding principles for euro repo indices have been developed, which seek to establish an index that will be objective, transparent and credible. These principles consider that the index should encompass overnight and term fixing; be anchored in existing liquid markets; capture only CCP cleared transactions; represent a broad section of the market and its diversity of participants; and be governed by an industry body.

Comparative assessment has been conducted looking at existing initiatives for one-day fixing and for term fixings. This work has covered not just eurozone initiatives, but also the US and UK comparatives. The comparison reveals that these each fulfil some of the desired characteristics to greater or lesser extents, but no single initiative fully meets all of the desired characteristics; and it is very clear that the challenges are much greater when considering the question of term fixings. It is also important to note that, as announced by the European Money Markets Institute ("EMMI", with whom the ERC working group is collaborating in this work) on 3 November 2014, the Eurepo index will be discontinued as of 2 January 2015. As such, the focus is on finding a suitable replacement.

Mr Dumas further reviews progress and discussions so far, noting that this work commenced in September 2013 upon invitation from EMMI (known at that time as Euribor-EBF); and that the ECB is involved in the discussions in an observatory capacity. The immediate focus is on building a unique pan-eurozone daily index capturing the weighted average of all CCP cleared, electronically transacted, one-day repo transactions. This is a challenge, but it is considered that it can be resolved by focussing on the deepest and most liquid area of the funding market; which leads to the decision to capture those transactions collateralized by ECB eligible paper. A major achievement has already been to establish standards which all private initiatives follow: focusing on transactions cleared on a qualifying CCP, electronically executed, as the result of an online quote.

Furthermore, the way forward will target transactions for which the primary motive of the buyer/cash giver is investing/collateralization of cash. These can occur in 3 formats: (i) pure GC basket products, such as GC pooling (with a rule based dynamic allocation); (ii) traditional GC trades (with a static allocation at point of trade); and (iii) transactions on individual bonds which do not trade special. The intention is to capture and consolidate all qualifying transactions from every eurozone pool of liquidity (i.e. cluster of risk), with these pools being seen to be based around CCPs, namely LCH.Clearnet Limited; LCH.Clearnet SA; Eurex Repo; and BME Clearing.

Mr Dumas clarifies that transactions from each of these liquidity pools should be brought together in a single index; and closes by discussing selected key issues and recent developments: (i) should there be a distinction between funding and special driven transactions; (ii) how should the data be aggregated to create the euro global repo index; (iii) establishing downward compatibility between the euro global index and existing initiatives. The dynamism of existing private initiatives and the fact they all focus on transactions following the same eligibility rules allow us to be optimistic about a positive outcome.

8. Legal Update

The Chairman introduces Ms Lisa Cleary, ICMA, who provides a legal update. Ms Cleary explains that she will provide a few updates on projects which the legal team at ICMA are involved in and deliver an important reminder.

Firstly, Ms Cleary discusses the GMRA legal opinion exercise and the extent of the coverage of these opinions. For many years, ICMA has obtained and annually updated legal opinions on the GMRA from numerous jurisdictions worldwide. Importantly, as per the decision previously taken by the ERC, the ICMA GMRA legal opinions will no longer cover the GMRA 1995 from 2016 onwards. The opinions will continue to cover the GMRA 1995 as amended by the Amendment Agreement to the GMRA 1995 and the GMRA 2011 Protocol.

The GMRA remains the foremost agreement for documenting cross border repo transactions. It has been fostered by ICMA for over 20 years in which time the agreement has been amended and refined in consultation with the market. Such refinements have been made in response to changing market conditions, regulatory requirements and market demands. As such, the GMRA 2011 represents the most recent level of development – reflecting the most up to date ideas and methods. Time and time again we are reminded within the regulatory agenda and from an anecdotal perspective, about the importance of keeping documentation up to date. It is important that efforts to make repo documentation even more robust are supported by the market participants who have helped to develop it. In this regard the discontinuation of coverage of the GMRA 1995 in the legal opinions should focus the market on updating their documentation.

Secondly, Ms Cleary addresses the topic of the GMRA 2011 Protocol. ICMA published the 2011 GMRA Protocol to enable the parties to a GMRA 1995 or a GMRA 2000 to amend the terms of each such Agreement, to reflect improved default related provisions of the GMRA 2011; and to enable the parties to a GMRA 1995, a GMRA 2000 or a GMRA 2011 to insert a definition of euro in each such Agreement. In particular, the protocol allows parties to conform certain provisions existing agreements, e.g. (i) the methodology in calling an event of default; and (ii) the procedure for closing out transactions and determining the amount payable by one party to the other party, with the provisions in the GMRA 2011. The protocol also allows parties to introduce a contractual set off clause in line with that of the GMRA 2011.

