International
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ICMA

EUROPEAN REPO COUNCIL

<u>Transcript of the Annual General Meeting of the ICMA European Repo and Collateral Council held on January 27, 2016, in Luxembourg</u>

Location: European Conference Centre, 1, rue du Fort-Thungen, L-1499 Luxembourg
Time: 4:30 pm – 6:30 pm

Presenting:
Mr. Godfried De Vidts (ERCC Chairman), ICAP Securities Limited
Ms. Lisa Cleary, ICMA
Ms. Natasha de Teran, SWIFT
Mr. Michael Manna, Barclays
Mr. Stefano Bellani, J.P. Morgan
Mr. Mick Chadwick, Aviva Investors
Mr. Harald Bäensch, UniCredit
Mr. David Field, The Field Effect
Mr. Grigorios Markouizos, Citigroup
Mr. Grant Davies, formerly of iShares Capital Markets
Mr. Klaus Löber, CPMI Secretariat, BIS
Mr. Richard Hochreutiner, Swiss Re
Ms. Mireille Dyrberg, TriOptima
Mr. Donald Ricketts, Fleishman Hillard
Ms. María Teresa Fábregas, European Commission
Mr. Marc Bayle, European Central Bank
Mr. Jean-Robert Wilkin, Clearstream
Ms Diana Dijmarescu, J.P. Morgan

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

1. Welcome and brief update

The Chairman: Good afternoon everybody. Welcome to the first European Repo and Collateral Council Meeting. This might be strange of course to you but before we were called the European Repo Council. Now we have added collateral as an additional topic. Happy New Year to everybody. Thanks to Clearstream for hosting us in this room, which was limited to 122 seats but we have added a few more to accommodate the high demand for this event. When we met last time in October, the outgoing ERC Committee had met several times and at the request of the members, which has never happened in my whole career, they asked for more meetings. So it shows that there is a real need for us, as a community, to discuss and clarify what is happening to this market.

Since the beginning of this year, and in preparation for today, a number of calls came to me and we had ad hoc meetings to look at the timely introduction of the wider remit of the ERC because Committee members can now be elected from both the sell side and buy side. And on top of that we have now also included collateral about which we will talk a bit later on.

Now, I am sure you remember this slide from different presentations [which shows the regulatory alphabet soup]. Well, with my magical stick I can make it all disappear. Of course, the regulations will not actually disappear but as promised we will not discuss regulation. Let us start 2016 looking forward and see how this market, your market, can function for the benefit of the real economy and sustained real growth.

A very short update. We are continuing our discussions with the European Money Markets Institute (EMMI) to develop a secured benchmark. So we have reached out in the Steering Committee together with the EBF, the European Savings and Cooperative Banks and the ERC, into how this index should be compiled. We have reached out to the electronic trading platforms and we are reaching out to the different CCPs to come to a very robust, long term solution to measure the funding of overnight repo (i.e. one day to the next) to start with and potentially term repo for the future.

A second point I want to announce is that the first bridge improvements have been made. The impact has not been very visible yet because we are waiting for two more upgrades. The second one, sometime this year, should increase the frequency of files exchanged between the two ICSDs. But ultimately, and this is part of the last panel discussion today, we should also see a real time bridge, making sure that Europe has one settlement system, through different users and actors and participants. We should really innovate in this age and time of fintech.

A third piece of work we did in the ERCC was to respond to COGESI's request to look at elements for collateral management activities for harmonisation. That went out two weeks ago and is the subject of the next COGESI meeting on 18th February.

ICMA, with input also from the ERCC, responded to the Capital Markets Union consultation, highlighting of course the November report that looked at *The current state and future evolution of the European Repo market* but also the mandatory buy-in study that we did, linked to the CSDR for which we are still waiting of course for ESMA's regulatory technical standards (RTS).

Some interesting news. At the request of many of you, similar to the publication of minutes of ERCC Committee meetings the ERCC Operations Group, co-chaired by Adam Bate and Nicholas Hamilton, have now decided to also publish their minutes on the ERCC Operations Group website. To encourage you to think about what else we can do as an industry group to help collateral fluidity there is a conference on 10 February in London where we take this further. I also have a brainstorming next week in London on how we can improve the knowledge of the people who actually do the transaction handling on behalf of the dealer community. You can have the most beautiful deal of your life but if it does not settle the costs of non-settlement can wipe out your profit. We want to increase the availability of courses also for operations purposes and we are working on that together with Richard Comotto who is our academic in house.

Next, is the innovative new electronic voting for the ERCC Committee who manages the daily work helped by the ICMA Secretariat. It has never happened before that we have 26 candidates, and some people even decided not to stand this time. Out of those 26 we will select 19 members of the Committee. The deadline for voting is 12th February. All firms, and I think that is about 90 now, have one vote each so there are about 90 votes to be collected electronically and then hopefully, by 6:00pm on Friday 12 February, we will know who is elected. If there is a tie, we will have a quick ballot for the people who tie for the last place to make sure that we have 19 people. You can see that there are four buy-side candidates and there are also some new names. So please be conscientious who you vote for because there is a lot of work to be done and without commitment from the Committee we cannot proceed the way we want to. I would like to thank all the outgoing members. Hopefully, those who want to renew will be re-approved. But it is up to you, the voters, to decide who will stay in this group.

2. Approval of the minutes of the ERC Annual General Meeting held on 18 May 2015, in Brussels

The Chairman: I would like to ask for approval of the minutes of the last Council meeting of 14th October in London. You all had a copy, and you all read this from beginning to end and the other way around. Does anybody have any objections or abstentions? The minutes are approved.

3. Appointment to the International Committee in accordance with Rule 1012

The Chairman: Now I have to read this because this is a bit complicated. The International Repo and Collateral Committee ("IRCC Committee") consists of two representatives of the ERCC. At the last ERCC General Meeting, Mr. Ciaran O'Flynn was nominated for appointment to the IRCC Committee for a term of office expiring today. At this time, we propose the following for your approval:

(i) that the ERCC determine that the nominees for appointment to the IRCC Committee be selected from amongst those individuals holding elected seats on the ERCC Committee (noting that voting for the latest ERCC Committee formation closes on 12 February 2016);

(ii) that the ERCC Committee should select, from among its serving members, the nominee to fill a vacancy for appointment to the IRCC Committee; and

(iii) that if a duly appointed member of the IRCC Committee ceases to be a member of the ERCC Committee, they will thereby forfeit their position on the IRCC Committee.

Before calling for your approval, we would like to clarify that the ICMA rules already specify that "if a vacancy [on the IRCC Committee] should occur in mid-term, a person may be chosen for nomination at the discretion of the ERCC Committee".

I ask for a show of hands from those who represent ERCC member firms to indicate their approval of these proposals to put in place clear, practical rules for this administrative process. As there are no objections and no abstentions the proposals are duly approved.

We are keeping it very short. So I have asked Lisa to give you a quick update on the SFTR Article 15 risk disclosure because this is kind of interesting for you.

4. SFTR Article 15 Risk Disclosure

Ms. Cleary: Thank you Godfried. I know there is great excitement about the panel sessions and the format of today's AGM. So I really will keep this short. The Securities Financing Transactions Regulation (SFTR) is part of the European Commission's strategy to deal with shadow banking and the implementation of recommendations of the FSB regarding sufficient disclosure to clients in relation to rehypothecation of assets. The appropriateness of the word rehypothecation aside, the SFTR introduces new rules including, first of all, the requirement to report securities financing transactions to trade repositories and also the requirement to disclose to collateral providers the risks and consequences that may be involved in granting a consent to the right of use of such collateral or entering into a title transfer collateral arrangement.

This slide here - and I appreciate that you actually cannot see any of the detail on that for the moment but it might be helpful for you to refer to it after this meeting - tracks the timeline of the SFTR and also highlights some key dates. As you will note, the SFTR was proposed two years ago. Colleagues at ICMA, particularly David who has been updating you on this for the last few years, worked very hard at Level One stage to request amendments which would make the SFTR slightly more workable. The regulation was published in the Official Journal in December last year and came into force on 12 January - so just this month.

The first key deadline to note is in orange and that is the entry into force of the re-use requirements on 13 July 2016. These include the disclosure requirements that I mentioned earlier and I will come back to that in a moment to provide you with an update on a practical project which we are working on to assist with that. The other timeline to note on that slide is in yellow, and that relates to the Level Two development of technical standards for the trade repository reporting and the reporting obligations then later coming into force. So you can track that along that yellow line. That will be phased in according to the type of entity that you are but clearly starting from April 2018 - so not too far down the track.

Finally, I would draw your attention to the joint project that I mentioned earlier. This is a joint association project between ICMA, ISLA, AFME and ISDA and what we are seeking to do is to produce a generic disclosure document which will assist you in complying with article 15 of the SFTR which is the disclosure requirement. Article 15 requires that you inform the collateral provider of the risks and consequences of granting a consent to the right of use or entering into a TTCA. So the associations have developed an information statement which sets out these general risks and consequences which may be involved in the use of the collateral. The notice is intended to provide the industry with a standard template which may require amendments to extend to your particular uses. But, as I said, it is on a very generic level. We expect to publish the document in the first quarter of this year. Whilst we have taken the document to a near final stage we are continuing to host calls on the practicalities of getting that document out there - how to incorporate it into your standard documentation for new relationships or current relationships. If you want to get involved in that my contact details are on the next slide and I would encourage you to give me a call and become part of that working group.

