



Insights on Lombard Lending

Navigating through crisis times

Challenge

The current COVID-19 crisis triggered extreme volatility spikes in the financial markets. The Lombard Lending business is particularly vulnerable to this volatility in the markets due to the significantly increased number of critical credit positions within a short time. Processing these positions in a timely manner (i.e. margin call process) is a major challenge for this business in times of crises and can result in significant financial losses as well as reputational loss.

Crisis times affect the financial markets, but often in an unexpected way when it comes to the underlying reasons and timing. To be prepared and minimise losses during the current crisis and future crises, we recommend reviewing and optimising the Lombard Lending monitoring process. By increasing automation and focusing on the efficient processing of critical credit positions, banks can improve profitability, especially during volatile times.

Contents

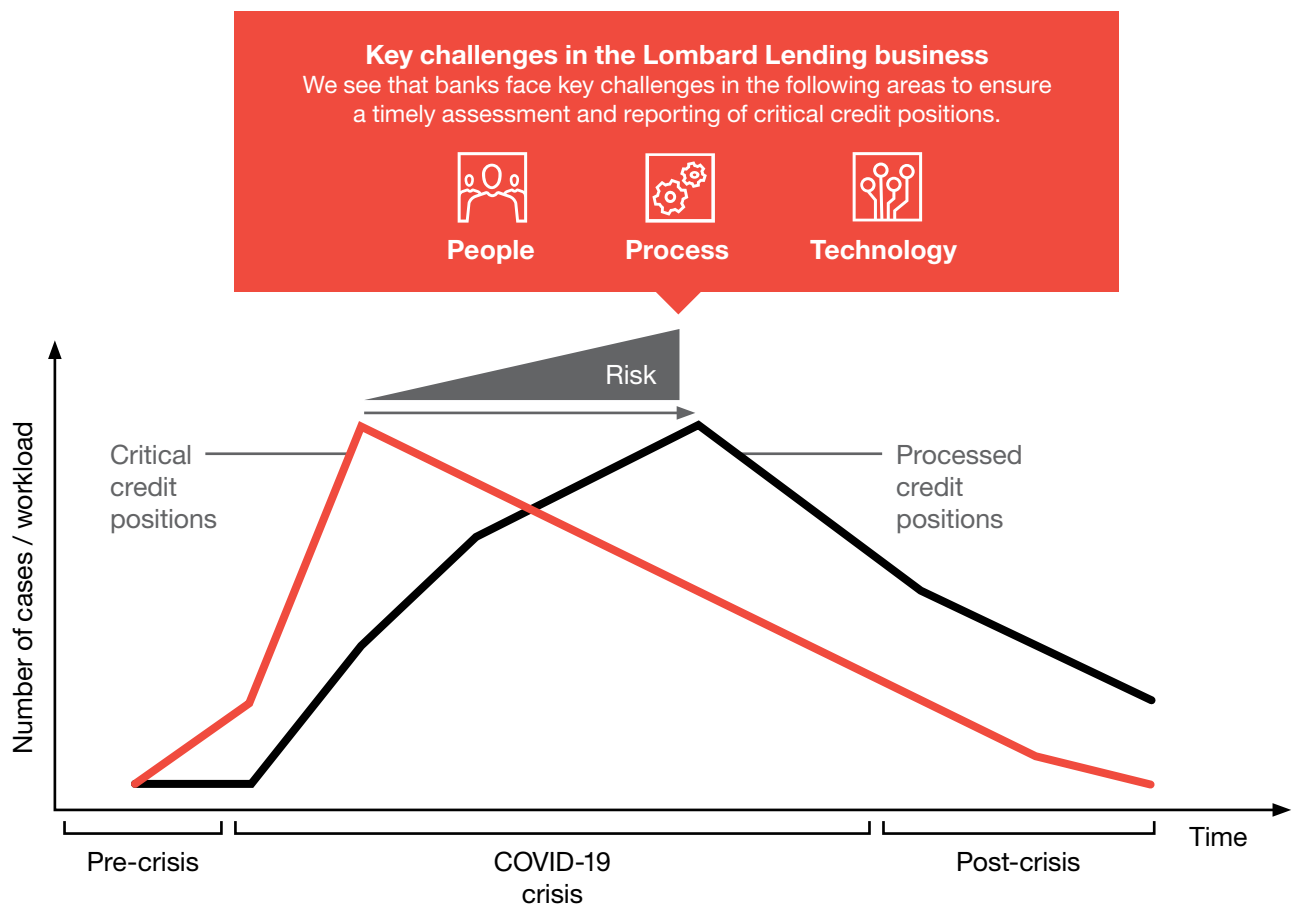
I. Lombard Lending during times of crisis	3
II. Key challenges and solutions	4
III. Example: Automation of the Lombard monitoring process	7
Your contacts	8



