# Banking in Luxembourg

Together towards another decade of resilience

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# Foreword

**Yves Stein**
Chairman, ABBL

First, I would like to extend my gratitude to PwC for their excellent analytical work on this study examining the resilience of banks in Luxembourg.

As you delve into the following pages, you'll notice that the authors have wisely chosen the European Central Bank's latest supervisory priorities as the report's central theme—a choice both astute and telling.

After all, is there any industry more regulated than banking, where supervision plays such a crucial role?

So, what does this mean for the ABBL and its members?

Primarily, it highlights that one of our association's main challenges is to help establish a framework enabling banks to regain some agility. Agility to support the economy is increasingly crucial as our continent faces the triple challenge of financing its sustainable and digital transition and developing strategic autonomy.

Banks play a vital role in this context and could do even more if not constrained by the limits of regulatory demands.

Make no mistake, we are not against regulation. Promoting regulated banking services is integral to our mission. Following the 2008-2009 crisis, banking regulations significantly bolstered banks' stability and resilience.

However, today it would be prudent to shift towards a more risk-based approach and consider competitiveness when introducing or revising regulations.

What can the ABBL do in this regard?

Firstly, we can unite all stakeholders around a common vision and persuade those who strive through complexity that greater simplicity will allow the financial center to thrive.

Secondly, we must continue engaging with legislators at both local and European levels through our joint representative office with the ACA and ALFI.

Another key lesson is the importance of maintaining a sustained dialogue with our supervisor, the CSSF.

In Luxembourg, we are fortunate to have a supervisory authority well-acquainted with the challenges and specific features of our businesses, especially given their international scope.

The CSSF is attentive and open to structured dialogue. Here, the ABBL plays a crucial role as a conduit, not only translating the regulator's expectations to the market but also serving as a legitimate voice for the industry's challenges in applying and interpreting regulations.

Let's continue to foster this dialogue and, in the meantime, leverage the analytical insights in this publication to further strengthen our resilience.

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A little over a year ago, the global banking industry was severely rattled as, in just a matter of days, multiple banks in the United States and Switzerland collapsed, sparking fears that a repeat of the Global Financial Crisis (GFC) was in the offing.

Were such fears unfounded? Certainly not. The current global macroeconomic and geopolitical environment is anything but stable, with all sorts of tensions and risks lurking around the corners. From higher-for-longer interest rates and geopolitical conflicts, to emerging threats such as cybercrimes and climate-related calamities, commentators have aptly dubbed our current era the age of 'polycrisis'[1] or 'permacrisis.'[2]

Thankfully, GFC 2.0 was averted, and last year's banking crisis came and went without having much of an impact on the European Union's banking sector. This can largely be attributed to the banking union in the EU and the sound banking system fundamentals and stringent regulatory frameworks it ushered in, as they undoubtedly helped protect European banks from any fallout.

Indeed, ten years ago, the banking union came into being, helping put an end to the Sovereign Debt Crisis that had so devasted several European economies in the wake of the GFC. By all accounts, the banking union has been a success, even if much remains to be done if we are to ensure stability in the European banking sector in such times of uncertainty.

Luxembourg's banking sector has been a paragon of stability and sound, prudent governance since the emergence of the country's first banks in the mid-19th century. For this report, we decided to take stock of the European Central Bank's latest supervisory priorities and delve into tax and financial crime-related matters – two areas not directly under the ECB's remit – to offer signposts for the leadership of the Grand Duchy's banking sector to stay ahead of the curve in this increasingly fractured and crisis-prone environment.

We hope this guidance will help contribute, no matter how modestly, to yet another decade of banking stability and resilience in Europe.

Julie Batsch

1. The term was popularised by historian Adam Tooze in the World Economic Forum's annual meeting in Davos in January 2023.
2. For instance, see 'Permacrisis : A Plan to Fix a Fractured World' by Gordon Brown, Mohamed A. El-Erian and Michael Spence, published in September 2023.

# Extended Executive Summary

Despite surging profits and a long tradition of resilience and robust governance, Luxembourg's banking industry should brace for challenging times ahead due to crises in the non-financial sectors.

Although not many banks in Luxembourg are directly supervised by the European Central Bank (ECB), the industry should look at the recently-published Single Supervisory Mechanism (SSM) Supervisory Priorities for the years 2024-2026 as an opportunity to upgrade operations and risk management frameworks to ensure both resilience and sustainable growth in the challenging, rapidly-changing geopolitical and macroeconomic environment.

Indeed, while the ECB's supervisory priorities have evolved since they were first introduced in 2016, several key pillars remain more-or-less unchanged. This is particularly the case for risks related to geopolitics, lacklustre economic growth, and cybersecurity. In addition, climate-related risks have increasingly come to the forefront of the ECB's priorities. Conversely, other priorities – such as Brexit, a rising number of non-performing loans, and competition from neobanks – have tended to wane in recent years, even if their impact remains.

Our report highlights our recommendations to the leadership of the Luxembourgish banking industry with regards to the ECB's latest priorities as well as with two areas not directly covered by the ECB: Tax- and Anti-Money Laundering (AML)-related matters.

# 1. Resilience to immediate macro-financial and geopolitical shocks

## 1.1. Credit risk and counterparty credit risk management frameworks

To ensure both prudent and robust standards with regards to credit risk and that newly originated loans are of a high credit quality, documentation is the first essential step. The Chief Risk Officer (CRO) and the Credit Committee (headed by the CRO in certain banks) need to develop a deep understanding of the European Banking Authority's guidelines on loan origination and monitoring (LOM) and analyse the LOM data gathered by the first line of defense in an aggregate manner to ensure that the bank is operating in line with the guidelines. Big-ticket loans should be analysed by the risk function on a case-by-case basis.

The CRO needs to take the lead in conducting the bank's stress tests, taking into account unpredictable and highly-damaging scenarios as well as climate-related and environmental risks. As such, the CRO will need the support from the Chief Financial Officer (CFO) as the latter can provide much of the data needed for the stress tests. In addition, should the position exist, the CRO should consult with the Chief Sustainability Officer (CSO) for feedback and advice on the overall environmental, social and governance (ESG) risks that the bank may encounter, and incorporate them in the stress tests.

Under the CRO's lead, banks should not hesitate to undertake a reverse stress test, which will require the CRO to identify the most extreme and improbable scenarios which would essentially make the bank unviable should they occur. Reverse stress tests are very useful as they can help the bank identify risks that may have been overlooked in regular stress tests.

Given that the ECB has indicated that it will follow-up on the targeted review of banks' compliance with the International Financial Reporting Standard (IFRS) 9, the CFO will need to ensure that the bank fully abides by IFRS 9 and regularly evaluate how macroeconomic developments may affect the bank's business model and its loan provisioning levels. The CFO will need to work closely with the CRO and the Chief Information Officer (CIO) in this regard to regularly review and update the systems and processes when necessary.

## 1.2 Asset and liability management frameworks

Modelling how stable deposits are can be challenging, as a single negative reputational issue or better services offered by a competitor can lead to a rapid outflow of deposits. While online banking has brought countless benefits in terms of customer experience, it has also made outflows a much bigger threat as deposits can be shifted by clients within seconds at the touch of a fingertip – as the recent banking crisis in the United States demonstrated.

Armed with data on the bank's largest and most significant clients provided by the CFO, the CRO needs to envisage situations whereby institutional and high-net worth clients would rapidly withdraw their deposits. These hypothetical scenarios should then form the basis of stress tests and reverse stress tests to adequately test the reliability and robustness of the bank's asset and liability management frameworks.

Informed by the stress tests and reverse stress tests undertaken by the CRO, the Chief Executive Officer (CEO) should take the lead in devising new strategies on the bank's liquidity and funding with the goal of achieving diversified funding structures that help manage interest rate risks and risks stemming from changing customer behaviours. When devising these strategies, the CEO should particularly keep in mind the need to diversify the bank's funding sources and to have contingency and recovery plans in place.

Given that the senior management of a bank is responsible for the oversight of the Interest Rate Risk in the Banking Book (IRRBB), the CEO – in close collaboration with the CRO – should understand how the bank is exposed to IRRBB and approve the IRRBB-related policies and strategies. The CEO should also ensure that the IRRBB framework is reviewed and evaluated on a regular basis, either by the risk function or by independent third-parties.

# 2. Managing Governance and ESG Risks

## 2.1 Management bodies' functioning and steering capabilities

Given that they set the overall tone of the bank, the chairperson of the board of directors and the CEO need to demonstrate openness, humbleness and humility, alongside a genuine desire to be in contact with the bank's people who keep the proverbial gears running. They should avoid at all costs a domineering attitude that fails to acknowledge different points of view.

Both the board of directors and the senior management should harness the culture of openness and constructive dialogue to schedule periodic meetings with regulatory and supervisory authorities to exchange views and better understand their expectations.

Although boards are not supposed to be involved in the day-to-day running of the bank and should instead act in a supervisory or oversight capacity, this does not mean that they should be wholly detached, physically and administratively, from the bank's day-to-day concerns. They should consult with the Chief Operating Officer (COO) to set up periodic staff meetings to listen to staff concerns, suggestions, opinions and thoughts so as to better inform the bank's strategy. The senior management, and particularly the CEO, should feel empowered to constructively challenge the board and offer alternative recommendations when necessary. The inverse is also true, whereby the board would constructively challenge the senior management.

The boards of directors in Luxembourg's banks should establish succession and onboarding plans to ensure that retiring board members can impart their experience and knowledge to their younger peers, and that new members are provided with all the information and knowledge necessary to understand the bank's history, its risk exposure, and where their expertise and skillset come into play. In addition, they should adopt a holistic approach to diversity (gender, age, professional, ethnic and geographic backgrounds) and make efforts to increase board diversity while being careful to avoid increasing diversity just for diversity's sake or to fill in a certain quota.

To avoid situations whereby board members spend most of their working hours managing compliance-related matters, a policy should be established which clearly defines which documents should reach the board in their entirety and which ones should be provided only in a summarised format. As such, board members would have more time to devote to strategic matters.

Board members need to work closely with the COO, the CCO, the CRO and the internal audit function to develop an understanding of the multifaceted risks the bank faces, how these risks will spur future regulatory developments, and what the bank will need to cope with such changes and even find opportunities in them. The CCO, who is ultimately responsible for carrying out a regulatory watch, must ensure that it reaches the board and that the latter is periodically notified on the major regulatory developments.

## 2.2 Risk data aggregation and risk reporting: a long way to go

There are several approaches that can be adopted with regards to addressing deficiencies in risk data aggregation and risk reporting (RDARR):

The CRO and the CIO collaborate to identify existing gaps and oversee the evolution of the IT architecture to ensure that the right systems are in place to report on the correct data points. Given that the latest RDARR-related guidelines have a financial accounting dimension, the CFO will also need to be involved.

A data office is established under the CRO (second line of defense) or under the COO (first line of defense); or a Chief Data Officer (CDO) position is established directly under the CEO. The data office and the CDO would handle all RDARR-related matters.

Banks need to go beyond merely demonstrating an RDARR roadmap and showcase how they are putting effort into closing the gaps and deficiencies. The CRO, CFO, and CIO need to collaborate closely to ensure that the bank's RDARR practices are compliant with the regulations and all the deficiencies are adequately resolved. They should not hesitate to delineate RDARR responsibility at the granular level (e.g. customer data, collateral data, ratings data etc.), whereby each data owner in the bank is instructed to input the data which would then be used for KPIs and, ultimately, stress tests and reverse stress tests.

The board of directors needs to press the senior management (particularly the CRO, CFO and CIO) on RDARR, as the data obtained would greatly help in informing the bank's strategy and determining its KPIs. Better risk data and faster aggregation capabilities would greatly help the board and the senior management in swiftly assessing and analysing the risks at hand, and hence make more informed decisions.

## 2.3 Material exposures to physical and transition risk drivers of climate change

The transition risks faced by Luxembourg's banks have the potential to be severe. The CRO and the CCO need to determine what are all the climate-related and environmental transition and physical risks that the bank is facing and explain to the board and the rest of the senior management how these risks will impact the bank's strategy on the long-term. The CRO should develop and enforce climate-related risk policies. The CEO should then take a leading role by guiding efforts towards establishing (or refining) the bank's net-zero transition plan in-line with the Paris Agreement, ensuring that the plan reflects various pathways that reflect market risk and operational risk assessments. In addition, the CEO should guide efforts toward reviewing the quality of the bank's disclosures on climate-related and environmental risks.

Given the supervisory and regulatory focus on ESG matters, banks should ensure that a CSO position has been established. The CSO would play a crucial role in overseeing the bank's alignment with its transition plan, gradually growing the bank's green asset ratio. When hiring a CSO to assume such responsibilities, the senior management needs to bear in mind that the new CSO might not necessarily be an expert in banking. As such, an onboarding program needs to be established so that the new CSO can be rapidly acquainted with the bank's operations, its status with regards to green investments, and how it approaches sustainability-related matters. The CSO, on the other hand, needs to ensure that the CEO and the board of directors are provided regular updates with regards to the bank's sustainability trajectory and its progress on its agreed-upon transition plan.

With regards to ensuring the bank abides by sustainable finance-related regulations, the CFO should take the lead and work jointly with the CRO and the CSO.

Given that investors and the general public alike have increasingly strong views about banks that continue to finance 'brown' assets, the CSO, in collaboration with the CRO and the CCO, should play a leading role in identifying ESG-related opportunities and regularly communicating them to the senior management and the board of directors to inform the bank's long-term strategy.

# 3. Progress in the digital transformation and digital operational resilience

## 3.1 Well-crafted digital transformation strategies

A clear and transparent governance structure and processes to oversee the bank's digital transformation need to be put in place, with the alignment of the various members of the C-Suite, as each one plays a key role. The CEO and the Chief Commercial Officer bring a more holistic view of how the digital transformation would translate and enable business objectives, and what the tangible business implications this would have. By virtue of being responsible for the overall direction of the bank, the CEO should set the general objectives of the digital transformation strategy and ensure that they align with the bank's strategic objectives and its risk appetite. The COO must ensure that back offices are adequately prepared for the digital transformation.

The CIO – or the Chief Digital Officer, if the position is set up – should play a coordinating role and receive feedback and guidance from other members of the C-Suite on how the digital transformation can and should affect their respective responsibilities and operations. This is particularly crucial for the CFO who should ensure that all initiatives related to the bank's digital transformation are properly budgeted and financially viable, and that they are in-line with the bank's financial strategy.

The CFO should proactively identify any financial risks that might arise from the digital transformation and communicate them to the rest of the C-Suite, while the CRO would need to integrate how the digital strategy aligns with the bank's risk appetite.

Luxembourg's thriving fintech ecosystem has already played a role in pushing banks to adopt Cloud and Generative Artificial Intelligence (GenAI) solutions, and many banks have partnered up with local fintech firms to offer innovative solutions. Even if most of them are not directly supervised by the ECB, Luxembourg's banks will need to continue investing in their digital transformation, ensuring proper coordination across the organisation. The CIO, in partnership with the CRO and the Chief Information Security Officer (CISO), needs to ensure that the bank's overarching digital transformation is subject to rigorous risk assessments that cover all potential cyber-related risks that may arise. They should ensure that risk management is fully embedded in the design and implementation of the digital transformation strategy, and that adequate mechanisms for cyber-related risk monitoring and reporting are in place.

The bank's senior management should proactively engage with the CSSF or the ECB to understand what their expectations with regards to the banking sector's digital transformation are and to receive any kind of guidance that would be useful, particularly when it comes to complying with relevant regulations.

## 3.2 Ensuring digital operational resilience

The implementation journey of the Digital Operational Resilience Act (DORA) is a multi-faceted process that requires the input and collaboration of all members of the C-Suite, including the CISO. Within the bank, CISOs wear multiple hats:

**Strategy role:** Defining the bank's cybersecurity objectives and goals, and liaising between the operational side and the ICT department. They should understand what are the bank's critical activities which must continue at all costs, and what the ICT department can and should do to ensure that these activities can withstand any and all kinds of cyber attacks.

**Coordination and oversight role:** When it comes to cyber resilience stress tests, the CISO is responsible for making sure that the bank has (1) set up all the processes and mechanisms necessary to withstand cyber attacks, and that it has (2) a recovery plan, particularly for the most sensitive and important activities.

**Control and reporting role:** In-line with DORA, the CISO is responsible for verifying the bank's cybersecurity measures and ensuring that they are effective. The CISO should keep the board of directors and the senior management updated on all cybersecurity-related KPIs and Key Risk Indicators (KRIs). As such, the CISO should be able to anticipate, detect, prepare for and respond to any cyber attack that might arise, while taking the lead in promoting cybersecurity-related awareness and training across all of the bank's lines of service.

The CISO is responsible for proposing disaster recovery plans and regularly evaluating the processes and procedures of the adopted plan to ensure that it is effective. By staying up-to-date with the latest developments in the realm of cybersecurity, CISOs should not hesitate to propose novel solutions and ideas, such as the cyber vault, if they believe that the bank needs it.

When it comes to the emergency response and the disaster recovery plan, members of the bank's C-Suite alongside other key actors need to act in tandem:

**The CIO** is responsible for making sure that the ICT assets needed to embark on the recovery plan are in place.

**The COO** alongside the communications department need to ensure that the cyber attack is communicated in an adequate manner internally, to clients, to the regulatory authority, and to all relevant stakeholders. In particular, the COO should take the lead in defining what the priorities of the recovery plan should be.

**The CEO** must oversee the whole recovery process and ensure that each part is being implemented in an adequate and timely manner.

Although the oversight of ICT third-party providers is a shared responsibility among all members of the C-Suite, the CRO and the CCO should take the lead and ensure that the outsourcing chain is made transparent, while coordinating with the CEO and the CIO to determine which providers can ensure long-term resilience and whether the current setup can ensure the bank's digital operational resilience.

Regarding the register of information on ICT third-party service providers prescribed by DORA, either the CRO or the CCO of the bank – depending on who is tasked with handling outsourcing risk matters – will need to be responsible for maintaining it and ensuring that it is up-to-date and that it is part of the bank's broader outsourcing register which contains non-ICT outsourced services.

# 4. Tax Resilience and Innovation

Many banks do not have a department dedicated to managing tax affairs, making it difficult for them to determine tax-related opportunities and risks, while establishing a whole new tax department from scratch can be very costly. The CEO and the CFO should assess the extent to which such a new department would be a useful and beneficial undertaking for the bank's future, and weigh such a consideration against prospective outsourcing arrangements whereby service providers can provide a cost-effective solution that unlocks a wide array of tax-related benefits and highlights the different tax-related risks the bank faces.