Signing up to the protocol is an extremely efficient method of updating existing, out of date documentation. Accordingly, a party to an existing GMRA may adhere to the Protocol and be bound by its terms by completing a letter in the form published by ICMA and sending it to ICMA, as agent. In view of the planned change to the opinion coverage from 2016, it is increasingly important that the market considers adhering to the protocol. Its success directly correlates with the level of market adherence. ICMA are delighted to see the first ERC members adhere to the protocol and wish to assist others in doing the same. Should members have any questions about using the protocol, please do come and speak to ICMA about these.

Thirdly, Ms Cleary reports on the GMRA legal opinion exercise for 2015. ICMA are considering commissioning a GMRA opinion for Malaysia; and are in consultation with Shearn Delamore & Co to assess whether it is possible to obtain a legal opinion of sufficient legal certainty. There are legislative amendments tabled to remove some of the barriers to netting in Malaysia, but the timetable for these is not certain. Due to this, it may be that ICMA will delay obtaining the opinion until 2016. In addition, the counterparty coverage in some jurisdictions is to be extended to cover insurance companies, hedge funds and mutual funds. This will harmonise the opinion coverage across most of the 64 jurisdictions in which ICMA currently obtains opinions.

Finally, Ms Cleary turns to the topic of a "buy side annex" to the GMRA. The ERC Committee have requested that the GMRA working group consider the development of an industry standard GMRA Annex, with the aim of opening the repo market to a wider group of counterparty types – particularly buy side firms and corporate firms which may not have the capacity to negotiate long form GMRAs. The annex would set out the principal contractual terms which supplement the standard form GMRA (a "buy side annex/corporate annex"). A working group has been established to develop the idea – which is to include representatives not just from the ERC, but also from ICMA's AMIC and CIF communities.

9. <u>CSD Regulation ("CSDR")</u>

The Chairman invites Mr Andy Hill, ICMA, and Mr Stefano Bellani, member of the ICMA ERC Committee, to provide an update in relation to aspects of the CSDR.

Mr Hill starts by recalling that on 6 October 2014, the European fixed income markets moved to standard settlement on trade date plus two days ("T+2" settlement), both for on-venue and OTC trades. This was prompted by CSDR Article 5, which will require T+2 latest settlement for "transactions in transferable securities…which are executed on trading venues" (i.e. regulated markets, MTFs and OTFs) and settle on an EEA (I)CSD, as from 1 January 2015. For consistency across markets, the decision was made to also move all OTC transactions on EEA CSDs. Some edge-cases exist which are subject to on-going consideration, namely US Reg.S versus 144A; Asia-Pacific "'XS"-ISINs; and non-European emerging markets.

Considering the move to T+2 in the specific context of repos, Mr Hill points out that SFTs have no standardised settlement date and are thus largely out of scope. But, *de facto*, following the cash market, repo market liquidity can be expected to shift to T+1 (and T+0) for most financing trades. This presents challenges of shorter windows for collateral and cash management and has prompted changes in cut-off times for re-calls, returns, and re-rates for open repo (7% of market) – now set at noon London time on T+1. Cut-off times for edge-case open repos need to be ironed out, taking their lead from underlying cash markets.

Mr Hill also draws attention to what is assumed to be an unintended consequence for repo platforms. CSDR states that "For complex operations composed of several transactions such as securities repurchase or lending agreements, that requirement [i.e. T+2 latest settlement] should apply to the first transaction involving a transfer of securities." On the face of it this means that forward-forward repos will not be able to be effected on electronic trading platforms, since as of 2015 the initial leg of any such transaction would be required to satisfy the T+2 latest settlement requirement. Discussion of this is on-going and it is hoped that a solution can be found to avoid forcing all such trades into the OTC market.

Following intense preparatory discussions, the actual move to T+2 went smoothly, with netting and pair-offs across trades transacted on October 4th and 6th meaning that settlement volumes on the 8th only increased by around 50%. Only around 1% of total traded volumes were mismatching and subsequently requiring post-trade repair; and settlement efficiency levels remained high during the migration, with only a negligible uptick in settlement fails on October 8th – but efforts are being made to continue to monitor the situation.