5. Panel 1: The future of Securities Financing Transactions

The Chairman: Thank you Lisa. So take note because if you do not process this you cannot re-use the collateral you receive and I think that is not what we want as a repo market. We had a good fight about it so we should work on it now. So I promised no further updates on regulation but of course the regulations are there and they will stay there. The question now is: are they suitable? Are they clear to everybody? Is there a future for the repo? What about collateral and Capital Markets Union? So I have decided we will have three panels today. I think we managed to get excellent speakers and excellent moderators. The first panel will be 'The Future of Security Financing Transactions' and for that I have asked Natasha de Teran, who kindly agreed to moderate. So Natasha, you have 30 minutes.

Ms. de Teran: Thank you and hello everybody. So we are under very strict instructions to keep to 30 minutes and we are not allowed to talk about regulation, although talking about regulation for 30 minutes would be a struggle, both for listening and for getting it in. So that is good. We are going to deal with the existential question about the future of securities financing. I had a very short and inglorious career in securities financing so it is probably why I have been chosen to moderate this panel because I, unlike the rest of you, do not have any vested interest in its survival. But you all probably do. So to put your minds at rest or to bring this whole event to a rapid conclusion I am going to start with asking the panellists whether they think securities financing has a future - yes or no? And then we can either pack up or discuss that further. So panellists, yes or no for a future for securities financing?

Mr. Manna: Yes.

Mr. Bellani: Yes

Mr. Bäensch: Yes.

Mr. Chadwick: Yes.

Ms. de Teran: Well they are not speaking their book, I don't suppose, for a second. So we know it is going to survive so we have to get to questions about what it looks like, who is going to be in the market, etc. I am going to start with Mick, not being a bank at present. Mick who is going to be in this market? Obviously we want to know that you are going to be there.

Mr. Chadwick: I would like to believe that Aviva Investors and myself will still be there. I think what that question hinges on is the nature and extent of the continued participation in the market on the part of banks. I know we cannot talk about regulation explicitly but regulation drives institutional and market evolution. Historically, the market landscape for repo has relied upon the banks. From a buy-side perspective the two main things we look for are essentially credit intermediation and maturity transformation and historically that has been provided by the banking sector. If the new regulatory settlement makes that prohibitively expensive for the banks to provide then it will be necessary to explore alternative routes to market. However, personally…

Ms. de Teran: Are you, Aviva, going to ride to the rescue personally?

Mr. Chadwick: No, not personally or on behalf of my firm. As I was about to say, I think the death of the banking sector and the demise of the banking sector's involvement in this industry is slightly exaggerated. The banks will continue to have a role to play. I expect and anticipate that these are some fairly intelligent, fairly well-paid people who will be strongly incentivised to come up with solutions to continue to play a role in this market.

Ms. de Teran: Well, Harald, do you have any response as a fairly intelligent participant. How much repo are you going to be doing?

Mr. Bäensch: Intelligence is relative.

Ms. de Teran: Mick was a banker too and I think he is fairly intelligent.

Mr. Bäensch: If you ask someone outside the industry, I think they will have a different meaning of intelligence and banking. I think the problem is: what is the role of the banks going to look like in the future? I know you just said we are not allowed to talk about regulation but how should I talk about the ocean without using the word water? Since the regulatory framework determines the environment in which we have to settle ourselves in the question is: what space is left? We are definitely not going to play the same role as we did in the past decade. The question will be: what is going to be our role for the next decade? Are we just facilitators and the regulations will drive the business into less or unregulated corners with constraints and side effects? That is the question.

Ms. de Teran: Can I just ask you on facilitating: if you cannot dedicate your balance sheets to repo and SFT in the future, what will you be facilitating? Back office function?

Mr. Bäensch: Yes. What is a bank facilitating? We have a framework. We have a banking license. So, by definition we can offer services that others cannot. We have technologies. We have IT, so to speak. There are things we do today like money transferral that others can do as well. But the question is: can they do it as efficiently as we can? So it is one of those questions where I do not have an answer, because I think the evolution we are witnessing in the financial industry right now is not over. We are somewhere in the middle of the process and I think we have not evolved enough to have a clear vision or picture of what of our financial industry will be left over once this evolution comes to an end. Therefore, I think there are many answers to your questions. It also depends on how the individual banks or the individual financial industries are going to integrate their role in that. So I am sure there will be victims that will drop out of this market and there will be those banks that have the critical mass and I am sure they will continue this business. Then there is the question: at what price? It is completely unsolved. Will we get to the point in this industry in order to pass on cost? At the moment we try to recycle them within the industry. I think that this will be over soon because the pain is already there on this side. So it is difficult to come to a conclusion on this question.

Ms. de Teran: Okay, what do we think? I am particularly concerned on this question about who is going to be around, apart from Mick?

Mr. Bellani: I will try to answer from my point of view, which is an agent lender being somewhere in-between the buy-side and the borrower and sell side. On the borrower's side you clearly have had an adaptation and adjustment of the business model that has been happening for some years, but it is my expectation that banks will still be there in the future. If I look at the previous panel, there were some positive comments and signs that future business improvement might come from some of the banks (i.e. expanding their activity). But some banks are still adjusting their business models and are still implementing regulations that will be fully operational by 2018. Therefore, in my mind we have another two years of business's reduction driven by the adjustments in the banks' balance sheet.

Ms. de Teran: Is it a given that this adjustment is a reduction? Just in SFT terms?

Mr. Bellani: In SFT terms, I think some banks, as the previous panel was pointing out, have done most or the majority of the required adjustment. But from what I see in my day-to-day activity, that is still happening on the borrower's side. I cannot say whether we are half-way or more but there are clearly banks which are still trying to adjust liquidity and leverage ratio. So in my mind you can expect the end of the adjustment to be by 2018. Whether it is happening by mid-2017 or later, it is tough to say. On the other side, when I look at the buy-side, we see hedge funds and some of the large clients such as sovereign wealth funds trying to get into the banking space, trying to somehow disintermediate the banks' business. I personally think that this might happen but to a very limited extent. I think that only large institutions can achieve the required expertise in risk management, to be successful in managing a large structure which is subject to various forms of regulation. So I expect something happening and it will occupy some empty space, but I do not think these initiatives will fill the void left by banks. In 2019, I believe that banks that have done their homework, will possibly be expanding and will be making money because of better market spreads, as Greg pointed out earlier.

Ms. de Teran: Mike: is this going to be less money? Are you in agreement with Stefano or do you see yourself as a price taker in the future?

Mr. Manna: No, definitely not. Let us remember SFTs require capital, a balance sheet and make no mistake, a bank's business model or an asset manger's business model is "cost plus". Whatever my cost of capital is, I need to get a return that is above the actual costs to exist as a viable business. I think the repo market right now, or the way we run repo desks, is about proving our existence. The way we do that is evolving. We went from a world where capital was cheap and plentiful and we all know what happens when you do not value a resource - you just use it and abuse it. Now all of a sudden it becomes rationed and expensive - you become more cognisant of how you are using it and how you are deploying it. That is, at a macro-sense, what happens in a bank as a whole. But then take it to a micro-sense - a repo desk is nothing more than loan officers. I lend money to people and when I lend money to people I am allowing them to implement leverage. Is there going to be a space for "me" as a merchant of providing leverage to the financial community? It depends on what price. At a certain price people will buy that leverage and continue to do business, and that price will be the price that allows me to be there the next day to provide the next price. If I do not meet that threshold, then I will not be there. So it really comes down to adapting the repo desk and looking at more of a returns-based model and remembering that at this point it is not about your top line revenue it is about your total return. Then going back to the question: will we be here? We just went through a 20-year financial super cycle. That is how I look at it. It has been up and up and up and up. And then boom; we have had a massive adjustment. So right now you are looking at our entire existence being questioned and us adapting, as an industry. Part of the problem you have in that transition is that it is like taking 20th century tools and structures and trying to solve 21st century problems. Some of those tools we will bring along with us - so a GMRA and a GMSLA will still exist. We will still do collateral swaps; we will still borrow high and lend low. But other things we did in the past will be on the evolutionary branch of extinction. This basically means that as a business we will be much cleaner, simpler, stronger and more profitable. The sooner the banks and the people that traffic in this industry understand that and come to terms with that, the faster the journey will get. As Stefano was saying, you really do not have much choice. 2018 is the drop dead date but before that people have shareholders and they are the ones who are questioning: why are you returning below your cost of capital? One of the issues there is, the repo market itself is a large user, hence the attention.

Ms. de Teran: Well that is good because I occasionally read op-eds, which I suspect are written by none other than Godfried De Vidts, which tell me that it is all over and there will be no liquidity in the future and that repo is finished. You have nothing to do with those, Godfried? No? Okay, good. Well you are all "fairly intelligent loan officers" now apparently, or those of you that are repo traders or active in the repo market. I do not know if you like the term. But let us look at this market structurally. So I think we have decided that banks are definitely going to be around and they are definitely going to be in the repo business. There are going to be other people, hedge funds, corporates, Mick, other people will be a bit more active. Will banks act as market makers; as central liquidity providers? If not to the same extent, to a central extent as they have in the past? Will they be providing the access to clearing or are we going to have a much flatter market structure? Are we going to have peer-to-peer lending going on between you and your competitors Mick?

Mr. Chadwick: Possibly a little bit. The thing about peer-to-peer, as Greg said in the panel earlier, is that the barriers to entry to provide this kind of service are pretty high. Buy side firms typically will not have the resources in terms of risk management, collateral management, connectivity to CSD and ICSD plumbing or CCPs, for that matter.

Ms. de Teran: You are taking all that as a given?