Given the fluidity and cross-departmental nature of the Central Electronic System of Payment Information (CESOP), banks have struggled to adequately assign responsibilities for its implementation. Responsibility will have to be spread between several actors within the bank. For the banks that do have a Head of Tax Affairs, the latter will need to cooperate and coordinate closely with the COO, CFO and the CIO to ensure that the adequate ICT processes and reporting mechanisms are in place so that every quarter, the relevant and correct data can be reported to the tax authorities. As for banks where there is no Head of Tax Affairs, the responsibility will fall on the COO, the CFO and the CIO.

With the recent announcement of the digital and ecological transformation (DET) tax credit in Luxembourg, the CEO should take the lead in directing efforts towards understanding how it can be used by the bank and determine what eligible investments in the digital and ecological transformation the bank should carry out, in close collaboration with other relevant members of the C-Suite.

With regards to the bank's digital transformation, the tax function is likely going to be significantly affected by artificial intelligence. In banks that have a department for managing tax affairs, the department's head and the CIO should examine all the potential opportunities and efficiency gains that GenAI solutions and services can bring in. Such investments could end up being eligible for the DET tax credit.

For banks that take pride in their strong ESG track record, they should consider publishing a tax transparency report on an annual basis. The CEO, alongside the CFO, the CSO and the Head of Tax Affairs (if the position exists in the bank), should determine how best to approach the subject and how the report will be structured and presented. The bank should not hesitate to adopt the Global Reporting Initiative's standard for public reporting on tax, GRI 207.

## 5. Coping with Heightened Financial Crime Risks

The CCOs and CROs of the Luxembourgish banking sector will need to keep a keen eye on the European Commission's Anti-Money Laundering (AML) package and understand how the new AML Regulation will affect them and what the role of the new AML Authority will be. They will need to oversee the development and implementation of the bank's AML policies, procedures and controls, ensuring that they are all up-to-date and aligned with applicable regulations.

Given that many banks struggle to attract, retain and upskill staff with AML experience, the COO will also have to play an important role in ensuring that the bank complies with AML regulations, closely cooperating with the CCO and/or CRO to understand what the operational deficiencies are and how they can be resolved.

To determine what is the best way forward with regards to GenAI applications in the bank's AML operations, the CCO, the CRO and the CIO should work together and cooperate closely in order to determine what processes should be prioritised, what solutions should be enacted, and what are the missing ingredients, such as the need to upskill staff. The CRO needs to ensure that robust governance frameworks are in place to oversee and monitor the development, testing and deployment of AI solutions, while such solutions need to be seen as a complement rather than a replacement for human expertise. After all, the bank's AML staff will still need to play a critical role in analysing the insights and results provided by the GenAI tools which, despite looking very professional and sophisticated for the non-experienced user, can often turn out to be inadequate.

A failure in AML controls could rapidly lead to significant penalties and sanctions alongside reputational harm that can be hard to undo, and ultimate responsibility for compliance with AML regulations falls with the CEO and the board of directors. In fact, the CEO should keep a close eye on all AML-related developments and regularly consult with the CCO, the CRO, the COO, and increasingly the CIO, regarding the bank's AML processes and procedures. The CEO should not shy away from taking the necessary actions to remediate any shortcomings that may be identified. As for the board, the tone at the top is crucial, and the chairperson and the directors need to promote a strong culture of AML compliance.

# 1

# Introduction: Towards a More Perfect (Banking) Union

In 2008, the global economy came eerily close to a shuddering halt as the subprime mortgages issued in the United States over the preceding decade began to default in rapid succession. Countless institutional investors and financial institutions across the world, large and small alike, found themselves entangled in an unenviable web of high-risk, rapidly depreciating assets.

In Europe, Iceland's banking sector was the first to fall, with the three leading Icelandic banks – collectively making up "85% of the banking system and nearly 900 percent of GDP"[3] – collapsing within a few days of one another in October 2008.[4] The financial sectors of several European states – primarily Portugal, Ireland, Italy, Greece and Spain – experienced extreme stress shortly thereafter, as it transpired that many banks were overexposed to bad loans and high-risk assets which lost much of their value in the recession that ensued. European governments subsequently found themselves struggling to refinance or repay their debt, let alone bail out their ailing banks without external assistance.

The Global Financial Crisis and the European Sovereign Debt Crisis laid bare the absence of a comprehensive mechanism to supervise banks and handle bank failures at the European level. Indeed, during that period, European governments had tended to eschew pan-European banking supervision in favour of supporting leading national institutions, in turn blinding regulators and supervisors to the systemic problems posed by weak balance sheets.

It was clear that the status quo ante could not persevere. A new approach to European banking was needed to prevent future crises and ensure financial stability. The answer came on the 29th of June 2012, when leaders of the Euro Area governments affirmed "that it is imperative to break the vicious circle between banks and sovereigns"[5] and made use of Article 127 (6) of the Treaty on the Functioning of the European Union to endow the European Central Bank (ECB) with supervisory powers.

The June 2012 summit came at a time when the future of the single currency was in doubt. It reaffirmed Euro Area governments' commitment to support one another with the help of the ECB, and alongside then-ECB president Mario Draghi's famous assertion that "the ECB is ready to do whatever it takes to preserve the euro,"[6] essentially laid the foundations for a European banking union.

3. IMF. 'Iceland: Ex Post Evaluation of Exceptional Access Under the 2008 Stand-by Arrangement,' April 2012. https://www.imf.org/external/pubs/ft/scr/2012/cr1291.pdf
4. Baudino, P., Sturluson, J. & Svoronos, J., 'The banking crisis in Iceland,' Bank for International Settlements, March 2020. https://www.bis.org/fsi/fsicms1.pdf
5. Euro Area Summit Statement, 29 June 2012. https://www.consilium.europa.eu/media/21400/20120629-euro-area-summit-statement-en.pdf
6. ECB. 'Speech by Mario Draghi, President of the European Central Bank at the Global Investment Conference in London,' July 26, 2012. https://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html

As it currently stands, the European banking union rests on two pillars:

## Single Supervisory Mechanism (SSM)

Proposed in September 2012 and formalised via Regulations 1024/2013 and 1022/2013 in October 2013, the SSM regulatory framework has empowered the ECB with prudential supervision over Euro Area banks deemed to be 'significant.'

The SSM has been in operation since November 2014.

## Single Resolution Mechanism (SRM)

Proposed in July 2013 and formalised via Regulation 806/2014, the SRM is implemented through the Single Resolution Board which is authorised to use resolution tools to recapitalise, restructure and take into resolution banks or systemically important asset management firms in order to prevent a financial crisis and protect taxpayers from potential bailouts.

The SRM has been in operation since January 2015, while the authority to implement bank resolution came into effect the following year.

A European Deposit Insurance System, which would essentially be a common bank deposit insurance scheme across the Euro Area and "provide a stronger and more uniform degree of insurance cover," was also proposed in November 2015.[7] However, this third pillar remains unachieved as of the time of writing.

Regarding the SSM, it is the first legally-binding pan-European banking supervision system, bringing together the ECB and the supervisory authorities of all Euro Area member states to ensure that the European banking sector remains sound and stable. Under the SSM, the ECB now acts as a supervisory authority with a responsibility to directly oversee the 112 largest cross-border banks in the Euro Area,[8] as well as to indirectly oversee the medium- and small-sized banks through the national competent authorities.

In addition, the ECB is required to carry out a Supervisory Review and Evaluation Process (SREP) on an annual basis to evaluate banks' ability to deal with potential risks and assess their capital and liquidity needs. It involves the analysis of banks' business models, governance and risk management structures, and potential risks to capital and liquidity. In short, "SREP is an annual, robust, intrusive analysis of all significant banks" in the Euro Area whereby the ECB focuses on four building blocks, each rated separately:[9]

### Business model analysis

Functionality, viability and sustainability of the bank's business model.

### Governance and risk management

Adequacy of internal governance and risk management methods and processes.

### Risk and capital

Assessment of risks and controls, determination of capital requirements and stress tests, and Internal Capital Adequacy Assessment Process (ICAAP).

### Liquidity and finance

Assessment of risks and controls, determination of liquidity requirements and stress tests, and Internal Liquidity Adequacy Assessment Process (ILAAP).

7. European Commission. 'European deposit insurance scheme.' https://finance.ec.europa.eu/banking/banking-union/european-deposit-insurance-scheme_en
8. ECB. 'Single Supervisory Mechanism.' https://www.bankingsupervision.europa.eu/about/thessm/html/index.en.html#:~:text=Directly%20supervised%20banks,on%20a%20number%20of%20criteria
9. PwC. 'What is the SREP? Annual supervisory review and evaluation of institutions.' https://www.pwc.com/gx/en/services/audit-assurance/risk-assurance/ssm-eba-office/ecb-srep.html

The ECB closely monitors SREP adherence. Depending on the scores obtained, banks may receive individual capital surcharges and may be obligated to abide by additional individual liquidity requirements and other measures. Then, based on the SREP, the ECB publishes its forward-looking supervisory priorities annually which can be adjusted and modified should the macroeconomic and financial environment rapidly change.

Starting for the 2022 priorities, the SSM Supervisory Priorities have been published for the three years ahead,[10] and in December 2023, the ECB published the latest priorities, set for 2024-2026:

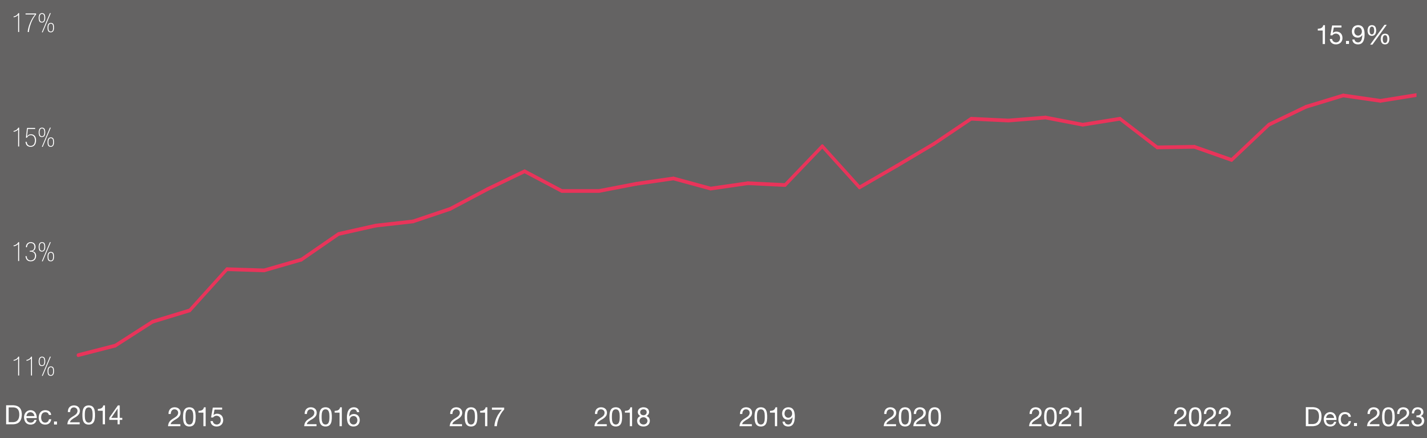
| Priority 1 | Priority 2 | Priority 3 |
| --- | --- | --- |
| Strengthen resilience to immediate macro-financial and geopolitical shocks. | Accelerate the effective remediation of shortcomings in governance and the management of climate-related and environmental risks. | Further progress in digital transformation and building robust operational resilience frameworks. |

Given that banks in the EU managed to withstand the banking crisis of early 2023 and emerged relatively unharmed is a testament to the banking union's effectiveness and its ability to shield European banks from a wide array of shocks. Indeed, the European Banking Authority (EBA)'s periodic Risk Dashboards have consistently shown that European banks are faring well with regards to numerous risk indicators.

For instance, in December 2023, the weighted average common equity tier 1 (CET1) ratio of EU/EEA banks reached 15.9% – a whole 50 basis points increase over December 2022 (Exhibit 1). In addition, the net stable funding ratio (NSFR) – despite a slight decline since June 2021 – stood at a comfortable 127% in December 2023, well beyond the 100% minimum prescribed by the Basel Committee on Banking Supervision[11] (Exhibit 2).

10. ECB. 'Supervisory Manual,' January 2024. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.supervisory_guides202401_manual.en.pdf
11. Basel Committee on Banking Supervision. 'Basel III: the net stable funding ratio,' October 2014. https://www.bis.org/bcbs/publ/d295.pdf

### Exhibit 1. CET1 ratio of EU/EEA banks (December 2014 – December 2023)




Source: EBA Risk Dashboard Q4 2023

### Exhibit 2. Net stable funding ratio of EU/EEA banks (June 2021 – December 2023)


Source: EBA Risk Dashboard Q4 2023

2

# Banking in Luxembourg: A Tradition of Robust Governance

With its strong governance practices, strategic geographic positioning and international orientation, Luxembourg's banking sector – and the financial centre more generally – has traditionally been robust and resilient.

The Grand Duchy's banks – the majority of which are affiliates of international banking groups – serve clients from across the world, which greatly helps spread risks and prevent overexposure to any specific market or region. During the GFC of 2008, only two cross-border banks with a presence in Luxembourg required governmental assistance, while three subsidiaries of Icelandic banks were put under judicial liquidation.[12] Compared to its peers within and outside the EU, Luxembourg's banking sector was essentially left unscathed by the GFC.

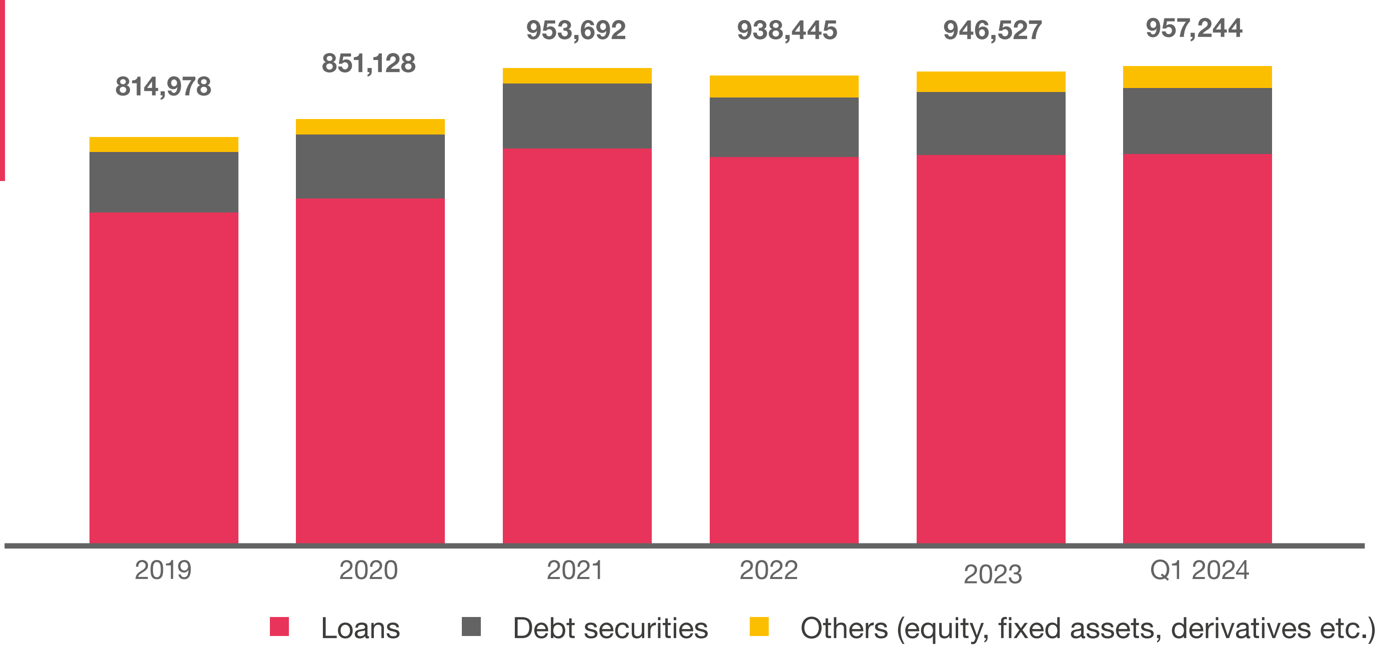
Since the banking union was formally established and the ECB endowed with supervisory powers, Luxembourg has actively implemented the SSM supervisory priorities. Both the Banque Centrale du Luxembourg (BCL) and the Commission de Surveillance du Secteur Financier (CSSF) closely follow the regulatory frameworks embodied in the EU Single Rulebook and the SSM regulation.

In addition to its monetary policy responsibilities, the BCL is responsible for overseeing the overall liquidity in the Luxembourgish banking sector, making sure that the systems for payments and securities settlement are safe and efficient, and publishing banking-related statistical data. The CSSF, on the other hand, primarily acts as the national competent authority, carrying out prudential supervision to ensure the banking sector is sound and stable. By closely monitoring the financial sector and enforcing compliance with international best practices, the CSSF has greatly helped maintain the Luxembourgish banking sector's integrity, credibility and resilience.

As per the BCL, there were 117 credit institutions established in Luxembourg, with a total balance sheet of EUR 957,244mn as of end-March 2024 (Exhibits 3.a and 3.b).