Mr Hill moves on to highlight that CSDR is in fact the "Regulation on improving securities settlement in the European Union and on central securities depositories" and that it aims to improve the safety and efficiency of securities settlement in Europe. CSDR Articles 6 & 7, which deal with measures to prevent settlement fails (better known as "settlement discipline"), provide for (i) CSDs to establish systems to monitor fails; (ii) CSDs to provide a penalty mechanism which will serve as a deterrent for settlement fails; (iii) a mandatory buy-in process, to be initiated where a transaction is still failing four days after its intended settlement date (ISD) – albeit that this has the scope to be increased to seven days, depending on liquidity of the security being bought in. SFTs have a partial exemption from mandatory buy-ins.

A series of problems with executing buy-ins have been identified: (i) buy-in prices can often be very far from "fair market value", creating market distortions; (ii) the counterparty being bought-in will effectively incur a cost equivalent to the bid-offer spread between the buy-in price and the sale necessary to flatten the position post buy-in; (iii) a counterparty being bought-in has market risk until they flatten their position – if there is a delay in communicating that the buy-in has been executed this will expose them to unquantifiable market risk; (iv) bought-in securities still may not settle; (v) it may be difficult to find buy-in agents; and (vi) buy-ins can cause relationship issues.

Furthermore, implementing mandatory buy-ins presents a number of challenges: (i) buy-ins currently occur at the trading level, but CSDR creates a disconnect by rather providing that this should occur at the settlement level; (ii) CSDs can't differentiate between failing transaction types, which is important if some SFTs are to be exempt SFTs; (iii) CSDs will need to be able to identify fail-chains and know who should be bought-in to settle the chain – which may not prove possible with fail-chains across different CSDs (including those outside of EEA); (iv) how and when are buy-ins going to be communicated at the trading level, which is necessary as they increases market risk; (v) CCPs are exempt, so how does this impact buy-in chains; (v) what should be the calibration for the extension periods (4 or 7 days) for different securities (and does this link with liquid versus illiquid securities in MiFID II?); (vi) what is the market fragmentation impact of exempting some SFTs (and not all); and (vii) mandatory buy-ins for the start-legs of SFTs will conflict with the legal provisions of the GMRA/GMSLA.

Mr Hill closes by reviewing the key take-aways regarding mandatory buy-ins, namely (i) CSDR is a settlement regulation with major trading impacts, which is in itself a problem; (ii) mandatory buy-ins pose a significant threat to European bond market liquidity; (iii) mandatory buy-ins will discourage lending of securities and fragment the European repo market; and (iv) mandatory buy-ins will most likely have the counterproductive impact of reducing settlement efficiency.

Whilst it may indeed no longer be possible to reverse the regulation, it is critical that users of the secondary bond and repo markets work with ESMA, the European Commission, the ECB, local regulatory authorities, local central banks, and DMOs to ensure that CSDR is implemented in a way that causes the least disruption and damage to market liquidity and efficiency.

Taking over the presentation, Mr Bellani moves on to discuss the related topic of cash penalties, which are the subject of CSDR Article 6.

ICMA and AFME have agreed a view on how to seek to guide the formulation of the associated technical standards. There should be a simple model based on an *ad valorem* rate related to a benchmark market rate, similar to the TMPG mechanism in the US Treasury market, in order to best address the perverse incentive to fail which can be perceived in a low or negative interest rate environment. The approach adopted for cash penalties should be a harmonised across all CSDs; based on a compensation model as opposed to a penalty model; operated as a gross model, as opposed to a net model; and utilise a claiming process based on automated CSD fail messaging.

10. FSB's final regulatory framework for haircuts on non-CCP cleared securities financing transactions

Mr Hiscock reviews the FSB's regulatory framework for haircuts on non-centrally cleared SFTs, which was published on 14 October 2014.

This Framework is a key part of the FSB's policy recommendations to address shadow banking risks in relation to SFTs. It is a two part framework, consisting of: (i) qualitative standards for methodologies, used by market participants that provide securities financing, to calculate haircuts on the collateral received; and (ii) numerical haircut floors, which will apply to non-centrally cleared SFTs in which financing against collateral other than government securities is provided to entities other than banks and broker-dealers (referred to for simplicity as "non-banks").

Compared to the earlier consultation version of the proposal, the FSB has decided to raise the levels of numerical haircut floors based on the QIS results, existing market and central bank haircuts, and data on historical price volatility of different asset classes. These increases affect debt securities' collateral with residual maturity greater than one year as well as equities and other forms of collateral. Nevertheless, the overall impact of the framework appears to be reasonably balanced, particularly since mandatory floors are not required (a) where government securities are used as collateral; and (b) in relation to the interbank market.

