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EUROPEAN REPO COUNCIL

Minutes of the Annual General Meeting of the ICMA European Repo Council held on September 27, 2012, in London

Location: Nomura International plc, 1 Angel Lane, London, EC4R 3AB
Time: 2:30 pm – 5:00 pm

Presenting:
Mr. Godfried De Vidts (ERC Chairman), ICAP Securities Limited
Mr. Martin Scheck, ICMA Chief Executive
Mr. David Rule, Chair of the Financial Stability Board's shadow banking workstream on securities lending and repo
Mr. Patrick Pearson, Head of Unit, Financial Markets Infrastructure, European Commission's Internal Market Directorate General
Mr. Richard Comotto, ICMA Centre
Mr. Tony Baldwin, Daiwa Capital Markets Europe Limited
Ms. Lisa Cleary, ICMA
Mr Tony Platt, Chairman of the ERC Operations Group, Morgan Stanley & Co. International plc
Mr. Jean-Robert Wilkin, Clearstream
Mr. Cédric Gillerot, Euroclear
Mr. David Hiscock, ICMA
Mr. John Serocold, ICMA
Mr. Eduard Cia, UniCredit Bank AG
Mr. Stefano Bellani, J.P. Morgan Securities Ltd.
Mr. Michel Semaan, Nomura International plc
Mr. Jean-Michel Meyer, HSBC Bank plc

Member firms represented at the meeting:
Please see Annex A

1. Welcome by Martin Scheck, ICMA Chief Executive

Mr. Scheck welcomed everyone to the meeting and noted that European Repo Council (ERC) meetings were always well attended, with the turnout due to the excellent programme put together by Mr. De Vidts, the Secretariat and also the high-quality VIP speakers. It also reflects the attention that is needed from the repo community in the light of the increased number of high profile regulatory initiatives.

Repo is a very important part of what ICMA, as a pan-European trade association, does. However, ICMA covers all aspects of the market – from the points of view of issuers, intermediaries, and investors, with committees and work programmes looking at most segments of the markets and market practice, looking at the primary and secondary debt markets, which cover buy side and sell side. In all of these areas, markets and market participants are subject to immense regulatory change. We recognise that one of the primary and laudable aims of regulators and policy makers is to protect investors and prevent systemic risk creeping back into the regulatory system. However, ICMA is also focused on the efficiency of the capital markets so they can be effective in supporting much needed growth in the real economy. With this in mind, much of our time and resource is spent working with members and the authorities to try and achieve a successful balance between the regulation necessary to promote safe and robust markets whilst ensuring that market efficiency remains unimpaired. This balance is particularly important for the repo market since it, perhaps more than other market segments, depends on maximum efficiency in order to be effective. The industry and its trade associations have a critical role to play in engaging in constructive debate with regulators and politicians as a new framework of regulation is being built in Europe and elsewhere. The European Repo Council, as a representative body for the repo community, continues to do a vital and energetic job in this regard. It is very good to see regulators here today engaging actively with the industry. ICMA has an important role to play representing the industry and markets in discussions with regulators.

Since the subject of collateral management is on the agenda today and is of interest to all of you, it is worth noting the work of the newly formed Collateral Initiatives Coordination Forum (CICF), in which the ERC is involved. The forum has a number of other trade associations as members and as the name suggests, it is designed to help us all coordinate on any collateral related initiatives. Later this year, this will result in the publication of two papers– one on collateral fundamentals and one on collateral fluidity. ICMA supports all of the ERC's many market initiatives – its research, its extensive educational programme and the repo survey which has developed over many years to become the authoritative source of data on trends in the market. We also provide a dedicated secretariat facilitating the functioning of the ERC and additionally we devote, on an on-going basis, substantial resource to maintaining the Global Master Repurchase Agreement (GMRA) and to keeping the associated legal opinions, which support its use, up-to-date.

Finally, Mr. Scheck thanked Mr. De Vidts for all his work and active leadership of the ERC as well as the other members of the ERC Committee and Mr. Tony Platt who chairs the ERC Operations Group and the other members of that Committee.

2. Opening Remarks by the Chairman of the European Repo Committee

The Chairman gave the following speech[1]:

Good afternoon

Thank you Martin for your kind words. And welcome to today's ERC semi-annual meeting. My thanks to Nomura for hosting today's meeting.

[1] Reproduced in full.

Before we kick off this meeting I would like to commemorate an active and long standing member of our repo community. Sadly Paul Newman passed away suddenly in early July. Paul worked previously at Macquarie Bank and most recently at LBBW and will have been well known to many of you, given his long career in the banking industry. He was known for his long standing dedication to the industry and was regarded by all as a pleasure to work alongside. Paul will be greatly missed by all who knew him well. Thank you.

Having chaired this group for over a decade I would like to spend a little time reflecting on developments in the repo market. In the past year, the financial press and certain academic studies have shown an inadequate understanding of how the repo market works. While sensational articles about leverage may make for better newspaper sales, the truth of the matter is that without repo the world's central banks would not be able to execute monetary policy, as a return to unsecured lending would be out of the question. It is also worth noting that it was the push from the Basle committee towards secured lending that actually laid the foundations for our thriving product.

Up until 2007 the global repo markets grew steadily. During that time these markets did not get much attention from the regulatory community, although we as a group clearly wanted more transparency in order for us (and the central bank community) to be able to "take the temperature" of the repo market. However, we now have some politicians and commentators calling repo an opaque product. I do admit that the European repo market is not perfect, but it is increasingly frustrating that some press reports seem to think the problems identified in the US relating solely to US triparty are a global problem. In a minute Richard Comotto will summarise the findings of the 23rd repo survey (11 ½ years of data), work that has contributed to the fact finding mission of the FSB working group that will be presented by David Rule later this afternoon.

At the beginning of the crisis repo was suddenly the focus of senior management in banks as it was the product that created much needed liquidity. Liquidity and collateral management became priority number ONE. It is therefore strange to read some academic reports claiming that "repo was the cause of the crisis". In fact repo was the product that helped financial markets to continue to work, even if at times the situation seemed impossible to solve. Although today some politicians are increasingly creating a negative perception of repo, we as an industry have never stopped trying to improve how the product works. Furthermore we have continued to engage with policy makers through debates and seminars and I must say that we have enjoyed good access to regulators many of whom it seems to me are very willing to listen to well informed comment from the market. We have organised numerous professional repo market courses over the years seeking to help build understanding and knowledge about our market.

Those who know me well will recall my calls to engage in the Giovannini debate, also Cesame, EGMI, MOG, Cogesi. The industry has made progress in ensuring that the settlement landscape remains robust, and that the exchange of cash against securities in the repo and securities lending market continues to deliver as good a result as possible. On the other hand political forces have on occasions sought to protect national settlement systems, which have therefore had no incentive to make the necessary investment in what we as the repo market have always wanted: a truly competitive settlement landscape, delivering reasonable costs to all while keeping optimal operational robustness.

It is in that context that I am pleased to have Patrick Pearson amongst us today. He will cover the forthcoming Central Securities Depositories Regulation (CSDR) amongst other legislative initiatives that will impact the repo market. I have some more comments on the CSDR but I will touch on them shortly when I introduce Patrick Pearson later in the program.

Recently an avalanche of issues with the potential to impact on the repo market have come to the surface. The following are just a few:

- Restrictions on re-use
- Creation of a trade repository (for regulators and another one for the central bank community)
- The hoarding of collateral by the central bank community (think of the LTRO & the unsecured deposit facility, Outright Monetary Transactions - OMT)
- Demand for additional collateral due to the EMIR CCP mandatory clearing of OTC derivatives but also for FX derivatives
- Mandatory haircuts as envisaged by the FSB
- The Basel liquidity buffer.
- Manmohan Singh of the IMF calls for the collateralization of everything to take out all risk, or tax derivative liability positions of SIFI's to incentivize them to move to CCPs?

Collateral seems to be the magic solution to all problems …… while the products allowing for the optimisation of collateral i.e. repo & securities lending are under intense regulatory scrutiny.

In today's meeting we will highlight a number of these "hot" issues. As far as I'm concerned we are only at the beginning of what promises to be a challenging period. My only hope is that we find the correct balance between the political and regulatory demands and what makes sense. The ERC Committee is engaged in many areas, but we need YOUR support. Keep the emails flowing; we are pleased to see so many of you engaged in the debate. ICMA has been a great support for our work. The legal framework provided by the revised GMRA shows commitment from your association.

In order to make sure that those who are unaware of the benefits of our product have adequate opportunities to educate themselves we hope to have a one day academic conference to bring together some key academics with central banks & regulators. Our product, repo, has a real economic benefit. Without the prudent transmission of liquidity by the banks to each other/and to the buy-side we will continue to flirt with no growth economies. President Draghi's OMT program can only be successful when there is a deep liquid repo market in Europe. We, as the ERC, are ready to engage and deliver.

3. Approval of the minutes of the ERC Annual General Meeting held on Wednesday, 18 January 2012, in Luxembourg

The Chairman asked if there were any comments on the minutes of the last ERC annual general meeting held on January 18th, 2012 in Luxembourg. The minutes are published on the website as are the minutes of ERC Committee meetings. No comments were raised and the minutes were unanimously approved.

