International Capital Market Association
ICMA
General Meeting of ICMA’s European Repo and Collateral Council (ERCC)
27 September 2016
Welcome

- **Mr. Martin Scheck**, Chief Executive, ICMA
Keynote speech

- **Mr. Mark Yallop**, Chairman, FICC Market Standards Board
- “Regulation, Ethics and Standards in wholesale financial markets”
Remarks by the chairman of ICMA’s ERCC Committee

- Mr. Godfried De Vidts, Chairman, ICMA ERCC Committee
In memory of

Mark Mazzonelli
1956 - 2016
The regulatory alphabet soup...
We are preparing a perfect storm
“The End of Power will change the way you read the news, the way you think about politics, and the way you look at the world.”

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

– Moisés Naím: The End of Power
» Collateral demand to increase with mandatory and bilateral clearing

» Participation of non-banks in repo market expected to increase

» Buy-side – how can their participation in the ERCC be increased

» Eurepo project, on track

» Study of routing of repo to CCPs

» Workshop re night & intraday liquidity management – should be a focus of CMU

» EPTF
Approval of the minutes of ICMA’s ERCC Annual General Meeting held on 27 January, 2016 in Luxembourg
Legal update

- Ms. Lisa Cleary, Senior Director, Associate Counsel, ICMA
Legal opinion updates

- Opinions address enforceability of netting provisions and recharacterisation risk.
- Basic counterparty coverage (companies, banks and securities dealers) and extended counterparty coverage (also includes insurance companies, hedge funds and mutual funds).

- Opinions available at: [http://www.icmagroup.org/legal](http://www.icmagroup.org/legal)

- Interim memo to the GMRA legal opinion for Germany
- ICMA has published a GMRA legal opinion for Georgia
The ICMA GMRA legal opinions will continue to cover the GMRA 1995 in 2017 but ICMA will review the position for the 2018 opinions.

Regulatory desire to see the market using the most up to date version of standard market documentation:
- GMRA 2011 Protocol – multilateral application for adhering parties
  - Improved default provisions:
    - Methodology for calling an event of default
    - Procedure for closing out transactions and determining the amounts payable
  - Introduces a set off provision
  - Introduces a definition of Euro
  - Replaces references to LIBOR

ICMA continue to encourage adoption of the 2011 GMRA Protocol.
At the request of the ERCC committee ICMA is developing an industry standard GMRA Annex for use with corporate counterparties. The aim is to open the repo market to a wider group of counterparty types, including firms which may not have the capacity to negotiate long form GMRAs. The annex would set out the principal contractual terms between counterparties. Due to the standardised nature of the document, it could theoretically be used for multiple transactions with disclosed participants within the same triparty system. The triparty agents’ terms and conditions and service agreements would take effect separately.

Challenges

• Accommodating bespoke amendments-
  – House preferences
  – Compliance related
  – Jurisdiction related
• Opinion coverage for counterparty types
• Interaction with triparty service providers’ service agreements
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  - +44 20 7213 0341
Development of a new repo index

- Mr. Alberto Lopez, Research and Benchmarks Development Officer
- European Money Markets Institute (EMMI)
Development of a new repo index

ICMA European Repo and Collateral Council
General Meeting
27 September 2016

Alberto López
Benchmarks Unit
EMMI commissions an analysis of the Euro Repo Market.

The Joint Task Force meets with AT5s, Clearing Houses, and existing Index Providers covering the European repo market.

EMMI invites the ERC Repo Index Task Force to join efforts and devise a way forward toward the formulation of a pan-European secured benchmark.

EMMI starts its works on the development of a methodology for the benchmark.

The Joint Task Force recommends EMMI to underpin the benchmark on on-screen euro repo transactions executed on European AT5s and cleared through qualified CCPs.

ERCC recommendation on the expansion of underlying transactions.

The Joint Task Force recommends EMMI to launch a Public Consultation: preference for transactions and potential use and need of the benchmark.

Market’s preference for a more encompassing index (including all OTC and ATS transactions cleared through a qualified CCP).

Brief recap of the Project—highlights
Data observations

- There is sufficient data to construct a transaction-based index for short maturities, but for longer maturities the data seems insufficient.
- Every platform plays a dominating role for different segments of the market.
- Different rate patterns can be observed depending on: collateral type, GC or special repo.
- There are seasonalities (e.g. year-, quarter-, month-end, and end of ECB maintenance period).

Conclusions

- It is feasible to create a robust, transaction-based pan-European benchmark on one-day tenors.
- Reliable representation of the secured money market.
- Capturing and encompassing different market segments.
- Reflecting common trends across the whole secured money market.
- Reflecting the seasonalities and patterns in the data.
In December 2015, the public consultation, as advised by the Joint Task Force, was launched by EMMI.

- Pricing and valuation seem to be the most foreseeable potential uses of the New Index.
- A number of respondents indicated that the New Repo Index could be regarded as a possible substitute of the Eonia index.
- Other possible uses are as benchmark of historical performance and internal transfer pricing.

Pricing and/or valuation: 78%
Development of derivatives and/or products: 36.6%
Balance sheet management: 24.4%
Hedging: 48.8%
Information purposes only: 17.1%
Other: 17.1%

Preference for transactions underlying the index consisting of: anonymous ATS executed and OTC’s (i.e. voice-brokered and bilateral) euro repo trades centrally cleared through a qualifying CCP made against ECB eligible collateral.
While EMMI acknowledges the market’s appetite for an index whose underlying data includes all ATS executed, voice-brokered, and bilateral transactions cleared through qualifying CCPs, due to data availability issues, the preliminary design of the benchmark will be focused on anonymous ATS executed trades, cleared through qualifying CCPs.

EMMI’s decision was communicated to the ERCC and discussed during their February 24, 2016 meeting. The ERCC considered their advisory role as concluded: EMMI’s Secured Benchmark Task Force’s work will continue to be monitored but is not a priority for the Committee.
EMMI formally constitutes its Secured Benchmark Task Force

Need to clearly delineate the mandate of the Task Force and its members:

- Drafting and Circulation of Terms of Reference for the Secured Benchmark Task Force;
- Need written confirmation from all members of abidance to these TOR;

Due to the current and upcoming regulatory environment, EMMI needs to clearly document and reflect the transparency of the design process.

Current membership of the Task Force:

- Mr Jean-Marc Anciaux
- Mr Andrea Masciovecchio
- Mr Francisco de Pablos
- Mr Harald Endres
- Mr Eugene McGrory*
- Mr Andreas Biewald
- Mr Rich Hochreutiner*
- Mr Stefaan Van De Mosselaer
- Mr Luis Soutullo
- Ms Julija Jakovicka (ECB, observer)

The Secured Benchmark Task Force has an advisory role to EMMI and its Secretariat.

The Steering/Oversight Committee and its membership will be established at a later stage, once the benchmark’s governance has been defined.
The Swiss Institute of Banking and Finance at the HSG is collaborating with EMMI in the design of the index methodology.

A base line approach was recommended by the Task Force members during the September 6 meeting.

A report with recommended methodologies and empirical backtesting will be presented during the Task Force meeting in November.
Remaking the corporate bond market
ICMA’s 2nd study into the state and evolution of the European investment grade corporate bond secondary market (2016)

- Mr. Andy Hill, Senior Director, Market Practice and Regulatory Policy, ICMA
Key findings of the study?