I. Lombard Lending during times of crisis

Lombard Lending, also known as collateralised lending in the wealth management area, is a high-value business for banks because it is a secure way of lending, it generates additional revenues and it enables banks to strengthen ties with customers. However, high market volatility (e.g. the current COVID-19 crisis) has a negative impact on the Lombard Lending business and challenges the existing operating model.

Based on our market insights, we see that many banks face challenges when dealing with a sudden increase in the number of critical client positions (i.e. margin call and unsecured positions). In particular, the timely processing and reporting of such positions remains a key challenge and exposes banks to increased credit, market and operational risks.



Case study A – Stressed margin calculation and reporting

A large global bank was facing losses during crisis times due to A) incorrect margin calculation for derivatives (e.g. concentrated positions) under stressed scenarios and B) insufficient timely reporting capabilities and a lack of MIS.

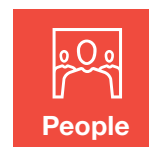
Enhancing the methodology and automation of daily reporting enabled the bank to minimise future losses.

Case study B – Process automation

A large global bank experienced increased risks during volatile times, due to the inability to process critical positions in a timely manner. In particular, decentralised systems which were not interlinked required a lot of manual effort in the execution of the margin call process.

Automating the margin call process (using scripts) enabled the bank to reduce risks and increase efficiency. See example in Section 3.

II. Key challenges and solutions



The increased number of critical credit positions (i.e. margin calls and unsecured positions) puts a great deal of pressure on the existing workforce (credit officers, monitoring). In particular also due to the new working environments like working from home during the crisis triggered by COVID-19 or a split working approach.

Challenges

- **Additional resources** need to be on boarded within a very short time frame. These resources might lack the relevant knowledge and experience.
- Staff are exposed to a **new working environment** (i.e. working from home, split working approach), which might slow down productivity. In addition, staff are not always properly trained, especially temporary/flexible employees.
- **Communication** with internal stakeholders (e.g. front office) and clients is more challenging.

Solutions

- Include the engagement of flexible resources (internal or external) in the **crisis plan to ensure quick on boarding during crisis times**. Ideally, these should be resources with prior knowledge of systems, processes and communication skills.
- **Training of temporary and fixed employees** is key, covering all internal stakeholder groups (risk officers, client advisors, senior management). Specific emphasis should be placed on the execution of margin calls, which requires accurate position calculation and clear communication with internal stakeholders.
- Clear **communication guidelines** between internal stakeholders and external clients. Experience in the market shows that a margin call does not mean the end of a client relationship in the future, especially when communication is done properly.



Quick wins:

- Include resource planning in the crisis plan, e.g. re-allocation of internal resources from decision making to credit monitoring.
- Nominate monitoring SMEs, e.g. to give support with calculations, manage exceptions, handle front office questions.
- Perform training sessions and share one-pager regarding the approach and timeline with key stakeholders.



Benchmark studies indicate that banks with highly standardised and automated Lombard monitoring processes are outperforming. Standardisation and automation allow for scaling up the processing of margin calls and unsecured positions during times of increased volatility.

Challenges

- Lack of a **well-defined crisis plan**, i.e. governance, process, roles & responsibilities.
- Highly **manual processes** which are prone to operational risk, e.g. assessment of (complex) client positions or execution of margin calls and close-outs.
- Lack of accurate **stressed scenario valuations** of underlying positions, in particular derivatives. Basis for risk-based monitoring and fast decision-making.
- **Data inconsistencies**, because the data is sourced from various systems across the bank, which results in a lack of a **holistic client and risk view**, e.g. insufficient daily risk reporting capability.
- Continuous and efficient involvement of different stakeholders, i.e. credit officer, monitoring, front office, clients.