4. ERC repo survey and related academic research

Mr. Comotto said that the semi-annual survey was based on a measure of outstanding contracts on the survey date rather than being based on turnover over a period of time. Accordingly, the repo survey is a snapshot of a moment in time. This leads to a slightly different perspective on the market. As a result, short-term transactions are underweighted because they run-off very quickly. If you look at turnover, short-term transactions have a much greater weight. There is also an element of double-counting in the survey, which we can't adjust for, though we think that the maximum double-counting in our survey is probably less than 25%. The survey is also made up of private transactions and does not include central bank figures.

The last survey was carried out on Wednesday, June 13th. There were 62 responses and the headline number was EUR 5.6 trillion. This is a fall from the previous result. By June 2007, we had reached a peak of EUR 6.8 trillion and then the crisis hit and volume fell to a low of about EUR 4.6 trillion. Mr. Comotto warned that the June 2010 figure was distorted by some exceptional transactions and accordingly needs to be regarded with care. What is noticeable from the chart is the fall-back to EUR 5.6 trillion in the last survey. If you compare that with the US market, there is a broadly similar profile but there is something Europe-specific which happened in the first six months of the year. In order to take out the fact that the sample in the survey changes, we follow a constant sample which shows a decrease of almost 10% over the six months to June 2012, and 14.2% year-on-year. The reasons for that include a reduced risk appetite, reduced risk capacity and reduced risk opportunity. There may also be a reduced level of funding if one looks at institutions like money market mutual funds, though probably the single-most significant factor has been the 3–year LTRO's that took place in December 2011 and February 2012. The market has been side-lined by the provision of central bank liquidity to Eurozone banks on an unprecedented scale.

We provided a breakdown of counterparties and that has produced a record high of 33.1% for electronic trading. If we recorded the survey in turnover terms, this would be a much larger percentage, possibly approaching 40% - 50% because of the prevalence of short-term transactions being conducted through electronic systems. The figure of 33.1% represents a jump from the previous figure of 30%. We also received reports directly from the electronic trading systems and the value of their transactions increased from EUR 877 billion to EUR 1,010 billion. Of their numbers about 22% was GC financing of some form. Brokers have fallen back to 18.3%; triparty has fallen back from 11.4%; and direct transactions have also fallen slightly. Electronic trading is displacing both voice-brokered transactions and direct trades due to both long and short term pressures. In the short term, risk aversion will tend to direct people towards electronic trading because that is the easiest way to access CCP-cleared transactions. Easier liquidity has probably meant that voice brokers have lost the advantage that they had received during the crisis, when liquidity was scarce and voice brokers provided an additional service seeking out liquidity in difficult circumstances. But with additional funding through the LTROs, this advantage has declined and we may well be returning to the long-term trend that has been seen over the survey, which is a migration from voice-broking to electronic transactions. In the longer term, cost efficiencies and regulation are also pushing people towards CCPs, which may be driving electronic trading. We also obtain figures directly from the triparty agents and are starting to see that, while their total volumes are increasing, their share of the survey is roughly stable, which seems to confirm anecdotal evidence that there are non-bank financial institutions joining triparty services, who are not captured in the ICMA survey.

Turning to geographical analysis, Mr. Comotto highlighted that the figure for anonymous transactions, at just under 19%, is an understatement.

In the past few years, we have started to measure the amount of business that is cleared across CCPs, not just the business that comes from an electronic source but also trades that are done directly through voice brokers which are then reported post trade to a CCP. This business has steadily increased, but in the latest survey there may be some reporting issues. The percentage of anonymous business in the directly-reported data is very high, which is not matched in the ICMA survey data on anonymous trading, so we'll have to carry out further work to seek further clarification on this point.

Turning to currency analysis, the big changes are the fall-back in euros, which is reflected in dollars and in sterling. The fall-back in euro business, we assume, is linked to the LTRO, which means there is less need to raise euros in the market. The increase in sterling and dollars is something that we're less clear on. In the case of Japanese Yen, there was a very sharp fall-back in business, from 6 % to just under 3%. There has also been a fall-back in Swiss francs.

On collateral analysis, Mr. Comotto said that the essential change was a shift out of core Eurozone securities. There was a rebound for Italian securities but not for Spanish securities. The picture, particularly in government bonds, is confused – German government bonds have been falling for some time, which is possibly attributed to the hoarding of such safe-haven securities. The overall percentage of government bonds in EU collateral was 79%. The offsetting trends can create a volatile picture. Comparing the main survey with triparty, the triparty numbers are a more sensitive indicator of risk appetite. Triparty figures have now fallen back slightly – but this is the reverse of what has happened in the main survey. The question is why this has happened in tri-party. There was also a significant increase in Pfandbriefe.

Collateral analysis is provided by triparty agents directly, which saw an increase in higher quality collateral. However, because of the down-grade of Spanish and Italian securities there was an overall decrease from A-rated to B-rated securities.

In maturity distribution, we have traditionally seen short dates account for 2/3 of the market but more recently this has fallen back to ½. There has been a slight rebound in the latest survey. Term transactions (over one year) have continued to increase. Some of the increase that we have seen in the last 2 years has been due to better reporting. Forward-forward repos still have quite a high share – but this may be due to its use in collateral management. Electronic trading is dominated by short-dated transactions, whereas voice brokers dominate longer-term transactions. There has been a rebound in open repo (which had fallen back during the crisis) but we are not clear why.

The question "how much securities lending do you do on your repo desks" showed that securities lending has fallen back to between 17% and 18%. The next survey is close of business on 12 December.

5. Money market indices: what makes a good index

Mr. Comotto said there is a suggestion that is very prevalent from the discussion on LIBOR that we should have a range of alternative indexes. Mr. Comotto regards this as unrealistic because of the insatiable search for liquidity, which means concentration in one index as much as possible. The reason why LIBOR has become a dominant index is because, if you can concentrate liquidity in one index, you could get huge benefits in terms of costs and efficiencies. This fundamental driver is not likely to change. There is also a suggestion to use actual rates (possibly using a trade repository to collect rates) but trade repositories do not create liquidity. Another suggestion is to re-focus a money market index on other liabilities and one favourite suggestion is to use a repo index, which is a risk-free rate which won't be overly affected by volatility, credit and liquidity spreads, represents core funding and, in normal market conditions, is a liquid market. However, repo is not a risk-free rate; it is counterparty sensitive and collateral is imperfect. We also need to be careful about how widely used repo is. It may be that in certain sectors of the market, repo needs to go deeper in order to be comparable with the breadth of unsecured transactions. Market conditions are also still not normal and are not expected to be for some time, so the idea that there is a magic index is illusory. People also point out that the effect of collateral on a repo index and the credit risk and liquidity risk in collateral, which makes collateral heterogeneous, which means it is difficult to come up with a meaningful average. Unsecured is simple, in that you are just measuring the credit risk of counterparty and the liquidity of the term; you are not measuring the credit risk of collateral. Collateral also goes on special, so apparently can GC collateral. What would a negative index tell you about funding costs? If you were going to look more closely at a repo index, you would want to look for the price of a GC basket and the question would then be who determines what goes into the basket. To make a realistic index, you would need a basket determined by a CCP and this raises the question of what securities should be included in the basket.

It is much easier to produce a one-day index rather than a term index. When you start adding collateral into the equation, the problem of collateral heterogeneity becomes even greater. The only market that has a term repo index is China, which has a 7-day repo index but this is not a particularly liquid market and may not be easy to replicate elsewhere. Therefore, it will take quite a lot of work to create a repo index that could take the place of LIBOR or EURIBOR.

Mr. Comotto then turned to the two research papers that were done for the FSB – the haircuts paper[2] and the paper on Shadow Banking[3]. The haircuts paper highlighted that there is no consistent methodology about the application of haircuts or the size of haircuts that will be applied. Even at an academic level, there is considerable disagreement about what should go into the size of a haircut. However, there is academic work by two US academics – Gorton and Metrick – who analysed a data set provided to them by an anonymous broker-dealer in New York. This showed rising haircuts draining liquidity from borrowers, whose ensuing weakness prompted further increases in haircuts, creating a vicious cycle. Their conclusion was that repo was the basic cause of

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[2] Alternatively, see: http://www.icmagroup.org/assets/documents/Maket-Practice/Regulatory-Policy/Repo-Markets/Haircuts%20and%20initial%20margins%20in%20the%20repo%20market_8%20Feb%202012.pdf

[3] Alternatively, see: http://www.icmagroup.org/assets/documents/Maket-Practice/Regulatory-Policy/Repo-Markets/Shadow%20banking%20and%20repo%2020%20March%202012.pdf

the crisis. Regulators have grasped at this hypothesis. But examination of this work raises some question marks – namely the securities portfolio analysed was of CLOs and CDOs. Such highly structured securities are only a small percentage of the US market, while for the European market the percentage is even smaller. So whereas overall deleveraging in the repo market was of the order of 25% – 30% or more, it is only possible to explain about 3% of that if one takes into account the small share of structured security collateral. So the idea that the repo market haircuts drove the liquidity crisis is a bit far-fetched. However, this model is accepted as an article of faith in certain circles and has given rise to the proposal for a mandatory minimum haircut. Yet, there is an equally respectable academic paper by some authors from Stanford University, who use regulatory data on investment by money market funds and securities lenders reinvesting cash collateral that makes exactly the same arguments as we have made. Additionally, work by the Committee on the Global Financial System indicated that it was unlikely that haircuts were a major driver in deleveraging. Banks responded to the crisis in the traditional way: they cut credit lines, as opposed to applying haircuts or increasing haircuts.

There are two types of haircut that are being examined. The first would apply cross-cycle, covering both good times and bad times. One figure for a possible mandatory haircut level that has been mentioned anecdotally is in the region of 20%. The second type would be imposed at the start of a crisis. However, to implement this would be akin to officially declaring that a crisis was about to hit.