Mr. Chadwick: I think there may be a handful of buy-side firms with the resources and the political will to develop them. There is probably a model whereby we can leverage the capabilities that already exist within the banking sector but just in a way that is cost efficient for the banks. The problem with peer-to-peer is this: I look at my own fund range and there is a bewildering range of size, complexity and sophistication within my own house. The idea that I am going to do the necessary due diligence on every BlackRock fund, on every Axa fund and every hedge fund and every Sovereign Wealth Fund, so that you have a viable peer-to-peer market where everybody is trading in an OTC bilateral universe - I do not see that. I think a necessary condition for a viable peer-to-peer landscape would be some form of central counterparty. Additionally, you have the problem that historically the buy-side hates central counterparties because we do not like putting up margin, we do not like the mutualisation of risk – i.e. the contribution to the default fund. So the buy-side will be looking to partner with banks and have banks passport them into the central counterparty structure. I think that is how it will work.

Ms. de Teran: Well, if there are any central counterparties in the room you have got the right of reply if you want to defend yourselves. Let us talk about technology and what kind of role that can play. Blockchain seems to be able to do everything for everyone so I am surprised it has not come up yet. Is Blockchain going to revolutionise this market?

Mr. Manna: That is a tough one. Blockchain, chain-block. Can anyone describe to me what it is? We talk about it in the firm. My take right now, especially the way technology cycles go, is that it is a bit like technology trying to find a home. I have yet to see a viable use case where you look at it and go: there is a 50% chance that it would be adopted. So the reality is - and I am going to be very honest with you as I am not an expert - maybe it will and maybe it will not. Potentially something like Blockchain (not understanding all the intricacies) allows disintermediation; it is a more cost effective way for settlement processing. So you do not need SWIFT. (Laughter) Sorry, did I just say that? (Laughter) Well, we do not need Clearstream either, right? So the reality is that at the end of the day, yes technology could potentially allow for lowering a certain element of that barrier that Greg mentioned. So yes, technology could, but a lot of what I see is slideware and I struggle to see how it is going to go from slideware to reality and how that happens. But maybe you have seen more than I have.

Mr. Chadwick: I think the $64, 000 question is: is our industry vulnerable to being "Ubered"? Is there a disruptive new entrant that is going to take advantage of Blockchain?

Ms. de Teran: You might just be modernising it.

Mr. Chadwick: Do I see a new market participant that is currently not even on our landscape hitting this market like an asteroid and disrupting the industry and forcing everybody to totally reinvent themselves? I think that is a longshot. I think it is more likely that incumbent participants will adopt new technology, incorporate them into their own workflow and hopefully, from a buy-side perspective, pass on some of the greater efficiencies thereby derived into improved pricing and service and all that good stuff.

Ms. de Teran: I am sure the banks would do that. Wouldn't they? Anything to add on the technology side Stefano, before we move on?

Mr. Bellani: No.

Ms. de Teran: Okay. Why should anyone outside this room care, to be honest, about the future of securities finance? Why should I care?

Mr. Bellani: In addition to the role of producing a profit for the institution, which is what we care about, we need to provide liquidity to the market. You have some comments coming from asset managers or anybody involved in the credit space, where liquidity seems to have been disappearing, compared to the sizes that the market players require. Maybe it is not, strictly speaking, related to the disappearance of SFTs. Instead it is related to the disappearance of market making in the credit space. If I do a fast forward and I look at the government bond space, for example, we are experiencing something similar, where some large institutions have pulled out from government bond market making. Pulling out from government bond market making clearly reduces the liquidity for government placement of large amounts of debt. SFTs may have an impact in exactly the same way because the repo desk is key for the functioning of the market making function whether that is in the government bond space or the credit space. If you reduce the capital allocated to SFTs or you increase the bid-offer that the financing desk requires in order to operate and justify its existence, ultimately this is going to negatively impact the type of trades you can place in market making or in the relative value space. As a result, someone at the end of the chain, most likely a final borrower, will have to pay more to place the same amount of securities in the market. On the investors' side we see that as difficulties in coming out from your position, which is maybe one of the issues that has been brought up in the credit space where funds seem to struggle now to manage the size of the assets we have. Because the size of the asset manager is too big, compared to the market liquidity, that is going to impact the final investor, whoever is placing money in an ETF or an investment fund.

Ms. de Teran: On the government issuing side, has this actually manifested itself? Has this made it more expensive for any government to issue debt over the last several years, since this rise in population?

Ms. Bellani: I do not think this is visible, in my opinion.

Mr. Manna: It is very difficult. This is where there is a call for evidence from the regulators because there are a lot of comments on the street but no tangible evidence. It is very difficult to say: has it become more expensive for governments to borrow because there is less participation in market making within the government bond market? It is very difficult to do that when you are in a near-zero or negative interest rate environment and everyone is trying to grab yield. You have created a scenario where banks have to hold government bonds so there is a natural bid there and you have quantitative easing. Anything that would have offset any widening of government spreads is still active. You could even add the accumulation of reserves in emerging markets. The US is quite interesting because there is a mass reversal. We have a rising interest rate environment and you could argue that the accumulation of dollar reserves against dollar assets is slowly unwinding. The next question is: what happens if the Fed decides to unwind its balance sheet, which they have not yet done. All these unconventional monetary policies have pretty much off-set what the regulatory drag would have been on the bond market.

Ms. de Teran: So far?

Mr. Manna: So far. It is hard to evidence that because it is just so multi-faceted with so many players. It is very difficult to show up to a call for evidence and say: here are my four data points that no academic can dispute. That is why you can keep talking about it, but it would be very difficult for the regulators to act on anything we say. Rightfully so. The only evidence they know is what happened in 2008. Undisputedly, something went horribly wrong and they have been able to pinpoint all the reasons for that.

Liquidity mismatch and leverage were the two big ones. Now, where is the evidence to say that potentially the pendulum has swung too far and that it is time to potentially adjust the other side? It is a bit wait and see on that.

Ms. de Teran: Let us go to the regulatory objectives that lay behind everything that has happened since. I think that was reducing leverage in the banking system, rather than on an absolute basis. Reducing interconnectedness and systemic risk along with it improved transparency and those were the key ones. In this new market - where Mick and his ilk are doing a bit more, Stefano and the other fairly intelligent people are doing a little bit less, but things are still moving - have those goals actually been achieved? I am going to start with you Harold. Has transparency increased, has leverage decreased, has interconnectedness decreased, yes or no?

Mr. Bäensch: No.

Ms. de Teran: No? None of that?

Mr. Bäensch: If I look at the fundamentals I do not think that risk has decreased at all. Risk was more covered by monetary policy. I think we are still working on getting the true risks under control. I think that if the expansive monetary policy were to end tomorrow everybody in this room would know what it would mean for the financial industry, which clearly is telling us what the true resilience of our industry is at this point in time. I think we are on a good way. I think the willingness is underpinned by regulatory incentivisation.

Ms. de Teran: But you are not optimistic overall about the results?

Mr. Bäensch: No. What we have learned in 5500 years of civilisation is that money always finds its way. Money is like air or water. It is an essential part of our life and it will find its way. You can regulate here and there. This is what I meant before in my first statement: will all the regulatory incentives push the money in less regulated or unregulated corners? I do not say the next crisis will be in the banking industry. I rather doubt that this is going to be the case. We have all been long enough in this industry. We have these memories in our minds and it will not happen that way.

Ms. de Teran: Will it be another part of the financial industry? Not the banks?

Mr. Bäensch: Yes, but not the banks. But then you will have other spill-over effects. If you are a part of the financial cycle, to put it in really broad terms, you will be affected, in one way or another.

Mr. Manna: Just to back up your points there, Harald. Reducing leverage: yes; no. Yes, physical leverage - the size of bank balance sheets - has come down but people have migrated to synthetic leverage. It is much cheaper to deploy and is being used predominantly in the asset management community. I have also had experience of asset managers who traditionally did not use repo and are now using repo for leverage. So that is a bit worrying because of the low interest rate environment. So that definitely moves it out to where you are in the shadows. I think that increasing transparency is always going to be difficult. How do you identify all the multiple players? The regulators are now looking to capture data. My question is: what are they going to do when they get it? I have seen what our data dumps are going to look like and you open up the file and it crashes your system. It is a lot of data. It will be interesting how they are going to digest that and then be able to synthesise that into observations. On reducing interconnectivity, I disagree 100 percent. 2008 is when the repo market actually started to become even more interconnected within the system. When people all of a sudden woke up to the fact that they actually had counterparty risk they wanted to move to repo for collateralisation. The second wave of connectivity has come from the mandating of collateralisation for all of your exposures. By default, the repo market is actually more integrated. And let us not forget the central banks using it as a monetary policy tool, both orthodox and unorthodox. So, if anything, the reduction of interconnectivity has failed miserably when you look at how the entire financial system is anchored on collateralisation and which market moves that around.

Ms. de Teran: So would a run on repo be worse next time or better?

Mr. Manna: A run on repo?

Mr. Bäensch: What run on repo? Reduced by what?

Ms. de Teran: Reduced by a lack of confidence.

Mr. Manna: But that is the issue. Our entire financial system is based on confidence.

Mr. Bäensch: It depends on the underlying.

Mr. Manna: But then you can say how strong is your CCP at the time. So that becomes an issue there.

Ms. de Teran: I have to stop you because I am on 30 minutes and I know that Godfried will stop me. Before I finish I just have to have my right of reply on SWIFT and Blockchain. SWIFT definitely has a future in a blockchain world. Thank you very much.

