Collateral Management for OTC Derivatives

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Agenda

1. Belfius
2. View on organisation of operational activities
3. View on IT architecture
4. Process flow
5. What’s next?
6. Discussion
1 Belfius

Meaningful and Inspiring for the Belgium Society

INTEGRATED BANK-INSURER
ANCHORED IN ALL SEGMENTS OF THE BELGIAN ECONOMY
Historical focus on Retail & Public
Diversification towards Private, Wealth, Business and Corporate

CUSTOMER SATISFACTION
DRIVEN BY OMNI-CHANNEL STRATEGY
Higher customer interaction based on Data, Digital & Marketing
Entrepreneurial (self-employed) sales force focused on added value advice
Strong brand underpinning distinct positioning

AUTHENTIC BELFIUS VALUES

REVENUE DIVERSIFICATION
& SUSTAINABLE GROWTH

EFFICIENCY GAINS

SOUND RISK PROFILE
& STRONG BALANCE SHEET

FINANCIAL MANAGEMENT
Technical expertise

RISK MANAGEMENT
Technical expertise

SOLID PROFIT CAPACITY & STRONG SOLVENCY
SUPPORTING LONG-TERM ATTRACTIVE DIVIDEND

Cost-Income ratio < 60%
CET I ratio > 13.5%
Solvency II ratio > 160%
ROE 8 à 9%
2 View on organisation of operational activities

Customer Transaction Services

- Payment & Financial Logistics
- Customers & Contracts & Accounts
- Securities & Financial Markets
- Projects
- Customer & Partner Relations
- CTS Office

- Funds
- Stock Exchange & Incentive Plans
- Securities Settlement
- Financial Markets Transaction Services
- Securities Master File & Primary Issues
- Income, Redemption & Tax
- Corporate Actions
- Financial Markets Transversal Services

Collateral activity linked
Not collateral activity linked
3 View on IT architecture

- Murex
  - In-house
  - Package
- ACTOR - FITH
  - Referential Thirds
- SEREX
  - Securities Master DB
- FIRT
  - Market Data DB
- FIER
  - Market Risk Data Warehouse
- Algorithmics
  - Collateral System
- triResolve
  - Portfolio Reconciliation
- Intellimatch
  - Reconciliation
- FIMM
  - Cash Settlement
- FOBO
  - Securities Settlement
- IUNS
  - Securities Event Handling
4 Process flow

- Set-up of the counterparty
- Trade execution, capturing and processing
- Calculate exposure / margin calls
- Issue / receive margin calls
- Margin call agreement and processing
- Dispute management
- Portfolio reconciliation
- Manage collateral inventory
- Reporting
4 Process flow
Set-up of the counterparty

- Business policies
- Capture counterparty data
- Negotiate and approve legal framework (master & collateral agreement)
- Capture terms of the master & collateral agreement
- Multiple changes to legal framework (e.g. driven by regulation)

- Industry agreed template for on-boarding counterparties (entity profile)
- Legal documentation standardisation (e.g. ISDA Clause Library)
- Electronic negotiation of legal framework and Digitalisation of legal framework into a centrally shared Legal documentation repository (e.g. ISDA Create which is also connected to e.g. AcadiaSoft)
4 Process flow
Trade execution, capturing and processing

- Not a specific collateral management activity but key for an efficient collateral management process
- Each party has its own version of a transaction in its system (sometimes even multiple)
- All parties spend a lot of time reconciling (internal and external) for multiple reasons
- Main focus on implementation of regulatory reforms

- Need to address post-trade inefficiencies
- Standardisation is essential in order to achieve increased efficiency and to take advantage of new technologies
- Creating standard representation (golden source data) for derivative products across the trade lifecycle (incl. events, …) upon which services can be built (e.g. ISDA Common Domain Model – blueprint for how derivatives are traded and managed)
4 Process flow
Calculate exposure / margin calls

- Gather data required for margin call calculation (trade data, trade MTM, cash & securities collateral, …) + upload into collateral management tool
- Plausibility checks
- Match and aggregate trades and positions to agreements and take into account agreement provisions (thresholds, MTA, …)
- Calculate required margin calls

- Market initiatives that contribute to a ‘less silo’ approach at the level of:
  - Legal framework characteristics and registration
  - Trade capturing
  - Valuation
4 Process flow

Issue / receive margin calls

• Sending out margin calls to counterparties
• Anticipating incoming margin calls from counterparties