Mr. Comotto also produced a paper on shadow banking which made clear that there is a lot of confusion about terms, one of which is re-hypothecation in the context of repo. Re-hypothecation is a discretionary right associated with pledged collateral. However, in Europe, repo involves a title transfer and you re-use assets that you own; you don't re-use assets for which you have permission from the original owner. This confusion causes a lot of problems.

There are also questions about asset encumbrance that came up in one of the FSB papers – that by giving collateral you are disadvantaging unsecured creditors because you are giving away the assets that they would rely upon in the event of your default. We would make the point that in repo you receive cash in exchange for your assets and therefore the actual effective degree of encumbrance is non-existent.

We conducted a pilot survey of haircuts in the repo market. What became apparent is that the use of haircuts in the European market is much patchier than in the US market. Particularly in government securities and interdealer transactions, haircuts are not a standard feature. The haircuts we observed were broadly similar to the information we derived from areas such as triparty and other sources that were available. So there is a methodical application of haircuts and initial margins but it is selective for good quality collateral. When one gets to around 40% - 50%, you are really looking at the ineligibility of that collateral.

Finally, on the paper we did on trading volume in the repo markets, we were asked to estimate how many transactions a trade repository in Europe would have to deal with, if it just dealt with repo. An all-encompassing trade repository would in reality have to deal with repo, securities lending, and other related transactions. However, on repo alone, we got to a number in the region of 30 million transactions per year; and each of those would be a multiple set of fields.   Accordingly, it would be quite a data "ask" to build an all-encompassing system.

6. Keynote Speech – Mr. David Rule

Mr. David Rule noted that he chairs the FSB's workstream on securities lending and repo, but he also works for the UK's Financial Services Authority supervising UK banks. The Workstream on securities lending and repo is one of five workstreams reporting up to the plenary of the Financial Stability Board and its Shadow Banking Taskforce. There are other workstreams looking at other things such as bank relationships with conduits, securitisation, money market funds including other shadow banking entities (which is broadly anything which looks like a bank but is not regulated as a bank). The FSB published an interim report in April, which a number of people including ISLA and the ERC commented on. The report was largely a description of the markets and identified four main segments of the securities financing markets: prime brokerage, securities lending and the inter-dealer repo market and the repo financing market; and we described some of the financial stability issues seen in those markets. The feedback received was broadly that the FSB had the description of the markets correct and focused on the issues the FSB had identified and speculation about what might be done about them. The workstream now has to develop some policy recommendations by the end of the year. More immediately, the FSB has a meeting of its Plenary Committee next month and then there is a November meeting of the G20 Finance Ministers and Central Bankers to which they will report. Hopefully, there will be a consultation on the policy ideas before the end of the year. This does slightly constrain what can be said at this time.

Turning to the risks that the FSB sees, the FSB is keenly aware, as are the Central Banks such as the Bank of Japan, the ECB and the Fed etc. who sit on the group, of the importance of the repo markets and there is no intention to kill the repo markets which are the last financing markets which are working fully effectively. It is the problems of the boom that the FSB is trying to tackle rather than the problems of the present. In essence the FSB is trying to set up a regime that will tackle the excessive leverage and maturity transformation outside the banking system during the boom, making it more difficult for that to happen again when there is another boom.

There are a number of risks the FSB is worried about. The first is what could be called pure shadow banking risk. The "shadow" in "shadow banking system" is getting at activity that is not subject to the prudential regulations imposed on banks and some other financial intermediaries in relation to liquidity risk and leverage. Some of the shadow banking system may be subject to some types of regulation, such as investor protection, but not prudential regulation. The "banking" in "shadow banking system" is looking at the economic equivalent of banking activities; key being maturity transformation (i.e. borrowing short and lending long) and leverage. The "system" in "shadow banking system" requires there to be a system – not just a single institution carrying out a chain of transactions. Repo and securities lending were used in some parts of that shadow banking system.

Looking at the pure shadow banking risks, there are two main categories. The first category is using repo to create something that looks like a deposit which facilitates credit growth and maturity liquidity transformation outside the banking system and therefore outside the prudential regulations which would be constrained in the banking system. The FSB is aware that as regulations have been tightened in the banking system, opportunities have been created for people to try and carry out activities outside the banking system. What are our goals here? One is to provide transparency so that regulators can see what is going on while the second is to use policy measures to limit that leverage and maturity transformation.

The second category is securities lending, cash collateral and reinvestment, which is almost a pure banking activity taking place outside the banking system in the sense that it involves institutional investors effectively borrowing money and investing it in longer maturities. The goal here is to subject this activity to some types of prudential regulatory limits.

There are also a whole range of risks that span banking and shadow banking and concern secured financing that senior regulators are worried about. One is that they think that it may hard-wire procyclicality so if asset prices are procyclical, which they are, then the ability to leverage against them as they become more valuable is also procyclical. If volatility of asset prices is procyclical then the terms on which you can obtain that leverage may also be procyclical and haircuts may go down during booms. The policy goal here is to somehow put a floor on that. So we would not stop people increasing their haircuts when risks get high but we would like to put some kind of floor on the reduction of haircuts when things get overheated. Second, is the risk of fire sales of collateral securities, so broadly when you have failures if collateral is becoming concentrated, particularly in one asset class and you get sales of those collateral securities by end users of collateral and this can create knock-on effects through the system. Re-hypothecation is a much misunderstood and misused term. What we have in mind here is not the re-use of collateral in repo markets but focusing in on client assets and the extent to which they are used without an offsetting indebtedness and without the client being fully aware of how they are being used. The goal is to ensure the clients understand the extent to which their assets are being re-hypothecated and the treatment in bankruptcy of the intermediary and because re-hypothecation is, in effect, very similar to deposit taking (because you have an obligation to return a certain value of securities to your clients on their demand) this should only be done, particularly where there is no off-setting indebtedness, by entities that are subject to liquidity regulation. Interconnectedness is linked to re-hypothecation. There is an issue about opacity particularly around the interlinkages between financial institutions through collateralised borrowing. Finally, the FSB is looking at collateral valuation practices and whether those need improving. Clearly the authorities in some countries will give more weight to some of these issues than others and there are differing views around the world.

What are the policy options that the FSB is thinking about? First, there are a set of options around transparency. The first is transparency to regulators. There are existing initiatives given the huge wave of regulatory responses to the financial crisis such as initiatives to require the largest financial institutions around the world to disclose to regulators their exposures to other large financial institutions. The FSB has a “data gaps” initiative, which is a template that large banks and dealers will be required to complete and send to regulators, which sets out in some detail what exposures they have to other large banks and financial institutions. The FSB is seeking to ensure that that includes the information that the authorities would like to know about repo and securities financing exposures including the collateral underpinning those exposures.

There is then a set of issues about market transparency. There are currently existing initiatives, such as the ERC survey. But there is a consensus in the regulatory world that there is not enough transparency available to the authorities and to the wider market about repos and securities financing markets and the first thing the FSB will do in its report is set out what we think, as the authorities, we would like to know. How you then get this information is a practical question which can be addressed jointly with market participants. There is a lot of support for trade repositories particularly for the repo market. The European Central Bank has said that it wants one for the

European repo market and the FSB will not seek to duplicate that and will seek to work with the existing initiatives by the regional or national authorities. There are some quite difficult issues to sort out, for example, do we work at the level of the transaction and try to insert the reporting into the trade process – will such a system give the authorities all the information they are interested in - or will it be more of a regulatory reporting system in which institutions report their positions to the authorities on a periodic basis. There are then some practically difficult questions. We won't want to know the ISINs underlying every trade but we will want to know the type of collateral. While this sounds very straight-forward, defining the types of collateral is a non-trivial exercise. One bank has indicated that it has a tree of 160 different collateral types which they review and change weekly. So defining collateral type is not likely to be straight-forward. These are clearly issues which the FSB needs to take forward with the market.

Regarding improvements in corporate disclosures, the FSB has done some work looking at the accounts of the largest banks and dealers around the world to see what we can find out about their activities in the repo and securities lending markets and we have found a lack of consistency and gaps in what you would want to know if you were a reader of corporate accounts. In particular, it is very difficult to work out what activities financial institutions do in securities-versus-securities trading. Accounting tends to work on the idea that cash moves, but if you are only swapping securities, not much of that shows up. What might be helpful to both regulators and other observers, risk analysts, etc. is a 'sources and uses of collateral' statement that breaks down from where institutions obtain collateral and what they do with it. Finally, there's reporting by fund managers to end investors. This is more relevant to securities lending.

On market structure the FSB has spent quite a lot of time thinking about the structure of these markets and in particular whether central clearing, which was broadly the answer the authorities came up with for the OTC derivatives market, played a sufficient role in these markets. We haven't come up with an answer yet but it is unlikely that there will be any radical initiatives coming out of the FSB in this area. In the inter-dealer repo market, where central clearing is most appropriate, it is already prevalent.