6. Panel 2: Collateral management – do we know what we are talking about?

The Chairman: Thank you Natasha. Thank you to the team and hopefully we will hear you in the future when we come to ask was it true what you said two years ago in Luxembourg. So can we change the panel now? We are going to move to the Collateral Management Panel. The first panel clearly set out how the collateral issue has really come up front because if you look at all the regulation: EMIR requires you to use CCPs and collateral is used to safeguard the wellbeing of CCPs, and so more collateral. Bilateral clearing is coming in June and September, and guess what? More initial margins and more collateral. The FSB is looking at increased robustness so why not ask for haircuts which demand collateral? So collateral is basically the underpinning of the reduction of systemic risk throughout the regulatory agenda. But do we really understand collateral management? What do we mean by it? How is it done? We know it is possibly done at the repo desk but what are we talking about? So I asked David Field, who is an excellent, knowledgeable person about collateral, to moderate this panel and I give you the floor.

Mr. Field: Thank you. I would like to introduce my very distinguished panel, many of whom you will know from today and from previous conferences. First of all, Greg Markouizos from Citibank who is Global Head of Fixed Income Finance. To Greg's left is Mireille Dyrberg who is Group COO of TriOptima. We may hear more perhaps about Project Blazer and what that is going to do for the collateral world. On Mireille's left we have Grant Davis, recently ex-BlackRock, Head of Client Execution for EMEA. To Grant's left we have Klaus Löber, who is Head of the CPMI Secretariat, which is the Committee on Payments and Markets Infrastructure. And finally to Klaus's left- is Richard Hochreutiner, Head of Global Collateral at Swiss Re. So we have a very distinguished panel this afternoon.

Just to set the scene, we have all clearly been instructed by Godfried not to talk about regulation. So we are definitely not going to talk about the BCBS or about mandatory clearing. But there is clearly a mass of stuff coming down the track at all of us whether we are sell-side, buy-side, CCPs, custodians, or CSDs. The topic we are addressing ourselves to on this panel is: how are we thinking about collateral in this new world? Two broad themes have emerged. There are both the operational aspects of collateral i.e., how are we going to operationalise all this stuff? There was a lot of talk earlier about automation. The second theme is rather more cerebral, as you put it Greg. How are we going to model the collateral demands? How are we going to integrate balance sheet and CVA and haircuts and eligibility? What is the thinking going to be like about how we are going to do collateral projections in this new world? So those are our two themes: operation and projection modelling. Perhaps I could kick us off by asking Greg how he would characterise those two themes? Would you tell us a bit more about those two elements?

Mr. Markouizos: Maybe five years ago, when I was asked to set up a collateral management capability at our firm, a number of us sat down and thought long and hard about what it is that we were actually being asked to do and what we needed to put in place. Reasonably quickly a consensus emerged that we needed to have two main work streams. We needed to have an operations and related technology work stream and separately we needed to have a derivatives collateral modelling work stream to model our collateral needs. Even though it was one collateral management effort why did we separate it into two? Because we quickly realised that we needed to have our own infrastructure. We needed to be able to move collateral. We did not want to have any dark pools of collateral or any dark corners in our institution where collateral would be trapped. We also did not want the market to have any corners where collateral would be trapped. We operate in a world, and many if not most of you will operate in the same world, of multiple entities within your institutions which operate across multiple jurisdictions whereby collateral needs to move across jurisdictions often intra-entity but also inter-entity. There are various infrastructure considerations, both at each entity level that we are talking about as well as for the market as a whole, that will make this possible or not make it possible as the case may be. We figured out very quickly that we needed to make sure that we have the operational capability and the technological capability to not only figure out where our collateral was (which may sound self-evident to you but I can assure you it is anything but self-evident especially when you have tonnes of different types of collateral) but also to be able to move it in a timely, efficient and effective manner across either different jurisdictions or different entities or often both. So we needed to have that capability. However, we also needed to meet with a marketplace that had the infrastructure that allowed for this to happen. We quickly realised that we needed to engage with the infrastructure providers that would make this possible - the ICSDs, the CSDs, the CCPs, the custodians. We needed to engage with a whole host of characters because (a) they needed to be able to move our collateral on our behalf if we could not move it and (b) they needed to be able to provide facilities - triparty type auto-select type facilities, for example, to mobilise collateral which would reduce our operational burden. We also needed to be able to engage with them to move our client's collateral. So the custodians, for example, who held our client's collateral that would need to move to us would need to be engaged and in a way plugged in to our systems which required a lot of work from us but also from them. Getting them to do that work was no simple task. So the operational and technology aspects of creating an infrastructure that is fit for purpose, to do what I am just describing - the seamless, efficient, effective and cheap process of moving collateral, without leaving any collateral trapped behind other than those parts of collateral that are trapped by regulatory requirements - was what we put through the operational work stream.

Separately, we realised that with all this collateral that is flowing through the system - and in fact with all the collateral that is projected to flow through the system because we are not yet at full derivatives clearing as the full derivatives margin requirements have not yet fully hit us as there is a lot more to come down the pipe - we realised that that entailed (a) liquidity risks for us and (b) collateral risks. This meant that we needed to be able to project what our needs for both incoming and outgoing collateral would be. We needed to make sure that we had sufficient outlets for the incoming collateral on the one hand and that we had sufficient collateral availability for our outgoing collateral needs. In order to do that we needed to be able to project over time how our derivatives portfolios would behave in conjunction with our secured funding transaction portfolios and any other bank or broker dealer activity which involves the use of collateral. And you may think that this is, again, a fairly simple affair but I can assure you that it is anything but. I have learnt more about derivatives these past five years than I ever thought humanly possible. I am an engineer by training and, let me tell you, engineering is simpler than trying to figure out how the derivatives market operates and how collateral requirements in the derivatives market operate. So that was the second aspect and again, a very, very large project stream with multiple modelling teams - quants with degrees that I cannot even pronounce. Frankly we needed business managers who could translate, in their language, what I was actually asking them to do.

Mr. Field: With those challenges around infrastructure many firms do not have the resource or the organisational capability of a bank like Citibank. Therefore, many firms are going to have to rely on some shared infrastructure. Mireille, I would like you ask you to comment on how the industry is responding to these operational challenges and how is operational control going to be done on this cross-industry basis.

Ms. Dyrberg: You mentioned Project Blazer. However, Project Blazer is no more. Project Blazer was an initiative to line up different parts of existing OTC derivatives market infrastructure to facilitate a more streamlined and smoother settlement process for collateral in the OTC space. Instead of Project Blazer there is now a collaboration between the DTCC, TriOptima and AcadiaSoft that you might have seen on a panel earlier today. It is heartening to see that the ERC has been re-branded with an additional 'C' because it is all tied together and historically that was overlooked. It was what Greg spoke about as well - it is about mobilising collateral and ensuring that you do not end up with these dark pools of collateral but are able to source it, know where it is and get it through the system fast. There has been a major drain on available collateral by CCP clearing. This is only part of it. Later this year certain bilateral margin requirements will take effect that will further drain collateral from the system and increasingly over the next four or five years the requirements will be rolled out throughout the market. What we have seen is an increasing alignment between operational divisions that manage and process collateral so that the ETD departments and the OTC, securities finance and repo lending departments all end up together. Without a comprehensive overview, how can you best manage the available liquidity and collateral without spending a lot of money moving things between the custodians, CSDs while avoiding huge fails cost as well? It becomes an increasingly complex problem. Mike Manna on the previous panel referenced this - the idea that there would be a simplification and that transparency would increase is a fallacy. The markets are far more interconnected now and the operational grid or matrix that we are working with is far more convoluted than it was before the regulations took effect. So many of the new requirements for OTC derivatives have made the repo markets far more difficult to manage and therefore the alignment is absolutely essential.

The streamlining of the ops processes is key as is creating internal transparency. It may not be possible to create transparency in the system for the regulators. Who knows? As Mike said, if the regulators were to get a big data dump what would they do with it? This is a painful lesson we have learned in OTC derivatives. We set up these trade repositories and yet there is not really that much use being derived out of it because you have silos of data. You cannot have one regulatory body dictate to the whole world that they must put their trade outside the jurisdiction. Then again, these are complex markets. What do you do with this data?

Therefore, ensuring that you are entirely lined up is key. But additionally the drain has manifested significantly in OTCs. There are initiatives afoot to reduce the exposures of the big participants and to reduce the portfolio imbalances that are emerging between different CCPs or CCPs and non-cleared derivatives portfolios. If this were to take effect you could reduce the exposures and release collateral into the system. I think that is something that needs to be investigated because not only do you need to move it through the system efficiently but you also need to free up far more than is currently available.

Mr. Markouizos: At the same time, we get hit out of left-field sometimes with things we never expected. For example, you can have a large, perfectly hedged portfolio, and it is cleared and you think: I will not need collateral. Yet, all your client trades are with CME and all your hedges are inter-bank at LCH and suddenly you find yourself with very large IM requirements at both CCPs. VM will flow from one to the other through you, so you may have to provide intraday liquidity support, but nevertheless at any rate, it will flow through you, intra-day liquidity notwithstanding. But IM will not and you will have double IM requirements, even though effectively you have no position. We saw the basis between LCH and CME gyrate wildly this year and end the year at almost 3.8 basis points on 30 year swaps - just because we had such IM requirements and such collateral drainage from the system. We never expected this. This was not in anybody's models. So we have to think: what can happen, that can come out of left-field and hit us and how can we guard against this? Either by changing the infrastructure or by changing our business models.