- The general perception is that market liquidity is declining – but it is more nuanced than simply things are getting worse

- Overall, liquidity is becoming more challenging to provide and source

- Causes for this are attributed to the confluence of monetary policy and regulation

- Market participants are responding the challenge, including sell-side, buy-side, intermediaries, and infrastructure providers: changing business models and behaviour

- More interest in new trading protocols and e-solutions, as well as alternative products

- Looking ahead, major risks seen as the ECB’s CSPP, MiFID II/R pre-trade transparency, and CSDR mandatory buy-ins [pre-Brexit]

- Corporate issuers more focused than ever: concerned about a growing disconnect between secondary market liquidity and primary market efficiency
ICMA Buy-side Liquidity Survey

General Market Liquidity (EUR)

Improved
Remained more or less the same
Deteriorated
Deteriorated significantly

Liquidity for small tickets (EUR)

Improved
Remained more or less the same
Deteriorated
Deteriorated significantly

Liquidity for large tickets (EUR)

Improved
Remained more or less the same
Deteriorated
Deteriorated significantly
**What do we mean by liquidity?**

- “The ability to get a price in the size you require, when you need it”?
- The ability to trade without major market impact?

**Can liquidity be measured?**
- MiFID II/R liquidity measures
- Interactive Data’s Liquidity Indicators
- Bloomberg’s LQA

**What are the appropriate determinants?**

**Should liquidity measures be based on trade data, or on what failed to trade?**

**Is liquidity dynamic?**

**Should liquidity have a cost?**
Issuer concerns

Secondary market impact on non-financial IG corporate issuance

Eurozone EUR New Issuance (LHS)  iTraxx Main (RHS)
The traditional fixed income liquidity model

Provides for:

- Ready two-way pricing
- Immediacy of execution
The principal dealer (or market-maker) model

Essential ingredients for the model:

- Availability of capital (balance sheet) to hold long and short-positions and warehouse risk
- Availability of an efficient and liquid derivatives market (such as single-name CDS) to hedge dealer positions
- Availability of an efficient and liquid repo market to fund dealer positions
- Skills and experience of the trader
The principal dealer (or market-maker) model

Undermining the model:

- Availability of capital (balance sheet) to hold long and short-positions and warehouse risk
  - Increased cost of capital (Basel III & IV)
  - Volker Rule and restrictions on bank proprietary trading

- Availability of an efficient and liquid derivatives market (such as single-name CDS) to hedge dealer positions
  - CRD IV/R, EMIR, NSFR

- Availability of an efficient and liquid repo market to fund dealer positions
  - Leverage Ratio, NSFR,....
  - QE: negative rates and excess reserves

- Skills and experience of the trader
  - Ongoing attrition of experienced staff and ‘juniorization’ of trading desks
The evolving dealer model

Changes in dealer behaviour:
- Smaller inventories and faster turnover
- More considered allocation of balance sheet
- Deeper client engagement and awareness of needs
- More specialization and focus on competitive advantage
- More streamlined trading and sales desks

What we lose is:
- Ready two-way pricing
- Immediacy of execution
How is the market responding?

- Electronification: new initiatives, platforms, tools, and protocols
  - Connectivity
  - Data

- Changes in buy-side behaviour
  - Primary vs secondary
  - Buy-to-hold
  - Dealer relationships
  - Price ‘makers’
  - Fund crossing
  - Outsourcing (‘super desks’)

- Use of alternative products, such as bond ETFs, CDS indices, Bond Index TRS

- Discussions on changes in issuance practice (‘benchmarking’)

- CMU Call for Evidence and the ‘better regulation’ initiative
Future potential challenges to bond market efficiency and liquidity

- MiFID II/R pre- and post-trade transparency requirements (for bonds and single name CDS)
- MiFID II/R best-execution requirements
- CSDR mandatory buy-ins
- Even higher capital and funding costs (FRTB, NSFR)
- Other miscellaneous regulatory challenges (e.g. MAR disclosure requirements)
- ECB’s Corporate Sector Purchase Programme
- Brexit
ICMA Buy-side Liquidity Survey

Expected impact on future liquidity (EUR)

-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0
5.0

+ve

-ve

MiFID II/R Pre-trade transparency
MiFID II/R Post-trade transparency
MiFID II/R Best Execution obligations
CSDR mandatory buy-ins
Fundamental Review of the Trading Book
Net Stable Funding Ratio
QE / Monetary policy
ICMA Buy-side Liquidity Survey

Initiatives to improve liquidity (EUR)

- Decrease
- Little or no impact
- Improve
- Significantly improve
ICMA Buy-side Liquidity Survey

Liquidity: next 12 months (EUR)

- Improve
- Remain more or less the same
- Deteriorate
- Deteriorate significantly

Liquidity: next 12 months (GBP)

- Improve
- Remain more or less the same
- Deteriorate
- Deteriorate significantly

Remaking the corporate bond market
Recommendations

- Provide capital relief for market-making
- Revitalize the single-name CDS market
- Review and re-assess harmful regulation
- Bring all market stakeholders together to review the market structure

“Only through a greater understanding and appreciation of different stakeholder needs and perspectives can the market community achieve consensus and develop private and public initiatives to maintain and grow a healthy and vibrant pan-European corporate bond market.”
Remaking the corporate bond market
European Repo Council
31st European repo market survey, conducted in June 2016

- Mr. Richard Comotto, Senior Visiting Fellow, ICMA Centre - Reading University
Survey overview

• outstanding value of contracts at close of business on Wednesday, 8th June 2016
• 67 responses (-5)
31st European repo market survey conducted in June 2016

**Headline numbers**

- **June 2016**  
  EUR 5,379 billion

- **December 2015**  
  EUR 5,608 billion

- **June 2015**  
  EUR 5,612 billion

- **December 2014**  
  EUR 5,500 billion

- **June 2014**  
  EUR 5,782 billion

- **December 2014**  
  EUR 5,499 billion

- **June 2013**  
  EUR 6,076 billion

- **December 2012**  
  EUR 5,611 billion

- **June 2012**  
  EUR 5,647 billion

- **December 2011**  
  EUR 6,204 billion

- **June 2011**  
  EUR 6,124 billion

- **December 2010**  
  EUR 5,908 billion

- **June 2010**  
  EUR 6,979 billion
Headline numbers

31st European repo market survey conducted in June 2016

Lehman

LTRO

EUR 5,379bn
Comparable market growth

- headline number -4.1% since December 2015
- for 61 respondents participating in last 3 surveys
- +0.5% since December 2015
- -1.6% year-on-year
Trading analysis

- **Automatic trading system** includes GC Pooling bilaterally/triparty/CCP-settled

- **ATS** 33.0% (33.4%)

- **Bilaterally-negotiated by phone or EM bilaterally-settled**

- **Direct** 45.9% (43.8%)

- **Bilaterally-negotiated by phone or EM bilaterally-settled**

- **Arranged by voice-broker bilaterally-settled**

- **Bilaterally-negotiated by phone or EM triparty-settled**

- **Broker** 11.1% (11.8%)

- **Triparty** 10.0% (11.0%)
Trading Analysis

31st European repo market survey conducted in June 2016
31st European repo market survey conducted in June 2016

Trading analysis
Trading Analysis (directly reported by providers)
Geographical Analysis

ATS via CCP

- Anonymous: 24.9% (23.6%)
- Domestic: 23.1% (24.5%)
- In/out eurozone: 33.8% (33.2%)
- Intra-eurozone: 18.2% (18.7%)

from reporting bank cross-border to a(nother) eurozone counterparty
from reporting bank cross-border to a non-eurozone counterparty
Geographical Analysis
31st European repo market survey conducted in June 2016