On regulation the initiatives here are designed to address the problems that arose in the boom. There is no great rush to introduce measures because we are not currently in a boom period and there is a great concern to consult and to understand the consequences of any actions that are taken. First, the motivation for putting any kind of floor on haircuts is to try to mitigate procyclicality and in particular, procyclicality in the boom when haircuts are falling. The second motivation is whether we can use haircuts as a proxy for capital requirements and liquidity requirements in the unregulated financial sector – so in effect if there's a limit to the extent to which you can use assets as collateral to leverage yourself then that requires you to have some capital or unsecured borrowing. It is not as good as direct regulation but it is something of a proxy that might be used instead. Additionally, there is the idea that if you have minimum haircuts, then you are to some extent limiting the ability of the system to become leveraged. Broadly, the options here, which are not exclusive, are first of all to have some kind of requirements that underpin the way the methodology is used by market participants to calculate haircuts, in particular for example, a certain number of years of data that include a stress period, or requiring stress testing to be used and not just to have a haircut methodology that based it on what has happened in the past six month, for example. So this would be one possibility and there are implications there, for example, in the way that the Basle capital requirements are set for banks. The alternative, or complement, is for the regulators to set numerical floors on the haircuts that are used in the market. Any such proposal would need to be consulted on and thought about carefully before it was implemented. There are a number of issues that go with setting any kind of numerical floors. One is obviously what level the floor should be set at and how granular by type of transaction. Second is what transaction types are within scope? Given the motivation for the policy, the type of transaction where you are lending specific securities is less within the scope of what the policy is trying to get at. But there are also transactions like collateral upgrade trades and if, for example, we had a minimum haircut for equity financing then you would have a very straight-forward arbitrage to swap equities for government bonds if the haircut for government bonds was lower. So we will have to address that type of issue as well.

Second is the type of transaction. Third is counterparty type. We already set direct limits on the leverage and liquidity risks taken by banks, so do we also need to put restrictions on lending to banks through secured financing markets or lending between banks? There is an argument that we don't but equally there is an argument that you would want to cover the whole market. Fourth is asset type. The real driver of policy in this area would be to capture risky assets whose prices are procyclical because that is where the procyclicality of the leverage comes which might make a case for excluding sovereign bonds. On the other hand, we have seen that sovereign bonds can have a default risk premium and can have procyclical variation in their prices. So there are arguments there about what types of assets should be included. Finally, there is a question of how you would go about implementing this. Do you work through the bank capital regime and focus on banks exposures to non-banks or do you go for a market regulation approach similar to the approach taken to derivatives regulation. At the moment the FSB is working on answering all these questions.

On minimum regulatory standards for cash collateral reinvestment, there are regulatory standards in this area such those applying to UCITS funds. Our recommendation here will be to require any regulatory authority that regulates entities that carry out this type of activity globally , to have a regulatory regime that sets things like weighted average maturity limits, concentration limits, etc. We want anyone around the world doing this type of activity to be subject to some prudent regulations on the leverage and maturity transformation risks that they are taking.

The next steps for the FSB working group are to put proposals up to our seniors in the FSB. I am hoping that they will then agree to a public consultation around the time of the G20 Finance Ministers and Central Bank Governors in November.

In response to a question, Mr. Rule clarified that the FSB does not make rules but instead sets down standards which may be turned into rules by the relevant authorities such as the European authorities. The question about when the FSB standards will come into effect in Europe firstly depends on when the FSB will agree the standards, which is expected to take a while, and secondly on the parallel European process. Exactly when this will be implemented is very difficult to know.

7. Europe's clearing and settlement – need for more efficiency

Mr. Comotto said that, in July 2010, the ERC published a White Paper[4] on problems in the repo clearing and settlement infrastructure in Europe, specifically barriers to interconnectivity between national CSDs and the ICSDs, particularly in Greece, Spain and Italy. There has been no progress at the CSD in Greece. There has been limited change at the CSD in Spain.

However, in Italy the CSD seems to be ready to introduce important, albeit not complete, reforms. The fundamental barrier to interconnectivity in Italy arose because the various settlement cycles at the national CSD are not integrated, so once instructions are passed from the daytime batch-processing cycle into RTGS, they remain there and are not recycled on into the overnight batch-processing cycle, even when they fail and could be cancelled against matching instructions using a technical netting facility. There also isn't a facility for users to cancel unsettled instructions by mutually agreed entries and so consequently the RTGS just accumulates failed trades, which stay put for up to ten days, increasing credit exposures and delaying buy-ins, which amplifies the cost of failing. The risk of unsettled instructions in RTGS has given rise to the requirement by local custodian banks for very early telephone pre-matching of settlement instructions in order to validate instructions before they are submitted to the CSD. Telephone pre-matching delays the start of settlement and compresses the business day, causing an undesirable bunching of transactions.

In 2010, Monte Titoli informed the ERC of plans for a fundamental upgrade of its settlement process in anticipation of T2S. These included abolishing the daytime batch-processing cycle, so that only RTGS would operate during the day. Unsettled instructions would be recycled from RTGS into the overnight batch-processing cycle. Then, in December 2010, we were informed that these proposals had been shelved. The clients of Monte Titoli did not feel the economics were right, particularly with the prospect of T2S looming. So a post-trade technical user group was formed to decide on the order of priorities and to draw up a road-map. We met with Monte Titoli again in December 2011 and they suggested various changes were forthcoming. Wemet again earlier this month and they confirmed their plans. Those plans are that, in December 2012, they will introduce a settlement optimiser engine, which we understand to be a technical netting facility to offset instructions in RTGS for CCP-cleared repo of the same quantity and same intended settlement date. As part of this implementation they will also be shaping the on-leg of overnight repo, which is the one category that wasn't shaped previously. There will also be a bilateral cancellation facility in RTGS, and a hold-and-release facility to allow settlement to be hypothetically tested before instructions are irrevocably released. They will also include a final beneficiary field in the instruction input screen, which should allow custodians to check whether clients have sufficient securities to meet delivery requirements and allow for telephone pre-matching to be abolished. There are deadlines for these changes to be implemented, most by the end of this year. The proposed reforms would represent significant progress.

The ERC also hopes to engage with Monte Titoli again to discuss the issue of the penalties that were introduced in September 2011. I should emphasise that Monte Titoli did not introduce the penalties; the Italian authorities did, but Monte Titoli has to impose them. What we would like to be

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[4] Alternatively, see: http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/european-repo-market-white-paper-on-short-selling-and-settlement-failures/

clear is the effect, if any, that they have had. The concern is that penalties, and similar prohibitions on failing in other markets, are simply counterproductive. They may, however, be politically attractive as policy responses to problems that are created, not to address lack of settlement discipline among market users, which is the ostensible reason for penalties and prohibitions, but by infrastructure anomalies that perpetuate poor interconnectivity between domestic CSDs and ICSDs, in other words, between domestic and cross-border investors. The problem is often aggravated by a lack of liquid securities lending markets which could help mitigate fails. Lack of interconnectivity in the European settlement infrastructure preserves national clearing and settlement franchises but constrains market liquidity by impeding the free flow of securities across Europe. A fear of penalties has led to the archaic system of telephone pre-matching. Penalties and prohibition have also led to other features such as exclusive end-of-day settlement windows for custodians to try and sort out any issues, which shortens the settlement day for everyone else and concentrates settlement activity in relatively short periods of time, which makes settlement vulnerable to event risk. Prohibitions may also lead to a reluctance to trade with cross-border counterparties, given that the latter are unconstrained by any domestic prohibitions and are therefore seen as more likely to fail, leaving the domestic counterparty to deal with the penalty. Penalties and prohibitions help some CSDs, we believe, to achieve high rates of settlement efficiency, but only by deterring potentially inconvenient and largely cross-border trades. In other words, penalties and prohibitions hide the problems caused by the infrastructure rather than solve them. In normal circumstances, this is costly; in a crisis, it could be critical. As the demand for collateral intensifies at a faster rate than supply can respond, the problem may become more insidious. So what we really want to investigate with Monte Titoli is their perception of what the current penalty regime has done to settlement discipline, not just superficially but in terms of the underlying liquidity of the market.

The Chairman noted that in the context of the CSD Regulation, the ERC has written to Ms. Kay Swinburne, who is the rapporteur in the Parliament, to say that we broadly welcome this legislation because it is something that we have been pushing for, for the last 15 years. We also welcome the T+2 settlement. However, this represents a huge IT project for all the banks and so we should be careful that we don't make any mistakes in rushing into this because this is probably an IT project that is as big as Y2K. We also welcomed Target 2 Securities, the ECB Settlement engine, even if some CSDs or ICSDs weren't very keen about it. However, the one thing we had problems with was the buy-in provisions but Ms. Swinburne's proposal indicates that the recipient in a fail has a right to buy-in procedures, which we think is going in the right direction. We need a certain sequencing in those three actions and we have expressed this quite clearly to the authorities. We have invited Patrick Pearson to join us today because there is one sticky point in all of this which is how do the markets continue to function because one of the intruding changes is the change in the model of the ICSD's current operational efficiencies. We, as a community, have worked on delivery versus payment (DvP), we have looked at how we can increase better cross-currency infrastructure, we have looked at triparty and improved that over the years, and we have been successful in convincing the Eurosystem that triparty is a good way to bring collateral to the ECB. So we don't want to lose those efficiencies. Now, it is very unclear to me what changes are being proposed to the infrastructure and hopefully Mr. Pearson will explain. So if the changes lead to another system that doesn't change the efficiency of the market, we don't have much of a problem. But if the changes really stop us from having an efficient market then we should take appropriate action.