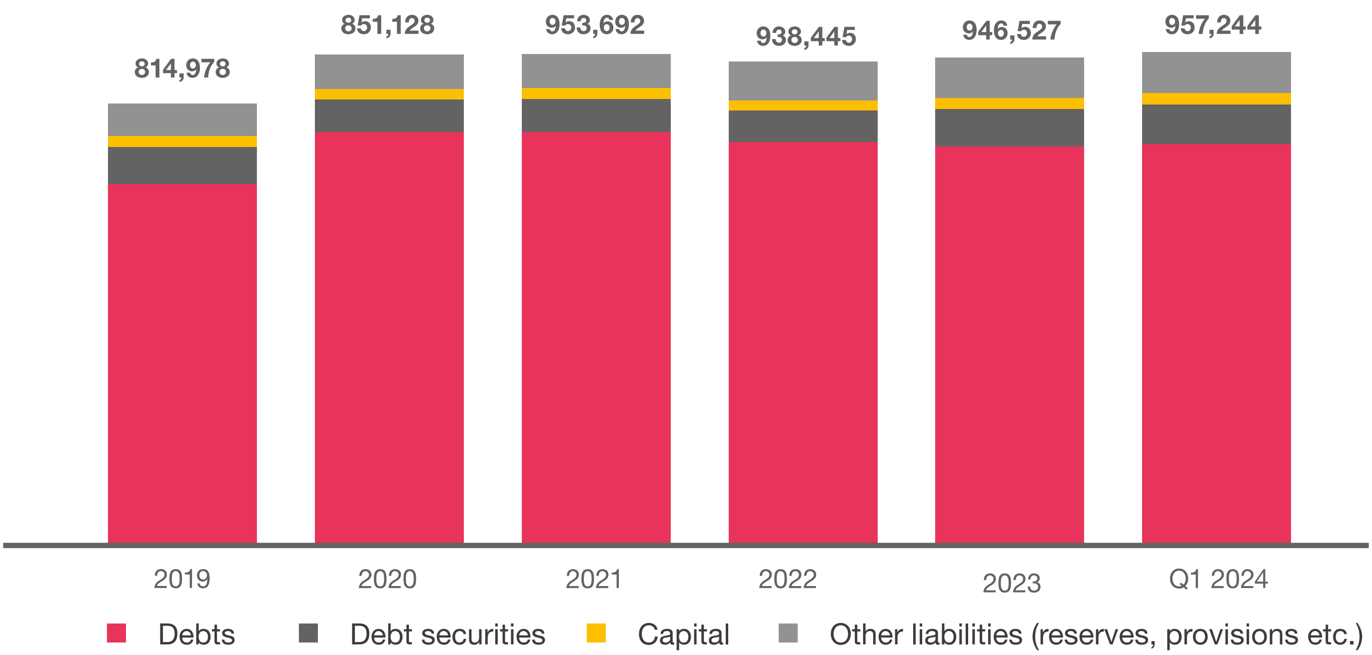
12. CSSF. 'History.' https://www.cssf.lu/en/history/

**Exhibit 3.a.** Total assets of credit institutions in Luxembourg (EUR mn)




Source: PwC Global AWM & ESG Research Centre; BCL

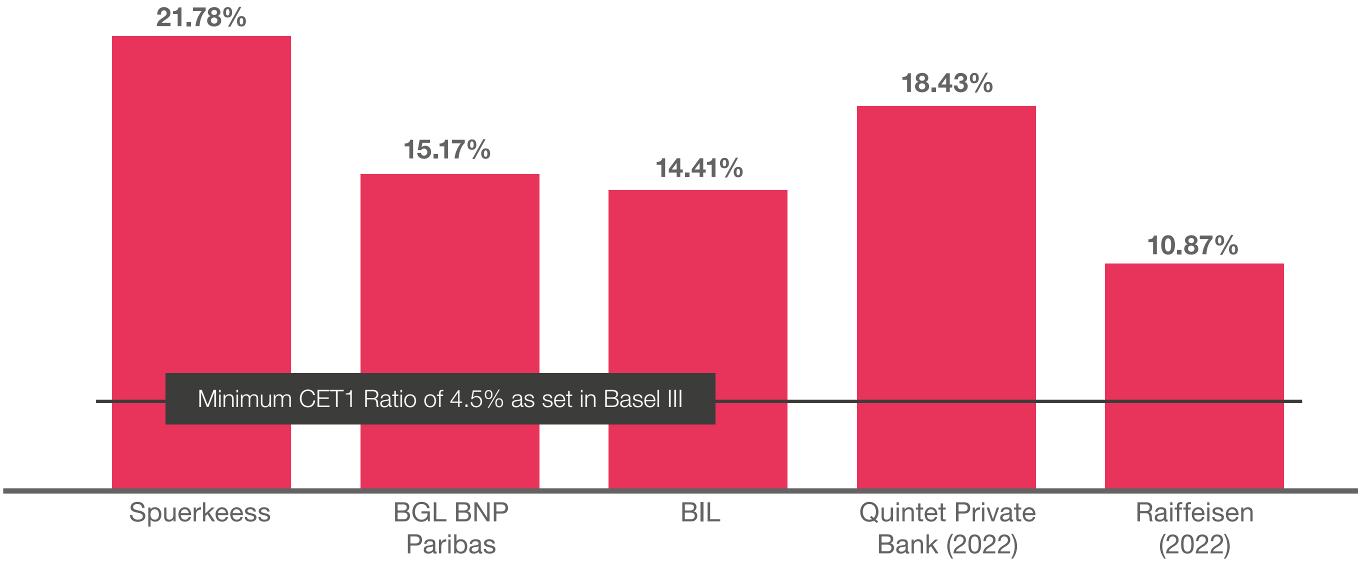
**Exhibit 3.b.** Total liabilities of credit institutions in Luxembourg (EUR mn)




Source: PwC Global AWM & ESG Research Centre; BCL

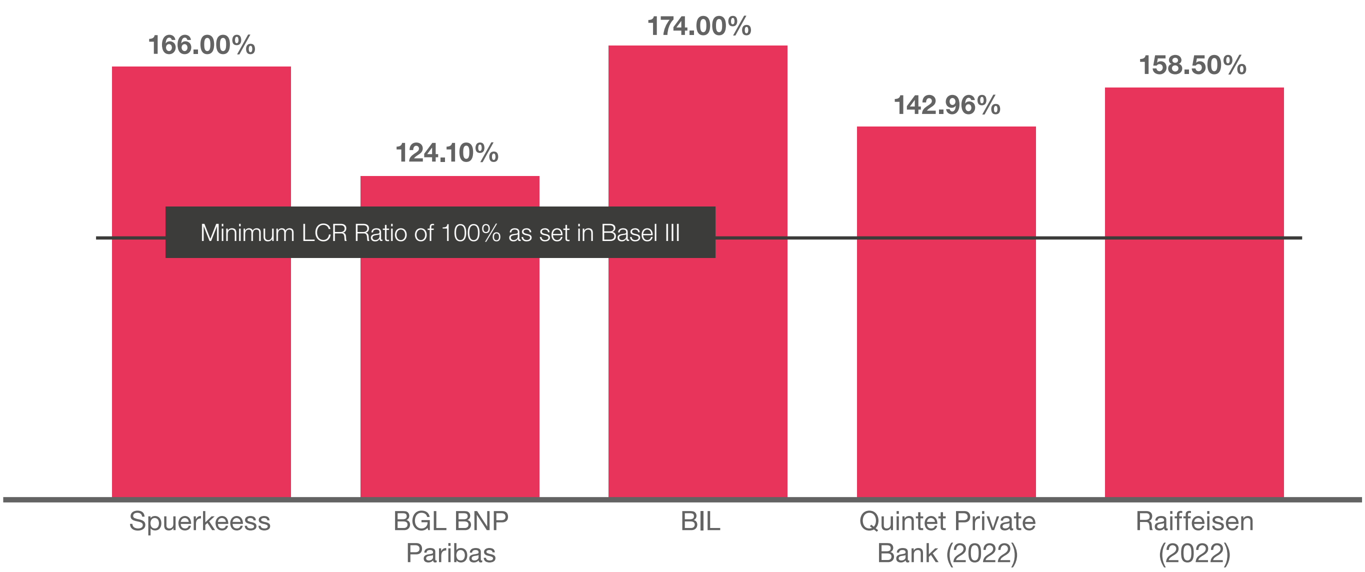
The country's five biggest banks in terms of balance sheet are all faring well when it comes to liquidity buffers. As Exhibits 4.a and 4.b below show, their CET1 ratios – which illustrate how well-equipped a bank is to absorb losses – and Liquidity Coverage Ratios (LCR) – which highlight the proportion of liquid assets to be used to maintain short-term obligations – stand well above the minimum set by the Basel Committee for Banking Supervision.

**Exhibit 4.a.** CET1 ratio of the five biggest banks in Luxembourg by balance sheet in 2023




Source: Banks' websites and Pillar III disclosures

**Exhibit 4.b.** LCR ratio of the five biggest banks in Luxembourg by balance sheet in 2023




Source: Banks' websites and Pillar III disclosures

In addition, given the high interest rate environment that has characterised the Euro Area since mid-2022, Luxembourg's banking sector has unsurprisingly experienced significant profits last year, as highlighted in Table 1 below.

**Table 1.** Profit and loss account of Luxembourg's banking sector (in EUR mn; as of end-2023)

| | Jan. – Dec. 2022 | Jan. – Dec. 2023 | Variation |
|---|---|---|---|
| Net interest income | 6,803.2 | 10,267.9 | 50.9% |
| Net fee and commission income | 5,902.4 | 5,711.8 | -3.2% |
| Other net income | 1,286.5 | 1,357.5 | 5.5% |
| Banking income | 13,992.1 | 17,337.1 | 23.9% |
| Staff costs | 3,238.1 | 3,587.9 | 10.8% |
| Other general expenses | 4,591.0 | 4,807.1 | 4.7% |
| **General expenses** | **7,829.1** | **8,394.9** | **7.2%** |
| Profit before provisions and taxes | 6,162.9 | 8,942.2 | 45.1% |
| **Net profit** | **3,947.6** | **6,603.2** | **67.3%** |

Note: As per the CSSF, the data included in the table covers the Luxembourgish banking sector active during the reference period but excludes banks' foreign branches and their subsidiaries.

Source: CSSF

According to the CSSF, banks' exceptional performance in 2023, with net profits growing by over 67% compared to 2022, was largely "due to very favourable interest margins and reversals of provisions." It cautioned that this rise is of a transitory nature, noting that the majority of banks have also reported increases in general expenses, namely in staff costs.[13]

In fact, this exceptional performance was not unique to the Luxembourgish banking sector. European banks in general have seen record profits in 2023, with the 20 largest listed banks in continental Europe raking in over EUR 100bn in net income – the first time the 100bn threshold was crossed – up from EUR 78bn in 2022.[14]

Such record numbers came at an exceptional moment. Indeed, by raising the interest rate on refinancing operations, marginal lending facility and deposit facility in rapid succession to reach record highs of 4.5%, 4.75% and 4.0% respectively, the ECB formally put an end to the decade-long ultra-low interest rate environment.

The Luxembourgish banking sector is well-aware of this. Guy Hoffmann, the outgoing chairman of the Luxembourg Bankers' Association (ABBL), recently stated that the "results of the banking sector do not reflect the country's actual economic situation" and that the ABBL is "convinced that we will not return to normality in 2024" which will require banks to "constitute supplementary reserves."[15]

The ongoing crisis in the construction sector,[16] the significant drop in housing loan volume,[17] coupled with other systemic issues hampering economic growth – such as the well-known challenges pertaining to finding and retaining qualified staff – indicate that Luxembourg's banking sector is poised to encounter challenging times sooner rather than later.

As such, we provide below practical recommendations on what the senior management of banks in Luxembourg should consider with regards to the ECB's SSM Supervisory priorities of 2024-2026, as well as two areas not directly under the ECB's supervisory purview: tax and anti-money laundering (AML).

13. Heindrichs, T. 'Luxembourg banks increase profit by 45%,' Luxembourg Times, March 18, 2024. https://www.luxtimes.lu/businessandfinance/luxembourg-banks-increase-profit-by-45/9473418.html
14. Arons, S. 'Europe's Largest Banks Top €100 Billion Profit for First Time,' Bloomberg, February 19, 2024. https://www.bloomberg.com/news/articles/2024-02-19/unicredit-bnp-lead-banks-exceeding-100-billion-profit-for-the-first-time
15. Linna, L. 'Net interest income of Luxembourg banks up 51% to reach €10.2bn,' Delano, April 22, 2024. https://delano.lu/article/net-interest-income-of-luxembo
16. Fassone, M. '"State of crisis" declared for Luxembourg's construction sector,' Delano, January 25, 2024. https://delano.lu/article/construction-sector-declared-t
17. Halder, K. 'Luxembourg housing loan volume plummeted by 44% in 2023,' Delano, February 27, 2024. https://delano.lu/article/luxembourg-housing-loan-volume

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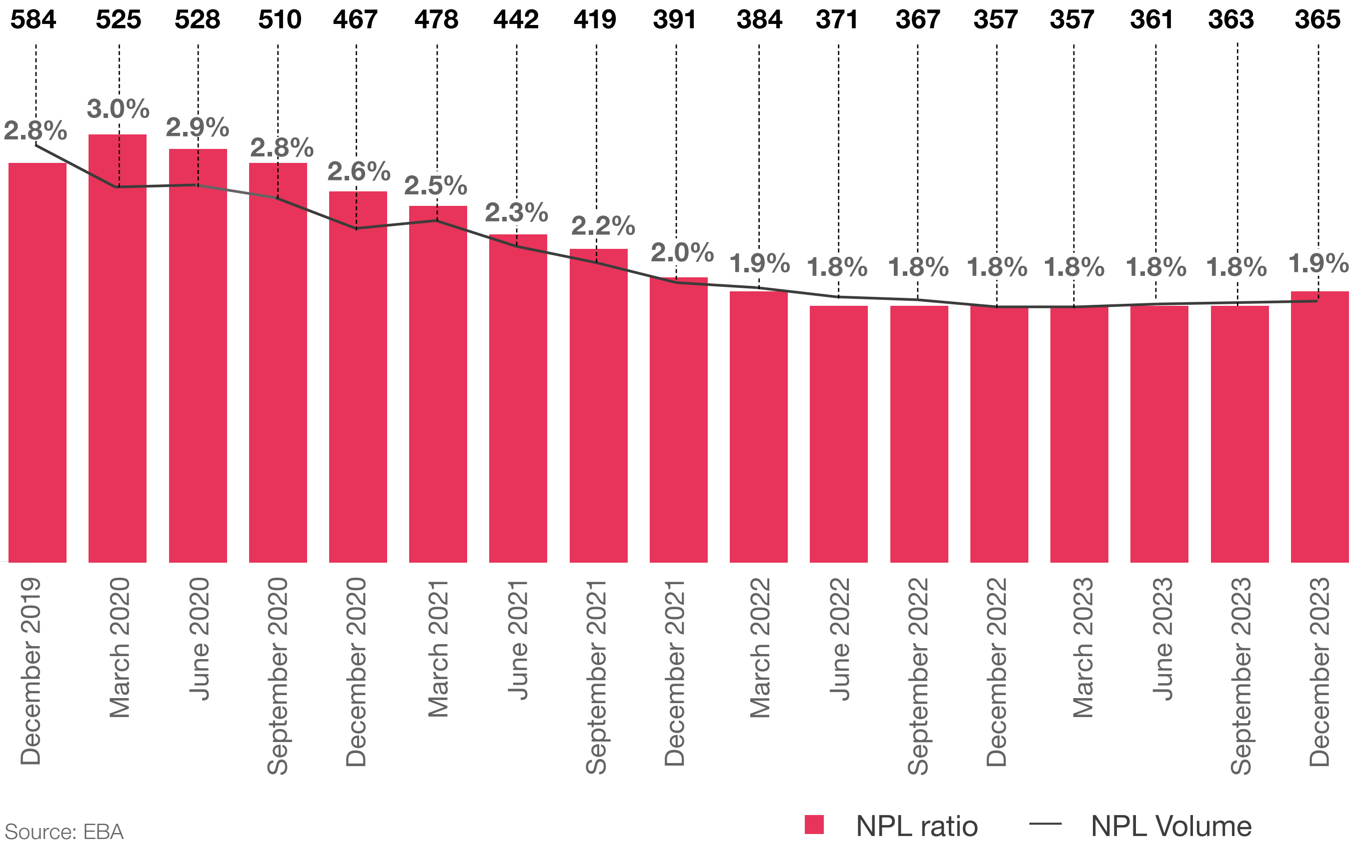
# Resilience to Immediate Macro-financial and Geopolitical Shocks

From the GFC until mid-2022, banks across Europe operated in an environment where interest rates were constantly near zero and even negative in certain instances. This prolonged period of ultra-low interest rates pushed certain banks to take on more risk in search of profitability, be it by expanding lending activities to high-risk markets or maintaining less stringent credit standards. More worryingly, in some instances, the low-rate environment downplayed the need for robust liquidity management as funding costs were low and plentiful.

In its Risk Dashboard for Q4 2023, the EBA has cautioned that credit quality is showing signs of deterioration, as the non-performing loan (NPL) ratio slightly increased from 1.8% to 1.9% since the previous quarter.[18] However, across the EU and the EEA, both the NPL ratio and the volume of NPLs have dropped significantly since late 2019 (Exhibit 5).

**Exhibit 5.** Ratio and volume of non-performing loans (EUR bn)




Source: EBA

18. EBA. 'Risk Dashboard Q4 2023,' April 4, 2024. https://www.eba.europa.eu/sites/default/files/2024-04/b26d6541-df25-498c-adbe-9702c031c8e9/EBA%20Dashboard%20-%20Q4%202023.pdf

In Luxembourg, the CSSF issued Circular 22/284 in December 2022[21] to apply the EBA guidelines into its administrative and regulatory practice, ushering in a new environment for credit risk and counterparty credit risk management in the Grand Duchy's banking sector. However, due to the guidelines' sheer breadth and size, many banks – both within and outside the Grand Duchy – have encountered difficulties in implementing them. For instance, with regards to factoring in environmental, social and governance (ESG) factors in the credit risk appetite and risk management policies, numerous banks have struggled to quantify them. In addition, several banks continue to grapple with high levels of NPLs, which further complicated their efforts to adhere to these guidelines.

Documentation is the first essential step to abide by the EBA guidelines in order to ultimately be able to mitigate credit and counterparty credit risks.

While all members of the C-Suite should at the very least have a robust familiarity with the guidelines, it is the **Chief Risk Officer (CRO) and the Credit Committee** – headed by the CRO in certain banks – who need to develop a deep understanding of the guidelines and consult the ECB's recently-published 'Sound practices in counterparty credit risk governance and management.'[22]

Once the first line of defense gathers all the information necessary for the loan origination and monitoring process, the risk function, under the CRO's guidance, is required to analyse all the information in an aggregate manner and ensure that everything is in line with the guidelines. For big-ticket loans – such as extraordinary loans to finance major industrial projects or an airline's purchase of new airplanes, for instance – the risk function should analyse them on a case-by-case basis.