Geographic Analysis

- Domestic
- X-border with eurozone
- X-border with noneurozone
- CCP

- repo
- reverse repo
Business cleared across CCP

31st European repo market survey conducted in June 2016
Currency Analysis

31st European repo market survey conducted in June 2016

- EUR: 61.3% (63.2%)
- USD: 17.1% (16.0%)
- GBP: 11.6% (12.4%)
- JPY: 5.2% (5.0%)
- Other: 2.1% (3.4%)
31st European repo market survey conducted in June 2016

Currency Analysis

Image of a currency analysis graph with data points for Lehman and LTRO.
Collateral Analysis

31st European repo market survey conducted in June 2016

- Japan: 4.7% (4.9%)
- US: 8.0% (6.1%)
- UK: 12.1% (12.9%)
- etc: 19.6% (19.4%)
- DE: 20.3% (20.1%)
- IT: 10.4% (9.6%)
- FR: 10.9% (10.8%)
- ES: 5.9% (6.9%)
- EU: 4.9% (3.0%)
31st European repo market survey conducted in June 2016
31st European repo market survey conducted in June 2016

Collateral Analysis --- Peripheral Eurozone

The diagram shows the collateral analysis for the Peripheral Eurozone over the years from December 2001 to December 2015. The analysis includes data from Lehman and LTRO periods. The countries represented are Italy (IT), Spain (ES), Greece (GR), Portugal (PT), and Ireland (IE).
Collateral Analysis

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<td>EU non-govis</td>
<td>14.2% (21.4%)</td>
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<td>EU gov is</td>
<td>85.8% (78.6%)</td>
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31st European repo market survey conducted in June 2016
31st European repo market survey conducted in June 2016

Collateral Analysis

Lehman

LTRO

EU non-govis

EU govvis
Maturity Analysis

short dates = 61.2% (56.7%)
Maturity Analysis

31st European repo market survey conducted in June 2016
Maturity Analysis

31st European repo market survey conducted in June 2016
Maturity Analysis

31st European repo market survey conducted in June 2016
Maturity Analysis

31st European repo market survey conducted in June 2016

Lehman

LTRO

days


min. WAM

max. WAM
Maturity Comparison

31st European repo market survey conducted in June 2016
Rate Analysis

- Fixed: 82.5% (83.8%)
- Floating: 10.8% (10.6%)
- Open: 6.7% (5.6%)

31st European repo market survey conducted in June 2016
31st European repo market survey conducted in June 2016

Next Survey

Wednesday, 7th December 2016
Repo in developing markets

- Mr. Richard Comotto, Senior Visiting Fellow, ICMA Centre – Reading University
Repo in developing markets

- there is growing interest in developing markets in establishing, reviving or rebuilding local repo markets, particularly in Africa and Asia
- there is a plethora of financial market development programmes being supported by IMF, World Bank & regional multilateral development banks
- ICMA provides technical assistance on the GMRA, as well as on repo & repo markets to central banks, treasuries, local market associations & local banks
- ICMA often works with regional multilateral development banks
- ICMA has a new partnership with Frontclear
Repo in developing markets

- many developing markets appear to have repo markets already
- but most are in fact disguised secured loan/deposit markets --- there are some acid tests
- these pseudo repo markets often seem to work well --- so why add repo?
  - collateralised borrowing/lending markets may be an evolutionary blind alley
  - true repo can provide superior legal protection & regulatory treatment
  - true repo can catalyse the securities market
  - true repo can make cross-border integration easier
Repo in developing markets

some common characteristics
• turnover of USD15-50 million a day
• collateral is usually limited to government & central bank securities
• collateral is illiquid & dealers rely on standard haircuts
• confidence is high in the credit of other banks (or the official safety net)
• there can be collateral stigma
• repo rates are often higher than unsecured rates
• repo & pseudo repo is often traded on an ‘exchange’
• NBFIs are usually excluded but there is often retail participation
Typical obstacles to active repo markets

key obstacles
• widespread misunderstanding about the character of repo
• legal uncertainty
  • will title transfer & netting in insolvency be enforceable?
  • undeveloped or unreliable juridicial systems
  • existing or proposed master ‘repo’ agreements are often inadequate, even risky
• fiscal
  • tax (eg stamp duty/CGT on purchase & repurchase, WHT on manufactured payments)
  • debt issuance --- incoherent primary market strategy means illiquid collateral market
• other obstacles--- short-selling prohibitions, inefficient market venues
Overcoming obstacles to active repo markets

**removing legal obstacles**
- best solution is statutory definition of repo & a netting law
- but reform is particularly difficult in many civil code jurisdictions
- some countries are trying to use regulation as an alternative
- also need a robust master repo agreement
- don’t use the US MRA
- consider GMRA plus country annex or country Annex I
- consider documented buy/sell-back, which means Buy/Sell-Back Annex
- legal opinion essential
Typical obstacles to active repo markets

documented buy/sell-backs
• it is often assumed that all buy/sell-backs are undocumented --- ask ESMA!
• but documented buy/sell-backs do exist & have operational features that can help avoid some common re-characterisation risks
Repo in developing markets

some advice
• contact the ICMA or your local multilateral development bank
• avoid the US Treasury
• think about documented buy/sell-backs
• but remember repo cannot exist in a vacuum
Repo in practice

- Mr. Erik van Dijk, CFRO, Frontclear
THE CHALLENGE – INTERBANK MARKETS

- Interbank markets operate on the assumption of fully mitigated credit risk through HQLA collateral (G7 cash/government securities)
- EMDC financial institutions can offer local currency collateral at best, exposing their transacting counterparties to country and market risk (if correlated: wrong-way risk)
- Lack of access to interbank markets fails to unlock comparative advantages and leads to higher borrowing costs and/or lack of liquidity in the local market

“Financial markets in EMDEs ... [are] constrained by perceptions of high counterparty risk and often a limited supply of high quality collateral, contributing to high spreads ...” -- Financial Stability Board, IMF and World Bank (2012)

“An important policy measure that has been proposed to stabilize interbank markets — especially in emerging economies — is to collateralize transactions in the interbank market.” -- World Bank 2013 Financial Development Report

“To improve the efficiency of the interbank and its role as a channel of transmitting monetary policy in such underdeveloped interbank markets like Kenya, monetary authorities must broaden the product tenors, increase the number of currencies traded, link the interbank with other money market segments and address counterparty risks.” -- African Development Bank (2014)
FRONTCLEAR GUARANTEES

Introducing additional funding and liquidity from foreign investors

Redistributing existing (local) liquidity and promoting policy signals

Frontclear Management B.V.
TECHNICAL ASSISTANCE (FTAP)

Trainings, workshops, consulting in:
- Fixed income: bonds, REPO, valuation, trading
- Derivatives: overview, valuation, accounting and trading
- (Market) risk management
- Basel II/III: liquidity and balance sheet management

Trainings, workshops, consulting in:
- Understanding and applying GMRA
- Understanding and applying ISDA
- Developing bespoke legal opinions in conjunction with legal workshop

Custom trajectories such as:
- Settlement rules and reporting
- Central counterparty development (local clearing)
- Guarantee funds in support of local market infrastructure

Custom trajectories especially directed to regulatory authorities based on any of the above trainings, workshop, consulting or research
- e.g. current research on ‘Hybrid OTC exchanges: costs and benefits’
Transactions trigger change and facilitate broader TA interventions

TA interventions cement changes and facilitate transactions
FTAP CASES

Global research
- Hybrid OTC Exchanges: costs and benefits to the interbank market (Q4 2016)
- Money markets and interbank markets: best practice and learning (Q4 2016)

CIS
- Georgia: GMRA enforceability through a bespoke legal opinion. Understanding GMRA and legal constraints for system actors and obligors