Solutions

- Develop a **crisis playbook** which outlines clear instructions and guidelines.
- **Standardise** processes and **automate** where possible. Where manual processes cannot be quickly automated, implement a control (e.g. 4-eyes principle or sample checks) to reduce operational risk.
- For structured transactions where processes cannot be standardised (e.g. calculation of complex positions, execution of margin calls), a **dedicated decision body** must be set up to enable fast decision-making and handling.
- Develop and **implement stressed scenario valuations** to constantly monitor potential underlying risk.
- Develop daily risk reporting capabilities to enable **real-time risk-based monitoring**. Reporting should include crisis-specific risk factors (crisis reporting), which can be tailored to the situation.



Quick wins:

- Create a standardised process for the execution of margin calls, e.g. batch processing of margin call letters.
- Apply process automation to link systems and tools, and reduce manual interfaces (see example in Section 3).
- Build a prototype reporting functionality, which supports the identification and analysis of critical credit positions.



Many Lombard Lending technology solutions are built in house and need enhancements regarding the full front-to-back steps of the Lombard monitoring process. Tactical solutions are often unavoidable and often remain longer than originally intended. We believe combined business and technology competence is the key for quick and sustainable technological-based optimisation. Using innovative technology like Robotics Process Automation (RPA), Artificial Intelligence (AI), in particular Natural Language Processing (NLP), and experience can considerably speed up the necessary changes.

Challenges

- Existing technology is often based on **legacy systems** and lacks certain analysis and reporting **functionalities**, for example:
 - Single client view, when dealing with multiple accounts or third-party pledges.
 - Calculation of complex client positions.
 - Monitoring of stressed positions incl. full collateral view.
 - Daily dashboard highlighting most critical positions and portfolio overview.
- **Systems and tools are not always linked** and require **manual interfaces**, increasing operational risk, slowing down the process with repetitive tasks and creating costly data quality issues.
- **Data quality issues** result in inefficient processing of credit positions (e.g. technical overdrafts).

Solutions

- Close the gap between unlinked systems to create a single client view showing the overall asset and liability side, e.g. by using RPA or analytical solutions.
- Improve the identification of potentially critical clients and reduce technical overdrafts (false positives) by using machine learning and artificial intelligence solutions.
- Screen Lombard Lending credit contracts using NLP solutions to identify special conditions which require greater attention.



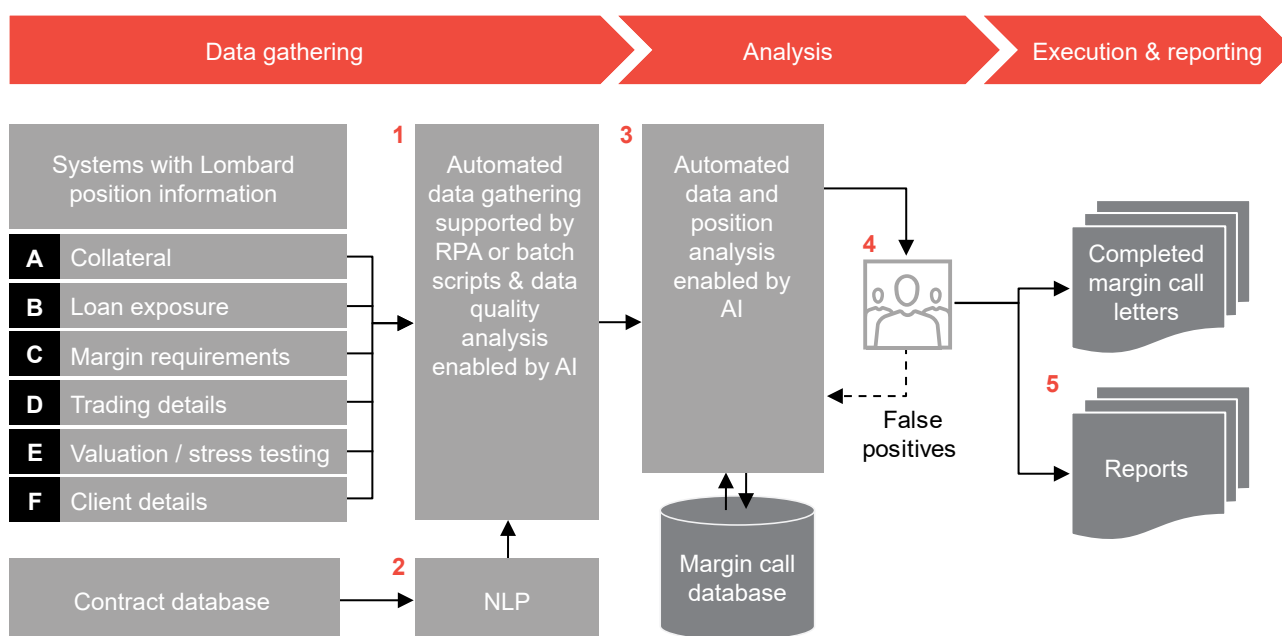
Quick wins:

