# Credit risk unveiled

## Trends, technologies, and transformations

Risk Reshaped

September 2024

pwc

# **Credit risk unveiled:** Trends, technologies, and transformations

## Introduction

We have entered a crucial inflection point within the financial services industry, particularly in the credit risk space, which faces a prolonged period of significant transformation, driven by economic uncertainty, changes in borrower behaviour, increased regulatory compliance requirements, and rapid technological advancements. This is leading firms to rethink and reshape the key elements of their credit risk functions.

The Bank of England's (BoE) UK Deposit Takers Supervision: 2024 priorities report further emphasises this point as it reflects on how credit risk management practices need to evolve: "*it is imperative that firms are prepared to manage the associated risks proactively and prudently, while supporting their customers*".

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## About the survey

The PwC "*Risk Reshaped: How are Credit functions evolving?*" market survey provides insight into how this credit risk evolution is perceived across the industry.

We examine both Retail and non-Retail perspectives from Tier 1 and Tier 2 Banks and Building Societies with UK presence on customer/credit strategy, and both financial and operational implications of the following **three key market-wide challenges.**

### 1 Adapting to macroeconomic headwinds

With the effects of high inflation and increasing interest rates, many people are adversely affected by the cost of living crisis, requiring additional support from firms.

This section helps understand how firms are responding to the cost of living crisis including customer support, portfolio management and reporting.

### 2 Regulatory change and enhancements

Regulatory bodies continue to enhance existing guidelines and introduce new ones from both a conduct and prudential perspective to improve industry stability. This naturally increases the compliance pressures for financial institutions and this section helps understand the key regulations that firms are proactively taking actions on to ensure readiness and compliance.

### 3 Business performance and efficiency

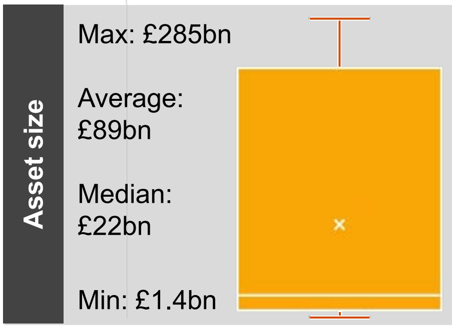
With the increased levels of market competition over the past few years, there is a need for firms to be proactive and dynamic in various aspects of their business to continue to achieve business growth objectives.

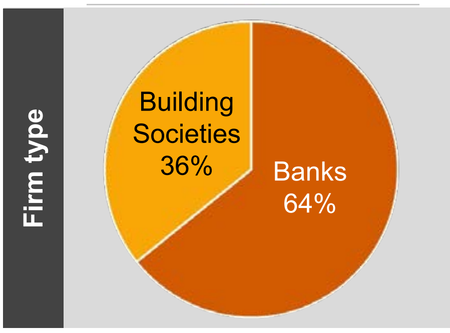
This section helps understand what transformational initiatives firms are undertaking to improve business performance and efficiency.

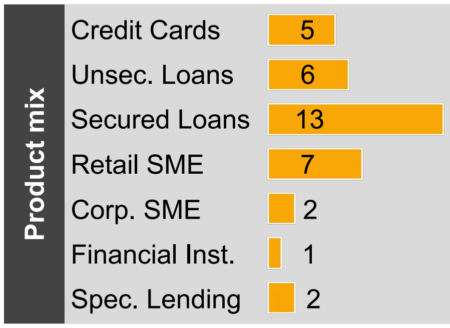
There is a consensus amongst participants that of the three key credit risk focus areas, **the priority over the past twelve months has been to 'adapt to macroeconomic headwinds/prevailing market conditions',** followed by focusing on 'regulatory change and enhancements', and 'business performance and efficiency' of similar importance. This aligns to our expectations for portfolios with greater sensitivity to macro-economics, whereas firms with a more stable / less sensitive portfolio have typically focussed more on improving their operating model and technological capabilities.

