AMI-SeCo HSG
Collateral Management Harmonisation
Task Force
Substream 3: Bilateral & Margin call

Version 3

25 October 2017
• Statement of work
• Scope and concepts
• Workflow description
  – Between Market participants
    • Un-cleared OTC: Variation Margin (VM) on OTC Derivatives, Repo, SLAB
    • Un-cleared OTC: Initial Margin (IM)
    • Cleared OTC: IM & VM
  – Banks <-> Central Banks
    • Euro Financing
    • CCP exposure coverage
• Deliverables
  – Pre-existing works
  – 1st proposals
  – Priorities
• Appendices
• Glossary – cf Stream 1
Differences in messages for bilateral collateral management could hamper how collateral is allocated quickly and efficiently across borders.

2/8 Bilateral collateral

Messaging solutions are needed to meet requirements of smaller and mid-size players (which are cost efficient for electronic messaging e.g. for buy-side).

5 Margin Calls

Although part of the Collateral management workflow, it doesn’t appear as a major barrier to harmonised market.
SCOPE AND CONCEPTS

Buy Side

- Investment Funds
- Insurance
- Corporate
- Pension Funds
- Sovereign

Sell Side

- Clearing
- Broker-Dealer
- OTC derivatives
- Listed derivatives
- Repo/Rev. Repo
- Securities Lending
- OTC derivatives
- Agent Lenders
- ALM Treasury

Collateral movements

Between market Participants

Between banks CCP and central Banks

Infrastructure

- CCPs
- Central banks (for Central Bank policy)

Collateral agents Custodians (I)CSDs

Asset

Legal framework

Operational environment
SCOPE AND CONCEPTS

Bilateral collateral management

- **Party A** execution
- **Collateral agent**
- **Party A Custodian**

- **Party B** execution
- **Collateral agent**
- **Party B Custodian**

Mainly cash
For VM securities mainly bonds (equities more widely used for IM)
Multi-custodian
T+1+n settlement
Same day settlement possible but not efficient
Low turnover of client or counterparty portfolio
Limited possibilities implied by the settlement and substitutions workload and costs

OTC, Repo, SLAB, etc transactions excluding Basket ("GC") Repo

Tri-party collateral management

- **Party A** execution
- **Tri-Party collateral agent & Custodian**
- **Party A Account**

- **Party B** execution
- **Tri-Party collateral agent & Custodian**
- **Party B Account**

Securities (Bonds, Equities , shares of funds) Cash possible
One single tri-party and Custodian for all parties
Same day settlement
High turnover of client or counterparty portfolio
High number of counterparties - sophisticated allocation
OTC, repo, SLAB, etc including Basket (or "GC") Repo
SCOPE AND CONCEPTS

Between Market Participants

OTC Derivatives
Securities Financing

Non cleared

IM (possibly)

Between Banks / CCP and Central Banks

Central Bank Financing

CCP Exposure Coverage

To be documented

Documented
Bilateral process

Bilateral collateral management has been developed as a mitigation technique to reduce counterparty risks between market participants entering into Over-The-Counter transactions.

WHO?
Market participants entering into bilateral collateral agreements:
- **Sell-side** (Banks, Brokers)
- **Buy-side** (Asset Owners, Asset Managers, Corporates, Sovereign entities, etc.)
Bilateral process

**Participant A**

- **Execution**
  - Repo, Securities Lending, OTC Derivatives transactions

**Middle-office A**

- **Margin agreement**
  - Collateral selection
  - Settlement of margins

**Custodian A**

- **Margin exchange**
  - Cash or securities

**Participant B**

**Middle-office B**

**Custodian B**

- Exposure matching
- Valuation of collateral balances
- Net exposure calculation

**SCOPE AND CONCEPTS**
SCOPE AND CONCEPTS

Bilateral process

COLLATERAL AGREEMENTS

Master agreements
(GMRA, GMSLA, ISDA, etc.)

Eligibility matrices

are signed between both parties of a collateralised transaction
(Repo, Securities lending, OTC derivatives, etc.)

MTA
Minimum Transfer Amount

THRESHOLD
Level of unsecured exposure each party will allow the other before any call for collateral is made

NOTIFICATION TIME
Means the cut-off to send/receive margin calls

ELIGIBLE CURRENCY
Agreed currency to exchange margins

ELIGIBILITY MATRIX
Specifies the type of collateral permitted: cash, government bonds, haircuts, etc.