8. Keynote Speech by Mr. Patrick Pearson.

Mr. Pearson thanked the Chairman for his warm welcome. He noted that when preparing legislative proposals in conjunction with the national authorities and colleagues like David Rule it was important to discuss such proposals with the markets in order to understand the impacts and the ramifications. Accordingly, when the Commission develops regulatory proposals, it is the market participants who provide the expertise and the data and the granular figures that regulators need to carry out their impact assessments

On the subject of re-hypothecation, Mr. Pearson said that he wanted to provide the view from Brussels. On the issue of re-use and re-hypothecation, there is a huge amount of confusion amongst regulators and even in the market. The Commission receives papers from market participants and market representatives who do not make the difference between re-use, re-hypothecation, title transfer, pledge collateral which confuses the matter. We have spent a considerable amount of time working out the differences in terminology, which is made more complex when the same terms are used differently in different jurisdictions around the globe, which makes it very important to get the definitions right.

Why are we looking at this? It is as simple as supply and demand and because funding is clearly on a secured basis. The problem is that there has been growing concern about collateral shortages because the demands for collateral are on the increase. Regulators are partly to blame - if you look at the rules on Basle III, clearing and forthcoming rules on collateral for uncleared trades - the requirements for collateral are staggering. This does not refer to Manmohan Singh's numbers from the IMF which give a different definition to the word staggering, but it is not far from that. There is a significant amount of collateral that will be needed in the system and collateral is finite. You cannot turn on the tap and expect AAA securities to keep pouring out. This is a message that market participants need to keep bringing to the regulatory community. It is very important for market participants to keep mentioning the impact of regulatory proposals on the markets and how they function. In this regard, it will be important for market participants to provide feedback on the legislative proposals for uncleared trades, on which there will be a consultation paper and draft international standards that will be published by the end of the year and which will need to be implemented in G-20 countries. The Basle Committee is currently trying to run a quantitative impact assessment but is already struggling. There is data paucity and data incomparability, and the Basle Committee will probably have to turn to market participants to understand what it is that regulators are trying to tap.

How do you get collateral securities? Collateral mining? Collateral transformation? Re-hypothecation? Securities lending and repos are the key tools for these instruments. It's also key to liquidity and funding. There is a growing concern in the regulatory community that regulatory measures are putting a dramatic strain on liquidity in the markets. But what measures are regulators thinking about? The answer is transparency and trade repositories and you can expect some regulatory initiatives in this area. Does it make sense to do this in the European area? Not particularly – why would you only want to look at the European area instead of taking a global approach? How do you do this? Market participants will need to report the data to trade repositories and so it is important that they become involved in the regulatory debate on how trade repositories should be set up, especially since such repositories will have to be paid for by market participants rather than by regulators. Accordingly, the private and public sectors will need to work together on this to make sure that the costs that come out of this are actually worth the effort.

Mr. Pearson noted that client asset protection is a key issue for the FSB, though the views are disparate in the working group, as mentioned by Mr. Rule earlier on. While the SEC feels that existing regulations are sufficient, this is not the position of a number of key Member States in Europe. He re-iterated Mr. Rule's suggestion to review the French Trésor's response to the Commission's Shadow Banking Consultation Paper, which reveals a very different view from that of the SEC. When the US and key European states disagree the potential for something to happen in the European context increases because the European regulatory and political communities feel a need to be a first mover. So it will be very important to watch the political dynamics of all of this. It will be important to watch regulatory initiatives for money market funds, UCITS, shadow banking, non-bank banks etc. How do you regulate non-bank banks? The Commission has been looking at this for the past six months. The problem is that the CRD defines a bank as an institution that takes deposits and grants loans. However, non-bank banks don't do either and are not credit institutions and so can't be covered by the CRD. However, this means that if we need to do something if there is a regulatory urge we might come up with a completely new set of regulations that apply to only non-bank banks and this would be a very unmanageable process – how do you define scope, how do you make sure you capture the right entities, etc. Then there is the activity based approach – securities lending, re-use, repos, re-hypothecation, where the key issue is one that we're already seeing in the CSD Regulation – which is client asset protection and what can be learnt from Lehmans and Bear Sterns, what have we heard from the administrators in Lehmans, where did it go wrong, who owned what and what was lost, what assets were stuck in Lehmans and why couldn't people get their assets out. There was a small repeat in MF Global in a different sector. These are the issues that the European Regulator will start looking at in the context of the Securities Law legislation, where the Commission is looking at the rights and responsibilities of investors, CSDs, intermediaries in that holding chain from top to bottom and the issues of re-use, re-hypothecation, title transfer, and pledge are obviously part of that piece of legislation. Securities law legislation is very important and we hope to come forward with a proposal in January.

Mr. Pearson mentioned that he had spoken with Ms. Kay Swinburne who has put forward a proposal in the CSD Regulation regarding re-use to the effect that settlement agents should ensure that they have the informed, prior, written consent of a client before any collateral provided by it can be used in the case of a defaulting counterparty. You can already see this whole issue of reuse and re-hypothecation starting to enter the regulatory arena in a very unexpected area – namely CSDs.

Regarding CSD's Mr. Pearson focused on addressing a point that the ERC had raised earlier in the summer – namely daily penalties and mandatory buy-ins which the ERC thinks is disproportionate in the way it had been proposed and not particularly well considered for repos and more generally for bond transactions. The ERC had gone on to request that the Commission implement the regime in a slightly more intelligent manner. Accordingly, the Commission has looked at this and has spoken to the Member States in the Council and to the European Parliament who have also come up with counter-proposals to remove the element of disproportionality in this regard. Why did we end up with that proposal - because the Commission had ended up with a starting point that was the Short Selling Regulation, which enters into force on November 1st. The Short Selling Regulation has a limited scope – limited to shares cleared by CCPs and it does provide for daily penalties, buy-ins, and four days after failures it provides for cash compensation. The Commission used this as a precedent on which to base the CSD Regulation. But it is recognised that what might be appropriate for the Short Selling Regulation might not be appropriate for the CSD Regulation. Se we've listened to the arguments and we do believe that we need a more sophisticated way of looking at the penalties and buy-in system. The problem that we face is that there are two ways to do it. The ERC has proposed a "vertical solution" which is a differentiated application of the daily penalty and buy-in requirements as regards different types of instruments, transactions and markets. The problem is we started drafting this and came up with a list of exemptions that was endless, which makes it very difficult for us to put into legislation. Se we've been looking at another proposal which is a "horizontal carve-out" which is much simpler and avoids the pitfalls of trying to describe every type of instrument, transaction and market that you want to exempt. Moreover, a horizontal carve-out would introduce a great deal of flexibility, allowing the parties to the transaction to defer the buy-ins. This would be much easier to draft and reflects current market practices. However, what about the abuse of dominant market players? Is there really contractual freedom to do this in all circumstances? We believe we can sort this out. There is a possibility to regulate this in a sensible way.

You've also asked me to talk about the split between the settlement and banking activities. However, Mr. Pearson noted that he did not have a lot to say on this issue. The Commission's proposals have been published; they are clear and are being discussed. We've seen where the Parliament wants to go. We proposed that for stability reasons, you should split, so we've basically copied what the G-10 and CPSS/IOSCO recommended for all the reasons we know very well. We proposed that it doesn't actually make sense necessarily to do this and there might be very good reasons to keep these structures intact, so we also proposed a derogation to keep the ICSDs as they function but the regulators need to convince the authorities that the risks are mitigated sufficiently. If the regulators are convinced, then we should keep the current structure. However, the Parliament doesn't agree with the Commission and they feel there should be a split without any derogation. The Commission doesn't agree and feels there should be a possibility to find a middle ground between the Commission, the Parliament and the Council. It is anticipated that there will be a lot of discussion about the procedural issues of a split, which could end up with a derogation. Whether it is the Commission that gives a derogation or whether it's ESMA or a college of supervisors, this is another debate for another day.

Mr. Pearson indicated that he was glad to hear that the ERC was engaging with the ICSDs and that they were interested in the numbers and dynamics of efficiency and costs. He hoped that the ERC would build into those discussions the financial stability element. One thing that the Commission, the FSB, the G-20 have imprinted on everyone's minds is "mind the gap". Seven years ago, every regulator had efficiency as their first priority, including consolidated supervision of financial groups, taking into account in financial conglomerates all sorts of efficiency awards, looking at the single licence expanse. Everything changed in 2007 and now the regulators are far more interested in stability, which is the driving motive. It is no longer efficiency that drives regulators. It is important for the ERC to understand the motivation of regulators. The difficult bit is getting the balance right, which is where regulators rely on market participants to explain the impact of proposed regulatory measures.

9. SLRC update

Mr. Tony Baldwin said that the recent work of the Securities Lending and Repo Council (SLRC) has been reinvigorated by a new head, Mr. Andrew Hauser who is head of Sterling Markets Division. He has summed up the recent work of the SLRC in a speech and some of what Mr. Baldwin wanted to speak about had been taken from that speech.

The SLRC was founded in the 1990s and at that time, it focused on looking at the infrastructure of the markets, setting up agreements, market standards and legal agreements. Its' teenage years were rather mixed, with Mr. Hauser describing it as "casting around for a role". Now the SLRC is reaching adult-hood it is finding its role in life, precipitated by the financial crisis, but also the innovation in central banking operations where the repo markets are used to a much greater extent. Recent steps to re-launch this adult-hood of the SLRC mean that the membership has been refreshed with more practitioners participating at the meetings. It is important for market practitioners to get involved and to engage. We have also re-focused the work on the most pressing and developing issues in the securities lending and repo markets.