West Africa
- Cote d’Ivoire: Understanding and applying ISDA workshop for obligors
- Ghana: annual programme approved and starting Q3 2016
- Nigeria Country Programme (Q3 2016)
- West Africa Regional Programme (Q4 2016)

East Africa
- Kenya: training and regulatory enhancement
- Zambia: legal opinion developed on GMRA and ISDA enforceability. GMRA/ISDA training for banks and system actors in planning (Q4 2016)
- Uganda Country Programme (Q3 2016)
- Rwanda Country Programme (Q3 2016)
FRONTCLEAR IN SHORT

- Frontclear issues guarantees to cover counterparty credit risk on EM financial institutions in *secured* interbank market transactions
  - Subject to obligor posting local collateral (cash or government securities)
  - Global diversification of wrong way risk by Frontclear ensures capital efficiency / pricing power
  - 1st demand counter-guarantee from KfW

- Basel III compliant guarantee for Beneficiaries, eligible under substitution approach for capital relief and positive effect on CVA cost – lowering the cost of trading

- Market access on more amenable terms for Obligors, expanding growth and lending potential

- Frontclear Technical Assistance Program (FTAP) focused on:
  - Capacity Building of local market participants
  - Legal reform and market infrastructure development

Frontclear Management B.V.
INVESTORS AND COUNTER-GUARANTORS

Frontclear Management B.V.
## FRONTCLEAR TEAM

<table>
<thead>
<tr>
<th>Position</th>
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<tbody>
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CCP trade capture

- Mr. John Burke, Consultant, ICMA
‘The Counterparty Gap’

An ICMA ERCC study on the trade registration models used by European central counterparties for repo transactions

27 September 2016
Contents:

- Introduction and Background
- Summary of CCP responses relating to the counterparty gap issue
- The counterparty gap issue
- Contract outcome scenarios
- Summary
- ICMA ERCC Recommendations
Introduction

- These slides provide an update on the analysis undertaken by the ICMA European Repo and Collateral Council (‘ERCC’) during the Spring and Summer on CCPs’ trade registration models and focus on a specific area of the trade registration process that creates risk for market participants and needs to be addressed.

- The specific area of focus relates to risks borne by market participants arising from different trade registration models and the exact timings when CCPs assume counterparty responsibility for a trade – we refer to this risk as ‘The Counterparty Gap’.

- These slides contain recommendations from the ICMA ERCC on a number of changes to market best practice that, when adopted, could reduce the risk to market participants arising from these issues.

- Further detail on the counterparty gap issue can be found in the ICMA ERCC report on the subject which is published today.

Background

- Analysis undertaken of trade registration process of the six major Fixed Income CCPs in Europe (BME Clearing, CC&G, Eurex Clearing, LCH Ltd, LCH SA and Nasdaq Clearing).

- CCPs each completed a detailed trade registration questionnaire and participated in a telephone conference call with the ICMA project team to discuss, clarify and elaborate responses where required.
## Summary of CCP responses relating to the counterparty gap issue

<table>
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<th>BME Clearing</th>
<th>CC&amp;G</th>
<th>Eurex Clearing</th>
<th>LCH Ltd</th>
<th>LCH SA</th>
<th>Nasdaq Clearing</th>
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<tr>
<td><strong>Timing that CCP becomes counterparty to trade</strong></td>
<td>Receipt and Acceptance</td>
<td>Receipt and Acceptance</td>
<td>Execution (Moment of execution on trade platform)</td>
<td>Receipt and Acceptance</td>
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<tr>
<td></td>
<td>Moment of receipt and registration of trade by CCP</td>
<td>Moment of receipt and registration of trade by CCP</td>
<td></td>
<td>Moment of receipt and registration of trade by CCP</td>
<td></td>
<td>Moment of receipt and registration of trade by CCP</td>
</tr>
<tr>
<td><strong>exceptions</strong></td>
<td>1) eMid trades at time of execution</td>
<td>GC Pooling Select Invest: Binding declaration of intent to execute a trade whose legal conclusion is contingent on CCP novation. Novation is subject to cash pre-funding for the opening leg.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Can CCP clear bilaterally executed trades?</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Can CCP clear anonymous ATS executed trades?</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Does CCP prescribe form of contract before becoming counterparty?</strong></td>
<td>No</td>
<td>No</td>
<td>Open offer transactions: not applicable.</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>CCP silent</td>
<td>CCP silent</td>
<td>GC Pooling Select Invest transactions: No. The binding declaration of intent is set out in the Eurex Repo rules &amp; regulations.</td>
<td>CCP silent</td>
<td>CCP silent</td>
<td>CCP silent</td>
</tr>
<tr>
<td><strong>What happens if CCP rejects trade?</strong></td>
<td>CCP silent</td>
<td>CCP silent</td>
<td>If CCP doesn’t novate the trade due to missing cash pre-funding, the Select Invest Bank may request to stop further novation attempts after two unsuccessful novation attempts. The binding declaration of intent would dissolve.</td>
<td>CCP silent</td>
<td>CCP silent</td>
<td>CCP silent</td>
</tr>
</tbody>
</table>
A number of changes have been made to the CCPs’ trade registration processes and the exact timing when they become counterparty to the trades routed to them for clearing.

The CCPs’ motivation for these changes has principally been to manage their operational risk. The CCPs do not seek to explain nor take responsibility for the motivation or intention of the dealers or the trading platforms/intermediaries.

To understand the entire risk picture of the trade registration process, important to understand the inter-play between the dealer, the ATSs/intermediaries and the CCPs.

Any trade sent to a CCP that uses the Receipt and Acceptance trade registration model poses a question as to the legal status of the trade during the period between execution and the point where the CCP assumes counterparty responsibility.

An equivalent counterparty gap risk exists if a trade is rejected by a CCP for any reason.

In both circumstances, the original trade counterparties are left with two critical risk questions:

- does my trade exist?
- if so, who is my counterparty?
Contract outcome scenarios

1. Period between trade execution and CCP becoming trade counterparty
   - Yes
     - Model used by Eurex Clearing for inter-bank trades and CC&G for eMid and tri-party trades
     - Documented bilateral trade
     - Documented bilateral ‘contingent’ trade
     - Undocumented bilateral trade
     - Undocumented bilateral ‘contingent’ trade
   - No
     - Bilateral Trades
     - Is CCP the counterparty at point of trade?
     - Yes
       - Model used by dealers for voice-brokered trades, direct trades and/or Eurex GC Pooling Select Invest trades
       - Documented/GMRA
       - Documented bilateral trade
       - Documented bilateral ‘contingent’ trade
       - Undocumented bilateral trade
       - Undocumented bilateral ‘contingent’ trade
     - No
       - ATS Trades
       - Model used by BME, CC&G, LCH Ltd, LCH SA and Nasdaq for inter-bank trades

2. CCP decision to accept / reject trade
   - CCP registers/novates trade
   - CCP does not register/novate trade

3. Outcome of CCP accept / reject decision
   - CCP Contract Terms
   - Persisting documented bilateral trade
   - Tear-up

- CCP registers trade
- CCP does not register trade
- Uncertain: either undocumented bilateral trade persists or tear-up
- Tear-up
- No Trade
A complex picture. Multiple different trade registration models being used by CCPs

The changes by CCPs to become counterparty at the point of Receipt and Acceptance of the trade addresses operational risk for the CCP but has had the effect of transferring an amount of risk from CCPs onto market participants

Industry-wide, the majority of European CCP cleared repo trades are executed on ATSs (estimated at >95%) and in the majority of cases with the CCP becoming counterparty when the trade is received and accepted by the CCP

Industry-wide, bilateral trades account for a small proportion of European CCP cleared repo trades (estimated at <5%)... but 100% for BME and Nasdaq

Irrespective of whether a trade was executed anonymously on an ATS or transacted directly between two counterparties, any trade sent to a CCP that uses the Receipt and Acceptance trade registration model poses a question as to the legal status between execution and the point the CCP assumes counterparty responsibility

If a trade is rejected by a CCP and the treatment for a trade rejection has not been clarified in the ATS rules or agreed between the original bilateral trade counterparties at the outset, the legal status of the trade can be ambiguous
The critical point in the process is the CCP acceptance or rejection of the trade

- Equivalent to counterparty finality

In the majority of cases, the CCP’s confirmation of acceptance (or in exceptional circumstance, rejection) should be the trigger for a dealer to know whether the trade actually exists and who their counterparty is.