But this should not be interpreted as a sign for complacence. The ECB has highlighted that corporate bankruptcies and default rates have increased, while households have found themselves increasingly under pressure due to higher interest rates on their consumer loans. Within Luxembourg, several firms in the 'real' economy have shuttered or faced significant difficulties in coping with the new macroeconomic environment. In Q1 2024, the number of bankruptcies increased by 15% compared to Q1 2023, with most firms affected being in the construction, trade, hotels and catering sectors, as per the government's statistics agency.[19]

As such, the Luxembourgish banking sector needs to keep a keen eye on its frameworks to manage credit risk and counterparty credit risk, as well as its asset and liability management frameworks.

## Credit risk and counterpaarty credit risk management frameworks

The EBA's 'Guidelines on loan origination and monitoring,' published in May 2020, serve as a cornerstone for managing credit or counterparty credit risks as they seek to ensure that banks "have robust and prudent standards for credit risk taking, management and monitoring, and that newly originated loans are of high credit quality."[20] Even if they are formally not a law published in the Official Journal of the European Union, the guidelines should be treated as such as they are essential to establishing prudent and robust standards for banks to mitigate credit and counterparty credit risk.

The ECB is planning on carrying out "targeted reviews focusing on the resilience of portfolios that are more sensitive to the current macro-financial situation and exposed to refinancing risk" as well as on-site visits on specific matters pertaining to counterparty credit risk management. As such, banks need to brace themselves by conducting stress tests and reverse stress tests.

19. STATEC. 'Bankruptcies on the rise in the 1st quarter of 2024, liquidations down sharply,' April 17, 2024. https://statistiques.public.lu/en/actualites/2024/stn15-faillites-02.html
20. EBA. 'Guidelines on loan origination and monitoring,' May 29, 2020. https://www.eba.europa.eu/sites/default/files/document_library/Publications/Guidelines/2020/Guidelines%20on%20loan%20origination%20and%20monitoring/884283/EBA%20GL%202020%2006%20Final%20Report%20on%20GL%20on%20loan%20origination%20and%20monitoring.pdf
21. CSSF. 'Circular CSSF 22/824: Application of the Guidelines of the European Banking Authority on Loan Origination and Monitoring (EBA/GL/2020/06),' December 2022. https://www.cssf.lu/wp-content/uploads/cssf22_824eng.pdf
22. ECB. 'Sound practices in counterparty credit risk governance and management,' October 2023. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.supervisory_guides202310_ccrgovernancemanagement.en.pdf

The **CRO needs to take the lead** in the bank's stress testing and devise a whole host of scenarios – including the most unpredictable and damaging ones – so as to analyse how well the bank's portfolio would fare in adverse situations. **The CRO will need the support of the Chief Financial Officer (CFO)**, as the latter will be able to provide all the data needed to conduct stress tests.

Given that the ECB has been putting a primer on environmental and climate risks over the last few years, CROs should consider them in the stress tests they devise. Should the position exist in the bank, the CRO should consult with the **Chief Sustainability Officer (CSO)** to get a better understanding of the ESG-related risks that the bank would face in the short-, medium- and long-terms, and incorporate them into the stress tests planned.

With regards to the reverse stress tests, the CRO needs to think about and identify extreme scenarios which would cause significant losses to the point where the bank becomes unviable. Then, the CRO would work backward to determine the circumstances of events which led to this outcome, which would help identify high-risk, low-probability events as well as potential vulnerabilities that may have been overlooked in regular stress tests.

Although the ECB does not have a legal mandate to oversee accounting matters, it has indicated that it will follow-up on the targeted review of the International Financial Reporting Standard (IFRS) 9, which became effective in January 2018 after its adoption into EU law in November 2016. The ECB's reasoning is that IFRS 9 has an impact on the provisions made by banks and on the capital set aside to absorb losses if needed, which is why it indirectly falls under its supervisory purview.

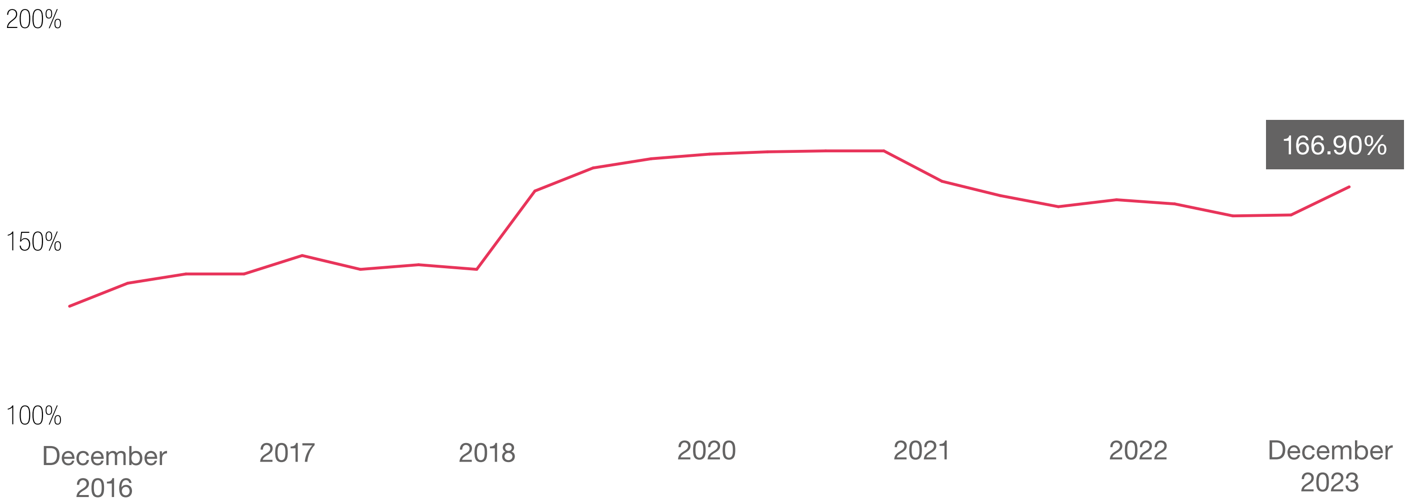
IFRS 9 involves developing comprehensive credit risk models, ensuring accurate data collection and processing, implementing effective control measures and upskilling staff to understand and apply its principles.

By overseeing all financial aspects of the bank's operations and working closely with other senior executives – including the CRO and the Chief Information Officer (CIO) – to ensure that all financial reporting requirements are met, **the CFO is responsible for ensuring the bank complies with IFRS 9.** Given that it requires banks to evaluate how macroeconomic developments may affect their business models and loan provisioning levels at origination, the CFO should regularly review and update the systems and processes to reflect the changes.

## Asset and liability management frameworks

On the liquidity and funding side, Luxembourgish banks' strong LCR standing is reflected at the European level. Indeed, as per the EBA's Risk Dashboard for Q4 2023, the LCR of EU and EEA banks did decline between June 2022 and June 2023 "but remained comfortably above the minimum requirement," standing at 166.9% in December 2023 – well above the 100% LCR minimum requirement prescribed by Basel III.[23]

**Exhibit 6.** LCR ratio of EU/EEA banks (December 2016 – December 2023)




Source: EBA Risk Dashboard Q4 2023

During times of macroeconomic stability and growth, bank deposits remain stable – but modelling the stability of deposits is challenging. Sometimes a single negative reputational issue or better services offered by a competitor can lead to a rapid outflow of deposits, particularly from large depositors who can quickly move substantial amounts to another bank, causing significant pain. This is essentially one of the factors that brought down Silicon Valley Bank, as many of its high net worth and institutional clients sought to withdraw their funds in rapid succession out of fears that the bank was nearing insolvency.

Luxembourg's banks are unlikely to confront a similar situation due to the aforementioned tradition of prudent and resilient governance, and the higher interest rate environment has brought about an increase in their profitability. Nonetheless, this new environment could potentially lead to challenges in their liquidity situations and their overall frameworks and strategies with regards to asset and liability management. Once again, the stress test is a crucial tool in the hands of the bank's senior management to ensure that its asset and liability management frameworks are robust.

23. Basel Committee on Banking Supervision. 'Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools,' January 2013. https://www.bis.org/publ/bcbs238.pdf

Armed with data on the bank's largest and most significant clients provided by the CFO, **the CRO needs to envisage situations whereby these clients would decide to pack up their bags and search for alternative banking services**. Such hypothetical scenarios would be used to inform stress tests and reverse stress tests, and they should consider all potential triggers – from worsening macroeconomic conditions to grave geopolitical developments impacting the global economy, to name a few. Through such stress tests and reverse stress tests, the bank can adequately test its asset and liability management frameworks.

The results of the stress tests should help banks better understand and develop strategies to achieve diversified funding structures so that they can manage interest rate risks and the risks stemming from changing customer behaviours.

Informed by the stress tests and reverse stress tests undertaken by the CRO, the **Chief Executive Officer (CEO)** should take the lead in devising new strategies on the bank's liquidity and funding which reflect the changing macroeconomic and geopolitical landscape under which the bank is operating. When devising these strategies, the CEO should particularly keep in mind the need to diversify the bank's funding sources and to have contingency and recovery plans in place.

The ECB is planning on conducting on-site visits to assess banks' implementation of the EBA's Interest Rate Risk in the Banking Book (IRRBB), which essentially refers to the current or prospective risk to a bank's earnings and capital arising from interest rate movements. In times of heightened interest rates, having a thorough understanding and implementation of the IRRBB is of the utmost necessity.

As per the Bank for International Settlements, "the governing body of each bank is responsible for oversight of the IRRBB management framework, and the bank's risk appetite for IRRBB."[24] As such, the CEO, in close collaboration with the CRO, needs to not only understand how the bank is exposed to IRRBB, but also approve the IRRBB-related policies and strategies. The **CEO should also ensure that the bank's IRRBB framework is reviewed and evaluated on a regular basis**, either by the risk function or by independent third-parties, so as to make sure that it remains relevant with the ever-evolving macroeconomic, geopolitical and societal contexts.

24. Bank for International Settlements. 'Standards – Interest rate risk in the banking book,' April 2016. https://www.bis.org/bcbs/publ/d368.pdf

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# Managing Governance and ESG Risks

As important as they are, sound asset and liability management frameworks and adequate frameworks to manage credit and counterparty credit risks are, by themselves, insufficient to fully protect a bank from headwinds that can bring about its downfall.

The once-venerable Credit Suisse, one of the pillars of Switzerland's banking system and a global systemically important bank (G-SIB), is a case in point. Despite having comfortable liquidity buffers and complying with liquidity regulatory requirements, the G-SIB "failed due to shortcomings in its strategy and management" and "recurrent scandals" which undermined its reputation. Ultimately, these factors led to a "loss of confidence in the bank" which brought about "rapid, extensive liquidity outflows that were further exacerbated by the digital communication channels," as per FINMA, Switzerland's regulatory agency.[25]

As such, leaders of the Luxembourgish banking sector cannot afford to downplay matters pertaining to the functioning of their banks' management bodies. This entails focusing not just on the composition and functioning of the boards of directors, but also putting a primer on risk data aggregation and risk reporting (RDARR), and better understanding exposures to physical and transition risk drivers of climate change.

25. FINMA. 'FINMA publishes report and lessons learned from the Credit Suisse crisis,' December 19, 2023. https://www.finma.ch/en/news/2023/12/20231219-mm-cs-bericht/

# Management bodies' functioning and steering capabilities

The proper implementation of good governance principles at the level of the board of directors is crucial to ensure that the bank operates effectively and in compliance with all relevant laws and regulations. As such, a culture of transparency, accountability and cooperation at the board level allows the bank to thrive without taking undue or excessive risks.

The ECB has outlined several issues which should be rectified as they could lead to substantial problems for the bank on the long run. This section will focus on both these issues as well as issues that tend to be quite specific to the Luxembourg context.

For starters, research by the ECB has found that in many European banks, the CEO or the chairperson tends to have a domineering role, which negatively impacts the board's (and the bank's) functioning by hampering constructive debates and challenges.[26] In addition, certain boards sometimes find themselves in a sort of ivory tower-like situation whereby the directors spend little to no time interacting with the bank's staff – from the senior management all the way to the junior staff – and hence fail to develop a deep understanding of the bank's operations, its performance, and its risk appetite. In such instances, the working culture within the bank tends to be one that does not promote active and constructive engagement across different levels of the firm.

Given that they set the tone from the top of the organisation, **chairpersons and CEOs need to demonstrate openness, humbleness and humility**, alongside a genuine desire to be in contact with the bank's people. Doing the opposite and failing to acknowledge different points of view is a recipe for disaster.

Boards are not supposed to be involved in the day-to-day running of the bank. They act as the bank's overseers, focusing on strategic matters and the bank's long-term outlook. However, this does not mean that they should be wholly detached – physically and administratively – from the bank's day-to-day concerns. Given that **Chief Operating Officers (COO)** work closely with the different heads of department within the bank and have a deep grasp of the bank's daily operations, **board members should closely consult with them to set up periodic staff meetings whereby the board listens to staff's concerns, suggestions, opinions and thoughts on a wide array of issues to better inform the bank's strategy**. This is particularly necessary for the banks' chairpersons as their behaviours and actions seep down through the rest of the organisation.

It is crucial for boards and their chairpersons to recognise and acknowledge that they are not infallible and can make errors, both minor and grave. The senior management – and particularly the CEO – should feel empowered to **constructively challenge the board** and offer alternative recommendations or policy pathways whenever they feel that the board's decisions might be inadequate, such as when a board-approved policy strays away from the bank's risk appetite or declared objectives. The inverse is also true, **whereby the board should constructively challenge the senior management when necessary.**

Given that the ECB and the CSSF will conduct targeted reviews of the effectiveness of the boards of Luxembourg's banks, directors should harness the culture of openness and constructive challenge and see such visits as an **opportunity to exchange views with the supervisory authorities** and develop a deeper understanding of what are their expectations. Boards alongside the senior management of the banks they oversee should not hesitate to reach out to the ECB or the CSSF to schedule such meetings on a periodic basis.

26. Elderson, F. 'Effective management bodies – the bedrock of well-run banks,' July 20, 2023. https://www.bankingsupervision.europa.eu/press/blog/2023/html/ssm.blog230720~cf8bc7c8d7.en.html

One deficiency that tends to be overlooked, be it in Luxembourg or elsewhere in Europe, is the need for boards to determine a clear succession plan for the directors who are nearing retirement and whose expertise and commitment will be sorely missed. Such succession plans need to be accompanied by induction plans for new board members, as more often than not, new members who are sometimes brought in for their specific capabilities and expertise are not adequately onboarded and end up finding themselves lost and confused with regards to their role, duties and obligations.

The boards of Luxembourg's banks **need to establish succession and onboarding plans** to ensure that retiring board members can impart their experience and wealth of knowledge to their younger peers, and that new members are provided with all the information and knowledge necessary to understand the bank's legacy, its risk exposure, and where their expertise and skillset comes into play. Such plans are necessary to ensure a smooth transition and proper functioning of the bank on the long run.

Given that most banks in Luxembourg are subsidiaries of larger groups, there tends to be a notable rotation in the senior management and the boards, whereby every few years a **new director or member of the C-Suite is brought in from abroad,** with little-to-no connection with the Luxembourg ecosystem, and often to serve in an independent capacity. Boards and the senior management should take this into consideration during the onboarding process and ensure that it goes as smoothly as possible so that such independent directors are seen as contributors and partners in the bank's long-term growth and success.

Another key deficiency is the gender imbalance at the board level. In the United States, research by PwC has found that 93% of directors in American public companies strongly or somewhat agree that board diversity brings unique perspectives to the boardroom, while 82% strongly or somewhat agree that it enhances board performance.[27] As for Europe, recent research by European Women on Boards, a non-profit, found that "despite significant progress on gender equality on European boards," the C-Suite of European public companies "remains stubbornly male-dominated" and that "few women hold the most influential role of board Chair."[28]

Even if they are not listed firms, Luxembourg's banks should take inspiration from Directive (EU) 2022/2381 – more commonly known as the 'Women on Boards Directive' – which stipulates that the boards of publicly-listed banks "can only be considered balanced when each gender makes up at least 40% of its composition."[29] However, boards need to be careful to avoid increasing diversity just for diversity's sake or to fill in a certain quota.

However, while gender diversity has been a primary focus over the last several years, a more holistic approach to board diversity which encompasses other dimensions can prove to be a boon for Luxembourg's banks.

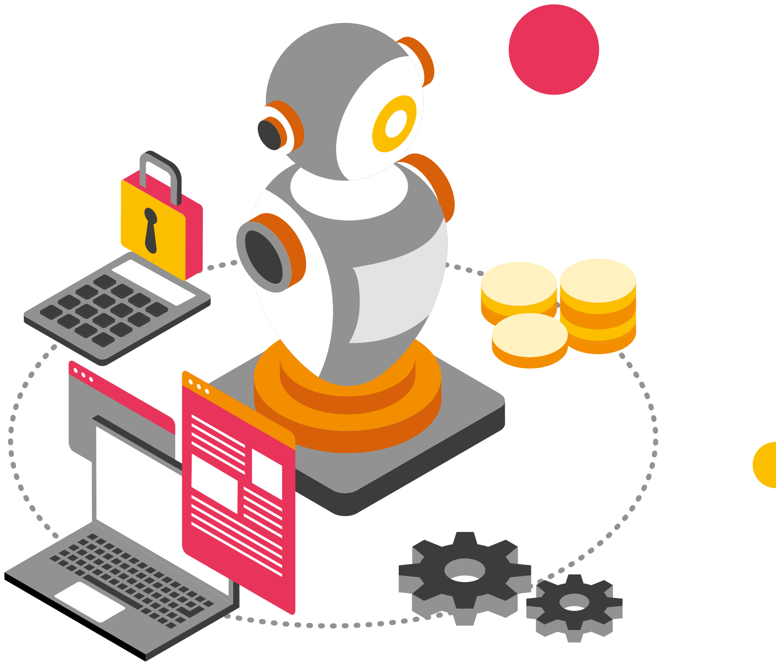
For instance, having members from different age groups allows the board to ensure a balance between innovation and novel ideas brought forth by younger members and the experience and deep knowledge of the older members. The same applies for having board members from a wide array of professional backgrounds, as this would enable the board to have a comprehensive understanding of the bank's operations and the risks and opportunities it faces. In addition, cultural and ethnic diversity is also beneficial as it allows the board to navigate different markets, regulatory environments and social contexts – which is particularly important for banks that have international operations.