So what has it done since the crisis? Initially, its role was around education. Apart from market conditions and updating liquidity and market intelligence, there was a promotion of education within the industry with the introduction of various guides such as the guide for securities lending, educating users and also regulators – which was used with Mr. Richard Comotto's academic work and the ERC courses. The next stage has been to interact more with the authorities, particularly framed around the FSB's review of secured financial markets in the shadow banking context. Both David Rule and Carlos Molinas of the FSA have been good enough to brief the SLRC on their work and the SLRC has also provided some information for them; having put together a paper from market participants. The debate has focused, in particular, on mandatory haircuts, trade repositories, and also a debate on what the regulators are actually trying to solve for. The key messages to be given to regulators, particularly around trade repositories, are that we need a clear steer on the data that they need for a trade repository, what the data is going to be used for, and how we can apply a single global solution so that costs are minimised. Obviously, if we are bearing the costs, we need to make sure that those are minimised as far as possible. There has to be attention to the legal and operational details. We've also been looking at the operational details that Mr. Tony Platt works on in the ERC Operations Group, as well as all the other items that have been on the agenda for today.

Now, where next? As Mr. Hauser has said, "the SLRC stands ready to help and inform regulatory initiatives as and when the scope of those initiatives becomes clearer." There is a lot happening and interaction with the ERC is key. Market practitioners are warmly encouraged to get involved.

To sum up, the SLRC is a neutral forum, hosted by the Bank of England. The SLRC debates and exchanges views in an open and constructive manner. More information is available on the Bank of England's website.

10. Credit claims

Ms. Lisa Cleary said that for some time, ICMA had been working on a project to establish a system for trading and settling loans for use as repo collateral under the GMRA to make loan repos an effective tool for banks to raise short term/overnight funding in the interbank market. A paper was recently circulated to the ERC Committee and also to interested parties which provided an overview of the project, raised potential commercial concerns and suggested future discussion points.

There are significant challenges ahead in developing the loan repo system. Much work has already been done on analysing the legal feasibility of the project and operational concerns but in order to progress this, open and informed discussions between the Clearing Systems, industry bodies and market participants is essential. ICMA would like to put together a small steering committee of focused stakeholders to discuss the issues raised in the aforementioned paper and to map a way forward. Ms. Cleary asked market participants to contact her to discuss the project and to pass on the paper to colleagues in loan origination and treasury and any other interested parties.

The Chairman noted that a meeting was scheduled with the Bank of England for October 16th. The Bank has expressed a keen interest in the secondary market the ERC is trying to create, including from the infrastructure point of view. This is a positive development. The increase of credit claims as collateral in Europe can now been seen in the UK as well. Additionally, the Loan Market Association has identified, from within their association, the need to engage on this issue. These are encouraging signs but we need input from market participants. Treasurers within the banks need to talk to their loan people internally before we can progress this externally.

11. Legal Update

Ms. Cleary said that since the last ERC Council meeting, there have been a few developments on the GMRA documentation front. The GMRA 2011 was updated and published last year. Since the publication of the agreement, the GMRA review working group has been busy updating the associated suite of documents and has now published four annexes to the GMRA 2011.[5] These annexes have been published in an effort to widen the suite of documents available for the updated version so that the market will start to use it. The Buy/Sell Back Annex, the Bills Annex, the Agency Annex, and the Equities Annex are all now updated for use with the GMRA 2011 and are now available on the ICMA website.

In addition to this, work has also continued on amending the GMRA 2011 Protocol so that firms can start to upgrade their existing arrangements (1995 and 2000 version GMRAs) to the new standard, with regard to close out methodology and in other limited respects. The possible amendments are now grouped as follows (each a separate election):

Annex 1 = Event of Default methodology and procedure/valuation amendments for GMRA 1995
Annex 2 = Event of Default methodology and procedure/valuation amendments for GMRA 2000

[5] Alternatively, see: http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/global-master-repurchase-agreement-gmra-2011/

Annex 3 = set-off clause, for either 1995 or 2000
Annex 4 = definition of Euro

A definition of Euro has been added to the protocol as an elective amendment to the GMRAs 95/2000/2011 to result in a construction that euro is intended to mean the single currency of the Eurozone from time to time.

As soon as that protocol is amended and finalised it will be put up on the website. We'll be looking to the ERC Committee members first, but also the wider Council to start signing up to the multilateral protocol.

Ms. Cleary also said that other initiatives of the GMRA review working group include a term repo annex. Yesterday, we also put up a FATCA resources page.[6] We're also working on a legal opinions workshop.

12. ERC Operations Group update

Mr. Tony Platt expressed this thanks to the members of the Operations Group. The Ops group now has a broad membership across most of the Committee member firms and has been a lot more active this year than in the past, so thanks go to those who have actively participated.

On the repo margin guidelines,[7] Mr. Platt said that the Group had spent a lot of time working on the guidelines and they were published earlier in the year. The Group still receives the odd enquiry challenging the guidelines as they were published. The headline item is that we are encouraging the marketplace to hold on to their collateral for as long as it is required and this means until the repo is unwound or rolled-on. This moves away from the assumption of settlement for the off-side. By way of analogy, this would be akin to expecting a building society with whom you have a mortgage to put the deeds in the post before you have paid the full amount outstanding. While we have control over the guidelines that we publish, we don't have control over the adoption of the guidelines by firms in the market and we are aware that there are technological and budgetary constraints. So it is fair to say that adoption of the best practice standards has been patchy since the publication went out. However, Mr. Platt urged firms to ensure that their organisations are familiar with the best practice standard. One further point to note is that if you are holding onto collateral until it is no longer required there is some risk of over-collateralisation. The idea here is that we are encouraging the market to move as much as it can towards the margin call date plus zero mechanism where that actual over-collateralisation risk goes away.

The Ops Group has also done a considerable amount of work on trade matching. Thanks go to Mr. Nicholas Hamilton and his sub-group for the considerable amount of work that they have done on this. People may recall that a couple of years ago Mr. Platt spoke about the publication of the trade

[6] Alternatively, see: http://www.icmagroup.org/resources/fatca-information-resources/

[7] Alternatively, see: http://www.icmagroup.org/assets/documents/ERC/ICMA-ERC-Repo-Margining-Best-Practices-2012-4-July.pdf

matching and affirmation standards[8] that were published in July 2011. It is worth reminding ourselves of the context of that piece of work. There remains today, pockets within the industry of non-affirmation of a transaction on trade date itself, certainly from an off-side perspective. There remain pockets of operational practice where people are relying on the pre-settlement matching process to mitigate their risk. We heard from Mr. Comotto, when he was presenting the survey results, that there is a very considerable percentage of the business, despite the slight rebound on the overnight business, that is done on a term greater than one day and so waiting for that day before the off-side settlement to mitigate your risk is not operational best practice. The Ops Group decided, early this year to consider how best to sponsor the adoption of the trade matching and affirmation standard by the marketplace as a whole. The Group has identified what the market requirements were and has circled round with a number of existing providers in the market, on a request for information basis, to say this is what we think the market needs and what are you capable of; making sure that there is essentially a level playing field of understanding of what we think the market demands are for trade affirmation and matching. Of course, it may be that the solutions to some of the FSB's policy options may trump a lot of this work. When you start thinking about trade repositories and such-like, maybe some of the key questions stop being how do you get people to match trades on trade date and they start to be do the trades match outside of the repository or do they match inside a repository, and if we're going to have a repository or something like that to service the transparency requirements of the regulator, then how can we operationally make best use of it to provide operational efficiency for the market as a whole. We're currently addressing the first set of questions without loosing sight of the questions that are probably heading in our direction in the very short term.

Market themes that we are seeing or market themes that we need to pick up on and continue to sponsor is the targeted community growth – encouraging people to attack the sweet spot – the bilateral term business where the operational risk is greatest; to look at their existing community of clients and to try and encourage as many of them onto the automated platforms as possible. Again, one of the things I picked up on earlier, in some of the remarks made by the other speakers, is the automated portion of the business where we can't be complacent that the up-tick and automation of our business will solve our matching problems for us because most of the automated business is on an overnight basis; so a large proportion of the operational risk still remains.

The other thing that we felt was that it is very important not to have a supplier that just specialises in one part of the life cycle of a trade. There are trade matching and trade affirmation but also the life cycle event management and contract compare solutions or portfolio reconciliations, exposure management calculations, etc, all of which are very important, and an increasingly significant operational overhead. So having solutions out there that offer more of a front-to-back solution and don't require practitioners in the operational space and technological space to shop around for different suppliers of trade date matching and life cycle event management services is important from a community and cost-efficiency perspective as well. The Ops Group, from a matching perspective will continue to engage more with some of the other post-trade groups across the industry as a whole, and connect with the AFME and TRAX user groups and user groups of any other

[8] Alternatively, see: http://www.icmagroup.org/assets/documents/Maket-Practice/Regulatory-Policy/Repo-Markets/Trade%20Matching%20Best%20Practice%20July%202011.pdf

service providers that are out there. Hopefully, we'll continue to sponsor the community as a whole to engage on the need for trade matching and life cycle event management on an automated basis whilst keeping abreast of regulatory changes and how that may force our agenda for us. The Operations Groups looks forward to the engagement with the regulators directly, once they need some expertise in terms of the practicalities of adopting what it is that they prescribe.