Probably unsurprisingly, the FSB has also opened a new consultation, for comment by 15 December 2014, in relation to the application of numerical haircut floors to non-bank to non-bank transactions. Whilst such transactions are not particularly prevalent today, this would help to future proof the approach – particularly since such transactions might increase in volume responsive to the application of mandatory haircuts in the case of bank to non-bank transactions. The FSB will complete this work by the second quarter of 2015.

Mr Hiscock turns to consideration of the agreed qualitative standards for methodologies used by market participants to calculate haircuts. Standards address the calculation of haircuts on both individual asset and portfolio bases. Haircuts should be based on the market risks of the assets used as collateral and be calibrated at a high confidence level, using a long historical time period that includes at least one stress period, in order to cover potential declines in collateral values during liquidation; and should capture other relevant risk considerations.

Mr Hiscock then draws attention to the fact that, in support of its recommendations, the FSB has published some of the data gathered through its two-stage quantitative impact study ("QIS"). In particular it has published charts showing how average haircut levels increased during the financial crisis in relation to different forms of collateral. This clearly supports the ERC's contention that haircuts did not increase dramatically across the board. Rather, the big increases were in relation to those transactions where the collateral was in the form of securitised assets; whilst very little increase in haircuts was seen where the collateral was in the form of government securities.

11. Securities Financing Transactions Regulation ("SFTR")

Switching topics, Mr Hiscock introduces an update in relation to the SFTR. On 29 January 2014, the European Commission adopted a proposal for a regulation providing a set of measures aiming to enhance regulators' and investors' understanding of STFs. The proposal involves a combination of different measures considered necessary to ensure that the shadow banking activity of using SFTs is properly supervised and regulated, including: (i) reporting of SFTs to trade repositories; (ii) disclosure on the use of SFTs to fund investors; and (iii) the need for prior consent to rehypothecation of the financial instruments and that these financial instruments are transferred to an account opened in the name of the receiving counterparty before rehypothecation can take place. The use of SFTs as such will not be prohibited nor limited by specific restrictions, but it will be made more transparent.

Key aspects of the proposal can be found in:
Article 2, which outlines the scope of the regulation, applying it to any SFT counterparty, including UCITS management companies and managers of AIFMs, established in either the EU (including all branches wherever they are located) or a third country, where the SFT is concluded in the operations of an EU branch;
Article 4, which states that counterparties to SFTs shall report (albeit that this reporting obligation may be delegated) the details of such transactions to a recognised, registered trade repository; and that the details shall be reported no later than the working day following the conclusion, modification or termination of the transaction;
Articles 13 and 14, which outline the obligation of UCITS and AIFMs to inform investors of their use SFTs and other financial structures; and
Article 15, which outlines the right and limitations of counterparties to rehypothecate client securities.

Mr Hiscock reports that over the last couple of months, the European Council has been working on this proposal and it has now settled its political position. Revisions seen in the Italian Presidency's compromise text are not ideal, but have generally improved the text. Particular attention has been focussed on Article 15, which the Council proposes should refer to reuse rather than rehypothecation. This gives rise to some risk that it restricts the right to reuse collateral received under a GMRA repo, so it needs to be clear that a transfer of collateral under a title transfer collateral arrangement ("TTCA") – as is the case when conducting repos under GMRA – fully satisfies the notification requirements of Article 15 and leaves the securities purchaser free to use them as wished. This is fairly clear in the Council's text, particularly within the language adopted in the recitals.

Meanwhile, the new European Parliament held a first discussion of the SFTR on 4 November. The rapporteur, MEP Renato Soru (S&D, IT) and four shadow rapporteurs each spoke. Comments made concerned many of the points on which the Council has been working; and there was a new suggestion to introduce something regarding the regulation of haircuts, but this aspect is unclear for now. The Parliament's outline timetable foresees that there will be a draft report before Christmas, with consideration of amendments through January and February ahead of a vote before the end of March.