**The boards of directors in Luxembourg's banks should adopt a holistic understanding of diversity and make efforts to take into account the gender, age, geographic, ethnic, educational and professional backgrounds of new board members.** Such holistically diverse boards would be able to better consider a wide range of perspectives and experiences, and better understand and respond to the needs of the bank's multitude of stakeholders. In addition, this holistic diversity would promote inclusive governance, foster innovation, enhance the bank's reputation and contribute to a culture of openness, dialogue and constructive challenge.

27. PwC. 'Today's boardroom: confronting the change imperative – PwC's 2023 Annual Corporate Directors Survey.' https://www.pwc.com/us/en/services/governance-insights-center/library/assets/pwc-gic-acds-2023.pdf

28. European Women on Boards. 'Diversity on European Boards: Gender balance is improving – now change must go deeper and wider,' January 2024. https://europeanwomenonboards.eu/wp-content/uploads/2024/03/EWOB-Toolkit-for-change-Gender-diversity-on-European-boards.pdf

29. Elderson, F. & McCaul, E. 'Diversity at the top makes banks better,' May 9, 2023. https://www.bankingsupervision.europa.eu/press/blog/2023/html/ssm.blog230509~f9a7ac0fb8.en.html



Many boards in Luxembourg's banks are finding themselves drowned with compliance-related matters. As a matter of fact, many board members now spend most of their time reviewing compliance documents instead of discussing strategic matters and setting the bank's long-term orientations.

To avoid chronically frustrating situations whereby board members spend most of their working hours managing compliance-related matters, **a policy should be established which clearly defines which documents should reach the board in their entirety and which ones should be provided only in a summarised format**. Given that boards are sometimes assisted by four specialised committees (audit, risk, remuneration and nomination) depending on the size of the bank, the CCO should consult with them when determining this policy. As such, board members would have more time to devote to strategic matters.

In addition, board members and the senior management need to be able to anticipate when new regulations are coming and how they will affect the bank's operations and future prospects. This is particularly crucial as such trends could influence the future composition of the board, necessitating the onboarding of a new director with specific expertise in one area.

**Board members need to work closely with the COO, the CCO, the CRO and the internal audit function to develop an understanding of the multifaceted risks the bank faces**, how these risks will spur future regulatory developments, and what the bank will need to cope with such changes and even find opportunities in them. The CCO, who is ultimately responsible for carrying out a regulatory watch, must ensure that it reaches the board and that the latter is periodically notified on the major regulatory developments.

## Risk data aggregation and risk reporting: a long way to go

In January 2013, the Basel Committee on Banking Supervision (BCBS) published the 'Principles for effective risk data aggregation and risk reporting,' with the aim of prompting banks to develop sound data management solutions to "aggregate risk exposures and identify concentrations quickly and accurately at the bank group level, across business lines and between legal entities."[30]

However, the subject is very complex as banks need to get into different aspects of data management, harmonisation and governance, the responsibilities, the architectural aspects, the reporting procedures, and the KPIs, to name a few. Unsurprisingly, many banks continue to struggle with risk data aggregation and risk reporting (RDARR). In addition, given that there are constant changes with regards to the RDARR KPIs and data required, it is not uncommon for banks to find themselves in a situation whereby their RDARR processes and the technological architecture underpinning them need to be periodically reviewed, which is both costly and difficult to implement.

As a matter of fact, one of the major RDARR deficiencies highlighted by the ECB pertains to weaknesses in data architecture alongside fragmented, non-harmonised technological platforms. The BCBS published a progress report in November 2023 that focused on 31 G-SIBs and which essentially echoes the findings of the ECB, as "only two banks are fully compliant with all the Principles [for effective risk data aggregation and risk reporting],"[31] despite the fact that the deadline for G-SIBs to comply with the BCBS's RDARR principles was January 2016.[32]

30. Basel Committee on Banking Supervision. 'Principles for effective risk data aggregation and risk reporting,' January 2013. https://www.bis.org/publ/bcbs239.pdf
31. Basel Committee on Banking Supervision. 'Progress in adopting the Principles for effective risk data aggregation and risk reporting,' November 2023. https://www.bis.org/bcbs/publ/d559.pdf
32. Basel Committee on Banking Supervision. 'Progress in adopting the Principles for effective risk data aggregation and risk reporting,' March 2017. https://www.bis.org/bcbs/publ/d399.pdf

Bearing in mind that there is no one-size fits all solution and that each bank will have its own specificities and preferences based on its size and operations, several options can be considered in order to reach a stage whereby banks become fully RDARR-compliant and resolve the deficiencies in the RDARR data architecture:

- **The CRO and the CIO collaborate to identify existing gaps and oversee the evolution of the IT architecture to ensure that the right systems are in place to report** on the correct data points. However, given that the latest RDARR-related guidelines – such as the ECB's recently-released 'Guide on effective risk data aggregation and risk reporting'[33] – have a financial accounting dimension, **the CFO will also need to be involved.** Indeed, the ECB's guide calls for "periodical reconciliation with institutions' sources and reports (in the areas of accounting and finance and with external sources) and related model development data," which necessitates the CFO's involvement.
- A **data office is established under the CRO** (second line of defense) or under the COO (first line of defense); or a **Chief Data Officer (CDO) position is established directly under the CEO**. The data office and the CDO would handle all RDARR-related matters.

Given that the RDARR compliance deadline set by the BCBS has long passed and that much progress remains to be done, the ECB has indicated that it will take a strong approach to RDARR through targeted reviews and on-site visits to monitor and evaluate RDARR practices. As such, banks need to go beyond merely demonstrating an RDARR roadmap and showcase how they are putting effort into closing the gaps and deficiencies. Once again, the CRO-CFO-CIO triumvirate need to collaborate closely to ensure that the bank's RDARR practices are compliant with the regulations and all the deficiencies are adequately resolved by taking into account the aforementioned ECB guide. In addition, they should not hesitate to delineate RDARR responsibility at the granular level – from customer data, collateral data, ratings data and so on – whereby each data owner in the bank takes full responsibility for the data overseen.

Even though most banks in Luxembourg are neither G-SIBs nor supervised directly by the ECB, they should strive to implement effective RDARR policies as these bring in a host of benefits for banks, regardless of their size. Having automated high-quality and reliable risk data would reduce the need for manual processes and quality remediating efforts, which would lower operating costs. In addition, the data obtained from a fully-functioning and highly-developed RDARR system would help in the bank's steering and overall risk management.

Members of the **board of directors need to press the senior management** – and particularly the CRO, CFO and CIO, who are the core drivers – on RDARR, as the data obtained would greatly help in informing the bank's strategy and determining its KPIs. As such, whenever the bank is confronted with new risks or unforeseen developments in the market, better data and faster aggregation capabilities would greatly help the board and the senior management in swiftly assessing and analysing the situation, and hence make more informed decisions.

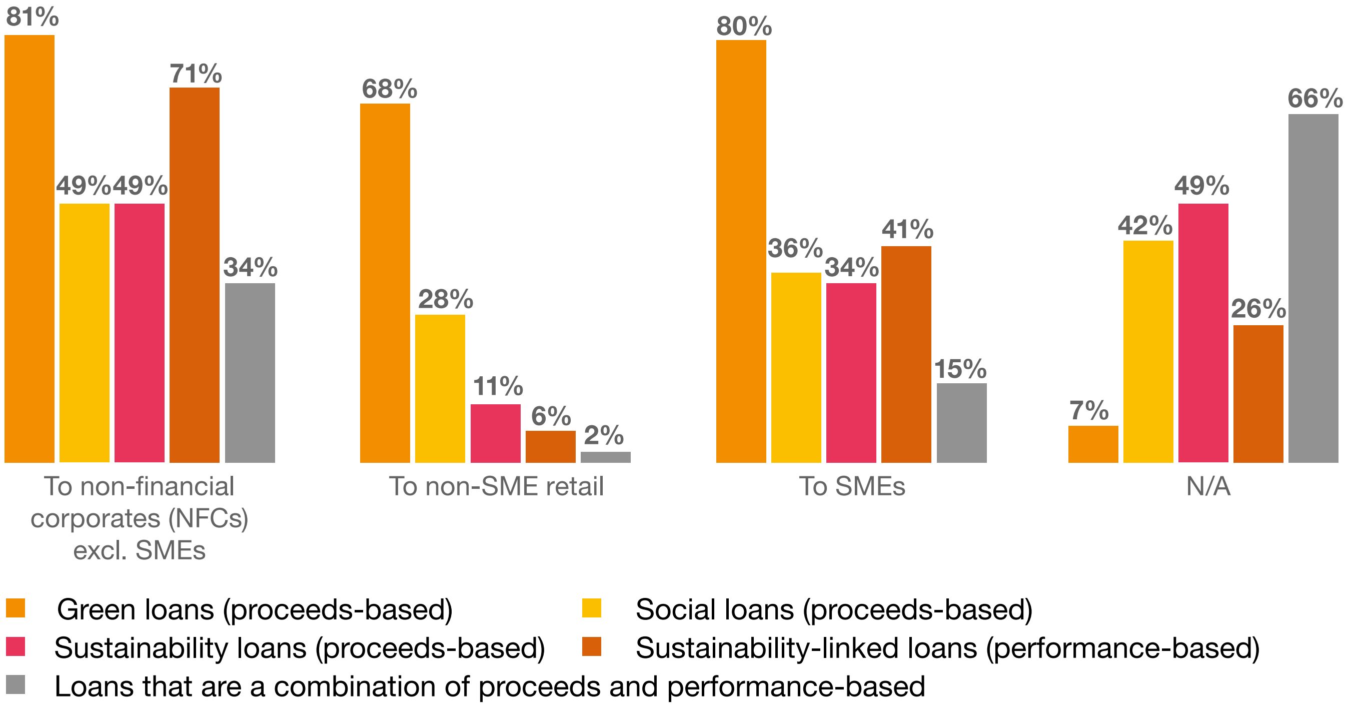
33.ECB. 'Guide on effective risk data aggregation and risk reporting,' May 2024. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.supervisory_guides240503_riskreporting.en.pdf

## Material exposures to physical and transition risk drivers of climate change

In November 2020, the ECB published a guide on climate-related and environmental risks which highlights how banks are expected to prudently manage and disclose them.[34] A little less than two years later, the ECB carried out a climate risk stress test to determine the extent to which the Euro Area's banks have made progress in developing climate risk stress-testing frameworks, their ability to develop climate risk stress test estimates and projections, and the short-term and long-term transition and physical risks they face. Overall, the exercise found "many deficiencies, data gaps and inconsistencies across institutions" with regards to climate- and environmental-related risks.[35]

Nonetheless, as Exhibit 7 below highlights, European banks have been increasingly offering green, social, sustainability and sustainability-linked (GSSS) loans to a wide array of clients, indicating that progress towards greening the European financial sector is underway.

**Exhibit 7.** Types of GSSS loans offered by EU and EEA banks (Q1 2023)




Note: Based on a sample of 164 banks covering more than 80% of the EU and EEA banking sector, by total assets. 'Sustainability loans' are defined as loans that have "any combination of environmental, social and/or governance dimensions"; 'sustainability-linked loans' are defined as those that are "linked to sustainability performance objectives/specific KPIs reflecting any combination of environmental, social and/or governance dimensions."

Source: EBA Risk Dashboard Q1 2023

34. ECB. 'Guide on climate-related and environmental risks: Supervisory expectations relating to risk management and disclosure,' November 2020. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.202011finalguideonclimate-relatedandenvironmentalrisks~58213f6564.en.pdf

35. ECB. '2022 climate risk stress test,' July 2022. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.climate_stress_test_report.20220708~2e3cc0999f.en.pdf

While the physical and transition climate-related and environmental risks faced by Luxembourg's banking sector might be considered manageable in the short term, the long-term implications and potential losses are particularly worrying, especially given the ever-increasing stream of climate-related calamities that are causing untold economic damage around the world. In fact, the ECB's latest SREP indicated that, by and large, Euro Area banks have not yet managed to integrate such risks in their business models, their strategy and their risk management processes. Numerous banks exhibited weaknesses in ESG-related strategic and operational planning, while their management bodies had inadequate knowledge and training in ESG topics. In addition, many banks have yet to prepare a feasible transition pathway in-line with the objectives of the Paris Agreement. This means that the strategies to ensure that balance sheets remain robust and resilient in the face of climate-related and environmental risks in the medium- and long-terms are lacking.

Although most banks in Luxembourg are not heavily exposed to physical climate risks, the transition risks are very real. Banks that fail to act on climate change and embark on sound transition plans may end up finding themselves with a wide array of stranded assets.

**The CRO and the CCO need to determine what are all the climate-related and environmental transition and physical risks that the bank is facing and explain to the board and the rest of the senior management how these risks will impact the bank's strategy on the long-term**. They also need to highlight what are the existing and upcoming sustainable finance-related regulations, how they impact the bank, and how it should approach them from both a risk and opportunity perspective. The **CRO should develop and enforce climate-related risk policies.**

With this information at hand, and in-line with the ECB's guide on climate-related and environmental risks, the CEOs of the Luxembourgish banking sector need to take a leading role. They should **guide efforts towards establishing (or refining) the bank's net-zero transition plan in-line with the Paris Agreement**, ensuring that the plan reflects various pathways that reflect market risk and operational risk assessments. In addition, CEOs need to guide efforts toward **reviewing the quality of the bank's disclosures on climate-related and environmental risks**.

All such efforts need to be coordinated with the relevant departments and members of the C-Suite. Should the bank have a CSO, the CEO should not hesitate to delegate responsibilities while maintaining regular contact to gauge progress and resolve potential pain points and challenges that emerge.

Although integrating climate and other ESG-related risks into a bank's risk management framework is the responsibility of the CRO, given the supervisory and regulatory focus on climate-related and environmental risks – and ESG matters more broadly – banks can no longer eschew having a CSO.

For banks that do not yet have a CSO, **the senior management and the board of directors should decide on establishing the position and endowing it with responsibility over a wide array of ESG-related matters in the bank**, such as promoting green investments and gradually growing the bank's green asset ratio, to ensuring that the bank's operations align with sustainable practices and overseeing the bank's gradual alignment with its transition plan.

When hiring a CSO to assume such responsibilities, the senior management needs to bear in mind that the new CSO might not necessarily be an expert in banking. As such, **an onboarding program needs to be established so that the new CSO can rapidly become fully acquainted with the bank's operations, its status with regards to green investments, and how it approaches sustainability-related matters**. The CSO, on the other hand, needs to ensure that the CEO and the board of directors are provided regular updates with regards to the bank's sustainability trajectory and its progress on its agreed-upon transition plan. In addition, the CSO should raise any problematic issues or challenges encountered with the CEO and the board to find a solution, as there is a real reputational risk that could harm the bank in case ESG-related matters are not taken seriously.

As the Corporate Sustainability Reporting Directive (CSRD) and its complex procedures – from the double materiality assessment required to the numerous European Sustainability Reporting Standards (ESRS) to report on – increasingly become part and parcel of everyday operations of large institutions in the coming years, Luxembourg's banks – even those that are not formally under the CSRD's purview – should take note.

By working jointly with the CRO and the CSO, **the CFO plays a crucial role in ensuring that the bank abides by sustainable finance-related regulations**.

Ultimately, the ECB's SREP is not only a way through which banks are encouraged to think about and integrate climate-related and environmental risks in their risk management framework. It also seeks to drive them towards thinking about the opportunities that arise from the broader push towards ESG matters in the economy.

As a matter of fact, investors – institutional and retail alike – alongside the general public increasingly feel strongly about banks that continue to finance 'brown' assets. Even those that do finance both 'green' and 'brown' assets are facing scrutiny and backlash from a wide array of stakeholders. Meanwhile, recent research by the European Investment Bank (EIB) has shown that young Europeans increasingly consider a firm's climate impact when searching for job. In fact, 76% of Europeans aged between 20 and 29 stated that the "climate impact of prospective employers is an important factor when job hunting."[36]

While there is no set formula for proper implementation of the transition plan, the most problematic scenario would be when the bank has set a plan without internally assigning clear responsibilities over who oversees it. This is where the CSO comes into play.

**The CSO should play a leading role in identifying ESG-related opportunities, in collaboration with the CRO and the CCO**. These opportunities should be regularly communicated to the senior management and the board of directors, and they should serve to inform the bank's long-term strategy.

36.EIB. '76% of young Europeans say the climate impact of prospective employers is an important factor when job hunting,' March 21, 2023. https://www.eib.org/en/press/all/2023-112-76-of-young-europeans-say-the-climate-impact-of-prospective-employers-is-an-important-factor-when-job-hunting

5

# Progress in the Digital Transformation and Digital Operational Resilience

European banks are heavily investing in the digitalisation of their operations and services in order to meet changing customer expectations, reduce costs, enhance internal operations, remain competitive and obtain as much data-driven insights as possible to drive the bank's strategy. Luxembourg's banking sector is no exception.

Indeed, customers nowadays across all segments (retail, high-net worth individuals, corporate etc.) expect seamless access to banking services through user-friendly and highly-capable digital platforms. Banks, on the other hand, are digitalising a wide array of processes – from loan origination to opening accounts and customer service – in order to improve efficiency, reduce operational costs and optimise resource allocation. In fact, banks that stay behind on the digital transformation will lose out market share to their more tech-savvy competitors that offer digital-only user-friendly services. In addition, European policymakers and regulators have, in recent years, increasingly prioritised digital-related matters through directives such as the new Network and Information Systems Directive (NIS2) or the Digital Operational Resilience Act (DORA), to name a few.

As such, the ECB has increasingly come to focus on banks' digital transformation strategies and their digital operational resilience in its supervisory efforts. Luxembourg's banks should take note to not only ensure that they align with the ECB's priorities, but also to unlock the many opportunities that the digital transformation brings about.

## Well-crafted digital transformation strategies

The ECB expects banks to "develop and execute sound digital transformation plans" which consider their business strategy and risk management frameworks. The plans are expected to ultimately "strengthen [the banks'] business model sustainability and mitigate risks related to the use of innovative technologies." However, in 2023, the ECB used SSM-wide data on banks' digital transformation and their usage of financial technology and "raised concerns about [banks'] effective strategic steering and execution," while underlining the need to upskill both staff and management bodies.[37] The ECB also uncovered deficiencies in the way banks are budgeting and financially planning their digital transformation.

The digital transformation needs the alignment of various stakeholders across the C-Suite, as each one plays a key role.