On Target 2 Securities, the Operations Group has engaged with the TFAX group, which is the Task Force on adaption to cross-CSD settlement in T2S. They published a consultation paper that we responded to. Our response[9] was one of the more complete and thorough responses that that group received on their section on ancillary services. We had a very lengthy conversation with a senior representative of the Group to walk through the proposals of Target 2. We will be setting up a Target 2 focus group within the ERC Operations Group to focus our minds on this because there are a couple of key things we need to cover and understand as a community. Firms will need to think about their market access strategy in the light of T2S and the key decision is going to be direct access or indirect access for each of the participants in the marketplace. I have listed some of the considerations there that we have. If you have a look at the capabilities or proposals within T2S, it does talk about the ability to ear-mark and block and reserve securities so it gives you facilities to manage your preference for what you use the securities in your box for. In a bilateral business you could probably access T2S on a direct basis and use these facilities to prioritise your settlements and move your collateral around and assign it to different trades. It starts to get more complex when you start to look at the triparty businesses – T2S doesn't have any specific repo functionality; it isn't going to calculate your repo interest; it's not going to create the offside of a transaction; each leg of a transaction from a settlement perspective will look like a cash trade as it does today. What they do have is facilities to tag a settlement transaction as a repo transaction which may be useful from a trade reporting perspective. Generally speaking, T2S doesn't do a significant amount from a repo processing perspective, certainly not from an asset optimisation perspective. You can understand how a single triparty service provider may have a power of attorney arrangement over your Target 2 Securities direct account and you can make your asset optimisation work on that basis. I've yet to get my head around how direct access to T2S can work in an environment where a participant has multiple triparty service providers running concurrently. So that's the type of challenge that people face and I would encourage your operational practice to start considering these issues because the cash business may end up following the funding business in terms of what the appropriate market access strategy needs to be, as opposed to the other way around.

Another role we play is on market development and consultation. We have a list of pieces of legislation that we have been consulted on and one of our key consultation roles will be in response to regulatory change to ensure that we help the regulator conclude on practical solutions from an operational perspective.

In terms of the future agenda, there is a long list of things that we anticipate working on. One thing that hasn't been mentioned there is that we will be setting up another focus group to look at the impact of negative rate repo in an operations settlement and fail environment, particularly now that the negative rate is no longer the preserve of the specials market.

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[9] Alternatively, see: http://www.icmagroup.org/assets/documents/About-ICMA/International-Repo-Council/ERC-contributions/ICMA-ERC-OPS-TFAX-Topic-3-Feedback-Template_draft.xlsx

13. Briefing on repo related topics.

Calculation of interest in floating rate repos - Mr. Comotto said the ERC has received a number of enquiries about floating-rate repo calculations, so we've codified market best practice[10]. This will eventually be included in a Code of Best Practice, which will cover a range of issues. In the meantime, the floating-rate repo is on the ICMA website. Essentially, we identify two methods. The second method is the problematic one. It is designed for where the final overnight index fixing is too late to instruct the settlement system to pay the repurchase price the next day. In that case, what happens is the overnight fixing for the penultimate day is duplicated for the last day, so you simply repeat the penultimate fixing. This may lead, when interest rates are higher, to the need for retrospective reimbursement and we set out an approach for that. Finally, we talk about repos that are indexed to term rates such as LIBOR and EURIBOR. The issue here is the calculation of the dates – so if you're doing a 3x6, how do you calculate when the three-month date is and the six-month date is? The procedure adopted from other markets is that you calculate both from the purchase date; you don't calculate the six-month from the three-month date, otherwise there will be a knock-on effect and interest periods will get shorter and shorter.

Interoperability between the Collateral Management Systems – Mr. Jean-Robert Wilkin said that the issue had been discussed for quite some time and it had been worked on for quite some time, developing the model which had been approved by the ERC Committee at the end of 2011. The last time the ICSDs reported to the European Repo Council was in January in Luxembourg and there, the objective was to obtain a decision as to whether to implement the Model by the end of June 2012. He admitted that we have not yet had that decision from all stakeholders, but we expected to know the decision by the end of 2012.

Mr. Cedric Gillerot said that Euroclear and Clearstream had come up, as is shown on the slides, with an action plan in 2012 to come to such stakeholders' decision and then confirm a road-map for implementation. Most of the milestones that were set out in the action plan were met and there were some additional elements that came into the picture. From January to May, we had several joint workshops between participating CCPs and the ICSDs to answer all questions and get specific CCP requirements highlighted on the slides. These were quite detailed discussions on all aspects of the Model. There is one element that came into the picture this year which is that triparty interoperability is now part of a workstream of COGESI. In this regard, we made a presentation to COGESI and answered questions. On May 31st there was a presentation to the ERC Ops Group to go into all the details of the Model, leading to the further assessment and decision by the ERC Committee at a meeting in June. At this meeting the ERC Committee formally requested that the ICSDs should proceed with the development of the model. The CCPs also participated in this meeting and provided a high-level endorsement of the Model. So by the end of the year, it is planned that the CCPs endorsement and commitment to the ERC to participate in the Model will lead to implementation by the ICSDs and CCPs.

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[10] Alternatively, see: http://www.icmagroup.org/assets/documents/Regulatory/Repo/floating-rate-repo-convention---July-2012.pdf

Mr. Wilkin went on to say that the CCPs that were involved were LCH RepoClear, Clearnet, Eurex Clearing, CC&G and MEFFClear. So there were five different CCPs all looking at the specifics of the Model in the workshops, which made the discussions very detailed. The CCPs have asked for a bit more time to go through a detailed analysis internally to measure the impact on their existing or upcoming product, to implement triparty interoperability and to adopt the Model that we have proposed, and also to consult with their Members to see if the model is supported. We assume that there will be some consultation with Clearing Members of those CCPs for validating the Model and also it will represent an investment, not only on the ICSD side, but also on the CCP side. Therefore, they will want to validate the business case for doing this. As a conclusion, we both suggest that at the next meeting the CCP representatives should be invited to provide an update. The Chairman noted that the next meeting would be held on March 11th in Paris.

14. Regulatory Update – ICMA actions

Mr. David Hiscock said that the ICMA quarterly report would be published in early October and it includes detailed information about the work that we are doing. He mentioned that he wanted to highlight some of the responses to consultations[11] that we have been working on, on your behalf, since the Annual General Meeting in January. In particular, this has included shadow banking, responding to the FSB and the Commission, drawing heavily on the work that Mr. Comotto did and the papers that he wrote. Those papers are available on the ICMA website as are the ERC responses. We will continue to engage on this issue on your behalf.

Another topic on which we have engaged is some quite technical work related to measures that are being developed to help to achieve orderly recovery and resolution of financial institutions that are in difficulty. There are a number of work-streams here. Most recently we have responded, at the international level, to CPSS/IOSCO and here in the UK we have provided comments to HM Treasury on a proposal that they have made. Importantly, we are also looking at the European Union's proposal for a framework for bank recovery and resolution which includes a couple of elements worth highlighting. First, they are proposing a mechanism for the bail-in of creditors – essentially an opportunity for the authorities to effect a debt-equity swap in order to re-capitalise the bank that is in need of such action. The proposal that has been made includes a specific carve-out from any such debt-equity swap of secured obligations. This is good news from a repo perspective. We continue to watch the development of this legislative proposal to make sure that it stays that way. The other element is a proposal for a temporary stay on close-out rights. We're pleased to see that this comes with some safeguards and with a limitation as to how long it could apply for, if a power were used, that being till 5:00pm on the next business day.

Finally, we have been making our voice heard on a number of technical discussions that relate to the collateral crunch, both in Europe in terms of consultations to develop standards which support the implementation of EMIR (a Regulation of derivatives cleared through CCPs in particular) but also CPSS/IOSCO who are consulting on an international standard for the application of margin to non-

[11] Alternatively, see: http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/erc-contributions/

centrally cleared derivatives and indeed, they have called for not only variation margin but gross initial margins on such trades. Our response on that paper was submitted today. We are continuing to express our concerns as they relate to the implications for all of this on collateral and the impact on the repo market on sourcing such collateral. We will be continuing to work on these topics.

Mr. John Serocold said that he wanted to make four points about MiFID and MiFIR. MiFID and MiFIR affect many of the markets adjacent to yours, particularly cash trading in bonds and the swaps and derivatives markets. These markets are going to be subject to fundamental structural change in the coming years and that is bound to affect your market. Second, is to reassure you somewhat on the timetable. At the moment, we're expecting the main legal text to be passed in the first quarter of 2013 and, like all European political forecasts, that timing could slip. There will then be a period of up to three years for implementation, involving another two years of quite intensive writing of new laws and regulations, and, we hope, a whole year between reaching legal close and full implementation of all of the provisions. That means that from Q1 next year it will be three years away and it should be firmly on your planning horizons.

Two aspects are directly applicable to the repo market. First, the new provisions provide for a tape or printing of all cash market bond trades. It is clearly essential that, in order to avoid confusion, repo trades do not form part of that tape. It may well be that separate publication arrangements will have to be agreed for outright cash trades to appear with the prices and sizes in a table also involving either the outward or return leg of a repo trade would be completely confusing. The second aspect is that the proposals provide for a new form of market structure called an Organised Trading Facility (OTF). This is mainly designed to provide a European alternative to the American swap-execution facility. The big difficulty with it is that European authorities have proposed (and this has been recently endorsed by the European Parliament in a debate in Committee) that if you operate an OTF you can't use your balance sheet in it. This rather takes away the point of having an additional method of trading, when clients come to you specifically because they have chosen your balance sheet rather than some of the other ones along the street. That argument will continue and it remains to be seen where it comes out.

The final aspect is the changes to client categorisation. You're all familiar with the increasing scale of protection, which starts with eligible counterparties, and you then get more and more protection until you get to retail customers. You should think of this whole investor protection range as a scale sliding to the right (i.e., towards retail customers). That means that at all levels there will be fewer people in the higher categories and therefore more clients in the more protected categories and that may well impact on whether you do business with them and how you do business with them.