# Risk Reshaped:
## *'How are credit functions evolving?'* survey

## Participant overview




The survey had a wide range of participants (14 firms, with 16 respondents), where there were 88% of retail respondents, and 12% non-retail. There is a wide range of participant asset size, and product mix, with 71% of participants being incumbent Internal Ratings Based (AIRB) firms for capital calculations.

## The headline takeaways

Based on survey findings and individual discussions, it's clear that participants unanimously **feel significant pressure** on their credit risk function. They are **tasked with aiding customers and clients amidst current market challenges** through short-term tactical approaches while also staying attuned to future developments. Additionally, they **must navigate regulatory requirements, which are perceived as hindrances to business growth objectives**. There's also an **imperative to embrace technological advancements to avoid falling behind competitors.**

**Priority areas of focus**

### Above and beyond minimum regulatory requirements

- Despite the perception that regulatory requirements hinder growth, 90% of participants are making significant or reasonable changes to enhance their governance frameworks.
- Participants are prioritising compliance with model risk (SS1/23), climate change (ESG), and consumer duty.

### Optimising the Credit risk team restructure

- Firms are optimising credit risk functions to meet regulatory agendas and focus on priority areas opposed to repeatable processes (e.g. reporting).
- Participants are adopting technology to streamline processes and make resource more agile. Also, firms are exploring external managed services for repeatable tasks.

### Transitioning to Cloud and/or open-source solutions

- 88% of participants are transitioning to or considering open source software for credit risk analytics and modelling.
- 75% agree that migrating to open source reduces costs, improves efficiency, and speeds up decision making.
- Other wider benefits include supporting compliance, and improving data management.

### Maximising the potential from multiple data sources

- Participants are exploring ways to maximise the potential from internal and external data sources.
- There is interest in data pooling across the industry (particular for climate data), upgrading credit bureau data feeds, and focusing on use cases for Open Banking.

### Minimising key person dependency risk

- Participants agree that automation is a top strategic priority, aiming to reduce key person dependency, improve process efficiency, speed up decision-making, and enhance customer experience.
- The immediate focus is on automating reporting and monitoring to allocate more time for value-adding analysis.

### Usage of generative Artificial Intelligence (Gen. AI)

- Gen. AI applications are increasingly prevalent in the credit risk landscape, with c.65% of participants either implementing or considering integrating Gen. AI to enhance business performance.
- Firms are especially focusing on non-regulatory areas, where there's greater scope for creativity.

# Adapting to macro-economic headwinds and prevailing market conditions

The current credit risk landscape is undergoing significant transformation, influenced by a number of factors ranging from the immediate impacts of Covid-19 to the longer-term considerations surrounding Environmental, Social and Governance (ESG) principles.

In this section, we explore participant responses capturing the key trends and shifts shaping the industry's approach to risk management and mitigation in response to various macro-economic headwinds and prevailing market conditions.

## Strategy enhancement and model adjustments

Amongst participants there is a notable shift in focus towards the refinement of credit strategies, with fewer participants adjusting credit models, as credit functions recognise the need to be timely (by minimising downstream implications), dynamic, and have customer-centric approaches to navigate evolving macroeconomic headwinds effectively.

**All participants** have been actively making **changes** to **at least 1 stage** of the **credit risk lifecycle** (origination, account management, and collections & recoveries). What's interesting is that **over 90%** of the participants have made **changes** to **two or more** of these stages, indicating a comprehensive approach to managing credit risk.

Furthermore, a significant majority, 75% of participants, have plans to **continue making changes** to these three stages of the credit risk lifecycle. This suggests that the industry is constantly evolving and adapting to new challenges and opportunities.