Firstly, a clear and transparent governance structure and processes to oversee the bank's digital transformation need to be put in place.

The **CEO and the Chief Commercial Officer** bring a more holistic view of how the digital transformation would translate and enable business objectives, and what the tangible business implications this would have. By virtue of being responsible for the overall direction of the bank, the CEO should set the general objectives of the digital transformation strategy and ensure that they align with the bank's strategic objectives and its risk appetite.

Given that **the digital transformation will have strong implications on how back offices run, the COO must ensure that this is well captured and reflected**. Digitalisation usually entails re-engineering and automating some of the processes, and the lack of a balanced approach will lead to objectives getting missed.

By virtue of overseeing the bank's information and communication technology (ICT) assets, the **CIO would then play a key role in the success of the digital strategy**. The CIO – or the **Chief Digital Officer**, if the position is set up – should play a coordinating role and would need strong collaboration from the other members of the C-Suite who would provide feedback and guidance on how the digital transformation can and should affect their respective responsibilities and operations. This is particularly crucial for the **CFO** who should ensure that all initiatives related to the bank's digital transformation are properly budgeted and financially viable, and that they are in-line with the bank's financial strategy. The **CFO** should proactively identify any financial risks that might arise from the digital transformation and communicate them to the rest of the C-Suite. This is also very true for the CRO who will also need to integrate how the digital strategy aligns with the bank's risk appetite.

Meaningful and collective KPIs and other relevant performance metrics should be set and should regularly be discussed with the CEO within the executive committee and with the board of directors. Based on changing circumstances and lessons learned, the KPIs should be reviewed and adapted with the support from other members of the C-Suite.

37. ECB. 'SSM Supervisory Priorities 2024-2026.' https://www.bankingsupervision.europa.eu/banking/priorities/html/index.en.html

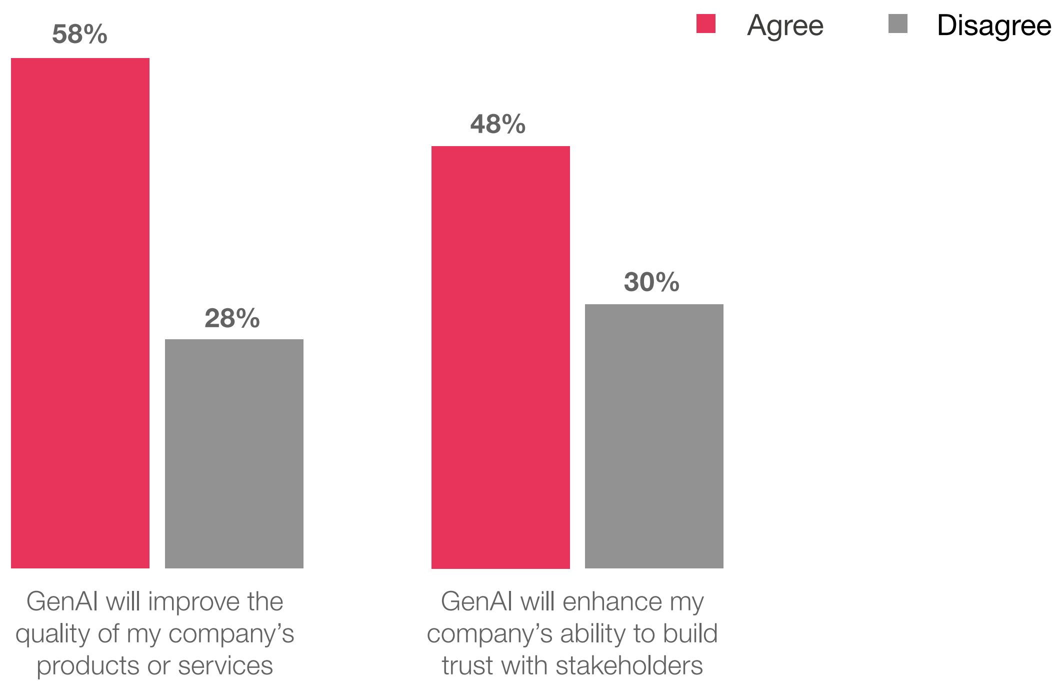
While Luxembourg's banking sector has made some progress in the digital transformation over the last few years, with many banks having adopted some advanced technologies and solutions to enhance their internal operations and client offerings, they need to continue to accelerate their investments in the digital transformation.

The newly launched digital and ecological transformation (DET) tax credit should serve as an incentive for Luxembourg's banks to modernise their front-to-back value chains and invest in digital native product and services. Afterall, there are many issues at stake, with varying orders of magnitude, particularly the need to remain competitive in an industry with strong cost pressures and the ability to innovate and change directions in a very evolving environment.

While most banks now offer comprehensive online and mobile banking services, with some having even introduced features such as personal finance management tools and video-based customer support, true Customer Experience (CX) across digital and physical channels, full end-to-end and digital-ready banking products and services, or next revenue streams through digital innovations should be on the agenda of Luxembourg's banks for the years to come. This will inevitably come with questions around simplification (from business, process and technology standpoints) and sometimes more profound Business Model Reinvention (BMR).

Key technological advancements around Cloud, GenAI and strategic partnership building could be a catalyst. The country's thriving fintech ecosystem has already played a role in this development, with many banks partnering up with local fintech firms to offer innovative solutions. However, this must be further expanded if the Luxembourgish banking sector is to remain competitive. On the GenAI front, our last Luxembourg-focused CEO survey from early 2023 found that 67% of CEOs were planning on deploying advanced technology such as cloud and AI in the coming year.[38] At the global level, CEOs are showing optimism towards GenAI's potential. Indeed, over the coming year, over half (58%) of CEOs believe GenAI will improve the quality of their company's products and services, while 48% believe it will enhance their company's ability to build trust (Exhibit 8.a).

**Exhibit 8.a.** 'To what extent do you agree or disagree with the following statements about GenAI?' (next 12 months)



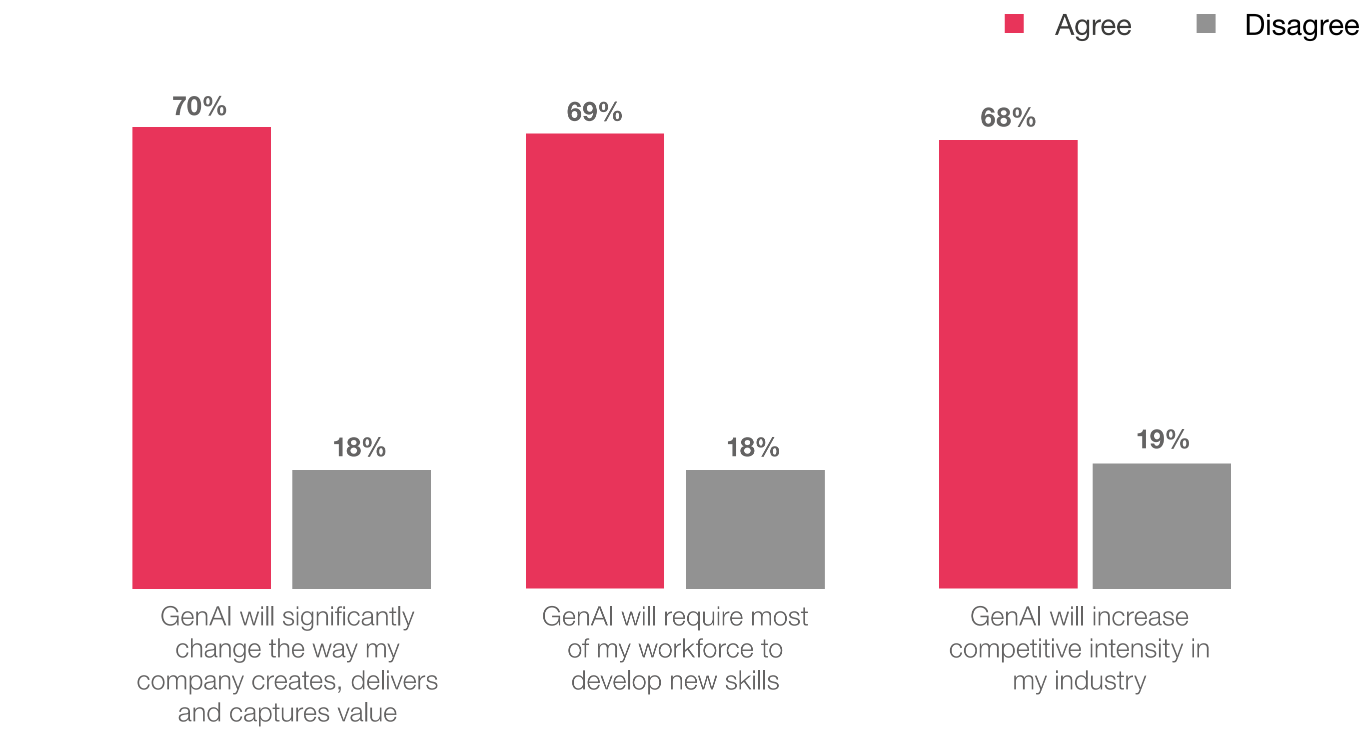

Note: 'Disagree' is the sum of 'slightly disagree,' 'moderately disagree' and 'strongly disagree' responses. 'Agree' is the sum of 'slightly agree,' 'moderately agree,' and 'strongly agree' responses.

Source: PwC 27th Annual Global CEO Survey

38.PwC. 'Winning today's race while running tomorrow's. CEO Survey Report 2023 – Luxembourg Findings.' https://www.pwc.lu/en/ceo-agenda/docs/pwc-luxembourg-ceosurvey-2023.pdf

On the medium-term, the potential complications arise. Over two-thirds (70%) of CEOs across the world expect GenAI to significantly change the way their companies create, deliver and capture value in the coming three years, while 68% expect it to increase competitive intensity found. In addition, 69% believe GenAI will require most of their workforce to develop new skills (Exhibit 8.b), which brings forth questions on upskilling for the workforce in Luxembourg's banking sector.

**Exhibit 8.b.** 'To what extent do you agree or disagree with the following statements about GenAI?' (next three years)

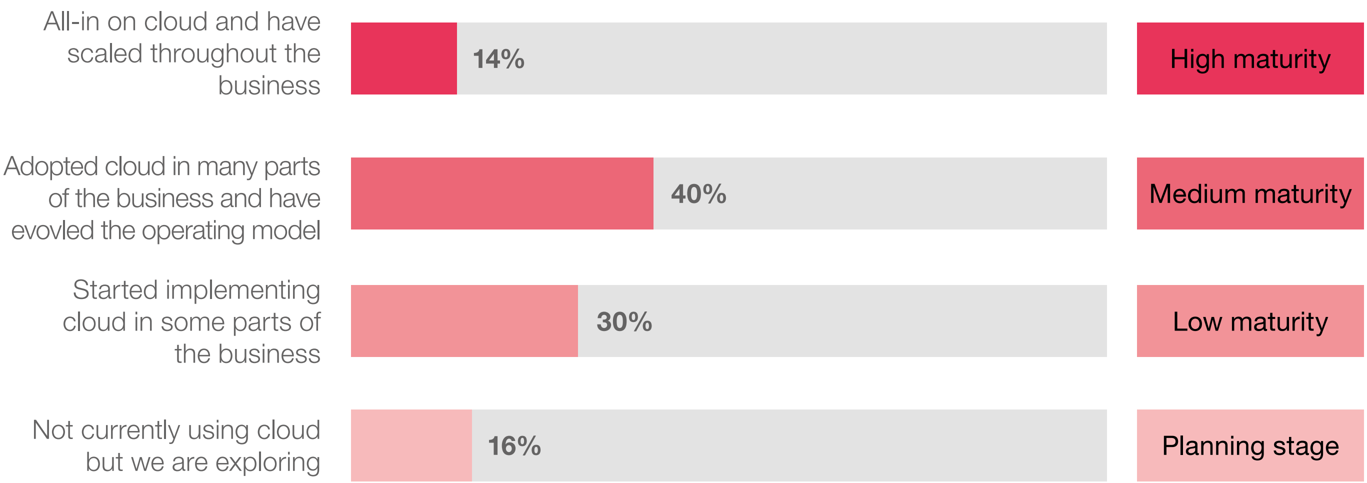



Note: 'Disagree' is the sum of 'slightly disagree,' 'moderately disagree' and 'strongly disagree' responses. 'Agree' is the sum of 'slightly agree,' 'moderately agree,' and 'strongly agree' responses.

Source: PwC 27th Annual Global CEO Survey

As for cloud maturity, our Cloud Business Survey from 2023 found that businesses in the EMEA region are effectively at a turning point. In fact, less than one-fifth (14%) of EMEA firms have reached a level of high maturity with regards to their cloud adoption (Exhibit 9), while almost three-quarters (73%) which are not currently all-in on cloud believe that they will have all their operations in the cloud within two years.[39]

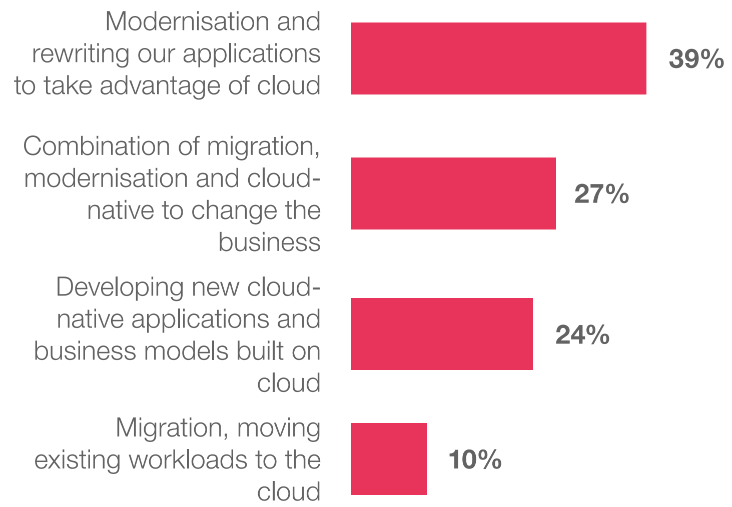
## Exhibit 9.a. Cloud maturity in EMEA




Source: PwC 27th EMEA Cloud Business Survey 2023

The most common driver behind leveraging cloud technology is the need to modernise and rewrite applications so as to take advantage of the cloud, cited by a little over a third (39%) of EMEA firms (Exhibit 9.b).

## Exhibit 9.b. Primary reason for leveraging cloud technology




Source: PwC 27th EMEA Cloud Business Survey 2023

39.PwC. 'EMEA Cloud Business Survey 2023: How businesses will unlock the transformational power of cloud,' September 19, 2023. https://www.pwc.com/gx/en/issues/technology/emea-cloud-business-survey.html

Ultimately, the critical factors behind a successful digital transformation that incorporates the latest technological developments are setting clear objectives, with adequate measurement and governance throughout the journey. The ECB will carry out targeted reviews on how banks' digital transformation is affecting their business model, their governance, and their risk management frameworks, and Luxembourg's banks – even if most of them are not directly supervised by the ECB – will need to continue investing in their digital transformation, ensuring proper coordination across the organisation.

The **CIO, in partnership with the CRO and the Chief Information Security Officer (CISO), needs to ensure that the bank's overarching digital transformation is subject to rigorous risk assessments** that cover all potential cyber-related risks that may arise. In fact, they should ensure that risk management is fully embedded in the design and implementation of the digital transformation strategy, and that adequate mechanisms for cyber-related risk monitoring and reporting are in place. The sooner these risks are identified and mitigated, the better will the bank's digital transformation strategy be implemented.

The **bank's senior management should proactively engage with the CSSF or the ECB** to understand what their expectations with regards to the banking sector's digital transformation are and to receive any kind of guidance that would be useful, particularly when it comes to complying with relevant regulations.

## Ensuring digital operational resilience

As diplomacy increasingly makes way for belligerence in an increasingly fractured global geopolitical context,[40] and as digital technologies continue to develop at breakneck speed, bringing about a whole host of new cyberthreats, Europe's banks are facing an increasingly complex and challenging cyberspace that requires vigilant and highly-responsive resilience measures. Given the country's status as an international financial centre situated in the heart of Europe, the Luxembourgish banking sector needs to be watchful and keep a close eye on all matters pertaining to digital operational resilience.

The ECB's latest SREP found that banks in the Euro Area are facing deficiencies in their management of ICT outsourcing and ICT security risk. In fact, these deficiencies are largely the reason why operational risk was the element with the worst average scores.[41] DORA, which will apply on virtually all European financial institutions as of 17 January 2025, is largely expected to bring a quasi-revolution in the way Europe's banks handle all matters related to digital operational resilience.

In our *'DORA: What Matters Now for Your Business Resilience'* report, we highlighted how the DORA implementation journey requires a multi-faceted approach by the CEO, the CRO, the COO, the CISO and the CIO, whereby members of the C-Suite should act in tandem while ensuring that their specific DORA-related tasks and responsibilities are properly implemented.[42] This is crucial to keep in mind as DORA is not a mere ICT-related compliance matter that can be carried out by one individual. In fact, banks should see it as an opportunity to drastically upgrade their digital operational resilience frameworks and proactively brace themselves for upcoming technology-related regulations, such as the EU's Artificial Intelligence Act.[43]

As indicated in its supervisory priorities, the ECB is planning on conducting targeted reviews of outsourcing arrangements and cyber resilience. In addition, a system-wide cyber resilience stress test will be conducted this year which will scrutinise banks' response and recovery capabilities following a cybersecurity incident alongside their ability to contain the impact and swiftly restore services.