Mr. Field: That is a very good exposition from the sell-side and infrastructure provider point of view. I would like to now get a buy-side perspective. Grant, at BlackRock you saw a lot of the large corporate treasurers so you have a perspective that you could perhaps present for us here. Would they take the view that 'cash is trash' or that 'collateral is the new cash'? How would they view it?

Mr. Davies: My 16-year-old daughter does not think 'cash is trash'. From a corporate treasury point of view, the majority of the time we are trying to sell them ETFs. But their concern, as we talk to them, is around how they look to manage their forthcoming obligations for derivatives collateral. So they care about capital protection mostly. You can see, certainly in the Clearstream data and growth in repo activity, that corporate treasurers have moved away from a lot more bank or fully-at-risk bank deposits to get involved in the reverse repo market to basically take securities. That was the first incarnation of treasurers really looking at the broader securities finance world. Beyond that, they really have to think about how they utilise assets going forward and it is the immediacy of the collateral which is important. If you need it today, you are going to get a collateral call today. Cash is relatively straight forward to move. However, a core treasurer cannot manage that sort of unknown obligation. He does not have the infrastructure that investment bankers have. So he will look at other ways to manage that process. There has been an emergence of different products that are trying to solve that for them. Certainly, money market funds have been mooted as collateral and as mentioned earlier, funds as collateral are starting to become more of a theme. It solves the immediate problem. It makes it easier for them to invest and therefore easier to deploy as long as money market funds have the chaining collateral effect down to the CCP, which is important. The challenge around diversification and concentration risk of collateral was also mentioned earlier. So if you are going to move into taking equities as viable collateral through the system, then managing that concentration risk across multiple counterparties at the CCP is very difficult. We were spending a great deal of time talking about ETFs as a viable solution. Yes, a government bond ETF, which is a physical product, is a valid product. It is something that can be broken down into the underlying components very easily and therefore can then deployed to the ECB if necessary. But the infrastructure is not quite there for people to accept that process and the reality for things like ETFs, which corporate treasurers and central banks are increasingly buying. Being able to use them as viable collateral on the reverse side of any transaction has fundamental issues. ETFs have challenges of any collateral system whether it is triparty, etc., because classification of an ETF is broad. There are leveraged ETFs, synthetic ETFs and physical ETFs. There are also weighted ETF investments. So, it is looking at these new forms of collateral which do provide solutions - not complete solutions, but certainly solutions in their own right - which can form part of the ultimate end goal. The net effect of a money market fund, although they can be used as collateral, is that there are credit lines with the same investment banks in the first instance. So not an ultimate end solution but certainly part of a solution, and a component that could help solve the immediacy of transfer, as long as the pipes are in place.

Mr. Field: Richard, let us stay with the buy-side perspective. As Head of Global Collateral for Swiss Re, how are you gearing up or have you geared up operations for the cash versus securities challenge?

Mr. Hochreutiner: Good question. I think what we started off by doing is to actually get an overview – the first of the two steps that Greg talked about before. That is probably the key thing that many institutions really need to do. Who are your collateral providers within the organisation? Who are the collateral consumers in your organisation? First of all, you need to try to capture all the flows that you possibly can across the different legal entities and to be able to do some sort of internalisation within the group. When we started we did not really know which company, within the hundreds of companies we have in the group, to use for this. We actually used a working title called 'The collateral clearing entity'. Looking back, even though we chose the company and that is the company we now use and face the market with, the working title says exactly what we wanted it to do. We wanted to be able to clear collateral within the group and with that I mean cash and non-cash for the various uses we have. At the time, it was exchange traded derivatives, bilateral OTC, and re-insurance collateral. The idea was that if we could use what we have as efficiently as possible within the group - so we know what we have and use it on an internally, cheapest to deliver basis - then if there were any surprises or any sensitivities from derivatives which we had not expected or liquidity traps from one CCP in the meantime to the other, then at least you have enough on the side to be able to accommodate any drawdowns on your liquidity. What it also allows you to do is, when you have excess collateral or high quality collateral, you can benefit from the collateral market by lending out your high quality collateral in exchange for lower quality collateral, which services people who do not have enough high quality collateral. Being able to do that and having it all transparent on one platform can then make you money or at least help you understand why you are paying money when you need something you do not have. But it also allows you to properly price the stuff internally. Having the ability to demonstrate that you have a complete overview, that you are trading at these prices in the market, actually gives you the credibility you need to then allocate those costs to the users and the providers. So even though we were not on the topic or on the panel from before, I think this is where the future of securities financing transactions will end up, because everybody is going to be transacting more on the flow that they see rather than sitting there with a massive amount of capital consumption. If you can actually source your stuff correctly, and only end up being dependent on the market for the peaks or let us say the 'net' rather than paying spread away all the time, then you are in a much better place. And it helps you in all these different places.

Mr. Field: Do you see a big quantum change in the amount of collateral where you look ahead to margining of non-cleared? Do you see a crunch coming?

Mr. Hochreutiner: I have a very slippery answer for you on that one. The answer to that question is that it depends on everybody in this room. If we all sit here and think we do not need to do anything then there will be a massive crunch. We will run into that problem. The ICMA folk have done a lot of hard work on collateral fluidity. If you have not read the paper then you need to take the time to read it and then call your IT guy. This is really what we need to do. If every single one of us actually makes sure we have our collateral act together then there will not be a crunch. But if we are all sat there and it is all locked up in different places, then great for those who actually did their homework. I am secretly looking forward to that.

Mr. Field: If that is not the concern, perhaps we can turn to a regulatory perspective. Klaus, how would you describe the regulator's main concerns?

Mr. Löber: Well, thanks a lot. It may be worth recalling that it is not just concerns per se, it is a process. It is actually regulators trying to identify issues to actually understand the mechanics and to assess the implications. If I look at the CPMI (or CPSS in the past) it is not really regulators trying to constrain certain developments. Since the 1990s, the CPMI was instrumental in fostering the repo and collateral markets by working on concepts of settlement finality, DVP or re-use. So that is worth recalling. Also, the Bank for International Settlements' Committee on the Global Financial System has been looking at collateral scarcity and came up with a quite nuanced picture on shortages in some countries or asset class. But there is a main aspect that they pointed out that the concerns about the shortage of high quality collateral assets could be countered by enhancing the efficiency of repo markets and that is a point to build on. Further, if the regulators take a look they have to follow their mandate. The CPMI's mandate is actually double pronged. It is the safety **and** the efficiency of repo and collateral markets. This double perspective actually gives the CPMI the opportunity to take a quite balanced view. In the aftermath of the crisis the CPMI has been looking at ways to strengthen the repo clearing and settlement arrangements in 2010 and there is clearly still scope to follow up on this. More recently the CPMI has been conducting analytical work to understand developments in the collateral management services. Of course there has been identification of some potential risk, in particular when it comes to complexity. But, at the same time, it identifies clear benefits to furnish customers with better tools to monitor their holdings and to increase efficiency in the deployment of securities. This is something which is steering the work of the regulatory community, in bank supervisors and securities regulators. You also have bodies like the Financial Stability Board that has, by its mandate, to take a stability point of view and is looking at repo and securities financing transaction issues from this angle. Under the somewhat awkward heading of 'Shadow banking', which does not always help, they have to try to bring together the concerns raised regarding liquidity, roll-over risk, leverage, and maturity transformation. It was mentioned repeatedly this morning that the various work streams - I think there are about 16 - will all have a bearing on the direction of the collateral markets. I could spend a long time on the appropriateness of re-use and rehypothecation definitions, on central clearing and bankruptcy law developments, but the main point is the need to bring together these various perspectives and to calibrate. From what I have seen mainly in relation to OTC derivatives, this aspect has been taken up perhaps a bit too late in the process. But it is taking place and we can profit now in the current debates on collateral and securities financing to bring this in at an early stage. From the CPMI's perspective, it is going to embark on a follow up on the collateral management services and on a review of the market-wide recommendations for settlement which date back to 2001. There is clearly scope for some review, and I am pretty sure there will be some aspects regarding collateral optimisation or interoperability issues which will feature very highly on the agenda.

Mr. Field: We are running short of time now so I want to turn to our second theme. I would like to pick up the theme that Greg mentioned earlier about the whole project optimisation theme. How has Citibank gone about tackling that more cerebral challenge around triparty, auto select, eligibility etc. I would like other members of the panel to chip in on this as well.

Mr. Markouizos: The modelling work essentially takes our derivatives portfolios - and this was something we have developed from scratch - and projects how they will move over time both by a netting set and also all together. So we are looking by netting set as time goes on and as we project basically the movement of markets. What is the EPE (expected positive exposure) and the ENE (expected negative exposure) of each portfolio; each netting set? We look at what is the deliverable collateral in each of these netting sets. Now you can model on the assumption that people will deliver to you the cheapest to deliver. As you heard from multiple participants on this panel and previous panels today, that does not actually always happen - we do not always get the cheapest to deliver. In fact, you have to start modelling people's behaviour which changes over time. So, for example, most of derivatives collateral - margin collateral - has been cash for a very long time and that is only just beginning to change. Now, there are good reasons, for example, why it may have been cash, not least the fact that cash collateral - nets versus payables and receivables. So it does not have a balance sheet impact. Whereas securities collateral does not net and therefore has a balance sheet and hence a capital impact. So it is quite complicated. And you have to model the prods of each of your counterparties, each of these netting sets, and what their binding constraints are. Are they going to be bound by capital? Are they going to be bound by liquidity or are they going to be focused on the economics of the trade? When looking at our own portfolio we realised we could optimise across multiple axes. We could optimise for economics which we had been historically doing. So try to always go for the cheapest to deliver so that we can get the maximum bang for the buck. Or we could optimise for liquidity which we were suddenly very focused on when liquidity regulations started kicking in. Or we could optimise for capital as I just described. Or we could optimise for balance sheet if balance sheet were the binding constraint. So we had at least four different axes across which we could optimise and depending on what our binding constraint is at any given time - which changes as our business model evolves, as our balance sheet changes, and as our capital and liquidity axes changes - we will take different courses of action. The same holds true for each of the clients we deal with, each of the netting sets we are facing and we have to be able to model that and we have to be able to keep buffers – buffers of capital and buffers of liquidity – at the very least in order to be able to cope with unexpected changes from our clients. So this is basically what everything is boiling down to.