INTEREST RATE
The interest rate in relation to the eligible currency

DIFFERENT TRANSFER REGIMES

Full title transfer
e.g. ISDA CSA (English law)

Security interest (usually called “pledge”)
e.g. ISDA CSA (New-York law) or ISDA CSD
Global Workflow (1)

(1) Proposal for CMHAs of AMI-SECO 19 May 2017
# Global Workflow - non cleared - variation margin

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade process (Trade date T) &amp; valuation</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>• Client sends open trade population to BNP Paribas</td>
</tr>
<tr>
<td>2</td>
<td>• OTC prices are distributed to BNP Paribas Collateral Management</td>
</tr>
<tr>
<td><strong>Collateral Management process (T+1)</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>• BNP Paribas Collateral Management team controls incoming positions (data checks)</td>
</tr>
<tr>
<td></td>
<td>• BNP Paribas Collateral Management platform calculates the net exposure at a portfolio / counterparty level</td>
</tr>
<tr>
<td></td>
<td>• Margin call notices are sent / received</td>
</tr>
<tr>
<td>4</td>
<td>• BNP Paribas Collateral Management team manages the daily margining process at a portfolio / counterparty level</td>
</tr>
<tr>
<td></td>
<td>• Margin call agreement with the counterparty</td>
</tr>
<tr>
<td>5</td>
<td>• Cash &amp; securities movements are instructed to the custodian</td>
</tr>
<tr>
<td><strong>Dispute process &amp; reconciliation</strong></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>• BNP Paribas Collateral Management team accesses to TriResolve for Reconciliation purposes (in case of dispute, and on a reactive basis )</td>
</tr>
<tr>
<td>7</td>
<td>• BNP Paribas Collateral Management team performs a reconciliation of collateral movements between the collateral management systems and the custodian statements</td>
</tr>
</tbody>
</table>

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*Note: reporting to be added*
# Exposure and margin call calculation

## Description

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| 1 | **Trade integration and controls**  
  - BNP Paribas integrates the OTC trade population (including fx) with their valuations as of previous COB every morning 7.30 GMT  
  - BNP Paribas performs data integrity checks on the trades received (stale PV, 0 PV, matured trades, rejection...)
| 2 | **Margin call calculation**  
  - BNP Paribas integrates different information required to perform the margin call calculation:  
    - Prices to value collateral balances  
    - Ratings for collateral securities  
    - Market data for collateral securities (e.g. FR-Gov bonds – coupon / maturity date ...)  
    - Rating for parties (for threshold/MTA rating based)  
    - FX rates  
  Data integrity checks are performed to validate the quality of the data
| 3 | **Reporting**  
  - Once the above information are integrated in the collateral management system, BNP Paribas will issue the Start of Day margin report showing the expected margin calls for the day

## Workflow Diagram

1. **Client** → **Market & static data & prices** → **Collateral Management Platform** → **Middle-office Platform** → **Client**

   - **Trades and valuations** → **Start of Day report**
WORKFLOW DESCRIPTION

Margin call

### Case of Deliver / Return to Client

1. BNP Paribas sends a margin call notice to the counterparty before CSA notification time
2. Counterparty agrees / disputes the margin call
3. Counterparty advises to BNP Paribas the nature of collateral to be posted
4. BNP Paribas checks the eligibility of collateral to be received, then books the movement into its platform and generates the settlement instruction (see "collateral settlement")

### Case of Deliver / Return to Counterparty

1. BNP Paribas receives a margin call from counterparty before CSA notification time
2. BNP Paribas checks with its own calculation and agrees / disputes the margin call
3. For deliveries to Counterparty, BNP Paribas either posts cash to the counterparty, or if securities need to be delivered, selects the appropriate securities.
4. BNP Paribas books the movement into the collateral management platform and generates the settlement instruction (see "collateral settlement")
## Settlement

### Instructions
- **Settlement instruction**
  - Once BNP Paribas agrees with Client’s counterparty on the margin call (amount, ISIN), the collateral management system sends information to the settlement platform.

### Settlement platform

### Custody

### Reconciliation
- **Settlement monitoring**
  - This system will:
    - retrieve the SSI
    - generate automatically the Swift to the custodian to receive/post collateral (MT202/210/542/540)

  This process is managed by a specialized settlement team. This team ensures that the settlement instruction is received and processed by the custodian without any issue.