Mr Hiscock goes on to explain that on 7 November, jointly with ISLA, the ERC conducted an educational session in the European Parliament – to help those in the new European Parliament who will be working on the SFTR. The presentation provided (i) a basic picture of repo and securities lending (i.e. what they are, who does them and why); (ii) illustration of the benefits of SFTs and their importance in context of the need for collateral fluidity; (iii) introduction of some of the issues related to risks in SFTs and how they are managed; and (iv) delivery of a series of useful links to the wealth of related materials which are available on the ICMA and ISLA websites. This is the start of a process of engagement intended to ensure that the EP can conduct a well-informed debate of this important file and further discussions are already underway.

Whilst on the topic of SFT transparency, Mr Hiscock also draws attention to two other recent publications. Firstly, on 23 September 2014, the ESRB published its Occasional Paper No. 6, "*SFTs and the (Re)use of Collateral in Europe: An Analysis of the First Data Collection Conducted by the ESRB*". This report presents the results of two data collection exercises that were conducted to gain some initial insights into the structure of the SFT market and the correlated practices adopted by market participants concerning the re-investment or the re-use of the collateral sourced through SFTs or via equivalent transactions. Secondly, on 13 November 2014, the FSB published for public consultation (for comment by 12 February 2015) its report "*Standards and Processes for Global Securities Financing Data Collection and Aggregation*". The proposed standards and processes in this consultative document define the data elements for repos, securities lending and margin lending that national/regional authorities will be asked to report as aggregates to the FSB for financial stability purposes.

12. Regulatory Update

Next, Mr Hiscock switches to the topic of the Net Stable Funding Ratio ("NSFR"), the final endorsed standard for which was published by the BCBS on 31 October 2014. This will become a minimum standard by 1 January 2018. This sets the text of an agreed international standard, but it remains to be seen exactly what language appears in applicable national/regional rules which firms must actually comply with.

Simply put, the NSFR requires that the amount of available stable funding ("ASF") is always at least equal to the amount of required stable funding ("RSF"). ASF considers the different sources of funding on the liability side of the balance sheet and counts these in various proportions dependent on their perceived degree of stability (i.e. to what extent they are available for the long-term); whilst RSF considers the different funding requirements needed to sustain the asset side of the balance sheet, proportionately weighting different types of asset dependent on the perceived need for them to be financed with stable funding.

Compared to the consultation version of the NSFR there have been some changes, particularly including some revision of RSF weightings responsive to concerns expressed in comments submitted to the BCBS. This has helpfully lowered the amount of RSF required for reverse repos with non-bank financial counterparties, but has at the same time increased the amount of RSF required for reverse repos with bank counterparties. The impact of this trade off in requirements is still being assessed.

Mr Hiscock flags that it is also important to note that there are two specific paragraphs of text regarding SFTs in the final NSFR, namely paragraphs #32 and #33. The latter of these has been added since the consultation version and helpfully states that, subject to the same constraints as apply in relation to the calculation of the leverage ratio, netting associated with SFTs may be taken into account. New language in paragraph #45 of the NSFR makes special provision for "Interdependent assets and liabilities". This is being carefully examined to determine if it might apply in some SFT related contexts.

Finally, Mr Hiscock quickly highlights a few other regulatory developments. Firstly, on 10 October 2014 the European Commission adopted a delegated act specifying the detailed rules for the calculation of the Liquidity Coverage Requirement, within the EU Capital Requirements Regulation. Secondly, on 7 October 2014, the BCBS issued frequently asked questions on the Basel III leverage ratio (the full text of which was itself issued on 12 January 2014) – which helped to clarify some points concerning the netting of SFTs. Thirdly, on 10 October 2014, as part of a package of measures, the European Commission released details of a delegated act which establishes a common definition of the leverage ratio for EU banks – which will be the basis for publishing the leverage ratio from the beginning of 2015 onwards. Fourthly, on 27 June 2014, the EBA published its final guidelines on disclosure of encumbered and unencumbered assets – all SFTs are amongst the specifically identified types of contracts which should be considered encumbered.

Lastly, a tax related point coming out of international work on Base Erosion and Profit Shifting ("BEPS"). On 16 September 2014, the OECD released its first recommendations for a coordinated international approach to combat tax avoidance by multinational enterprises. One of these first recommendations focuses on helping countries to ensure the coherence of corporate income taxation at the international level, through new model tax and treaty provisions to neutralise hybrid mismatch arrangements. This is of significance because this report says (at paragraph 56) that "… the most common transaction used to achieve a mismatch in tax outcomes under a hybrid transfer is a sale and repurchase arrangement…". Seeking to negate the tax effect of hybrid transfers achieved through the use of repos may lead to significant incremental tax compliance and reporting burdens, particularly in relation to repos between different legal entities within the same group of companies

13. ERC Operations Group update

Mr Hamilton starts the update in relation to the ICMA ERC Operations Group with a recap of the committee structure for 2014. Noting that this group is responsible for landing a number of the items discussed in the course of the general meeting, he explains that the Group, which is co-chaired by Mr Sanjiv Ingle, has 18 members.