Mr Hochreutiner: Can I ask you something on that Greg? I think when you are looking at your own optimisation and it is something we do - obviously on a lot longer term basis because some of our structures are decades in our business - often the pricing of the transactions or the structures will be taking a certain collateral type into consideration. Therefore, one of the constraints which we will all find, as we try to get to these optimal predictions and optimisations for different angles, is that you will have a lot of constraining factors which were ultimate pricing considerations at the beginning. So whilst you maybe want to give somebody cash today you are not allowed to. I think that that is something which will become increasingly more restrictive and actually make it even more complicated.

Mr. Markouizos: That is exactly right and that is the point. As I mentioned earlier, we operate across multiple jurisdictions. Very often we find that our own model is not good in the sense that by operating across multiple jurisdictions we may have split hedges across different entities and/or across different jurisdictions within our own books. This means that we have to move collateral within our own books and our regulators occasionally take a particularly dim view of that - Lehman put paid to that.

So, we are finding that we are having to change our business models to actually have people dealing derivatives on different entities with us than they were historically dealing with, or cash businesses for example. So that is one aspect of it. The second aspect of it, is yes, there are barriers even after we have optimised our business models. There are barriers to what we can potentially do from a regulatory point of view or an agreement point of view because certain types of collateral will not be eligible collateral. Then we have to work around that. We have to either do collateral transformation transactions to get around that - with all the implications that that has for capital liquidity, balance sheet and so on and so forth - or we have to actually re-strike those derivatives trades, in order to eliminate those exposures or potential exposures. There is a thriving industry with a lot of derivative sales people who are making a very good living right now from re-striking historical derivatives transactions. The modelling of CVA and KVA charges for example was the kiss of life to a very large swathe of derivative sales people.

Ms. Dyrberg: We see it all the time.

Mr. Markouizos: Yes, of course.

Mr. Field: Well, it is a fascinating debate but we must begin to draw it to a close. There is one final topic I want to ask Grant to touch on which is: supported by all the automation and supported by all the new relationships we need in the market, we heard earlier from some of the other panels about the raft of re-papering that has to go on. There is a whole legal documentation challenge underpinning the collateral world. Grant, I know that you have been involved recently in a survey of the market about how people are tackling that. Do you want to give us a quick 60 second burst on what you have discovered?

Mr. Davies: Everything we are trying to do and achieve is only as good as the information we have available to us. Based on what we have done recently, we have taken a snapshot of the market to understand, in the first instance, how people are looking at ISDA CSA information. How much of that information do we know? How much do we have coded correctly? Have we interpreted it in the right way and do we have it available to us, as a business, in order to make the right decisions around what is the best trade? What is optimisation? Unfortunately, we have come up a little bit wanting overall, as businesses and I think that everyone is trying very hard to correct that process. But what we do not want to do is correct the process to a point in time so that we are good now. Instead, we want to put it in place for the future which means not just re-papering CSAs but instead it is making sure that as they get amended as time goes on so that we are always aware of what our obligations are and what we can do best to optimise. There are a number of solutions out there such as Logical Construct and Recommind; they are docs to data people who are trying to perfect that process - because paying people to look through the tens of thousands of CSAs you have available to you is a tough thing to try and achieve - and then to turn that into something that you can use logically and in your own business to make sure that you are doing the right trade in the best way possible, and doing with the right due diligence for your clients as well.

Mr. Markouizos: We have been using a database where you can extract it at your fingertips.

Mr. Davies: Exactly the point.

Mr. Markouizos: The information versus the exposure – it is even more difficult and it is necessary.

Mr. Davies: So the reality of that analysis is that everyone is challenged. A white paper setting out the analysis will be published in due course. The people that are trying to deal with it are being driven to do it by regulators. The businesses that still have a huge challenge - just look at the corporate lending businesses - do not necessarily have that regulatory push to change but they have hundreds of thousands of documents to deal with. So it is broadly a challenge that needs to be dealt with. There are solutions emerging and it is very interesting how it is being approached. We need to become 21st century boys and girls basically.

Mr. Field: I am going to close now. From our point of view as a consultancy, we see these different challenges expressed in different ways across different parts of the value chain. The common approach we would observe is that it does need clarity of vision. This drives whatever the initiative is that each firm has to undertake. The sort of thing that Greg mentioned, like 'no collateral trapped', would be a key objective. How do you measure that? Other key objectives would be things like creating a virtual clearing entity within the organisation, clear objectives, and a clear road map. If everybody is agreed on that target state in process, in functional and in technology terms, then you have a decent chance of delivering it. Quite often we find firms where the target state is simply not well defined. Everybody has an opinion but if you ask three of them you will get four opinions. There is real room here for clarity of target operating model, clear road map, and clear business case. That is the only way of making sense of all this morass of change that is coming. Help is on the way. New utilities, cloud based technologies, and legal documentation solutions are all emerging. There is a lot of innovation going on and a lot of help is available. My final point is that someone on an earlier panel said: maybe there is a need for a Dummies Guide to collateral in the industry. Actually there are lots of documents in this industry, including from the ERCC. However, if anybody thinks there is room for a Dummies Guide then our firm might be willing to coordinate some sort of response on that, perhaps with the ERCC.

7. Panel 3: Capital Markets Union – what does it mean for Securities Financing Transactions?

The Chairman: Thank you David for moderating and for the advertising. (Laughter) Thank you very much for a fascinating panel. Thank you guys. Let us move now to the third panel as time is running short. Panel Three is something that has been hitting me for many, many years actually. We see this output of regulation globally but more so in Europe. But there are inconsistencies, hence the study that we did. There is no helicopter view. And guess what? We see that the impact of regulation is maybe not always what was intended; or maybe was it intended? Anyway, to cut a long story short, Lord Hill succeeded Mr. Barnier and the Commission has now noted that maybe we should not stop but maybe look a bit better at what has been achieved. Where have we gone a little bit too far? Can we correct this? Can we calibrate this better? So we have this Capital Markets Union, project where we have consultations at the moment. But what does it mean for us? I have asked Donald Ricketts, who is somebody I work with quite closely, to moderate because I could not find anybody better to take on this challenge. Donald, the floor is yours.

Mr. Ricketts: Thank you very much Godfried for that introduction. It sounds like we are an exceptional panel in many ways largely because we did not get the call from Godfried telling us not to mention regulation, which seems to be the case for everyone else. I think it would have been quite a memorable panel if the poor European Commission and the ECB were asked to speak for the course of this panel without mentioning anything to do with regulation and policy. However, it would be memorable for the wrong reasons. So, we will be giving you a hard core session on regulation and policy. Our exam question is: Capital Markets Union, what does it mean for securities financing transactions? This is actually a bit of a political question as well as a purely regulatory one. I think to be able to answer it we probably need to understand what Capital Markets Union is. So to short circuit on that - and you can correct me subsequently, María Teresa if you wish to - I think it would be fair to say that this project, which is a major priority for this Commission, is focused on diversifying the funding sources for the end user of markets, the issuers and the real economy. However, it is also about opening up investment opportunities, diversifying investment opportunities and facilitating that for the end investor. So if you want to break out the question “what does it mean for securities financing transactions” you could say: firstly, do securities financing transactions have any relevance to that objective of diversifying, improving the efficiency of funding sources, principally non-banking funding sources to the real economy and to facilitating investor choice and if so, what would our priorities be?

To answer that question we have an outstanding panel. I am going to introduce them in the order that I am going to ask them to make their introductory comments. First up Jean-Robert Wilkin who is Global Head of Securities Financing with our hosts Clearstream who will offer us an ICSD/CSD perspective. After Jean-Robert we have Diana Dijmarescu who is responsible for global markets infrastructure at J.P. Morgan and will offer us a perspective from both a global custodian and a major asset manager and also a participant as a bank trading in these markets for themselves and on behalf of clients. Then we have Marc Bayle, who has overall responsibility for market infrastructure and payment systems with the ECB, who will give us the opportunity to hear a crucial central bank perspective on this question. Finally, we will hear form María Teresa Fábregas of the European Commission. María Teresa’s job is a small one. It basically involves regulating everyone in this room except for Marc. She has overall responsibility for market infrastructure but that incorporates everything to do with securities financing transactions. If you thought that that was not a particularly attractive or easy job, suffice it to say that María Teresa was in charge of MiFID until last summer, so it was basically frying pan to the fire for her. Therefore, with no further ado, we will kick off with some introductory remarks from our panellists. I have asked them to keep to three or four minutes of introductory remarks in that order. I would also like people to catch the eye because after those introductory remarks we are going to open up into a discussion. I am sure there are plenty of things for us to discuss, but it would be really great if you were to take this opportunity to ask some questions. So, Jean-Robert, the floor is yours.