Turning to the new European regulation on the Central Securities Depositories (CSDs), The ICSDs (Euroclear and Clearstream) fall within the scope of this regulation. The Commission proposed this regulation in March 2012 and it's currently being debated in the European Parliament and European Council, which is the place where the 27 Member States of the Union come together for their share in the legislative process. It will establish a new EU regime for authorised providers of CSD services and it also includes significant provisions relating to market efficiency - standardisation of settlement on trade date + 2, market discipline (particularly a significantly strengthened and standardised buy-in regime) and also daily penalties for late settlement. It provides that the CSDs are to give access to each other so that they operate together, and issuers will have a choice of which CSD into which they put their securities. Most controversially, however, the draft regulation also provides that if you are in the CSD business you cannot also be in the credit provision business. This goes to the heart of what Euroclear and Clearstream do, particularly in tri-party and we are therefore maintaining a very close watch on that situation, and our next meeting with the ICSDs is on the 15th October to establish from them how they see the impact on our market.

The Chairman urged members to look at the ICMA Quarterly Report where many of these and other regulatory issues are set out in more detail.

15. Panel discussion: The potential positive and negative impacts of current regulatory proposals

The Chairman asked the panel "What do you think are the positive and negative impacts of current regulatory reforms?"

Mr. Stefan Bellani first turned to what has been positive. He said that when he considered what had been said by Mr. Rule and Mr. Pearson about the main regulations that are going to impact on our part of the market and then considered what Mr. Platt had said, there are a lot of points that overlap in those presentations. Clearly, the market is already going in the right direction and some aspects of the legislation will help increase market efficiency. So anything that goes in the direction of standardisation and market efficiency is clearly welcome. One of the points made by the FSB concerns margin processing, and again Tony Platt's ERC Operations Group has done a great job trying to get people to agree about common practice. And again, that is good for the safety of our business. In addition, the job that we have done on the legal side clearly goes in that direction as well. I also like the idea of the repository. I believe that if it is well designed, it can help to increase matching and efficiency. The main issue is the way the buy-in clause (i.e. CSD Regulation) would work which was very worrying. However, in the most recent draft from the rapporteur, some points were amended (i.e. mandatory nature) and hopefully we are going in the right direction. I see that it can help to increase matching and increase efficiency. The key on the other side is the way the buy-in clause would work which was very worrying. However, in the most recent draft from the rapporteur, some of the worry has been managed and hopefully we are going in the right direction. The original buy-in provision was disproportional to what we are trying to do which is increase the efficiency in the financing market and the cash market. Hopefully, the changes imposed by the regulation may actually increase the efficiency of the market so that you may not need to get to the stage of imposing buy-ins. Regarding haircuts in the FSB proposal, there could be a good topic for discussion. The way the market has operated at times has perhaps been too aggressive, so I can understand where the regulators are coming from. However, there is a risk of over-kill in the sense that haircuts are not the same – they do change from day-to-day and from counterparty to counterparty even when you look at the same collateral. So these are the key points in these two pieces of proposed legislation where I would keep a close watch.

Mr. Eduard Cia said that it is a little bit difficult to comment on things that are not yet decided and at the moment, some of the regulatory proposals feel like one step forward and then two steps back. There is a lot of talk and we don't know where the regulatory proposals will end up. So, it is difficult to comment on things that are not yet clear. Expressions like stability versus efficiency – what does this mean for us? When you look at the short selling regulations and whether they really had an impact on the market, the answer is probably not really. Even when you look at Basle III, there are many unanswered questions – we still don't know what is meant by the term "highly liquid assets". So how should we tackle these things if we don't have a clear road-map of where we are going and how should we lobby if we don't know what we should be lobbying about? Of course, there are a lot of good things, such as bringing more transparency and having a trade repository – these are good things overall, but still I don't see a clear way. If we are talking about minimum haircuts, what does this mean? Who will pay the haircut – the borrower, the lender? Where is the leverage captured? If I am the receiver of an additional haircut I have more leverage. These are all things that are still being discussed and I don't have a clear picture about any of it. So it's difficult to comment on things that are currently being proposed where there is insufficient detail.

Mr. Jean-Michel Meyer said that the CCPs are not trying to kill the repo business but instead are trying to find the right balance between attracting business and providing a service while at the same time carrying out robust risk management because at the end of the day, it is our money that is at stake. Regarding haircuts, we all agree that the levels being discussed are too high. From what I have heard today I have been quite pleased by the speech by Mr. Pearson. We have had a lot of interaction with the Commission (either individually or as the ERC) and I am pleased to hear that they are engaging with us and are expecting us to steer them as well. As always, the devil is in the detail. A trade repository may be a good thing, especially if it will help on the operational side, but we still need more detail. What is going to re-shape the business is mandatory clearing and the EMIR Regulation to put down initial margin for un-cleared swaps. At the firm level, people in repo desks, fixed income desks, equity financing desks and people working with collateral will have to work together. Personally, I spend a lot of time discussing with CVA desks about CSAs and how to properly price portfolios, to price swaps taking into account all the optionality embedded in what is in the CSA. So, when you think about how much collateral we will have to put up, that is going to end up being a big job.

The Chairman said that in relation to collateral, he had been asked by the Operations Managers Contact Group, which is managed by the ECB, to present his views on collateral gridlock, on October 18th. So he is thinking about what to say and has concluded that repo is in the midst of the discussion. More collateral is a trend and the trend in the repo survey showed more CCP business comes from the repo side but in recent weeks he'd heard that a considerable increase in trades that were CCP eligible are now not going through the CCPs. Is this the right trend? Mr. Michel Semaan said that the main point made at the beginning of the meeting is that the repo market has always been part of the solution, as opposed to being part of the problem. To answer the Chairman's question, Mr. Semaan said that the increase in trades not going through CCPs was not the right trend, and it explains, in part, the efforts by the CCP to reassessing and correcting their policies and we're hoping for a positive outcome. The stumbling block that I saw in the coming regulation is the minimum or mandatory haircuts. In my view that misses the point. Since the Lehman default happened the emphasis has been on liquidity and liquidity is about pricing or the availability of pricing and, in my opinion, it's the valuation that matters. So it's not about the minimum haircut, it's about having proper valuation that has explained a lot of the drop in business especially on the triparty front immediately following the Lehman event because people were not trusting the valuation or independent valuation of the collateral, more-so that having the relevant haircut or not. The repo market is flexible enough to assess, within everyone's risk appetite (depending on the combination of collateral/counterparty), what sort of haircut it applies. They've been the frontrunners of doing that when it comes to the European periphery before the CCPS went ahead later on, but, as we can see in the emerging market and in the credit space as well, there is expansion to the asset classes or types of collateral that are being covered in the search for collateral and this is bound to continue. I hope that the new policies coming from the CCPs will address some of these concerns.

16. Any other business and next meetings

The Chairman said that the next ERC AGM will be in March, hosted by Euroclear at the Le Grand Hotel Intercontinental in Paris. The invitations will go out in the coming months. In addition, the Professional Repo Market Course is going to be taking place in London from 20th and 21st of November, sponsored by Fitch. This has been quite successful as we have around 200 people there. Please let your colleagues know about the Course – not only traders but also operations and legal colleagues.

By way of closing, the Chairman said that Members had seen the tremendous amount of issues on the ERC agenda and the increasing pressure on all of us on the Committee. He thanked all the members of the Committee and the Operations Group for the fantastic job that they were doing in supporting him. He also thanked Nomura for hosting the General Meeting. He also noted the work and support he receives from ICMA staff, not only David, Lisa and John, but also the many other ICMA staff that work to put on the numerous repo events like the General Meeting.

Annex A

The following member firms were represented at the meeting:
Banco Bilbao Vizcaya Argentaria, S.A., Madrid
Banco de Sabadell SA
Banco Santander, S.A., Madrid
BANKIA, S.A., Valencia
Barclays Capital Securities Limited, London
Bayerische Landesbank, Munich
BNP Paribas, Paris
BNP Paribas Fortis, Brussels
Belfius Bank & Insurance, Brussels
CAIXABANK, S.A., Barcelona
Citigroup Global Markets Limited, London
Commerzbank Aktiengesellschaft, Frankfurt
Commonwealth Bank of Australia, Sydney
Crédit Agricole Corporate and Investment Bank, Paris
Credit Suisse Securities (Europe) Limited, London
Daiwa Capital Markets Europe Limited, London
Danske Bank A/S, Copenhagen
Deutsche Bank AG, Frankfurt
EquiLend LLC, New York
Eurex Repo GmbH, Frankfurt
EuroMTS Limited, London
Goldman Sachs International, London
HSBC Bank plc, London
ICAP Securities Limited, London
ING Bank N.V., Amsterdam
J.P. Morgan Securities plc, London
Jefferies International Limited, London
KBC Bank N.V., Brussels
Landesbank Baden-Württemberg, Stuttgart
LCH.Clearnet Limited, London
Merrill Lynch International (trading as Bank of America Merrill Lynch), London
Mitsubishi UFJ Securities International plc, London
Morgan Stanley & Co. International PLC, London
National Australia Bank, London
NATIXIS, Paris
Newedge Group SA , Paris
Nomura International plc, London
Nordea Bank Danmark A/S, Copenhagen
RBC Europe Limited, London
The Royal Bank of Scotland plc, London
UBS AG, Zurich
UniCredit Bank AG, Munich