There are working groups to cover (i) developing matching and affirmation; (ii) shaping of the product in T2S; and (iii) planning for a repo data repository. Additionally, focus groups cover (i) a T+2 settlement convention review; (ii) TSI; and (iii) CSDR buy-ins and settlement discipline review. And contributions have been made to the ERC guide to best practice in the European repo market. The Group is keen to attract more members to contribute, given the slate of work, so ERC member firms are encouraged to get their operations leads participating.

Mr Hamilton explains that he will touch in further detail on three areas which have a level of interactivity, firstly T+2, which helped establish a good working model for wholesale change, and then the matching and repository agendas, which can build on this.

Mr Hamilton turns to T+2, which felt very much like the entry point to Y2K, with a heavy system configuration and concerns expressed on market liquidity being impacted. This exercise was very much part of a "Better Together" campaign! Collaboration, communication and consistency were the key features of the market wide work. This is level of engagement and structure which, now we have this momentum, we should continue in a number of the other future dated deliveries.

The first stage was preparation, which featured excellent industry and vendor partnership to normalise the approach and timings for the change; a best practice paper, focused on callable bonds, fails management, environment preparation and key risks; open forum communications, with ICMA, ISLA, AFME, SIFMA and EMTA linking in the interoperability of the market and the viscous nature of the operational flow in the cash, and in the particular repo trading flow, regionally and globally; and vendor dialogue to agree data loading. Next came the event itself, which saw (i) the successful alignment of 300,000-400,000 European fixed income assets to a default settlement date of T+2; (ii) no material fails spikes or liquidity issues despite an increase of 60% volume on the big bang; and (iii) orderly markets through the migration week.

Finally, post implementation there has been (i) performance monitoring, involving repair (internal review) and failing trades across the market with a low volume of value date repairs, and we will take a view of Q4 to see trending in fails; (ii) continued partnership with regional and global groups as we move to the mandatory window starting 1 January 2015; and (iii) understanding regional diversification regarding North America and Asia.

Next, Mr Hamilton comments on the matching and affirmation working group. In overview nine ICMA ERC Operations Group firms form part of the working group. There is a clear need to have a comprehensive market standard of mandatory and voluntary matching fields and there is a push for a consistent automated matching and affirmation product at the vendor level. This will support the industry in the move towards automated matching and affirmation. Focus areas are (i) appropriate vendor engagement to bring together the market offerings; (ii) creation of a standard template that all vendors can support; (iii) using the market move to T+1 as a driver towards automation; and (iv) encouraging the industry to affirm and match on T+0.

During 2014, progress includes having been able to bring together the matching and affirmation service providers as a central group; partnership with ISLA to share best practices; and sowing the seeds so the industry better understands the need to match and affirm as close to trade date as possible. Targets for 2015 are (i) a consolidated template to be shared with vendors, having been approved by the ICMA ERC; (ii) collaboration across vendor platforms to establish some form of interoperability; and (iii) looking for synergies between (a) matching and affirmation and (b) transaction reporting.

Moving to consider the data repository working group, Mr Hamilton reports that this group has tracked the evolution of the regulatory agenda during 2014. Three distinct requirements from the European Commission (via ESMA), Financial Stability Board (FSB) and European Central Bank (ECB) have started to firm up, but are still not finalized. Firstly, European Commission requirements are for trade level data, with emphasis on re-use and haircuts, attempting to track the path a particular security takes through the market and monitor interconnectedness. The final draft legislative report is due by mid-December 2014, to be voted on by the European Parliament in March 2015. ESMA reporting is likely to go-live between 2016-2017. Secondly, the FSB requirement is for globally aggregated reporting, supplied by each respective competent authority. The hope and expectation here is that this will be met by ESMA and ECB reporting provisions, with no further FSB reporting requirements for member firms. This will be dependent on ESMA and/or the ECB settling on a format that can be readily aggregated. Thirdly, the ECB are planning to introduce a survey of the top 100 banks in 2016 (intending to front-run ESMA requirements). The ECB may be concerned by the lengthy lead-in time and complexity of ESMA requirements; and its data collection may be used to meet FSB requirements as well.