The term ‘novation’ is often used erroneously by market participants

- Technically, it means one legal contract being replaced by another contract
- However, it is often used as if it is the time that a CCP contract arises
- This may confuse because it pre-supposes that a contract of some kind would exist prior to a CCP contract being created... whereas in the majority of cases there is no prior contract
- We use the term ‘Receipt and Acceptance’ to describe the moment of counterparty confirmation following receipt, interrogation and registration of trade by CCP

Clarification of the counterparty gap issues will provide market participants with certainty on a trade’s status at all points in its lifecycle

- Helpful in a market-wide operational or default event

By working together now to clarify the position regarding the counterparty gap issues, market participants and infrastructure providers will achieve an enhanced operating and risk management environment for CCP cleared business and ensure that any future increase in CCP activity e.g. Dealer to Client trades, can be managed more comfortably.
ICMA ERCC promotes as best practice that all repo trades should be documented:

- for ATS/CCP trades this includes their respective rules/documentation
- for bilaterally organised trades this is achieved through agreed GMRAs and should include appropriate trade confirmations

All trades intended for central clearing should, as a matter of best practice, be contingent upon the CCP’s acceptance and will otherwise be cancelled:

- for ATS trades, the ATS should make this clear within its rules/documentation; and
- for bilateral trades this should be agreed between the parties and reflected in writing

- Where the applicable CCP involvement is not on an “open offer” basis, ATSs should explain clearly within their rules/documentation the status of a trade that has been executed in anticipation of CCP clearing, but not yet registered by the CCP – this should include the ATS explaining clearly that any trade rejected by the CCP is automatically cancelled and that appropriate procedures are in place for such exceptional events

- For bilateral trades executed in anticipation of CCP clearing but not yet registered by the CCP, it should be clearly stated that the trade is contingent upon CCP registration – this should be reflected in writing, by the trader and in any associated confirmation (unless included in the applicable GMRAs as a mutually agreed negotiated clause)
Clarifying via a market convention that all CCP destined trades are CCP Contingent Trades highlights that it is important that everything is done to ensure that, to the extent reasonably possible, the time gap between a trade being executed and it being accepted by the CCP is minimised:

- Dealers should have transparency on the length of time it takes for all trades to progress from point of electronic match to the point of CCP’s Receipt and Acceptance, meaning: (1) length of time for trade from ATS (execution) or the trade matching service to receipt at CCP gateway; and (2) time from receipt at CCP gateway to CCP acceptance as counterparty to the trade.

- Asking for transparency in this way should serve to: (1) provide essential operational risk management information to dealers; and (2) provide incentives to ATSs and CCPs to optimise the speed of their trade acceptance process.

- Dealers will need to consider any implications for the point at which they represent within internal systems that these trades exist – the assumption is that these trades are captured within internal risk and control systems from the point of execution, despite the fact that some of them might fail to be accepted by the applicable CCP and hence be cancelled.

- CCPs should be encouraged to provide trade acceptance, or rejection, confirmation messages to dealers in the fastest economically rational time possible – this may require investment by the CCPs in reporting systems and STP messaging, but can be justified because the trend by CCPs towards becoming counterparty from the point of trade registration, instead of trade execution, has shifted significant operational risk onto the dealer community; and timely CCP reporting of trade registration is important to allow dealers to manage this risk.
Cash Bond Trades

It is important that consideration is given to the applicability of an equivalent CCP Contingent Trade market convention for cash bonds.

The cash bond community will need to understand the implications of the current CCP registration model for their market and what the CCP Contingent Trade convention is seeking to achieve for repo.

It would increase complexity and create additional operational risks if the cash bond community elect to pursue a different approach to the repo market.

A dialogue is being initiated with relevant cash bond market stakeholders to discuss the situation and advise them of the steps that ICMA ERCC plan to take for market best practice in the repo market.
Amendments to the Guide to Best Practice in the European repo market

- Mr. Sylvain Bojic, Director, London Head of Repo, Société Générale
Impact of regulation on repo

- Mr. Michael Manna, Managing Director, Head of Fixed Income Financing EMEA, Barclays Capital Securities Limited
- Mr. David Hiscock, Senior Director, Deputy Head, Market Practice and Regulatory Policy, ICMA
- Mr. Alexander Westphal, Associate, Market Practice and Regulatory Policy, ICMA
ICMA European Repo & Collateral Council (ERCC) General Meeting

Impact of Regulation on Repo

27 September 2016
Michael Manna, Head of FI Financing Trading, Europe
The Regulatory Pendulum: Direction of Travel?

Following the events of 2008 there was little doubt the regulatory pendulum would swing in the direction of a more uncompromising application of regulation in order to promote macro prudential stability. New regulation was written against the backdrop of a caustic political environment, with the then available evidence, and with no credible ability to fully assess its impact. Eight years later we have new facts, we’re starting to observe unintended consequences, and regulators are asking questions. Is there enough evidence to support delaying the regulatory pipeline and/or recalibrate existing rules?

Is the pendulum moving towards equilibrium?

- Finalized European NSFR rules
- Limitation on collateral re-use
- Minimum HC & countercyclical requirements
- The idea of “counterparty” agnostic lending

“….. The FPC sees merit in further work being undertaken domestically and internationally to assess changes in the repo market and their economic consequences”(1)

“However, there are some indications that regulation, and the leverage ratio in particular, is at least one of the drivers of change in funding and market liquidity”(1)

“Nevertheless, the FPC judges it appropriate to adjust regulatory measures where opportunities exist to minimise their impact on the liquidity of core financial markets, without compromising their positive effect on resilience and stability”(1)

---

Most European banks adopt a trade date accounting approach which recognizes or derecognizes trading portfolio items bought and sold on trade date – i.e. cash execution activity.

However, these trades do not settle until a few days later, e.g. T+2. As a result, IFRS accounting rules provide that a “settlement liability” (in the case of a security purchase) or a “settlement asset” (in the case of a security sale) is recognised for the cash payable /receivable between trade date and settlement date. BCBS consultation is seeking harmonisation with the US approach, no change in the accounting principles but even out in the leverage exposure measure.

US GAAP allows brokers to net down these settlement balances to a single item regardless of isin, counterparty, currency, etc.

Basel proposed that open trades cannot net because they do not meet the criteria of having an explicit settlement date, but they request further evidence of the adverse impact of this treatment on open repos and any arguments for why further revisions may be warranted.

Not addressed in this consultation:
- In the E-C add-on for SFTs, there is a double count for cash collateralised stock borrow where the haircut is on the accounting balance sheet and double counted in the leverage exposure via the E-C add on.
- Clarification around treatment of Forward Starting Reverse Repos.

The PFE add-on - Basel proposes replacing CEM with SA-CCR however, the PFE cannot be reduced for any collateral posted by the counterparty or any negative mark-to-market of the derivative.