• Currently still very mail based margin call process
• Non-integrated use of AcadiaSoft MarginSphere

• Best practice for Margin Call Issuance and Response (ISDA 02/2018)
• Electronic platforms for the exchange of margin calls (e.g. AcadiaSoft MarginSphere, Bloomberg Cloudmargin, Swift messaging standards)
4 Process flow

Margin call agreement and processing

- Manual matching of incoming margin call messages of the counterparties
- Agree on outgoing margin calls:
  - Counterparty agrees on margin call and advises on the collateral to be posted
  - Eligibility check / agreement on the proposed collateral to be received
- Agree on incoming margin calls:
  - Check with anticipated margin calls, agree on margin call and propose collateral to be posted (according CSA eligibility / internal optimisation criteria)
  - Counterparty checks and agrees on the collateral to be received
- Processing of collateral trades (similar to other cash / securities trades)
- Monitoring of failed trades and capture info into collateral management process

- Electronic platforms for the exchange of margin calls and the settlement of collateral
- Solutions that support collateral selection & optimisation (e.g. standard collateral eligibility schedule, common definitions & sources for HQLA, common sources for asset pricing and ratings, DLT initiatives)
4 Process flow
Dispute management

- Dispute management governed by Credit Risk policy
- Identification of disputes through margin call process and recurrent portfolio reconciliations
- Disputes are escalated for further follow up to:
  - Operations (differences linked to documentation and deal characteristics)
  - Risk Management (differences linked to valorisations)
- Implement actions upon specific disputes

- High quality operational processes / shared ‘golden copy source of trade data’
- Harmonisation of valorisation models / solutions that allow to reconcile in a cost effective manner underlying valorisation parameters
4 Process flow

Portfolio reconciliation

- Regular and ad hoc portfolio reconciliation, frequency based on counterparty classification and on number of outstanding trades (using triResolve)
- Reconciliation of collateral movements intraday and on S+1 (based on standard Swift messages for cash / securities movements)

- triResolve (market standard tool for portfolio reconciliation)
- Analogous to dispute management, portfolio reconciliation differences reduce substantially in case of:
  - High quality operational processes / shared ‘golden copy source of trade data’
  - Harmonisation of valorisation models / solutions that allow to reconcile in a cost effective manner underlying valorisation parameters
4 Process flow
Manage collateral inventory

- Monitoring of upcoming events on Securities collateral and request substitution (default)
- Substitutions are operationally handled similar to regular calls (eligibility checks, …) and are booked as 2 individual collateral tickets
- Interest calculation on interest reset date of the collateral agreement, matching with the counterparty and operational processing

- Pledging collateral via Triparty collateral agent
- Standardisation / centralisation of interest calculation (ultimately move from manual process to automated process)
4 Process flow

Reporting

• Different types of internal and external reporting on Collateral Management OTC Derivatives:
  - Unmatched trades
  - Valorisation differences
  - Risk coverage
  - Disputes
  - Required regulatory reporting
  - …

• The more standardised and STP Collateral Management OTC Derivatives flows are, the more efficient reporting becomes
5 What’s next?

Initial margin

![Diagram showing the flow of information between Murex, Algorithmics, FIER, AcadiaSoft IMEM, and the Counterparty, as well as the involvement of Belfius, Murex SIMM Module, and Custodian Segregated Account.](image-url)
## What’s next?

LCH SwapAgent?

<table>
<thead>
<tr>
<th>LCH SwapAgent</th>
<th>Possible impact on Process flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set-up of the counterparty</td>
<td>Standardised documentation through introduction of Rulebook (standardised collateralisation and settlement) (*)</td>
</tr>
<tr>
<td>Trade execution, capturing and processing</td>
<td>Standardised processing through affirmation platform (end-to-end trade life cycle management) (*)</td>
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<tr>
<td>Calculate exposure / margin calls</td>
<td>Independent valuation and risk calculation(*)</td>
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<td>Margin call agreement and processing</td>
<td>(*) makes margin call agreement process efficient, settlement could be on a net basis</td>
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<tr>
<td>Dispute management</td>
<td>(*) eliminates disputes</td>
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<tr>
<td>Possible additional impact</td>
<td>STM (Settlement To Market) Optimisation services</td>
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Collateral Management
OTC Derivatives:
What are the key success factors for the future model?