- **Settlement reconciliation**
  - The collateral management team performs a reconciliation of the collateral movements and positions between the collateral management systems and the custodian statements (MT940/950/535/536)
### Dispute

**WORKFLOW DESCRIPTION**

#### Dispute Identification
- The collateral management team looks if there are differences between:
  - Client and counterparty CSA terms (threshold, MTA …)
  - Collateral balances
  - Exposure differences

In case of issues with the CSA terms and collateral balances, the collateral management team re-validate the data (in analysing the CSA and the price feed).

#### Portfolio Reconciliation
- If there is a mismatch in term of exposure, the collateral management team will connect into a Portfolio Reconciliation Platform to prioritize the reconciliation of the OTC trades subject to a dispute (OTC derivatives uncleared)
- For other activities (SLAB, Repo) the reconciliation takes place via exchange of files by email
- The reconciliation process aims at reconciling the trade details and the valuation with client’s counterparty.

#### Reporting
- The collateral management team provides details on the dispute (“dispute report”)

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**Description**

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<tbody>
<tr>
<td>1</td>
<td>• BNP Paribas collateral management team agrees on the undisputed amount with the counterparty. The dispute amount will be subject to further investigation</td>
</tr>
<tr>
<td>2</td>
<td><strong>Dispute identification</strong>&lt;br&gt;• The collateral management team looks if there are differences between:&lt;br&gt;  • Client and counterparty CSA terms (threshold, MTA …)&lt;br&gt;  • Collateral balances&lt;br&gt;  • Exposure differences&lt;br&gt;In case of issues with the CSA terms and collateral balances, the collateral management team re-validate the data (in analysing the CSA and the price feed)</td>
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<td>3</td>
<td><strong>Portfolio reconciliation</strong>&lt;br&gt;• If there is a mismatch in term of exposure, the collateral management team will connect into a Portfolio Reconciliation Platform to prioritize the reconciliation of the OTC trades subject to a dispute (OTC derivatives uncleared)&lt;br&gt;• For other activities (SLAB, Repo) the reconciliation takes place via exchange of files by email&lt;br&gt;• The reconciliation process aims at reconciling the trade details and the valuation with client’s counterparty.</td>
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<td>4</td>
<td><strong>Reporting</strong>&lt;br&gt;• The collateral management team provides details on the dispute (“dispute report”)</td>
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Reporting

TO BE DOCUMENTED
Complementary workflows - to be completed

– Between Market participants
  • Uncleared OTC: IM
  • Cleared OTC: IM & VM

– Banks <-> Central Banks
  • Euro Financing
  • CCP exposure coverage
Pre-existing working groups in the Industry

ICMA
International Capital Market Association

ISLA
International Securities Lending Association

ISDA
International Swaps and Derivatives Association

ISSA
International Securities Services Association

Repo
Securities Lending
OTC Derivatives
Securities Services

Adam Bate / Pierre Lebel
Michael Payne
Helene Virello

Collateral TF
Blue Print issued Oct 18 2017 (see Appendix)
2 reports issues 2014 & 2016 (available to members)

EPTF (see appendix)
Some issues which may fall outside the mandate of Group3, however important for the market participants

- Harmonisation of
  - Data
  - CCP margin mechanisms
  - Settlement sequencing
  - “Transatlantic” treatment of firms => promote alignment across jurisdictions

- Legal
  - Promote standardized documentation as much as possible
  - Collateral matrixes
# Mapping of prioritisations 1-3

<table>
<thead>
<tr>
<th>Type issue (operational, legal, documentation, technical, …)</th>
<th>Criticity</th>
<th>Harmonisation proposal</th>
<th>Implementation</th>
<th>Barrier to implement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email exchanges for margin calls</td>
<td>1</td>
<td>Promote wider use of electronic platforms. As a general statement, the working group will not promote a particular utility but will promote the interoperability between the various initiatives launched at particular points of the processing chain</td>
<td>3</td>
<td>Several utilities already active in this space (Acadiasoft, Bloomberg/CloudMargin), but the industry needs to address the cost issue for some players especially buy-side, for complete harmonization. It is mentioned this point is being addressed by some market participants</td>
</tr>
<tr>
<td>Email exchanges for substitutions implying operational risks and settlement issues</td>
<td>1</td>
<td>Promote wider use of electronic platforms. As a general statement, the working group will not promote a particular utility but will promote the interoperability between the various initiatives launched at particular points of the processing chain</td>
<td>2</td>
<td>There is a growing interest from vendors in this space. The collateral group should liaise with the Corporate actions group which is tackling this point.</td>
</tr>
<tr>
<td>Cleared Derivatives : Connectivity between Clearers and Clients / Asset Servicers - no common framework implying substantial development requirements to integrate the reports (for reconciliation, payments…) - Every onboarding is cumbersome as every clearer appears to have its own operational market standards as well. Upcoming EMIR deadlines for category 3 and 4 will imply a growing industry concern in this space.</td>
<td>1</td>
<td>Promote a &quot;Minimum market standards&quot; framework across Clearers and CCPs to harmonize the information available to end-users and its format</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