Replacement Cost - Basel also proposes the SA-CCR calculations.
“In principle, leverage ratio requirements, as currently calibrated, would constrain only firms with relatively low risk-weighted assets on average. The impact will also depend on the business level at which it is applied. For the UK leverage ratio framework, this is currently at the consolidated level only”(2)

“However, if the leverage ratio were viewed as binding on individual business lines, this may create incentives for a dealer to increase margins, or reduce volumes, on lower-risk activities such as repo (Duffie 2016).(1)”

“Nevertheless, there is some market and supervisory intelligence that dealers are considering the marginal impact of a leverage ratio requirement at the level of individual business lines when making decisions about how to allocate balance sheet to different activities”(2)

“As set out in the Review of the FPC Direction on a leverage ratio requirement and buffers chapter, in the light of evidence of declining market liquidity in some core financial markets and of a decline in availability of repo financing, which supports market functioning more broadly, the FPC is restating its intention for its leverage ratio framework to be applied at consolidated level and not to individual activities”(2)

Capital Allocation: a Top Down Process

Strengthening the weakest links

In the past business lines were allocated a revenue budget, influencing their behavior and decisions. Post 2008, revenue remains important but the focus has turned to risk & leverage. Which forms the foundation for how a bank's performance and stability is measured and assessed. Allocating financial resource to individual business lines forces them to either seek efficiencies and/or amend their business model to address their weaker return metric. This can include increasing prices or simply reducing activity to bring down the use of capital.

“Top of House”

Available RWA  
Available LBS  
Management Buffer  
Budget Process  
LBS & RWA Allocation

Business Line 1

Revenue & Cost Budget  
Capital & Leverage Allocation  
RoRWA 5%  
RoLBS 20%

- The intention is to keep this business  
- Needs improve its return on capital  
- Reduce or cap its capital allocation, the risk it takes

Business Line 2

Revenue & Cost Targets  
Capital & Leverage Allocation  
RoRWA 20%  
RoLBS 5%

- The intention is to keep this business  
- Needs to improve its balance sheet consumption, leverage it uses  
- Balance sheet allocation is capped

In the past business lines were allocated a revenue budget, influencing their behavior and decisions. Post 2008, revenue remains important but the focus has turned to risk & leverage. Which forms the foundation for how a bank’s performance and stability is measured and assessed. Allocating financial resource to individual business lines forces them to either seek efficiencies and/or amend their business model to address their weaker return metric. This can include increasing prices or simply reducing activity to bring down the use of capital.
Basel III is actually very simple. Everything is about CAPITAL, the good stuff, loss absorbing, and expensive to raise. The amount of capital a bank holds will influence both the size and shape of businesses that can be supported. Businesses will be measured against their use of capital by both: how much they need to support required leverage and/or the amount of risk it takes.

Assessing the Leverage Ratio: Blunt and Blind

### Basel III

- **Capital**
  - CET1
  - RWA

- **Leverage**
  - CET1
  - Total Exposure Measure

### Constraints

- Capital Required to Support the Business

### Return Metrics

- RWA Return Measure (RoRWA)
- Leverage Exposure Return Measure (RoLBS)
Repo Returns Under Leverage Returns (RoLBS)?

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>£1bln</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCBS 270 Balance Sheet</td>
<td></td>
</tr>
<tr>
<td>PnL Flat 1YR Run Rate</td>
<td>100bp</td>
</tr>
</tbody>
</table>

Operating Assumptions:

- Cost / Income (C/I) Ratio: 55%
- Tax Rate: 35%

---

How much capital does a bank need to support £1bln of Repo?

\[
\frac{4\%}{\text{£1bln}} = \frac{x}{\text{£1bln}} \Rightarrow x = \text{£40m}
\]

How much gross revenue do I generate?

\[
\text{£1bln x 100bp} = \text{£10m}
\]

What is my NET revenue?

- PBT: £10m – C/I Ratio = £4.5m
- Net Income: £4.5m – 35% Tax Rate = £2.925m

What do my Repo returns on leverage balance sheet look like?

<table>
<thead>
<tr>
<th>Return on Leverage Balance Sheet (LBS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross</td>
</tr>
<tr>
<td>£10m</td>
</tr>
<tr>
<td>£40m</td>
</tr>
<tr>
<td>25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PBT (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>£4.5m</td>
</tr>
<tr>
<td>£40m</td>
</tr>
<tr>
<td>11.25%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>£2.925m</td>
</tr>
<tr>
<td>£40m</td>
</tr>
<tr>
<td>7.32%</td>
</tr>
</tbody>
</table>

---

1. Note: Figures illustrative ONLY.
2. PBT = Pre Tax Profit.
## Repo Returns Under Capital (RoRWA)?

### Assumptions

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCBS 270 Balance Sheet</td>
<td>£1bln</td>
</tr>
<tr>
<td>PnL Flat 1YR Run Rate</td>
<td>100bp</td>
</tr>
<tr>
<td>Counterparty Risk Weight (CP-RW)</td>
<td>100%</td>
</tr>
<tr>
<td>FCCM Volatility Adjustment</td>
<td>7%</td>
</tr>
<tr>
<td>Haircut Applied to Client Trades</td>
<td>0%</td>
</tr>
</tbody>
</table>

### Operating Assumptions

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost / Income Ratio</td>
<td>55%</td>
</tr>
<tr>
<td>Tax Rate</td>
<td>35%</td>
</tr>
</tbody>
</table>

### How many RWA's are produced with the given trade assumption?

\[
\text{RWA} = \text{EAD} \times \text{CPRW} \\
\text{EAD: £1bln x 7\% = 70m} \ \\
\text{CPRW: 100\%} \\
\text{RWA = 70m}
\]

### How much capital do I need to support 70mLn of RWA?

\[
x = \frac{\text{RWA}}{\text{FCCM Volatility Adjustment}} = \frac{70m}{11\%} = £7.7m
\]

### How much gross revenue do I generate?

\[
\text{Gross PBT} = £10m 	imes 100bp = £10m
\]

### What is my NET revenue?

\[
\text{PBT: £10m – C/I Ratio = £4.5m} \\
\text{Net Income: £4.5 – Tax = £2.925m}
\]

### What do my returns based on RWA exposure look like?

<table>
<thead>
<tr>
<th>Return on RWA</th>
<th>Gross</th>
<th>PBT</th>
<th>NET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£10m</td>
<td>£4.5m</td>
<td>£2.925m</td>
</tr>
<tr>
<td></td>
<td>£7.7m</td>
<td>£7.7m</td>
<td>£7.7m</td>
</tr>
<tr>
<td>Gross</td>
<td>130%</td>
<td>58%</td>
<td>38%</td>
</tr>
</tbody>
</table>

---

1. Note: Figures are illustrative ONLY.
Repo Returns Under Leverage Returns with an Asset Class & Activity Discount (RoLBS)?