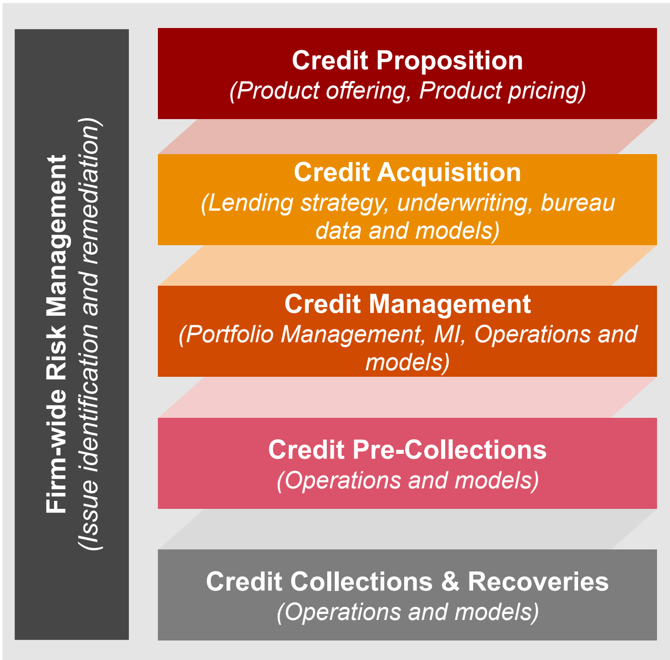



**Figure 1:** Credit risk product lifecycle, highlighting the key activities at each stage.

With regards to credit models, **80%** of the participants **have already made changes** in order to **better support customers** in **at least one stage** of the credit lifecycle. However, **only 62.5%** of them anticipate making **further enhancements** to their models. This number drops even further, to **37.5%**, when considering making **changes to models** across **multiple aspects** of the **credit lifecycle**.

### To be more dynamic participants are enhancing their credit strategies ahead of models

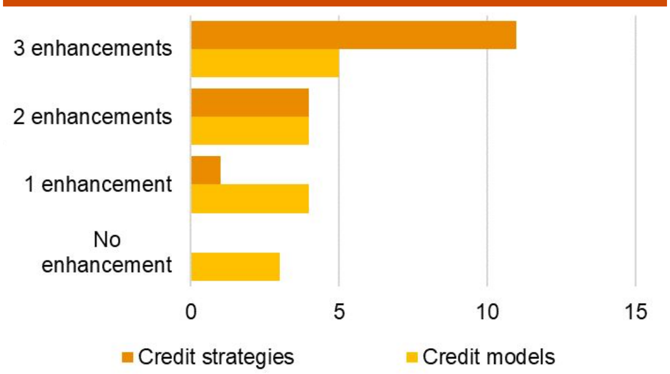



**Figure 2:** Current enhancements across the credit risk product lifecycle (i.e. credit acquisition, credit management, and/or credit collections & recoveries).

### A reasonable proportion of enhancements are short-term with further changes expected

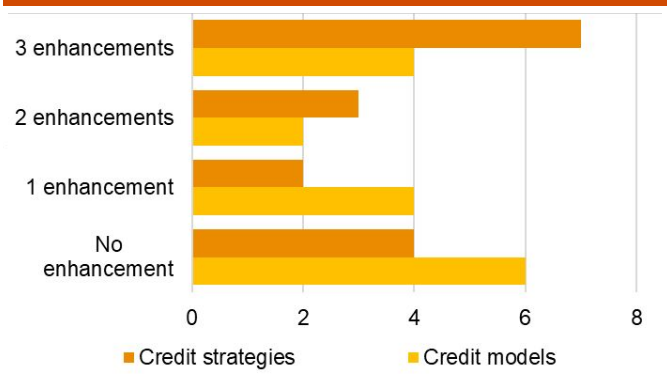



**Figure 3:** Expected enhancements across the credit risk product lifecycle over the next 12 months.

# Adapting to macro-economic headwinds and prevailing market conditions (cont…)

## Retail portfolio performance across products

The analysis of portfolio risk performance reveals varying impacts on non-performing loans (NPLs) observed across different product categories.

Notably, secured loans, particularly mortgages, have experienced significant deterioration, as reported by 77% of participants over the past year. Alarmingly, a similar proportion anticipate further deterioration in this segment over the next 12 months, indicating persistent challenges ahead.

In contrast, retail small/medium entity lending (SME), credit cards, and unsecured loans have exhibited relative stability, with over 50% reporting no significant impact in the past year. However, there is a striking consensus among participants, exceeding 85%, that these product categories are poised to deteriorate in the coming months.