40. PwC. 'From Compliance to Competitive Advantage: Risk and Performance in a Fractured World,' February 26, 2024. https://www.pwc.lu/en/regulatory-compliance/risk-performance-in-a-fractured-world.html
41. ECB. 'Aggregated results of SREP 2023,' 2023. https://www.bankingsupervision.europa.eu/banking/srep/2023/html/ssm.srep202312_aggregatedresults2023.en.html
42. PwC. 'DORA: What Matters Now for Your Business Resilience,' January 2024. https://www.pwc.lu/en/digital-operational-resilience-act/dora-what-matters-now-for-your-business-resilience.html
43. EU Parliament. 'EU AI Act: first regulation on artificial intelligence,' December 2023. https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence

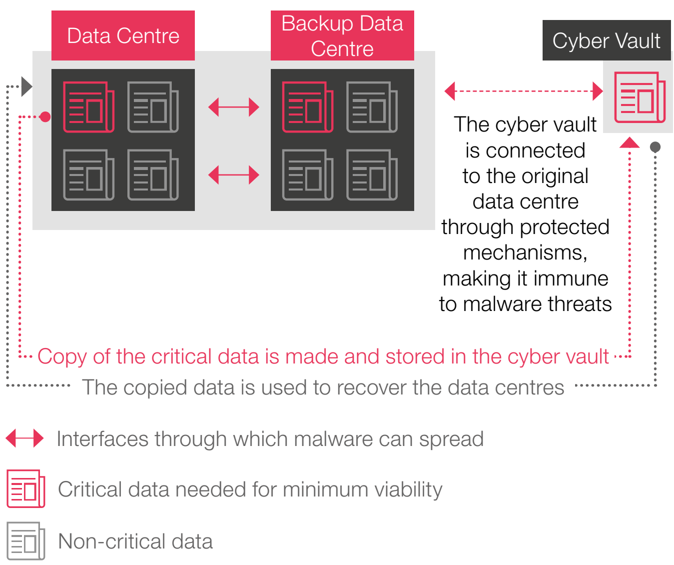
While we emphasise that the DORA implementation journey is a multi-faceted process that requires the input and collaboration of all members of the C-Suite as highlighted in our aforementioned DORA report, below we highlight the critical role played by the CISO in ensuring the bank's digital operational resilience and that it abides by the ECB's expectations. Indeed, within the bank, the CISO wears multiple hats:

- **Strategy role:** The CISO is tasked with defining the bank's cybersecurity objectives and goals, which must be linked to the bank's overarching strategy. To do so, CISOs serve as a liaison between the operational side and the ICT department. They should understand what are the bank's critical activities which must continue at all costs, and what the ICT department can and should do to ensure that these activities can withstand any and all kinds of cyber attacks.
- **Coordination and oversight role:** When it comes to the cyber resilience stress test, the CISO is responsible for making sure that the bank has (1) set up all the processes and mechanisms necessary to withstand any kind of cyber attack, and that it has (2) a recovery plan, particularly for the most sensitive and important activities. In this regard, coordinating with the CIO and the IT department is a must, as the latter are the ones who are ultimately responsible for implementing the cybersecurity measures needed.
- **Control and reporting role:** In-line with DORA, the CISO is responsible for verifying the bank's cybersecurity measures and ensuring that they are effective. Within this role, the CISO should keep the board and the senior management updated on all cybersecurity-related KPIs and Key Risk Indicators (KRIs). As such, the CISO should be able to anticipate, detect, prepare for and respond to any cyber attack that might arise. In addition, CISOs should take the lead in promoting cybersecurity-related awareness and training across all of the bank's lines of service.

While it is essential for the CISO to keep in mind that the fundamentals of cybersecurity are anchored in at all levels of the bank, it is also necessary to have an emergency response in place alongside a recovery plan, particularly given how sophisticated cyberthreats have become, such as those that make use of GenAI.

Nowadays, it is rare to find a financial institution that has not adopted a backup data centre to ensure the continuity of business operations in case of a cyber attack. However, like the original data centre, the backup data centre is vulnerable to malware, which has prompted certain banks to consider adopting a cyber vault solution. In a nutshell, the cyber vault acts as a secondary backup data centre which, by virtue of being connected to the original through protected mechanisms, ensures that there will be no malware spread and hence can preserve a copy of the bank's most sensitive and critical data and protect them in the case of a cyber attack. The cyber vault can then be used to recover the data in the event of a breach of the data centres (Exhibit 10).

**Exhibit 10.** Simplified illustration of a hypothetical cyber vault solution




Source: PwC Luxembourg

CISOs are responsible for proposing disaster recovery plans and regularly evaluating the processes and procedures of the adopted plan to ensure that it is effective. **They should stay up-to-date with the latest developments in the realm of cybersecurity** and propose novel solutions and ideas – such as the cyber vault – if they believe that the bank needs it.

When it comes to the emergency response and the disaster recovery plan, **members of the bank's C-Suite alongside other key actors of the bank need to act in tandem**. The CIO is responsible for making sure that the ICT assets needed to embark on the recovery plan are in place. The COO alongside the communications department need to ensure that the cyber attack is communicated in an adequate manner internally, to clients, to the regulatory authority, and to all relevant stakeholders. In particular, the COO should take the lead in defining what the priorities of the recovery plan should be. Lastly, the CEO must oversee the whole recovery process and ensure that each part is being implemented in an adequate and timely manner.

Other than recovery from ICT-related breaches and incidents, DORA places an emphasis on financial institutions' dependence third-party ICT service providers and the risks such dependence pose.

In fact, DORA focuses on how in-scope entities manage and monitor the risks posed by ICT third-party providers.

**Overseeing ICT third-party providers and reviewing how they are affecting the reliability and quality of the bank's services is a shared responsibility among all members of the C-Suite. Nonetheless, the CRO and the CCO should take the lead on this** and ensure that the outsourcing chain is made transparent, while coordinating with the CEO and the CIO to determine which providers can ensure long-term resilience and whether the current setup is appropriate to ensure the bank's digital operational resilience.

As for the "register of information with all contractual arrangements about the use of ICT services provided by ICT third-party service providers"[44] which DORA prescribes, either the CRO or the CCO of the bank – depending on who is tasked with handling outsourcing risk matters – will need to be responsible for maintaining it and ensuring that it is up-to-date and that it is part of the bank's broader outsourcing register that contains non-ICT outsourced services.

44.Regulation (EU) 2022/2544 on digital operational resilience for the financial sector.https://eur-lex.europa.eu/eli/reg/2022/2554/oj

6

# Tax Resilience and Innovation

Although tax-related matters are not part of the ECB's supervisory priorities or mandate, Luxembourg's banks should keep them in mind when considering the risks and opportunities that lie ahead.

When the drive to combat tax evasion through the automatic exchange of information (AEoI) started gaining momentum in the early 2010s, Luxembourg initially encountered several challenges and roadblocks. Indeed, in November 2013, the country was deemed non-compliant with the OECD's Global Forum on Transparency and Exchange of Information for Tax Purposes.[45]

However, the government promptly affirmed its commitment to the OECD's rules on AEoI and Directive 2014/107/EU on mandatory AEoI in the field of taxation was transposed in late 2015. In October of that year, the country was even removed from the OECD's grey list of uncooperative tax jurisdictions, a testament to the significant efforts made by policymakers and the financial centre as a whole.[46] Fast forward to 2022, Luxembourg is not only compliant with the OECD's AEoI terms of reference, but it fared well in a peer evaluation.[47]

However, Luxembourgish banks are bound to encounter more tax-related challenges in the coming years, particularly given that the Central Electronic System of Payment Information (CESOP) became applicable in the beginning of 2024. With CESOP in force, payment service providers had to submit information on cross-border payments for the first quarter of the year on April 1.

In a nutshell, CESOP is designed to combat cross-border VAT fraud – particularly in e-commerce – and it requires payment service providers in the EU to monitor and report cross-border payment transactions on a quarterly basis, with the data stored in a centralised European database that is accessible to member states' tax authorities. As such, banks have essentially become a sort of auxiliary for tax authorities, as they are now required by law to play a key role in combating all sorts of tax-related fraud via identifying and reporting cases of potential tax fraud and aggressive tax planning.

45. Luxembourg Times. 'Global Forum agrees to Luxembourg transparency review,' January 12, 2015. https://www.luxtimes.lu/luxembourg/global-forum-agrees-to-luxembourg-transparency-review/1265176.html
46. Barrette, S. '10 years later: the costly automatic exchange of information,' Delano, September 12, 2023. https://delano.lu/article/10-years-later-the-costly-proc
47. OECD. 'Peer Review of the Automatic Exchange of Financial Account Information 2022,' November 9, 2022. https://www.oecd-ilibrary.org/taxation/peer-review-of-the-automatic-exchange-of-financial-account-information-2022_36e7cded-en

Many banks do not have a department dedicated to managing tax affairs, and they have struggled to adequately determine what are the tax-related opportunities and risks that they face. Establishing a whole new tax department from scratch can prove to be very costly, with the benefits far off in the horizon.

In these banks, **the CEO and the CFO should assess the extent to which such a new department would be a useful and beneficial undertaking for the bank's future, and weigh such a consideration against prospective outsourcing arrangements** whereby service providers can provide a cost-effective solution that unlocks a wide array of tax-related benefits.

Unlike previous global- and EU-level tax policies – such as the US Foreign Account Tax Compliance Act (FATCA), the Common Reporting Standard (CRS)[48] and the Qualified Intermediary (QI) regime – CESOP concerns information about payments and not tax data on clients' revenues.[49] Given that innumerable transactions are carried out each second, the volume of data is enormous, and the data itself will need to be assembled and centralised in a common database so that the quarterly reporting is done in an efficient and compliant manner. As such, CESOP has a somewhat fluid dimension that spans across tax, ICT and payments.

Given CESOP's fluidity, banks have struggled to adequately assign responsibilities for its implementation. For instance, certain banks that have a Head of Tax Affairs have seen the latter often argue that responsibility for CESOP's implementation falls with the CIO, while CIOs have argued that CESOP – given that it ultimately seeks to counter VAT fraud – should fall under the purview of the Head of Tax Affairs.

Ultimately, **responsibility will have to be spread between several actors within the bank. For the banks that do have a Head of Tax Affairs, the latter will need to cooperate and coordinate closely with the CFO and the CIO** to ensure that the adequate ICT processes and reporting mechanisms are in place so that every quarter, the relevant and correct data can be reported to the tax authorities. As for banks where there is no Head of Tax Affairs, the responsibility will fall on the CFO and the CIO.

However, tax does not necessarily only imply additional compliance costs and obligations for banks, particularly in the Luxembourgish context. As a matter of fact, as previously mentioned, the government has recently enacted a tax credit for investments and operating expenses connected with the digital and ecological transformation (DET). This DET tax credit introduces an 18% tax credit that applies to certain investments and operating expenses linked to the digital and ecological transformation. More specifically, when it comes to tangible depreciable assets, the DET tax credit is limited to 6% considering that these assets are already expected to benefit from the existing 12% tax credit for overall investment – bringing about the expected 18% overall tax credit.[50]

Coupled with the fact that the tax landscape in Luxembourg is very stable and predictable – it is highly unlikely that a windfall tax on the banking sector will be implemented anytime soon – the country's banking sector is well-positioned to make the best of the tax opportunities at hand.

48.PwC. 'FATC and CRS Compliance.' https://www.pwc.lu/en/pwc-regulated-solutions/fatca-crs.html
49.PwC. 'What is the Qualified Intermediary regime?' https://www.pwc.nl/en/services/tax/us-withholding-and-reporting/what-is-the-qualified-intermediary-regime.html
50.PwC. 'Tax Summaries: Luxembourg,' January 2024. https://taxsummaries.pwc.com/luxembourg/corporate/tax-credits-and-incentives#:~:text=The%20Law%20introduces%20an%2018,as%20listed%20in%20the%20Law

Given that COOs, CIOs and CFOs are heavily concerned with the day-to-day operations and functioning of the bank and generally are not responsible for tax-related matters, many have understandably missed the announcement of the DET tax credit and failed to grasp how it could support their operations. As such, the **CEO should take the lead in directing efforts towards understanding how the DET tax credit can be used by the bank** and determine what eligible investments in the digital and ecological transformation the bank should carry out.

With regards to the bank's digital transformation, the tax function – similar to all of a bank's operational facets – is likely going to be significantly affected by AI. In banks that have a department for managing tax affairs, the **department's head, the COO and the CIO should examine all the potential opportunities and efficiency gains that GenAI solutions and services can bring in.** Such investments could end up being eligible for the DET tax credit.

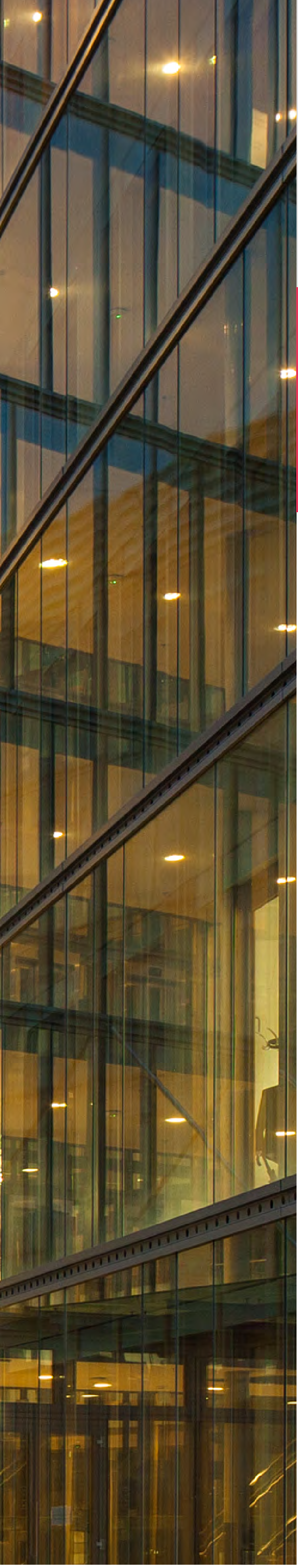
However, over the last few years, the global tax environment has changed significantly, with a growing focus on tax transparency and the role of banks in inadvertently facilitating tax avoidance or evasion.

Several European banks have voluntarily begun publishing tax transparency reports which provide detailed information on the bank's tax strategy, governance and contributions in each country where it operates. Such reports generally go well-beyond the minimum legal requirements and include additional disclosures on topics such as the bank's approach to tax risk management, how it engages with tax authorities, and how it contributes to public finances in the jurisdictions it operates in. By proactively disclosing tax transparency reports, Luxembourg's banks can demonstrate their commitment to responsible tax practices and maintain trust from all relevant stakeholders – be it the general public, investors, employees or governmental and regulatory authorities.

As a matter of fact, companies falling under the CSRD's scope might determine tax to be a material topic when carrying out their double materiality assessment, and they would thus find themselves required to disclose tax-related information akin to what would be included in the tax transparency report. For in-scope companies that only deem tax governance as a material topic, they could include the information as part of ESRS G1 (Business Conduct).

If the bank prides itself in having a strong ESG track record, then embarking on a journey to annually publishing a tax transparency report is a must, particularly if the bank falls under the CSRD's scope. The CEO, alongside the CFO, the CSO and the Head of Tax Affairs (if the position exists in the bank) need to determine how best to approach the subject and how the report will be structured and presented. **The bank should not hesitate to adopt the Global Reporting Initiative's standard for public reporting on tax, GRI 207**.[51]

51. GRI. 'GRI 207: Tax 2019 – A New Global Standard for Public Reporting on Tax,' https://www.globalreporting.org/media/sfcpcrt4/gri-207-tax-standard-2019-factsheet.pdf



7

# Coping with Heightened Financial Crime Risks

In general, EU members states have robust and mature regulatory frameworks to combat all sorts of financial crime (hereinafter shortened to 'Anti-Money Laundering' or 'AML'), which will soon be upgraded through the European Commission's AML Package. Not only does the package bring forth a new EU-wide regulation on AML, but it also establishes a new AML Authority (AMLA) which, similar to the ECB since 2014, will be tasked with directly supervising the AML practices of certain to-be-defined financial entities in the EU based on their AML risk exposure. In addition, the AMLA will also be indirectly responsible for all financial institutions in the EU by defining further guidelines and rules for supervision to be applied by national competent authorities.

However, much work remains to be done at the EU level if financial crimes are to be stamped out and effectively mitigated from the banking sector. In fact, one impetus behind the AML Package was a series of AML failures in the banking sectors of several Baltic states which demonstrated how fragmented pan-European AML efforts tend to be.[52]

Nonetheless, it must be noted that AML-related problems are often not due to a lack of more sophisticated rules, but rather due to the inadequate implementation, application and enforcement of already existing regulations. Many of the recent scandals are related to ineffective KYC and a lack of transaction monitoring, which is not a new concept.

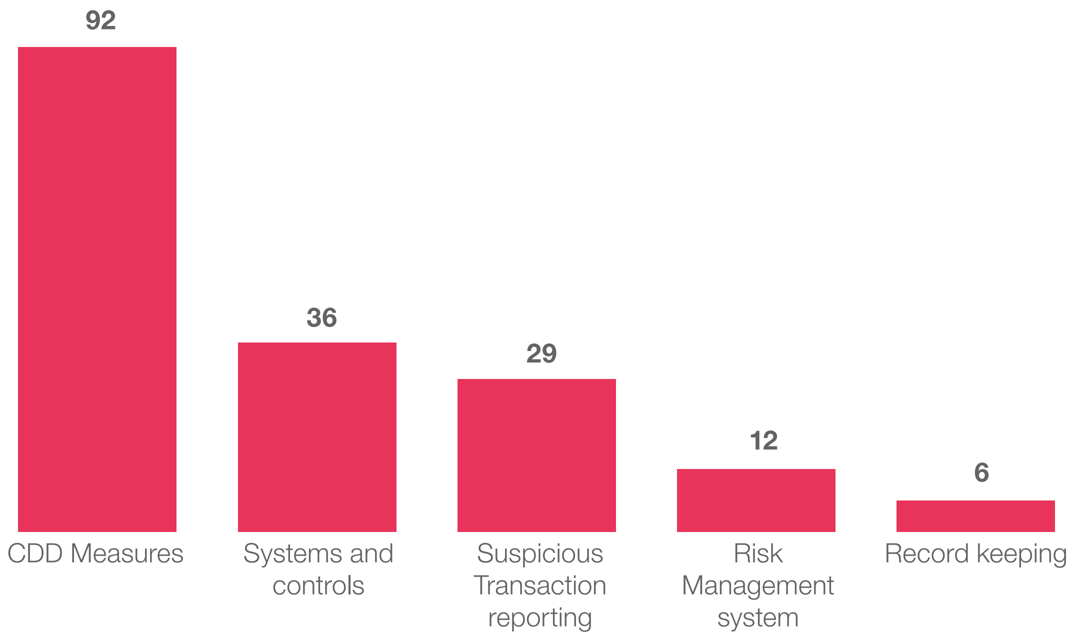
Indeed, PwC's recent EMEA AML Survey 2024 report highlighted that for financial institutions across Europe, the Middle East and Africa, finding skilled AML staff remains the most important factor for effective AML compliance. Without experienced staff, carrying out day-to-day processes and updating technologies and AML methodologies is extremely difficult and may not provide the right output and quality. As a result, despite the enormous potential that revolutionary

52. White, G. 'How Europe's Banks Wound Up Laundering Russia's Money,' Bloomberg, March 5, 2019. https://www.bloomberg.com/news/articles/2019-03-05/how-europe-s-banks-wound-up-laundering-russia-s-money-quicktake

technologies like GenAI hold, they cannot be implemented adequately without sophisticated and experienced human staff that know how to navigate the world of AML with its many risk-based areas of professional judgement and principles.[53] The survey also highlighted that regulatory effectiveness needs more clarifications which will hopefully be addressed with the new EU AML Package.