**Assumptions**
- BCBS 270 Balance Sheet: £1bln
- PnL Flat 1YR Run Rate: 100bp
- Apply an Asset Class & Activity Discount to the Leverage Exposure: 50%

**Operating Assumptions**
1. Cost / Income (C/I) Ratio: 55%
2. Tax Rate: 35%

---

**Questions and Calculations**

1. **How much capital does a bank need to support £1bln of Gov't Repo?**
   
   \[
   \text{Capital} = \frac{\text{£1bln}}{4\%} = \text{£40m}
   \]

2. **Apply a 50% LR 'discount' for Gov't Repo?**
   
   \[
   \text{Capital} = \frac{\text{£1bln}}{2\%} = \text{£20m}
   \]

3. **How much gross revenue do I generate?**
   
   \[\text{Gross Revenue} = \text{£1bln} \times 100bp = \text{£10m}\]

4. **What is my NET revenue?**
   
   \[
   \text{PBT:} \quad \text{£10m} - \text{C/I Ratio:} \quad \text{£4.5m}
   \]
   
   \[
   \text{Net Income:} \quad \text{£4.5m} - \text{35% Tax Rate:} \quad \text{£2.925m}
   \]

5. **What do my Repo returns on leverage balance sheet look like?**

<table>
<thead>
<tr>
<th>Gross</th>
<th>PBT(2)</th>
<th>NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>£10m</td>
<td>£20m</td>
<td>£2.925m</td>
</tr>
<tr>
<td></td>
<td>£4.5m</td>
<td>£20m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>£4.5m</td>
</tr>
</tbody>
</table>

---

1. Note: Figures illustrative ONLY.
2. PBT = Pre Tax Profit.
Proposed Changes will help but Might not be Enough

The FPC’s recommend adjustments to the Leverage Ratio will have a positive effect in reducing the leverage exposure measure footprint for STFs and cash trading. What it doesn’t change is the actual quantum or cost of capital needed to support these activities. Recalibrating the overall leverage ratio target could be one solution but may have undesirable effects. A more targeted approach maybe to apply a leverage measure discount, which considers activities and asset classes that are vital to macro prudential stability.

Comparing the Return Outcomes to 12% Return on Equity Target

<table>
<thead>
<tr>
<th>REE Metrics</th>
<th>Results</th>
<th>Pass/Fail Return Hurdle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return of LBS (RoLBS)</td>
<td>7.3%</td>
<td>✗</td>
</tr>
<tr>
<td>Return of Capital (RoRWA)</td>
<td>38%</td>
<td>✓</td>
</tr>
<tr>
<td>Discounted Return of LBS (RoLBS)</td>
<td>14.6%</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table: REE Metrics Results

All Asset Classes & Activities

Basel III Leverage Measure

UK FPC

Basel III Leverage Measure

Settlement Balances

Initial Margin Off-set

Central Bank Reserves

FSRR

Central Bank Reserves

Open Term Repo

Netting Application

Initial Margin Off-set

E-C Double Count

Buffer L1 HQLA Exemption

NSFR

Leverage Measure Discount

NSFR

BARCLAYS
Margin Requirement for Uncleared Derivatives: 
*The wait is Finally Over*
Increased Demand for Collateral but How Much?

Even though the regulatory decision is still pending regarding which risk model can be used to calculate the required initial margin, an important aspect, which will have a large influence is the fact that the collateral will be segregated and cannot be rehypothecated. This will have a lasting effect on its availability and price.

**Bi-lateral Margin Requirements**

- Bank
- VM
- Bank

**Cleared Product CCP Margin Requirements**

- Bank
- IM
- CCP
- IM
- Bank

**Estimated Collateral Requirements**

<table>
<thead>
<tr>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>With SIMM</td>
<td>$90bln</td>
</tr>
<tr>
<td>Without SIMM</td>
<td>$1.5trn</td>
</tr>
</tbody>
</table>

**Non-Cleared Product Segregated IA**

Businesses will gain a benefit though reduced capital requirements (RWA) but will be introduced to new costs and the relationship between collateral and balance sheet, which will unless they can increase revenue, have a drag on their RoE.

<table>
<thead>
<tr>
<th>Bank</th>
<th>VM</th>
<th>Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM</td>
<td>3rd Party Provider</td>
<td>IM</td>
</tr>
</tbody>
</table>

---

Collateral Demand: Have we Considered Everything?

Inject a large cost to any product or service without the ability to pass on a majority of the cost and two possibilities occur:
1) Triggers a process of product or service evolution
2) Start down the path of product and service extinction

Stage 1: Housekeeping
- Adjust KPIs
- Eliminate "lazy trades"
- Develop MIS
- Seek out efficiencies

Stage 2: Education
- Adjust Pricing strategy
- Concentrate available resources to key clients
- Internally: Inform and educate Sales and partners
- Externally: Inform clients, explain the reasons, and manage expectations
- Give them time to adjust.

Stage 3: Resource Allocation Re-pricing
- Assess client overall franchise value
- Direct trades which compliment a bank’s positioning / help net exposure
- Finally, increased execution and/or funding cost may make certain strategies obsolete

Stage 4: Clients Adapt
- Expand counterparty list
- Standardized OTC products may move to central clearing
- High costs supports investment in innovation
- Industry trading behaviour evolves; bespoke products becomes more standardized
- The more standardized a product becomes the greater the impact any investment in innovation will have

Stage 5: Innovation
- Give them time to adjust
- Adjust KPIs
- Eliminate "lazy trades"
- Develop MIS
- Seek out efficiencies

Stage 2
- Re-price

Stage 3
- Resource Allocation

Stage 4
- Clients Adapt

Stage 5
- Innovation
Collateral Demand: Only Time will Tell……

Collateral Demand: Successful Product and Service Evolution

- Activity levels decrease and/or innovation takes root
- Both outcomes reduce the need for capital to support exposure and improve the return profile
- Less exposure requires less collateralization
- The reduced need to collateralize exposure leads to reduced demand for collateral
- So how accurate are the forecasts for collateral?

Stage 1 Housekeeping
Stage 2 Education
Stage 3 Resource Allocation Re-pricing
Stage 4 Clients Adapt
Stage 5 Innovation

Collateral Forecasting

Possible Actual
Projections

Time
Less
More

Collateral Demand
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Perspectives from the eye of the storm

- [ICMA report](#) published 18 November 2015
- Reviews the [European repo market’s current state and future evolution](#)
- Reports broad concern as to the extent to which the repo market can continue to perform its various roles, efficiently and effectively
- Basel III, incorporating Risk Capital Requirements, Leverage Ratio, LCR and NSFR, is the single greatest regulatory driver of change
- **Structure and dynamics of the repo market are being transformed**
Commission’s call for evidence on the EU regulatory framework for financial services

» Examination of the cumulative impact of regulation, in context of the Capital Markets Union (CMU) project

» ICMA **responded on 20 January** 2016
  » Focussed primarily on the issue of market liquidity, citing published ICMA studies in evidence & detailing concerns in respect of three specific elements:
    » European corporate bond secondary market liquidity
    » **Repo market liquidity and collateral fluidity**
    » CSDR mandatory buy-ins and fixed income liquidity

» Concerns regarding repo market liquidity and collateral fluidity lie at the heart of much of ICMA ERCC’s work relating to the impact of regulation on repo and collateral markets
Haircuts

In October 2014, the FSB published its regulatory framework for haircuts on non-CCP cleared SFTs. This framework aims to limit excessive leverage build-up outside the banking system and to reduce its procyclicality. It consists of:

- Qualitative standards for methodologies used by SFT market participants to calculate haircuts on the collateral received; and
- Numerical haircut floors that will apply to non-CCP cleared SFTs in which financing against collateral other than government securities is provided to entities other than banks and broker-dealers (referred to for simplicity as “non-banks”).

The expanded framework in November 2015 also applies numerical haircut floors to apply to non-bank-to-non-bank SFTs.

Article 29.3 in the EU SFTR anticipates possible EU introduction of specific SFT haircut rules. ESMA shall, by 13 October 2016, submit a report advising on certain risks in SFTs and the potential need for further rules.

In preparation, ESMA has solicited information from ICMA ERCC on haircuts in the European repo market. By 13 October 2017, the Commission shall submit a report and any appropriate proposals on EU haircut rules.

ESRB considers there is a case for powers to make countercyclical changes to required haircuts.