This divergence in performance trends underscores the nuanced nature of portfolio risk management and the importance for tailored strategies to address specific challenges across product segments.

**The impact on NPLs varies by product category with secured loans observing most deterioration**

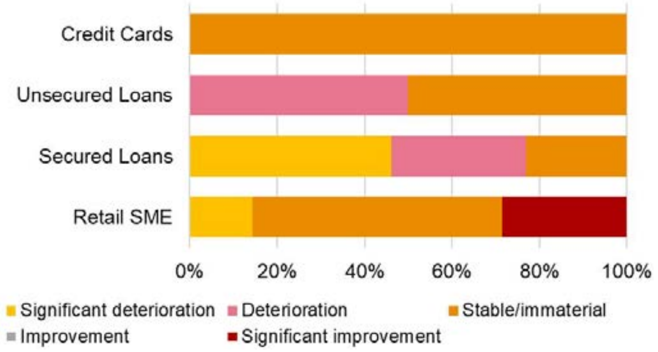



**Figure 4:** Current NPL performance by product segment.

**General consensus that there will be deterioration in NPLs across all product types**

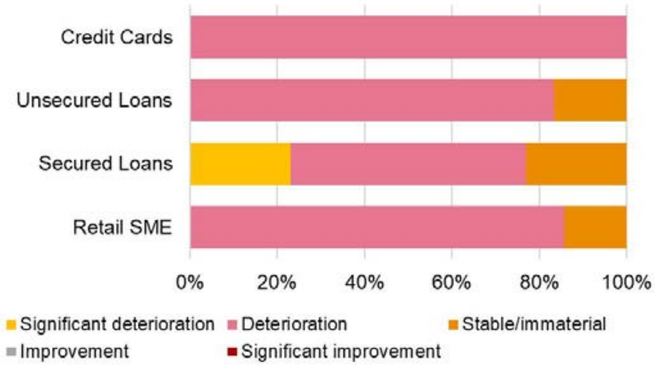



**Figure 5:** Expected NPL performance over the next year.

## Strategic operational adaptations

In navigating the prevailing macroeconomic challenges, half of the participants highlight the necessity of blending short, medium, and long-term strategy shifts. This strategic approach demonstrates the complexity of adapting to the evolving economic landscape. Operationally, a significant majority, 75% and 69% respectively, have already adjusted and anticipate further adjustments to their business models, focusing on optimising interactions with wider teams including validation and scalable resourcing methods. This proactive stance reflects a commitment to agility and readiness to meet evolving market demands.

To address customer needs amidst the market pressures, firms have explored additional support measures, including forbearance and proactive outreach to high-risk segments like pre-/early arrears customers. By prioritising customer-centric solutions, businesses aim to mitigate financial hardships and foster stronger relationships with their customers.

### Our perspective on trends

The findings of our survey underscore the complexity and dynamism inherent in the credit risk landscape. Firms must embrace agility and innovation to proactively address immediate challenges while strategically positioning themselves to navigate long-term shifts effectively.

By integrating automation, strategic enhancements, and robust governance practices, organisations can foster resilience and capitalise on emerging opportunities in an ever-evolving landscape.

# Regulatory change and enhancements

The Banking industry continuously adapts to regulatory change and enhancement. This section understands how different regulations impact customer and credit strategies, with a focus on consumer duty, Model Risk Management (MRM - SS 1/23), IFRS 9 accounting standards, the climate / ESG agenda, and IRB - Basel 3.1 (CP 16/22). We have highlighted participant perceptions of these regulations, their compliance approaches, and the complexities and variances in their impacts.

**Retail perspectives on regulatory programmes and initiatives: reactive vs. proactive approaches**

There is a consensus amongst participants on the status of key regulatory programmes and initiatives, driven by their implementation timelines indicating that firms tend to be more reactive than proactive. Nevertheless, of those who have IRB status, they have a Basel 3.1 IRB programme in place, where 75% are in progress with the publication of the requirements expected in H2-2024.