Focus areas going into 2015 are based on the ERC working group hoping to achieve a one-shot solution to all three reporting requirements, encompassing (i) trade level reporting, potentially close to real-time (TRAX real-time transaction reporting style), to pick up every lifecycle event – which is likely to be necessary to meet all ESMA requirements to see every version, every collateral substitution, to track re-use etc.; and (ii) daily, weekly and monthly snap shots for aggregated reporting, necessary to limit timing issues with aggregation as much as possible.

This will involve (i) standardisation of trade types and field population procedures across as much of the industry as possible, to ease aggregation, regulator views of both sides of transactions and trade matching benefits - the group engaged in standardisation needs to be sufficiently influential that these standards are adopted across the industry, far beyond the working group; (ii) opportunities to utilize central data stores (i.e. CCPs, able to provide both sides of a transaction); and (iii) an opportunity to push to integrate trade matching and electronic affirmation into the core functions of the trade repository.

Mr Hamilton summarises by reporting that progress has been made on all fronts and that the Group are looking forward to moving into a heavier plan and delivery phase next year, now that the road ahead can be seen more clearly.

Mr Stefan Knoblauch, Eurex Clearing AG ("ECAG"), leads off a status update in relation to GC Pooling Triparty Settlement Interoperability ("TSI"), the background to which is the Memorandum of Understanding ("MoU") signed in July 2013. The parties to this MoU are ECAG, Euroclear Bank ("EB"), Clearstream Banking Frankfurt ("CBF"), Clearstream Banking Luxembourg ("CBL") and the ERC. The MoU's scope concerns GC Pooling, the multi-baskets and multi-currencies repo product cleared by ECAG, to be settled across multiple Collateral Management Systems ("CMS") and Securities Settlement Systems ("SSS").

Mr Cédric Gillerot, Euroclear, then addresses the work done so far. Ten full-day workshops have been held between the TSI parties with the objective to conduct a top-down analysis, which has led to the definition of a strawman for a feasible GC Pooling TSI model. Assessment has been made of the impacts of TSI on the different layers in the post-trade processing chain, with the layers primarily impacted being (i) clearing and exposure management; (ii) triparty collateral management; (iii) settlement and bookings; and (iv) asset servicing and reference data.

Mr Jean-Robert Wilkin, Clearstream, reviews the outcomes from the work done and conclusions reached. The TSI parties have confirmed the feasibility of the GC Pooling TSI model, the establishment of which will have significant and structural impacts for ECAG as well as for Euroclear Bank's and Clearstream Banking's Triparty CMS; and will entail significant development costs for these TSI parties. Implementation of TSI also requires a high level of harmonization and synchronization of asset servicing infrastructures of CBF, CBL and EB as well as of their SSS and all the links between them, also taking into account the implementation of T2S. The implementation of the TSI model has a strong dependency on T2S, including the scope of securities covered under T2S.

Mr Wilkin adds that the currently considered upgrades of the "Bridge" (the CBL-EB settlement link) will significantly improve the current Bridge deadlines and settlement turnaround time but will however not meet ECAG's requirement of a 10 minute end-to-end turnaround time. On the basis of the high-level analysis and assumptions to date, the TSI parties collectively have concluded that the earliest possible time for a delivery of all the infrastructure upgrades required for clearing, collateral management services and settlement (i.e. the Bridge and T2S) to support the proposed TSI model would be mid-2017 (post-implementation of T2S Wave 4).

Mr Knoblauch then discusses the next steps. There is an on-going process of market consultation underway to validate the GC Pooling TSI model. Following this work between the TSI parties will be pursued with the objective of delivering a detailed project scope definition. This will entail a focus on validation of all the assumptions made so far; developing more detailed business requirements; building more detailed end-to-end scenarios; establishing a testing strategy and market involvement; planning migration to the GC Pooling TSI model; and defining legal and operational documentation.

Mr Edwin de Pauw, Euroclear, next leads off a status update in respect of the work on Bridge enhancements, explaining that Euroclear and Clearstream (the "ICSDs") have joint objectives in respect of this. T2S will bring cross-border settlement in central bank money ("CeBM") up to new standards. Alongside of this, regulators and market participants wish to see similar improvements to the existing commercial bank money ("CoBM") settlement infrastructure, in order to foster harmonisation at European level and create conditions for optimised liquidity and efficient collateral management.