As per the EBA's Risk Dashboard for Q2 2023, most AML-related deficiencies uncovered related to credit institutions.[54] As Exhibit 11 below highlights, the most common area where deficiencies were found pertains to Customer Due Diligence (CDD) measures, with 92 situations of material weaknesses uncovered, followed by systems and controls (36 situations) and suspicious transaction reporting (29 situations).

**Exhibit 11.** Top five corresponding situations of AML-related material weaknesses uncovered by the EBA's Risk Dashboard (Q2 2023)




Source: EBA Risk Dashboard Q2 2023

53. PwC. 'EMEA AML Survey 2024: Spotlight on Effectiveness,' April 24, 2024. https://www.pwc.lu/en/financial-crime/anti-money-laundering/aml-survey-2024.html
54. EBA. 'Risk Dashboard Q2 2023,' October 10, 2023. https://www.eba.europa.eu/publications-and-media/press-releases/eueea-banks-benefits-rising-interest-rates-are-stabilising

When it comes to Luxembourg, the Financial Action Task Force (FATF) recently published its latest evaluation report on the country's AML framework. While the report did highlight some areas of improvement, these were mostly related to the non-financial and non-regulated sector, and the country received an overall very positive grade. The CSSF was praised for its risk-based and well-developed supervisory approach, while the AML "controls, policies and procedures put in place" by most actors in the financial centre "are considered solid and sophisticated."[55]

The CCO is usually responsible for ensuring that the bank is fully compliant with all AML-related laws and regulations, although this responsibility sometimes falls under the CRO.

In the Luxembourgish banking sector, **CCOs and CROs will need to keep a keen eye on the European Commission's AML package and understand how the new AML Regulation will affect them and what the role of the AML Authority will be**. As such, they will need to oversee the development and implementation of the bank's AML policies, procedures and controls, ensuring that they are all up-to-date and aligned with applicable regulations. The key focus going forward should be on effectiveness of the AML framework of financial institutions, since supervisors and the regulators are expecting the regulations to be not only implemented, but operating effectively. This applies in particular to transaction monitoring and screening requirements.

Given that many banks struggle to attract, retain and upskill staff with AML experience, the **COO will also have to play an important role in ensuring that the bank complies with AML regulations**, closely cooperating with the CCO and/or CRO to understand what the operational deficiencies are and how they can be resolved.

The aforementioned PwC survey also highlighted that most banks across the EMEA region are considering implementing AI solutions to their AML operations which will undoubtedly be of great help to AML departments across Luxembourg's banking sector. Through GenAI and its capabilities to rapidly analyse large amounts of transactional data and detect anomalies, banks' transaction monitoring processes will be enhanced. In addition, AI models could be used to identify potentially high-risk customers and thus improve the bank's due diligence processes, while other models could be used to analyse patterns to predict and mitigate potential money laundering risks.

To determine what is the best way forward with regards to GenAI applications in the bank's AML operations, **the CCO, the CRO and the CIO should work together and cooperate closely in order to determine what processes should be prioritised, what solutions should be enacted, and what are the missing ingredients, such as the need to upskill staff**.

The CRO needs to ensure that robust governance frameworks are in place to oversee and monitor the development, testing and deployment of AI solutions. In addition, the bank should consider the deployment of GenAI in AML processes as a complement rather than a replacement for human expertise, since GenAI models often operate as a black-box and results need to be quality checked to avoid "hallucinations." Many tools may produce results that look very professional and sophisticated for the non-experienced user, but turn out to be inadequate. Therefore, the bank's AML professionals will still need to play a critical role in analysing the insights and results provided by the GenAI tools.

55. CSSF. 'Luxembourg's good result in the 4th mutual evaluation report by the FATF,' September 27, 2023. https://www.cssf.lu/en/2023/09/luxembourgs-good-result-in-the-4th-mutual-evaluation-report-by-the-fatf/

Ultimate responsibility for compliance with AML regulations falls with the CEO and the board of directors – and a failure in AML controls continues to lead to significant penalties and sanctions. Alongside comes the reputational harm since AML failures or incidents always make big headlines that can be hard to undo.

**The CEO needs to keep a close eye on all AML-related developments and regularly consult with the CCO, the CRO, the COO, and increasingly the CIO regarding the bank's AML processes and procedures**. AML has become a multi-discipline challenge that cannot be addressed in silos but in teaming up the right expertise. The CEO should not shy away from taking the necessary actions to remediate any shortcomings that may be identified. **As for the board, the tone at the top is crucial. The chairperson and the directors need to promote a strong culture of AML compliance.**

# 8

# Conclusion

Since it was formally endowed with supervisory powers in 2014 through the SSM, the ECB has demonstrated its effectiveness as a central supervisory authority of the European banking system, effectively shielding the continent from financial crises that could rapidly spiral out of control. In fact, the ECB has managed to successfully harmonise supervisory practices which enhanced European banks' overall resilience – a crucial necessity in our current times of macroeconomic and geopolitical instability.

With its long-standing tradition of robust and prudent governance, alongside its effective regulatory and supervisory authorities, Luxembourg's banking sector has made significant strides to align with the ECB's SSM priorities, ensuring a stable and resilient financial sector. Nonetheless, as the ECB has highlighted numerous deficiencies throughout several SSM priorities across Euro Area banks, the Luxembourgish banking sector should proactively examine them and determine where the areas for improvements lie.

Indeed, the leadership of Luxembourg's banking sector already has its hands full. From managing credit risks, counterparty credit risks and asset and liability management frameworks, to reviewing management bodies' functioning, developing risk data aggregation and risk reporting mechanisms, and determining how exposed the bank is to climate-related and environmental risks, the list of work that needs to be done is exhaustive. Add to that the need to ensure that the bank's digital transformation strategy is proceeding well and that the bank itself is resilient with regards to digital-matters, while keeping in mind what tax-related opportunities lie ahead and how banks should cope with heightened financial crime risks, the opportunities and risks ahead are substantial.

Nonetheless, time and again, Luxembourg has proven to be up to the challenge, with its banking sector playing a crucial role in steering the economy towards safer shores in times of instability. By addressing the areas for improvement highlighted by the ECB's SSM Supervisory Priorities, Luxembourg's banking sector can further strengthen its position as one of the leading financial centres of Europe, while maintaining the trust and confidence of all relevant stakeholders.

9

# Appendix – the ECB's SSM Supervisory Priorities between 2016 to 2023

| SSM supervisory priorities 2016[56] | Major drivers of banking sector risks identified | Key risk areas to be addressed |
|---|---|---|
| | • Heightened levels of non-performing loans (NPLs).<br>• Reversal of the search for yield.<br>• Conduct and governance risk.<br>• Sovereign risk.<br>• Geopolitical risks.<br>• Growing vulnerabilities in emerging economies.<br>• IT and cybercrime risks.<br>• (in)ability to meet upcoming regulatory requirements. | • **Business model and profitability risk** – the highest risk area identified – which entails reviewing banks' profitability drivers amidst a weakening of credit standards and greater reliance on short-term funding.<br>• **Credit risk**, namely with regards to the elevated levels of NPLs and the deterioration in the credit quality of loans to both households and corporates.<br>• **Capital adequacy** and ensuring that banks' Internal Capital Adequacy Assessment Processes (ICAAP) are of a high quality and that banks can withstand EU-wide stress tests.<br>• **Risk governance and data quality**, particularly given that the management boards of banks did not always have risk-related information and data necessary to make sound business and risk management decisions – which is not in line with the Basel Committee on Banking Supervision's principles for effective risk data aggregation and reporting.<br>• **Liquidity** and ensuring that banks' Internal Liquidity Adequacy Assessment Processes (ILAAP) are sound, particularly given that the 2015 SREP revealed that several banks did not fully meet supervisory expectations for sound liquidity risk management. |

56.ECB. 'ECB Banking Supervision : SSM priorities 2016.' https://www.bankingsupervision.europa.eu/ecb/pub/pdf/publication_supervisory_priorities_2016.en.pdf

| | Major drivers of banking sector risks identified | Key risk areas to be addressed |
|---|---|---|
| SSM supervisory priorities 2017[57] | • Ultra-low/negative interest rate environment.<br>• High levels of NPLs.<br>• Lacklustre economic growth across Euro Area countries.<br>• Geopolitical uncertainties in the EU.<br>• Banks' and markets' reaction to new regulation.<br>• Potential reversal of risk permia in financial markets.<br>• The situation in emerging market economies.<br>• Fiscal imbalances in the EU.<br>• Misconduct by banks.<br>• Developments in real estate lending practices.<br>• Cybercrime and IT disruptions.<br>• Non-bank competition. | • Similar to the 2016 priorities, **business models and profitability drivers** remain a key priority area to be addressed, particularly given the ultra-low/negative interest rate environment.<br>• **Credit risk**, particularly given that a number of banks continue to exhibit a high stock of NPLs.<br>• **Risk management**, including compliance with the Basel Committee's principles for effective risk data aggregation and risk reporting, as high data quality is an essential precondition for sound and adequate risk management, controls and capital requirements. This area also entails outsourcing, reviewing internal models, ICAAPs and ILAAPs. |

| | Major drivers of banking sector risks identified | Key risk areas to be addressed |
|---|---|---|
| SSM supervisory priorities 2018[58] | • Protracted low interest rate environment.<br>• Large stock of NPLs.<br>• Geopolitical uncertainties.<br>• Euro Area structural economic challenges (fiscal imbalances, debt sustainability concerns).<br>• Growth outlook in emerging market economies.<br>• Banks' reactions to new regulatory initiatives.<br>• Developments in residential and commercial real estate markets.<br>• Risk repricing in financial markets.<br>• Cybercrime and IT disruptions.<br>• Cases of misconduct.<br>• Non-bank competition.<br>• Potential failure of a central counterparty.<br>• Rigid business environment. | • **Business models and profitability drivers** – the ECB will focus on how banks' profitability has evolved in the current environment, with a particular emphasis on interest rate risk.<br>• Similar to the preceding two years, **credit risk continues to be an area of concern**, particularly with regards to NPLs and banks' concentrated exposures to specific asset classes.<br>• **Risk management**, particularly targeted reviews of internal models, ICAAP and ILAAP, and preparations for IFRS 9 and regulatory developments.<br>• Activities comprising multiple risk dimensions – such as **Brexit preparations and preparing for the next EU-wide stress tests**. |

57. ECB. 'ECB Banking Supervision : SSM priorities 2017.' https://www.bankingsupervision.europa.eu/ecb/pub/pdf/publication_supervisory_priorities_2017.en.pdf
58. ECB. 'ECB Banking Supervision : SSM priorities 2018.' https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.supervisory_priorities_2018.en.pdf

| | Major drivers of banking sector risks identified | Key risk areas to be addressed |
|---|---|---|
| SSM supervisory priorities 2019 | • Geopolitical uncertainties<br>• NPLs and potential build-up of future NPLs.<br>• Cybercrime and IT disruptions.<br>• Potential repricing in financial markets.<br>• Low interest rate environment.<br>• Banks' reaction to new and existing regulations.<br>• Euro Area economic and fiscal conditions.<br>• Misconduct in the banking sector.<br>• Developments in the real estate markets.<br>• Structural business challenges.<br>• Non-bank competition.<br>• Climate-related risks. | • **Credit risk**, which mainly entails following-up on guidance for NPLs and assessing the quality of underwriting criteria.<br>• **Risk management** through targeted reviews of internal models to reduce unwarranted variability of risk-weighted assets, confirming banks' ICAAP, preparing for the liquidity stress tests and assessing IT and cyber risks.<br>• Activities comprising multiple risk dimensions, namely **making all the preparations required to deal with Brexit**, alongside trading risk and asset valuations. |

| | Major drivers of banking sector risks identified | Key risk areas to be addressed |
|---|---|---|
| SSM supervisory priorities 2020 | • Economic, political and debt sustainability challenges in the Euro Area.<br>• Business model sustainability.<br>• Cybercrime and IT deficiencies.<br>• Execution risks tied to banks' strategies on NPLs.<br>• Easing lending standards.<br>• Repricing in financial markets.<br>• Misconduct, money laundering and terrorism financing.<br>• Brexit.<br>• Global outlook and geopolitical uncertainties.<br>• Reaction to regulation.<br>• Climate-change related risks. | • **Continuing balance sheet repair** through following up on NPL guidance, internal ratings-based models, and trading risk and asset valuations.<br>• **Strengthening future resilience** by reviewing credit underwriting criteria and exposure quality, capital and liquidity management, business model sustainability, governance, stress test exercises and IT and cyber risks.<br>• **Other priorities** – namely preparing for all Brexit-related outcomes and preparing contingency plans for a no-deal Brexit. |

| | Major drivers of banking sector risks identified | Key risk areas to be addressed |
|---|---|---|
| SSM supervisory priorities 2021 | • The COVID-19 pandemic and its effects on the real economy. | • **Credit risk management in times of COVID**, as the pandemic has led to an increase in distressed borrowers.<br>• **Capital strength** and ensuring that banks' capital positions are adequate and that they can identify vulnerabilities at an early stage thanks to sound capital planning practices.<br>• **Business model sustainability**, as banks' profitability and financial sustainability came under significant pressure due to the low interest rate environment |

| | Major drivers of banking sector risks identified | Key risk areas to be addressed |
|---|---|---|
| SSM supervisory priorities 2022-2024 | • Continued impacts of the COVID-19 pandemic. | • **Banks to emerge from the pandemic in a healthy state** (dealing with deficiencies in credit risk management frameworks, exposures to sectors vulnerable to the pandemic, exposures to leverage finance, and sensitivity to interest rate and credit spread shocks).<br>• **Addressing structural weaknesses** via effective digitalisation strategies and enhanced governance<br>• **Tackling emerging risks**, such as climate-related and environmental risks, as well as exposures to counterparty credit risk and IT outsourcing and cyber resilience |

| | Major drivers of banking sector risks identified | Key risk areas to be addressed |
|---|---|---|
| SSM supervisory priorities 2023-2025 | • Macroeconomic and financial market uncertainties due to the war on Ukraine (exacerbation of pre-existing inflationary pressures and supply chain bottlenecks), requiring banks and supervisory authorities to act with extreme prudence. | • **Strengthening resilience to immediate macro-financial and geopolitical shocks**, requiring banks to closely monitor risks associated with the rapidly-changing macroeconomic environment. **Shortcomings in credit risk management and a lack of diversification in funding sources** were notably highlighted as risks requiring attention.<br>• **Addressing digitalisation challenges and strengthening management bodies' steering capabilities**, in order to ensure that banks' business models are resilient and financially sustainable.<br>• **Stepping up efforts to address climate change** by incorporating climate-related and environmental risks in the business strategy and in the risk management and governance frameworks. |

Source: ECB

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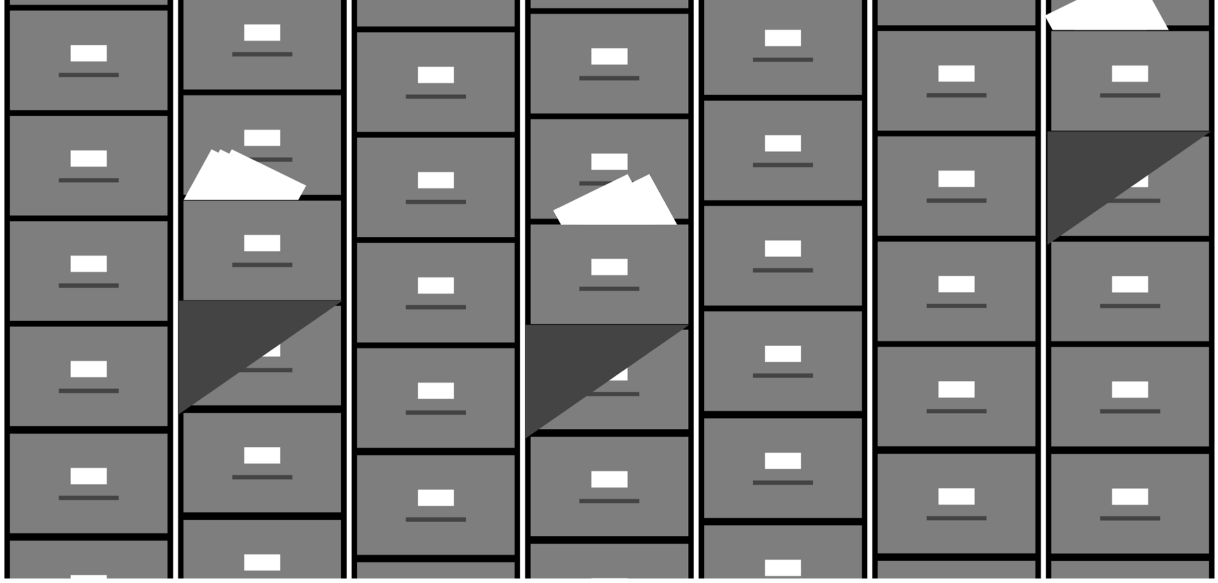

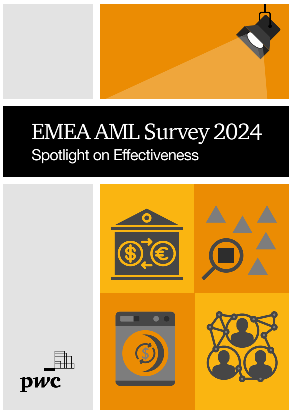


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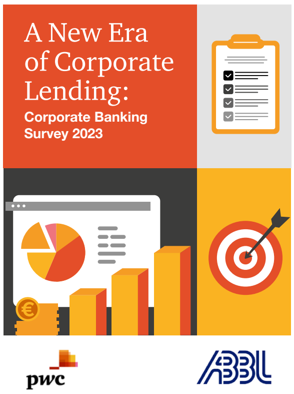


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