**At Q1-2024, firms were more progressed on consumer duty compared to other regulations and initiatives. Since May-2024, firms have since implemented their MRM frameworks as per the regulatory timelines.**

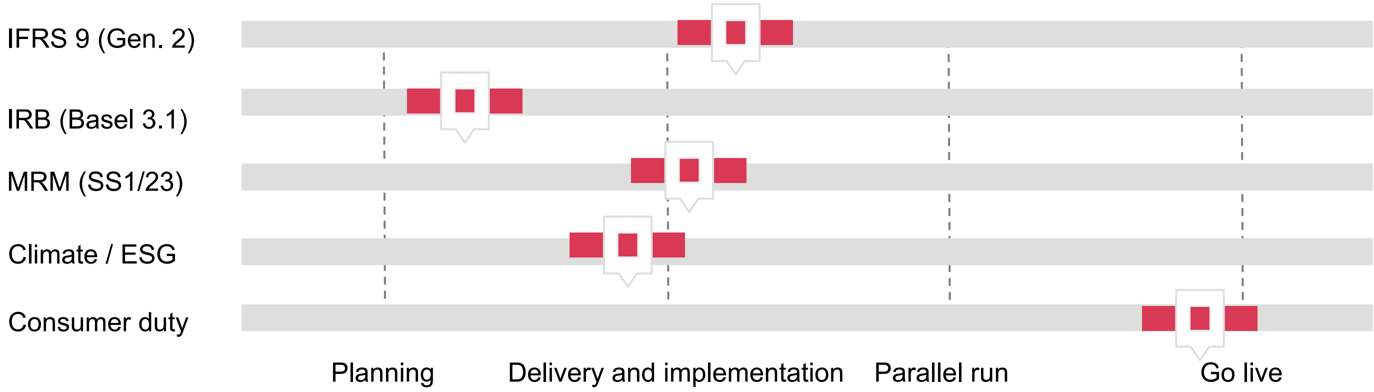



**Figure 6:** Average status of the banking industry with respect to regulatory programmes and initiatives.

## Impact on business and financial growth

- **Consumer duty**: a predominant theme is that conduct regulations significantly impact customer and credit strategy, with participants ranking them as the most influential to date. This influence is expected to continue shaping strategies moving forward.
- **Climate / ESG agenda and IFRS 9 (Gen. 2):** In contrast, the climate agenda is currently seen as having the least impact on customer and credit strategy, with varied opinions on future impacts. IFRS 9 Gen. 2 models are anticipated to have minimal strategic impact but are noted for their substantial financial implications, in contrast to the minimal financial impact of the ESG agenda.
- **IRB (Basel 3.1)**: The Basel 3.1 regulation is noted for a substantial financial impact alongside potential compliance challenges for participants. A significant 64% of participants feel these regulations restrict business growth, with 75% believing this will persist. These financial burdens are a primary concern, more so than other regulations like MRM (SS 1/23), climate / ESG, and consumer duty conduct risk.