Mr. Wilkin: That is the challenge of the day. Thank you. And I wonder why Godfried invited me for that. What did I do wrong to deserve the invitation for this panel - why not my competitors Olivier or Stefan? (Laughter.) Donald has introduced the CMU. I am not sure everybody is so familiar with the topic of Capital Markets Union and what its overall objective is. You gave us a very high level objective: strengthening capital markets in the European Union. I think, working in the financial industry for all of us is a positive objective and after a myriad of regulation we had to face and digest and prepare for implementation. We have just had two panels which described at length, what the impact of the regulation is. Here we have, at least, a very positive statement and objective which is really to try to improve the capital market so that our respective savings from European people can be put to work to improve real investment into the real economy. That is what you described in other words and that is a very honourable objective. In thinking about that and then trying to describe the impact on the securities financing market, I would have changed the title of this panel and Donald's exam question to the other way around - with that objective in mind, what can the securities financing market do to support the CMU objective? This is a more positive way to look at it. What could we do, as securities financing professionals, to contribute to the objective of the CMU itself? That is the challenge of our panel but I hope Godfried will also intervene. I am sure he has some strong views.

When you start reading about the CMU - which I did over the last few days to make sure I did not say anything wrong - one important fact came to me. Some literature, which I think came from the European Commission, described the similar economic size of the European Union and the USA. However, if we look at the capital market, the USA is about twice the size of Europe, in terms of equity capitalisation. Twice the size! So there are twice more equities in the USA than in the European Union in terms of volume. So that is already saying something about financing businesses because that is one way entrepreneurs finance their economy and their projects. It is even worse with the debt market. Apparently, there is three times more debt in the US than there is the European Union. So how can two similar economies in terms of size achieve the same result with such different types of financing? When we talk about debt we are talking about both government debt and corporate debt, which is an important means of funding and financing for the economy. And if that is one of the objectives, maybe not the direct one but one of the indirect objectives of the CMU, then I believe that all markets including securities financing have a very important role. If we want to increase the level of equities and corporate debt in our market in order to fund the economy, then we need to develop a much stronger secondary market which maybe is not as strong in Europe. The US is also suffering as well. However, that is certainly something where the securities lending and repo markets can contribute a very important role - to develop and support secondary market trading. Because if we want investors to invest into the real economy - take a risk in buying equities and corporate debt – then we need to secure for those investors liquid markets for the investment they have done. To be fair, the repo and securities lending markets provide a certain amount of support in respect of liquidity for secondary markets. So what can the securities lending and repo market do for the CMU? I think this is one of the elements.

Mr. Ricketts: Many thanks. Diana, what is your response on this given what Jean-Robert was just describing? There is clearly an element in the price discovery exercise, the liquidity and the liquidity management and facilitation of secondary markets. Another area that I would imagine that is also worth exploring is in the context of collateral management but maybe that connection to the CMU is less obvious.

Ms. Dijmarescu: For some of you who were here this morning this connection was made even easier and more obvious by the speech from the economist from the IMF, who very clearly outlined that the outlook of the global economies, especially for Europe, is not great and that growth should definitely be on the top of the agenda. Capital Markets Union is all about ensuring growth within the EU. I was pleased to see in that presentation, that he made it very clear that he sees collateral fluidity, the collateral velocity, as being a key factor that would allow the central banks to have the tools to implement their monetary policies and ensure the agenda for growth in economic conditions that sadly do not look as bright as they were potentially one year ago. Looking at what the Capital Markets Union agenda could do for the collateral management industry, I would focus on some of the areas which I was quite pleased to see mentioned in the Commission's action plan for the CMU. This relates to the post trading obstacles to the movement of collateral within the EU. For most practitioners this is nothing new. What I would say is that we have heard this over and over again. Today, we still have obstacles from an operational point of view. Today, collateral can be stuck in silos in national central securities depositories. It takes time to be able to efficiently mobilise collateral across borders. Why is this? Because there are still a number of harmonisation efforts that need to happen at an EU level. A lot of these obstacles were identified 15 years ago in the first and second Giovannini Reports. Work has taken place in the context of the T2S harmonisation work looking at harmonising settlement. So some of the basic, barriers, like different cut off times between the different settlement systems, different operating hours, and different settle procedures have been harmonised for the T2S markets. However, the T2S markets do not represent the whole of the European Union. So even if you are looking at these areas, in which we have seen that progress is possible if the markets work together and there is sufficient impetus to do so, we still do not have harmonisation across all the EU markets. Another area where we would hope that the CMU agenda and action plan will help this industry is really looking at the securities law and trying to at least harmonise the differences which still exist between the member states in respect to the acquisition and transfer of collateral. If you are looking at the securities legal framework today there is a lot of work still to do to ensure investor protection. If we are looking just at the collateral ownership rights, the valid acquisition of collateral in a cross border context, these were identified in the past as an issue. We have seen the proposals in the securities law legislation. I think the Commission could potentially, as part of the CMU agenda, give more impetus in this area. And I have more but I will stop there.

Mr. Ricketts: Thank you very much, Diana. The central banks, certainly on the public sector side, have probably been the most constant in their appreciation and recognition of the importance of security financing transactions from a liquidity management and a monetary transmission perspective. Marc, what is your vision for the future, in terms of what our priorities should be here?

Mr. Bayle: First, thank you for the invitation. It is a pleasure to be at the European Repo and Collateral Council. The CMU and the work on the security financing transactions (SFT), is the next level of integration that we try to implement in Europe. We have a political agenda, driven by our heads of states – and the Lisbon agenda, to integrate our market and to benefit everyone. It is good for all market segments. It is not specific to one category of actors. The point made by Jean-Robert - to have a more efficient economy in Europe for all financial actors so there is no discrimination of one against the other - is something that the Commission is working on together with us. From the ECB side, we are very close to achieving the good functioning of collateral in general. Because we are a big consumer of collateral - as you know, - we are a big collateral taker for monetary policy operations and for intraday liquidity in payment systems we need the capacity to mobilise collateral quickly. To move collateral around quickly is therefore also a benefit for us. We have the same worry and the same challenge that you face when you have to move collateral around and most of our actions are driven by trying to make the market more efficient. As Diana just mentioned, T2S is one of the elements that we have developed to make it more efficient. T2S is not yet fully implemented. It is potentially even wider than the EU because we can also have countries that are beyond the EU joining our platform as long as they adhere to the European laws. Switzerland is an example. If a country wishes to join (because participation is voluntary in this project), this could help them to move collateral around. One benefit that T2S will deliver is to make it easier to move collateral around Europe instantly irrespective of borders. This would make the market more efficient. Today you can have collateral stuck in one country because of the secondary market and because of the way it is organised in that country this means that you can only hold collateral through this mechanism and T2S gives the possibility to move it quickly around through a single settlement process.

I will not repeat what Jean-Robert and Diana said. The CMU has six priorities, one of which is removing the barriers. As Diana said, we removed a lot of barriers by building a single platform. We have done a lot of work around the single platform, together with the market, to remove barriers and to promote integration. T+2 is one of the deliverables that we did around this. Other elements of settlement finality harmonisation are also there. We can go further on this, as we have a second list of items for harmonisation that we are working on together with the Commission and we were very happy to see that these action points are mentioned in the CMU. So there will be follow up work. Withholding tax procedures is one of them and work on legal uncertainties is another. We are also working to clarify how insolvency law could affect the realisation of collateral all over Europe, in particular in reference to settlement finality, or at which point in time what procedure have to kick in and how. So we are working with the market infrastructure on trying to clarify this and if we see any weaknesses we will pass the information to the Commission to take action. And the Commission is very receptive. For us the fluidity, velocity and the mobilisation of collateral are a challenge. Maybe a last point, we are also looking to enhance the way we take collateral as the Eurosystem. We are relaunching a reflection on how to modernise the way in which we take collateral. It was called CCBM2 in the past project. Now that we have T2S, it is a new context, so we will relaunch a reflection on how the Eurosystem can take collateral more efficiently in the future and we will have more about it in the coming months.

Mr. Ricketts: Many thanks Marc. Something which struck me, María Teresa, was a comment made by Klaus Löber on the last panel about the prism through which securities financing transactions have been managed in the context of the most recent post crisis agenda and falling into that shadow banking bucket. In the past, securities financing transactions have fallen into either the plumbing agenda during the Giovannini days - which was a broader attempt to facilitate plumbing for secondary markets - or in the most recent past, they have been a focus in the context of shadow banking issues and indirectly as part of the bank prudential agenda. Over the evolution of policy - while in the last decade and a half we have had a lot of integration efforts which have facilitated these markets - there has not been a holistic vision focused on the role of securities financing transactions per se. It would be really interesting to hear your views - in the context of what Marc just referenced as part of the action items out of the CMU - how you see taking forward the SFT agenda and what your priorities are.

Ms. Fábregas: Thank you. I have to say that I agree with all the objectives of Capital Markets Union that the other panellists have stated. And concerning SFTs specifically there is a new regulation which we need to put into place. This new regulation already improves the better understanding, not only by regulators but also the wider market participants, about how this market works. In addition, it provides further information for the investors and for firms about how they can re-use their assets. So we consider that this will help to make this collateral market work and for the purpose of the Capital

Market Union. Capital Markets Union builds on all this legislation that has been adopted but is not yet in place in order to make sure that we create a genuine single market for collateral in the EU. So that is why it is very important. Of course, in the framework of FSB discussions concerning SFTs, there are further debates that are coming in terms of haircuts and other pieces of possible legislation that might come in the future. And precisely the exercise of the Capital Markets Union, together with the call for evidence on the cumulative impact of legislation, is to make sure that SFTs have a key role in the CMU in order to help finance the economy. So I agree with what all the panellist said before.