### Criticity

1 very critical  
2 highly  
3 medium

### Implementation

1 very difficult  
2 medium  
3 easy
# Mapping of prioritisations 2-3

<table>
<thead>
<tr>
<th>Type issue (operational, legal, documentation, technical, ...)</th>
<th>Criticity</th>
<th>Harmonisation proposal</th>
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</thead>
<tbody>
<tr>
<td>Lack of convergence and harmonisation in information messaging standards This concerns all fields from Legal documentation to trade lifecycle management. See &quot;Mappin MSG&quot; for details</td>
<td>1</td>
<td>digitisation (in order to improve STP), harmonisation (or interoperability when full harmonisation is not possible) and standardisation (common identifiers should be a common basis) should be the guiding principles.</td>
<td>1</td>
<td>Proprietary standards: best is to push interoperability as suggested in the rest of this table</td>
</tr>
<tr>
<td>Regulatory reporting demand very large data flows that demand stringent data standardisation. Post-Trade reporting structure is too complex</td>
<td>1</td>
<td>digitisation (in order to improve STP), harmonisation (or interoperability when full harmonisation is not possible) and standardisation (common identifiers should be a common basis) should be the guiding principles.</td>
<td>1</td>
<td></td>
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Criticity
1 very critical 2 highly 3 medium

Implementation
1 very difficult 2 medium 3 easy
## DELIVERABLES

### Mapping of prioritisations 3-3

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<th>Implementation</th>
<th>Barrier to implement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email exchanges for interests payments</td>
<td>2</td>
<td>Promote wider use of electronic platforms. As a general statement, the working group will not promote a particular utility but will promote the interoperability between the various initiatives launched at particular points of the processing chain</td>
<td>2</td>
<td>Several utilities already active in this space (Acadiasoft, Bloomberg/CloudMargin), but the industry needs to address the cost issue for some players especially buy-side, for complete harmonization. It is mentioned this point is being addressed by some market participants</td>
</tr>
<tr>
<td>Lack of standardization of documentation</td>
<td>2</td>
<td>Promote standardization of documentation</td>
<td>1</td>
<td>Difficult to achieve 100% standardization as a CSA needs to respond to some privately negotiated terms, depending on legal and risk/credit views. Point tackled at ISDA (probably). EFAMA explains the impact of collateral matrixes will make it difficult to reach. Workgroup agrees that a possible way to go forward would be to recommend an industry-wide central HQLA matrix administered by a central party (still to be determined) - that the parties to a CSA could negotiation parties would agree to refer to.</td>
</tr>
</tbody>
</table>
Key principles for harmonisation

- Standardisation
- Interoperability
- Leverage existing infrastructures where relevant
- No barrier to entry for market participants

- Promote common standards across
  - Collateral operations
  - Underlying transactions
  - Actors

A pre requisite to the above is a common set of messaging:

Whatever the model, Bilateral or Tri-party, whatever the underlying trade CB policy related or not, securities related or not, Messaging will relate to the same 8 types of messages

• SWIFT Presentation on Corporate Actions / Substitution

• Document other bilateral processes between market participants

• Form a sub-sub groups on Central Bank Bilateral Movements with / without CCP

• Glossary – complement if needed the proposal made by Stream 1
APPENDICES

• Planning and methodology
• Members of the stream
• Preexisting works
  – EPTF
  – ISDA
  – ISLA – ICMA
• Interactions with other streams
Planning and methodology

Kick off

Collecting Mapping of existing works

Synthesis and discussions

Proposals

Arbitrage

Final Report

Holistic approach
- All financial institutions (buy-side …)
- All types of activities requiring collateral

Taking into account what has been implemented (Acadiasoft …)