- Check if process gaps can be closed through automation, e.g. batch processes or RPA solutions (see example in Section 3).
- Consider Artificial Intelligence to reduce false-positive critical client positions.
- Use Natural Language Processing to review credit documentations.

III. Example: Automation of the Lombard monitoring process

Automation in the Lombard monitoring process is key when dealing with large volumes of overdrawn credit positions, as experienced during the COVID-19 crisis. The following example shows how the Lombard monitoring process can be optimised to increase efficiency and reduce risks.

The diagram below shows an illustrative example of how Robotic Processing Automation (RPA) and Artificial Intelligence (AI) like Natural Language Processing (NLP) can be applied to automate the creation of margin call letters and respective reports, as part of the Lombard monitoring process. In this example, the relevant data for critical positions, which require a margin call letter to be sent, is dispersed across different systems.



Explanation of the key steps

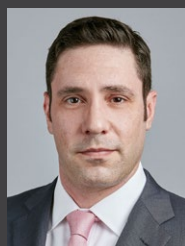
1. In the first step, Lombard position information and contract data are automatically gathered from different systems and data sources e.g. by using RPA or batch scripts. Data quality checks are performed, supported by AI.
2. By using Natural Language Processing (NLP), additional information can be extracted out of the contract database, like specific margin call/close-out periods and exceptions to policy conditions. This information is relevant to be included in the margin call letter.
3. The software/IT solution receives the input data gathered in Step 1 and subsequently the Artificial Intelligence (AI) engine performs respective checks to identify critical client positions where a margin call letter needs to be dispatched. Relevant data is stored in a margin call database.
4. Client positions which were identified as critical are reviewed by monitoring specialists to confirm or reject the assessment result, i.e. dispatch of the margin call letter. The decision of the monitoring specialist is fed back to the AI solution, which through continuous improvements, reduces the number of positions that were incorrectly identified (false positives).
5. If the criticality is confirmed, the automated solution automatically starts to create a margin call letter which can be printed, signed and sent to the client. In addition, a report can be extracted from the automated solution, which provides an overview of all critical positions, margin call letters sent and status of the current remediation.

We look forward to discussing with you a more detailed view of the individual actions that need to be tailored to your specific organisation.

Your contacts



Patrick Akiki
Partner
akiki.patrick@ch.pwc.com



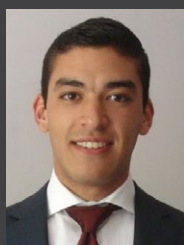
Adam Mikulka
Partner
adam.r.mikulka@ch.pwc.com



Dr. Oliver Kaufmann
Director
oliver.kaufmann@ch.pwc.com



Dr. Thomas Busch
Senior Manager
thomas.busch@ch.pwc.com



Urgyen Ponse
Manager
urgyen.ponse@ch.pwc.com

We would like to thank Nanni Ooslander and Carlo Schmid for their contributions to this publication.

PwC, Birchstrasse 160, 8050 Zurich, +41 58 792 44 00