**Consumer duty has the greatest impact on customer and credit strategy**

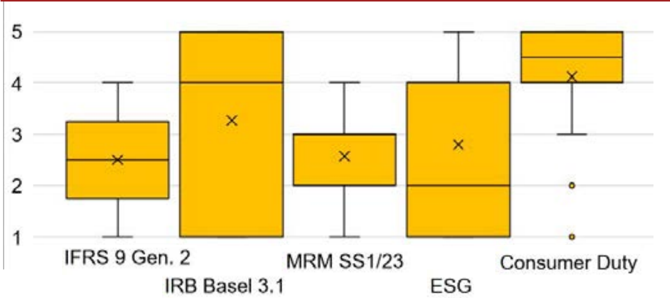



**Figure 7:** Regulatory / initiative impact on customer and credit strategy (5 = high impact, and 1 = low impact)

**Capital and provisioning programmes are expected to have the greatest financial impact**

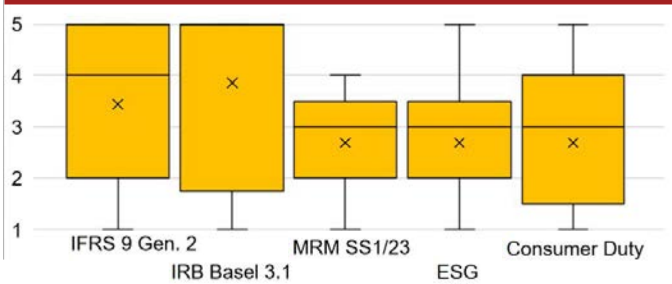



**Figure 8:** Regulatory / initiative financial impact on (5 = high impact, and 1 = low impact)

# Regulatory change and enhancements (continued)

## Balancing compliance and business growth

Firms are undertaking reasonable to significant efforts to ensure compliance, investing substantial time and resources in bespoke programmes. Despite aspirations to surpass minimum compliance standards, it is perceived that these endeavors often result in neutral or restrictive impacts on achieving business growth objectives - this sentiment is echoed by 85% of participants.

It's noteworthy that 90% of participants are actively implementing or planning significant changes to enhance their governance frameworks in response to regulatory mandates such as MRM (SS1/23), ESG, and consumer duty conduct risk regulations. Despite this proactive stance, the prevailing perception remains that regulatory compliance efforts may not translate into tangible business growth opportunities.

In summary, despite the significant investment and commitment to regulatory compliance, firms believe these will yield minimal financial benefits for the organisation. This paradox underscores **the intricate balance firms must strike between regulatory adherence and operational agility to foster growth and profitability**.

### Key regulations are perceived to have restrictive or neutral impacts on business growth

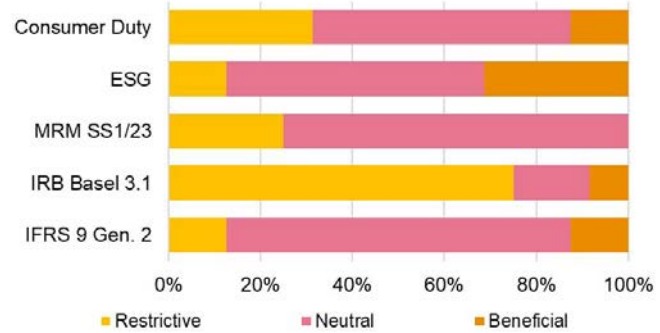



**Figure 9:** Perception of key regulations / initiatives on business growth objectives (where applicable)

### Key regulations are perceived to have restrictive or neutral impacts on financial objectives

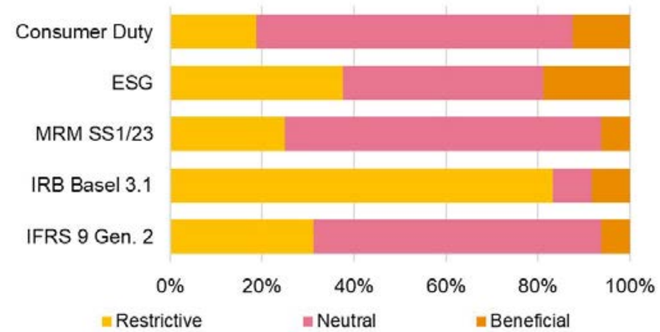



**Figure 10:** Perception of key regulations / initiatives on participants financial objectives (where applicable)

## Our perspectives on trends

Despite regulatory compliance challenges, participants show commitment to enhancing governance frameworks in response to regulatory requirements, with 90% implementing significant or reasonable changes. This proactive stance reflects the importance of robust governance in navigating regulatory complexities and ensuring compliance in an ever-evolving landscape. Banks and Building Societies are increasingly aware that failing to adapt to regulatory expectations can result in severe penalties and reputational damage. Therefore, they are investing in advanced compliance technologies and training programmes to stay ahead of regulatory changes.

Firms believe their substantial investments in regulatory compliance yield minimal financial benefits. This paradox highlights the intricate balance firms must navigate between regulatory compliance and maintaining operational agility to foster growth and profitability. As firms strive to meet regulatory demands, they must also innovate and streamline operations to avoid stifling business dynamism. Consequently, the continuous evolution of compliance strategies is crucial for harmonising regulatory adherence with sustainable business growth.