Bridge enhancements must therefore achieve the following objectives: (i) maximise the settlement window between the ICSDs to support increased same-day and intra-day settlement activity; (ii) move settlement windows and deadlines as close as possible to domestic cut-offs; and (iii) support TSI, with Eurex GC Pooling. They should also respect the following main principles: (i) settlement results in the mandatory window should be available to customers (a) before the main currency cash cut-offs (EUR, USD) to ensure efficient cash management and (b) in sufficient time to allow securities to be used within ICSDs and T2S; and (ii) limit mandatory adaptation costs for customers.

Mr de Pauw reviews progress of the joint working group ("JWG"), established in March with an agreed scope, following agreement on Terms of Reference between both ICSDs at the end of February 2014. The agreed scope encompasses (i) bridge enhancements in the context of T2S; (ii) nNon-T2S Bridge enhancements; and (iii) improvements linked to daily operations of the bridge. In the period from March – July, 16 workshops were held between JWG members, performing a top-down analysis of the areas for possible improvements with a focus on enhancements in the context of T2S. In August, following pressure from ICMA to accelerate the proposed timetable for delivery, a decision was taken to phase the project and deliver the first set of Bridge improvement in 2015. Accordingly, in September a new JWG structure for phased deliveries was put in place and a move was made into full project mode for phase 1; whilst JWG workshops continue to finalise scope definition for phase 2.

Finally, Mr Michel Bricq, Clearstream, explains the agreed scope for phase 1. In this phase the ICSDs will move to a currency driven model and put in place some additional matching and settlement file exchanges to deliver: (i) significant improvement in input deadlines; (ii) removal of the concept of optional versus mandatory settlement for Free of Payment transactions; and (iii) reduction of the turnaround time after 12:00, from between 60-120 minutes to between 35-90 minutes. The ICSDs are in discussions to agree an exact phase 1 launch date.

The scope for phase 2 is still under discussion but both ICSDs have agreed on a high level scope which will deliver, among other topics: (i) faster settlement turnaround throughout the day, with turnaround times decreasing to between 10-40 minutes; (ii) improved matching process, including matching results within 2 minutes (rather than 30 minutes today) and implementation of new matching fields; (iii) further improvements in input deadlines; and (iv) further extension of interoperability between the ICSDs at the end of the day. The delivery window for phase 2 will be finalised taking into account the challenges to the ICSDs roadmaps implied by their T2S wave 2 and wave 3 migrations.

14. Any other business and next meetings

The next ERC General Meeting will be held on 18 May 2015 in Brussels, hosted by Euroclear.

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

Annex 1

List of presenters and represented firms in attendance

Presenting:

Godfried De Vidts *(Chairman), ICAP*
David Field, representing *Rule Financial*
Frank Versmessen, *SWIFT*
Romain Dumas, *Credit Suisse*
Stefano Bellani, *J.P. Morgan*
Nicholas Hamilton, *J.P. Morgan*
Stefan Knoblauch, *Eurex*
Cédric Gillerot, *Euroclear*
Jean-Robert Wilkin, *Clearstream*
Edwin de Pauw, *Euroclear*
Michel Bricq, *Clearstream*
David Hiscock, *ICMA*
Lisa Cleary, *ICMA*
Andy Hill, *ICMA*

The following member firms were represented at the meeting:

ABN AMRO N.V., Amsterdam
Banco de Sabadell SA
BANKIA, S.A., Valencia
Barclays Capital Securities Limited, London
Belfius Bank & Insurance, Brussels
BNP Paribas Fortis, Brussels
CAIXABANK, S.A., Barcelona
Citigroup Global Markets Limited, London
Commerzbank Aktiengesellschaft, Frankfurt
Commonwealth Bank of Australia, Sydney
Credit Suisse Securities (Europe) Limited, London
Deutsche Bank AG, Frankfurt
Eurex Repo GmbH, Frankfurt
GESMOSA-GBI, Agencia de Valores, S.A., Madrid
Goldman Sachs International, London
ICAP Securities Limited, London
ING Bank N.V., Amsterdam
J.P. Morgan Securities plc, London
Jefferies International Limited, London
Landesbank Baden-Württemberg, Stuttgart
Lloyds Bank plc, London
Morgan Stanley & Co. International PLC, London
National Australia Bank, London
NATIXIS, Paris
Newedge Group SA , Paris
RBC Europe Limited, London
Société Générale S.A., Paris
The Norinchukin Bank London Branch, London
The Royal Bank of Scotland plc, London
Trax
UBS AG, Zurich