But remember, haircuts protect one party to a repo and create exposure for the other. Markets could be disrupted if the EU adopts haircut rules which go beyond the FSB proposals.
Finalising the Leverage Ratio

Leverage Ratio

» BCBS consulted, on 6 April, on revisions to the Basel III leverage ratio framework
  » ICMA ERCC submitted a detailed, 6 July, response
    » Cumulative impact of the pressures being imposed on the repo market, most particularly by the leverage ratio, are such that it is already a market under significant stress
    » A number of ways in which its details could be calibrated to better smooth its effects on repo and collateral markets
    » More detailed specific treatments for special asset types such as HQLA, or in relation to desirable financing activities
    » **Suggested need to introduce specific refinements to:**
      » Exempt central bank reserves from the leverage exposure measure;
      » Exclude potential grossing up when conducting repos with central banks;
      » Eliminate double counting stemming from the required current exposure add on;
      » Reduce, or eliminate the leverage ratio impact of forward starting repos;
      » Allow for open and callable repos to be netted on the basis that they end on their earliest possible closure date
      » Ensure that detailed provisions concerning CCP activities are applied across asset classes

» EU (Capital Requirements Regulation) CRR will be updated to include applicable EU leverage ratio rules
  » Currently anticipate applicable Commission proposal in November 2016
Net Stable Funding Ratio (NSFR)

» BCBS NSFR standard endorsed 31 October 2014, to become a minimum standard by 1 January 2018
» EU (Capital Requirements Regulation) **CRR will be updated to include applicable EU NSFR rules**
  » Currently anticipate applicable Commission proposal in November 2016
  » Official sector, as reflected in the EBA’s December 2015 report to the Commission, seemingly consider that NSFR will not have significant implementation impact – as most EU banks already appear BCBS compliant
» On 26 May, Commission published a targeted consultation to collect further perspectives on this
  » ICMA ERCC submitted a detailed, **24 June, response**
    » NSFR, if adopted exactly as per BCBS, would create significant additional stress & weaken the repo market effectiveness
    » Group level impact is very different from standalone subsidiary / business line / trading desk impacts
    » A number of ways in which its details could be calibrated to better smooth its effects on repo and collateral markets
    » Further refine the applicable ASF/RSF proportions in order to rebalance their asymmetry driven behavioural effects
    » More detailed specific treatments for special asset types such as HQLA, or in relation to desirable financing activities
    » Exempt short-term – in this context, say those of up to six months – SFTs, such as repo
    » Relax conditionality for SFT netting, and/or allowing for more offsets of “interdependent assets and liabilities”
  » **Commission will make some adaptation from Basel**, but details remain to be seen
Revised Markets in Financial Instruments Directive (MiFID) & new Regulation (MiFIR)

» MiFID governs the provision of investment services in financial instruments by banks and investment firms and the operation of traditional stock exchanges and alternative trading venues

» MiFID was focussed on equities markets, but is now being extended to full cover non-equities markets

  » As repos are typically comprised of trades in fixed income securities, they are partially impacted by this extension of MiFID

  » In mid-2016, SFTs have been **exempted from both pre- and post-trade transparency requirements**

  » SFTs are also exempt from MiFIR transaction reporting requirements (rather being covered by SFTR reporting

    » But for now must still MiFIR transaction report repos with ESCB counterparties (as they are exempt from SFTR reporting)

» **Best execution requirements apply**, both for execution venues and for investment firms executing client orders

» MiFID II states that an investment firm shall not conclude TTCAs for the purpose of securing obligations of retail clients

  » GMRA repos are TTCAs – it seems these will not therefore be allowed with retail clients

  » The definition of retail clients encompasses entities such as local authorities and municipalities – but subject to applicable procedures these types of clients may be able to elect for treatment as professional clients
EU SFT Regulation (SFTR): Timeline

- SFTR proposed by Commission 29.01.2014
- SFTR entry into force 12.01.2016
- Reuse requirements apply 13.07.16
- UCITS & AIFs begin periodic reporting 13.01.17
- Transparency in pre-contractual documents for UCITS & AIFs 13.07.17
- Up to one year for ESMA to develop draft technical standards (RTS) on reporting
- Final RTS enter into force Q2 2017 (est)
- Banks & investment firms Q2 2018 (est)
- UCITS, AIFs & pension funds Q4 2018 (est)
- Required reporting of SFTs to trade repositories
- CCPs & CSDs Q3 2018 (est)
- Non-financial counterparties Q1 2019 (est)
SFTR Level 2: Where do we stand?

- Level 1 text requires counterparties to report the details of all SFTs concluded, modified or terminated no later than on T+1 to specifically authorised TRs
- ESMA mandated to prepare regulatory technical standards (RTS) detailing the reports for each type of SFT – to be submitted by **13 January 2017**
- First ESMA discussion paper published on 11 March 2016:
  - 75 reporting fields suggested for each repo trade
  - Questions around reporting of collateral pools and margining
  - Proposals on the tracking of re-use particularly problematic
  - Consistency with FSB standards on global SFT data aggregation?
  - Detailed [ICMA ERCC response](#) prepared by our SFTR TF and submitted on 22 April
- Second ESMA consultation, including draft RTS and ITS, expected in late September/early October 2016
EU Commission: European Post Trade Forum (EPTF)

“(…) to support more efficient and resilient post-trading systems and collateral markets, the Commission will undertake a broader review on progress in removing Giovannini barriers to cross-border clearing and settlement, following the implementation of recent legislation and market infrastructure developments.”


- **EPTF** created in early 2016 to assist the Commission in this review
- Members include mainly European financial industry associations as well as a few independent experts – ICMA and ISLA were added to the membership in Sep 2016
- Work is split in 2 phases:
  1. **Stocktaking exercise**: Draft report submitted to the Commission, including chapter on collateral
  2. **Identification of remaining barriers**: Based on 2 questionnaires circulated in July 2016
- Final EPTF report including Phase 1 and 2 to be delivered by Spring 2017
ECB: COGESI work on collateral management

- ECB’s Contact Group on Euro Securities Infrastructures (COGESI) brings together representatives from Eurosystem, commercial banks & infrastructures – ICMA ERCC is represented through its Chairman.

- Group decided in Nov 2015 to “explore further key elements of collateral management activities, which are key for harmonisation (from an operational perspective)”

- 3 work streams created as a result:
  - **Collateral mobility**: prompt access, effective cross-border connections, tri-party interoperability
  - **Collateral holding and segregation**: collateral transparency, asset segregation, insolvency
  - **Collateral messaging**: ERCC Ops in the lead

- Objective is to put forward guidance for harmonisation of business processes, workflows, and messaging in the course of 2017
ERCC Ops work on collateral messaging

- **Pre-Trade**
- **Trade execution & matching**
- **Trade reporting**
- **Clearing**
- **Settlement**
  - Purchase leg
  - Lifetime of trade
  - Repurchased leg

### Diagram

- **Buyer**
- **ATS**
- **Matching system**
- **TR**
- **CCP**
- **Custodian B**
- **CSD**
- **Custodian S**

### Table

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Thank you, Ladies and Gentlemen

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• ICMA quarterly report provides detailed updates on these matters and ICMA’s broader work
Panel: Liquidity – taking stock of the debate

- Moderator: Mr. Godfried De Vidts, Chairman, ICMA ERCC Committee

- Panellists: Mr. Romain Dumas, Managing Director, Credit Suisse
  Mr. Nicola Danese, Managing Director, Head of EMEA Fixed Income Financing, JP Morgan
  Mr. Phil McCabe, Head of Collateral Management, Bloomberg L.P.
Any other business and next meetings