Mapping of issues and frictions by the participants

Interdependencies with other streams + common terminology

Impact on Central Bank activity / ECMS

September

October

November

December

All financial institutions (buy-side …)

All types of activities requiring collateral

Taking into account what has been implemented (Acadiasoft …)
## Participants to the Stream

<table>
<thead>
<tr>
<th>Institution</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNPP (lead)</td>
<td>Hélène Virello</td>
</tr>
<tr>
<td>Bundesbank (secretariat)</td>
<td>Steffen Bruns</td>
</tr>
<tr>
<td>BNY Mellon</td>
<td>Peter Wijns</td>
</tr>
<tr>
<td>Deutsche Bank</td>
<td>Marko Niederheide</td>
</tr>
<tr>
<td>Citi</td>
<td>Michael Payne</td>
</tr>
<tr>
<td>EFAMA</td>
<td>Vincent Dessard</td>
</tr>
<tr>
<td>BME-Clearing</td>
<td>Teresa Castilla</td>
</tr>
<tr>
<td>Eurex Clearing</td>
<td>Oliver Bartel</td>
</tr>
<tr>
<td>Société Générale</td>
<td>Pierre Lebel</td>
</tr>
<tr>
<td>BNPP</td>
<td>David Beatrix</td>
</tr>
<tr>
<td>DZ Bank</td>
<td>Kristian Hartmann, Frank Günzel</td>
</tr>
<tr>
<td>Clearstream</td>
<td>Marc Poisignon</td>
</tr>
<tr>
<td>Monte Titoli</td>
<td>Fernando Gilardi</td>
</tr>
<tr>
<td>Danske Bank</td>
<td>Mar Dennis Borella</td>
</tr>
<tr>
<td>ECB</td>
<td>Benjamin Hanssens, Michael Schroter, Gary McNamara, Joao Tiago Amaro</td>
</tr>
<tr>
<td>LCH</td>
<td>Caroline Collette-Jones</td>
</tr>
<tr>
<td>SWIFT</td>
<td>Cecile DESSAMBRE, Charles-Raymond BONIVER, Matthew COOK, Karine TAQUET</td>
</tr>
<tr>
<td>UBS</td>
<td>Sally Shackleton</td>
</tr>
<tr>
<td>DZ Bank</td>
<td>Frank Guenzel, Kristian Hartmann</td>
</tr>
<tr>
<td>LSEG</td>
<td>F. Gilardi</td>
</tr>
<tr>
<td>Bundesbank</td>
<td>Cantje Heikamp, Norman Isermann</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>Adam Bate</td>
</tr>
<tr>
<td>Northern Trust</td>
<td>TBC</td>
</tr>
<tr>
<td>JP Morgan</td>
<td>Mikal Lovett</td>
</tr>
</tbody>
</table>
EPTF barriers

1 - Fragmented CA & General meeting processes
2 - No harmonisation in MSG standards
3 - No harmonisation in ETF Process
4 - Asset segregation rules are inconsistent
5 - No harmonisation in registration and identification of investors
6 - Complexity of post-trade reporting
7 - Unsolved issues regarding Reference data & standardises identifiers
8 - Uncertainties about risk mitigation techniques and CCP’s default management
9 - Deficiencies in the protection of client assets because of a fragmented legal framework for book entry securities
10 - Shortcoming of EU Rules on Finality
11 - Legal uncertainty as to ownership rights in book entry securities and 3rd party effects of assignment of claims
12 - Inefficient WHT collection procedures

A - Operational Barriers
B - Structural Barriers
C - Legal Barriers
D - Tax Barriers
ISDA –“A Blueprint for the Optimal Future State of Collateral Processing” Oct 2017

TO BE DOCUMENTED
SUBJECT TO ISDA PERMISSION
## Interactions with other groups

<table>
<thead>
<tr>
<th>Stream</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stream 1</td>
<td>Triparty</td>
</tr>
<tr>
<td>Stream 2</td>
<td>3/16 Corporate Actions</td>
</tr>
<tr>
<td>Stream 4</td>
<td>7 Reporting</td>
</tr>
<tr>
<td>Stream 5</td>
<td>Static Data&lt;br&gt;9/10/11/12 or 13</td>
</tr>
<tr>
<td>All</td>
<td>Glossary</td>
</tr>
</tbody>
</table>

*TO BE DOCUMENTED*
APPENDICES

Interactions with other groups – stream 1 - similarities & differences with triparty

TO BE DOCUMENTED