# Business performance and efficiency

The effective management of credit risk is paramount for sustainable growth and profitability. As markets evolve and technologies advance, firms must continually adapt their strategies to remain competitive and mitigate potential risks.

This section delves into the evolving strategies adopted by firms in response to market dynamics and technological advancements in the realm of credit risk management. From the integration of generative AI to transitioning to cloud and open-source solutions, firms are embracing innovative approaches to navigate the complexities of credit risk and drive business performance.

## Short term and long term areas of focus

In the short term, 88% of respondents emphasised improving process efficiency is a key area of focus, 57% highlighted cost reduction, 69% prioritised enhancing customer experience, and 64% stressed the need for faster, more granular decision making. To address these, firms are automating and optimising processes, and conducting cost audits.

For longer-term priorities, 44% of respondents will focus on improving the efficiency of capital allocation, and 31% see faster and more granular decision making as an ongoing focus. To achieve this, firms are upgrading data and IT infrastructure, introducing customer loyalty programmes, and upskilling teams.

**Improving process efficiency is the common short term priority area of focus**

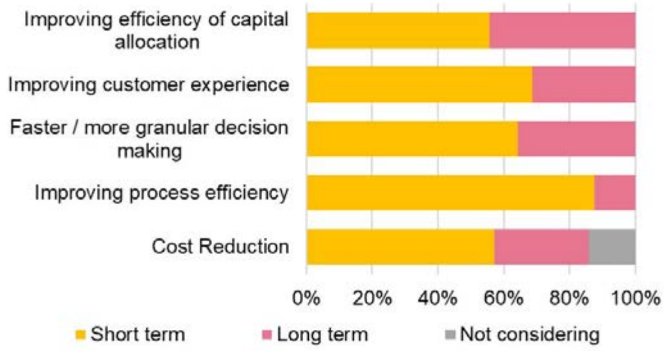



**Figure 11:** Business performance key areas of focus.

## Embracing generative AI

Generative AI applications are increasingly prevalent in the credit risk landscape, with approximately 65% of participants either considering or implementing integrating generative AI to enhance business performance. Notably, firms are focusing on non-regulatory areas, recognising the greater scope for creativity and innovation in these domains. This strategic approach allows firms to experiment with AI-driven insights to optimise marketing strategies, customer engagement, and product development with fewer constraints of regulatory compliance.

## Transitioning to Cloud and Open-Source

An overwhelming 88% of participants are transitioning to or considering open-source software for credit risk analytics and modelling. The benefits of this transition are widely acknowledged, with 75% agreeing that migrating to open source reduces costs, improves efficiency, and speeds up decision-making processes. Other benefits include supporting compliance efforts and enhancing data management practices.

Additionally, open-source solutions offer greater flexibility and scalability, allowing firms to tailor their analytics tools to specific needs and integrate seamlessly with existing systems. This shift also promotes a collaborative environment where firms can leverage a community of developers to continuously improve and innovate their software capabilities.

# Business performance and efficiency (continued)

## Maximising the potential from data available

Participants are exploring ways to maximise the potential from internal and external data sources with the aim to gain deeper insights and make more informed credit risk decisions.

Initiatives include data pooling across the industry, upgrading credit bureau data feeds, creating a single customer view and leveraging Open Banking use cases.

## Minimising key person dependency risk

Firms are improving documentation standards through MRM principles, standardising procedures, promoting cross-training / job rotation, and maintaining a centralised knowledge repository.

Succession planning, alongside the use of automated risk assessment tools and AI, further reduce reliance on individual expertise. Also, regular internal audits, clear governance structures, and strong onboarding and continuous training programs ensure knowledge is widely shared and maintained.

## Investing in enhancing monitoring MI

Credit risk strategies, portfolios, and models (e.g. IFRS 9 and IRB models) are regularly monitored to manage risks, ensure regulatory compliance, and maintain financial stability by early issue identification and correction.

Validating these models allows firms to reflect current market conditions for accurate risk assessment and strategic decision-making. As data volumes grow and regulations evolve, automation and AI/ML techniques will become essential, enhancing accuracy and efficiency. Currently, 79% of participants are considering or implementing enhanced monitoring solutions, while 21% have already done so.