Mr. Ricketts: Please catch my eye if you would like to ask a question. It is a great opportunity. I note that there is going to be a European Post Trade Platform which is going to be established. By way of a bit of research and to remind myself of how many previous platforms we have had in the context of Giovannini, CESAME, MOG, CESAME 2, EGME, etc. I think we are up to about 10 if you include the legal uncertainty group. So what might be different this time, in terms of our capacity to tackle some of those barriers which Diana mentioned?

Ms. Fábregas: This time the difference is that there is a lot of new EU legislation harmonising many elements that were not there before. Also what can change is the framework in general, in terms of technological developments and also the overall goal to achieve Capital Markets Union from a political point of view. We are one step forward with regard to all the previous groups that took place. Any possible initiatives that could be taken by the Commission will be based on the better regulation rules meaning overall public consultations and all the other elements. The platform will be one element to provide information to the Commission but there will be other possibilities to provide all the necessary background information and discussions on these issues.

The Chairman: I was speaking to a regulator who you know very well, María Teresa, and he said: how can you already be so sure that certain parts of the new regulatory framework are actually harming liquidity, because not everything is implemented? So my question to you is: are you willing to risk further liquidity disruption by full implementation? Are you willing to look at what you are going to get with consultation, where certain elements say “Oh yes, maybe we should recalibrate it”? Are we going to go full speed to 2018 and then drop off the cliff or will you try to save us?

Ms. Fábregas: None of the previous speakers spoke about 2018 as being the end of the world. I think that everybody has understood that there is a lot of homework to be done by everybody and some specific rules still have to be calibrated in terms of the technical standards that have to be developed. What is clear is that the legislation that has been adopted up to now has been based on international principles and discussion at FSB. Everything has been discussed. The goal is not to demolish what has been done up to now because actually at an international level everything has been considered necessary. But it is in order to make sure it is well calibrated.

Mr. Ricketts: Trust Godfried to throw in some controversy. I think probably there was an oblique reference somewhere in there also to the buy-in issue.

Ms. Fábregas: Exactly.

Mr. Ricketts: Which probably was not up there in the FSB agenda. So, Jean-Robert, you wanted to say something and then Marc you were going to come in.

Mr. Wilkin: Commenting on what María Teresa said to Godfried's question, the concern we have – though I am very supportive of the CMU objective and the fact that the securities financing market can support it - is the impact the regulations which are being implemented one after the other over the last few years and in the coming years are having on the actual liquidity and the impact it will have on our market. We seem to agree that the securities financing market will be supportive of the CMU objective. However, if the market is too severely impacted by those regulations and if they cannot be adjusted or aligned towards the objective of the CMU, this would be counterproductive. This is my concern. For example, the restriction on UCITS to lend assets for term and the limitation on re-use of collateral even with the transfer of ownership and similar regulations here and there, will be an impediment to the liquidity in the securities financing market and therefore will not be supportive of the CMU objective.

Mr. Bayle: Yes, just a couple of comments on this. I fear that regulation will affect the future. It should be somehow demonstrated that there is a call for evidence. Now you can have an argument, what is proposed as evidence, whether it is evidence or not, has to be discussed. But I think there are good people on all sides of the table. So you can find a way to discuss. Certainly the objective, at least of the central bank, is not to create an illiquid market, or remove the possibility to have liquidity. You can be sure of that. You know very well the intentions of my colleagues from market operations (which is not my responsibility). So there is a way to discuss. This is my first point.

The second one is that we have ways to interact with the market. We have the COGESI for instance, which is a market contact group where we discuss collateral management related issues with the Eurosystem. There are other contact groups which exist. We are currently revisiting this question in the ECB on the market infrastructure side. Probably we will try to see whether it is better to have a group which would encompass all competencies, rather than specific groups for each different competency. Today we have one for securities, one for cash and one for collateral. Maybe we can do better. So there is a reflection which we began having. We will share it with you shortly, but it is something we can do and this could be a forum where we exchange information. Maybe we can agree to disagree, but at least we will discuss and share information. This is an important point. One last point when you consider the future, you should also look at the positive side and not only at the negative side, since there are arguments which go in both directions. Again, fundamentally, the CMU and infrastructure projects such as T2S are to help further develop business and to have more fluidity and more collateral. Also it may help to compensate part of the negative - there is a netting effect. So there are a lot of elements to take into account. We cannot only take one side of the coin. We should take the whole coin.

Mr. Manna: Could I make a comment?

Mr. Ricketts: Certainly, but can I ask you to be extremely brief because time is tight?

Mr. Manna: It is more a question to María Teresa around the whole concept of the Capital Markets Union. Has the concept of potentially hitting the pause button ever been considered? Because the reality is, at the same time as you are investigating what could be recalibrated, there are costs. Literally, I just got an email about minimum haircuts and discussing what budget has to be allocated to fix the risk engines. And I sit there and I go: I do not know where I am going to get the budget. These are constant sticky costs that banks are dealing with. It is really just a simple question. You want to have a concept of "Hey you know something we have done a lot, we have accomplished a lot and we have actually probably accomplished more than we expected, but there is a lot more that is still going on." Could there be that concept of: why not postpone some of what we are doing?

Ms. Fábregas: You see the legislation is adopted by the Parliament and the Council with a fixed date and then there is the development of technical standards. So we are working on this in developing technical standards and also making sure that they fulfil the purpose of the CMU - proportionate, enhancing growth and jobs, making sure that markets function better and more efficiently. So that is the goal and we are working in that direction.

Mr. Ricketts: Okay, we are running out of time. You will be glad that you do not have time to answer the question that I was going to ask, which is: if we go down the path which is now increasingly getting mooted over pricing of sovereign risk into bank balance sheets, firstly what does the impact assessment on that look like and equally what could that mean for the future of securities financing transactions? I will leave that as something for everybody to ponder. To close, I would like to run along the panel, in the order that they spoke, to answer the question: if you had to pick two top priorities for the future for securities financing transactions in the context of the CMU objectives what would those priorities be? So, Jean-Robert, what would your top two priories be? And it can be something which you do not want.

Mr. Wilkin: One priority is to improve liquidity in the secondary market for securities and equities and I would add to that, increasing collateral fluidity. That is very important to the objective of the CMU and these are things which all markets, including securities financing markets can contribute. One priority for regulation is legal certainty, which is certainly something we need to work on.

Mr. Ricketts: Okay, great. Very short.

Ms Dijmarescu: Well, I repeat, legal certainty. That is definite and obvious as we have discussed. There are concerns about the mandatory buy-in regime. There has been a lot of evidence presented and we will just have to hope that we will get to a better place that will not impact the market negatively.

Mr. Bayle: Yes, certainly what was said is a key priority. I think they have been identified and we are working on these priorities. I cannot renounce them, but I like the remark of the colleague behind [Mr. Manna] that we need to deliver all that before feeding the pipeline with new stuff. It is also a concern for us.

Ms. Fábregas: Just to say that the goal really is to make sure that we make more efficient and resilient markets. So we are working in this direction.

Mr. Ricketts: Can I just thank my fellow panellists? It is most appreciated. A very diplomatic response María Teresa. And I think if there is one thing which has come out of this is that when you hear what the securities financing industry seeks from the policy maker, it is clear that part of the path to getting there will be to demonstrate more clearly and simply how holistically securities financing transactions actually fit into that enabling framework for the effectiveness of funding markets and investments. So I think that there is a joint challenge coming out of this. It is not just for the policy maker. Thank you again to my panellists. Back to you, Godfried.

8. AOB

The Chairman: Thank you very much. Now I am going to use a word and some people are going to jump in their chair: bridging to the next event. So not interoperability of the bridge. Bridging to the next event, which starts at 7:00, I would like to thank all the panels and the moderators. I would like to thank ICMA staff for their support, Clearstream for holding this meeting for us or providing the room for this meeting. For those going home, have a safe journey. Do not miss your train to Brussels at 7:10. For those going to the party, have a safe journey back to your hotel. Thank you very much.

The Chairman:	The Secretary:
Godfried De Vidts	Lalitha Colaco-Henry

Annex A

The following member firms were represented at the meeting:

ABN AMRO Bank N.V.
Aviva Investors Global Services Limited
Banco Bilbao Vizcaya Argentaria, S.A.
Banco BPI, S.A.
Banco de Sabadell SA
Banco Santander, S.A.
BANKIA, S.A.
Barclays Capital Securities Limited
Bayerische Landesbank
Belfius Bank & Insurance
Blackrock Investment Management (UK) Limited
BNP Paribas
BNY Mellon
CAIXABANK, S.A.
Cecabank, S.A.
Citigroup Global Markets Limited
Commerzbank Aktiengesellschaft
Crédit Agricole Corporate and Investment Bank
Credit Suisse Securities (Europe) Ltd.
Danske Bank A/S
Deutsche Bank AG
Dexia Crédit Local
DNB Bank ASA
DZ Bank AG Deutsche Zentral-Genossenschaftsbank
EquiLend LLC
Eurex Repo GmbH
Euroclear Bank S.A./ N.V.
ICAP Securities Limited.
ING Bank N.V.
J. P. Morgan Securities plc
KBC Bank N.V.
Landesbank Baden-Württemberg (LBBW)
Lloyds Bank plc
Macquarie Bank Limited
Merrill Lynch International (trading as Bank of America Merrill Lynch)
Mitsubishi UFJ Securities International plc
PGGM Vermogensbeheer B.V.
Raiffeisen Zentralbank Österreich AG
RBC Europe Limited
SIX SIS AG
Swiss Reinsurance Company Ltd.
UniCredit Bank AG