## Alternative operating models

Firms are looking to use external managed services to reduce operational costs, access specialised expertise and advanced technology, and ensure regulatory compliance. Outsourcing improves efficiency, enhances risk management, and provides robust business continuity plans.

This approach also frees up internal resources to focus on higher-priority strategic initiatives, enabling banks to concentrate on core competencies while benefiting from the provider's advanced capabilities and security measures.

## Firms are adopting a wide range of improvement strategies

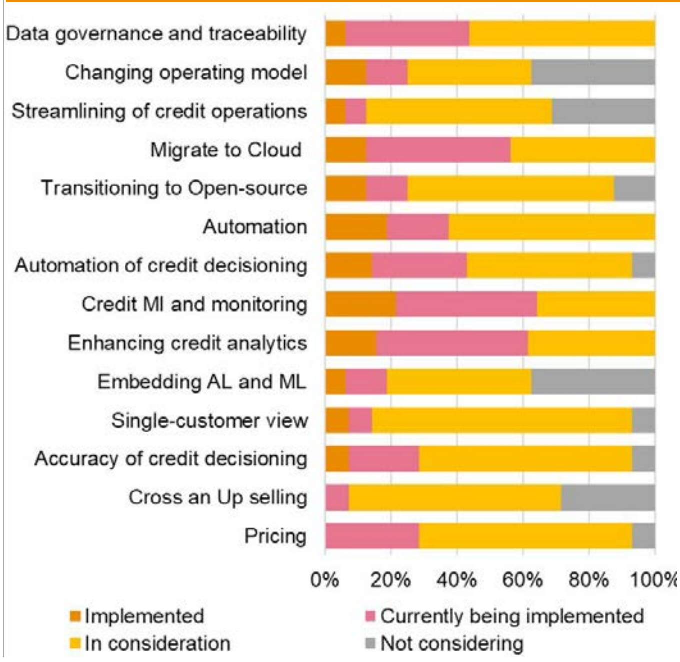



**Figure 12:** Strategic business and operational performance improvement initiatives.

## Our perspectives on trends

This report highlights the dynamic nature of credit risk management strategies adopted by firms in response to evolving market trends and technological advancements. From embracing generative AI to transitioning to cloud and open-source solutions, participants are leveraging innovative approaches to enhance business performance and adapt to changing market dynamics. By prioritising automation, maximising data potential, and minimising key person dependency risk, firms are well-positioned to navigate the complexities of the credit risk landscape and drive sustainable growth in the future.

# How we can help you navigate through the evolving credit risk landscape…

PwC have a variety of expertise, toolkits and alliances to help you navigate through the current credit risk climate embracing our "**human-led, tech-powered**" approach which sits at the heart of our global strategy.

## 1 Adapting to macroeconomic headwinds

- **Strategic enhancements**

  Designing, developing and implementing targeted improvements across your credit strategies and models to optimise provisions and capital requirements, whilst complementing business growth objectives.

- **Semi-automating the end-to-end modelling process**

  Utilising the **Model Efficiency Manager (MEM)** tool, a Cloud-based low code platform to semi-automate model development and validation.

- **Understanding climate risks impacts**

  The use of the **Climate Risk Insights & Strategy Platform (CRISP)** tool to understand climate risk and perform net zero financial analysis.

*Model Efficiency Manager*

*CRISP*

## 2 Regulatory change and enhancements

- **Advanced compliance technologies**

  Leverage the **Regulatory Reporting Insights**, and the **RWA impact assessment** tool to automate variance analysis and provide Basel 3.1 impacts.

- **Training programmes to stay ahead of regulatory changes**

  Providing perspectives on a range of topics including ESG, Basel 3.1 and IFRS 9 to ensure agility and readiness for evolving market demands.

- **Innovative solutions to optimise business processes**

  Use the **Model Control Centre** to efficiently manage the entire modelling lifecycle whilst ensuring all models are up-to-date, compliant and aligned with business objectives.

*Regulatory Reporting Insights*

*Model Control Centre*

## 3 Business performance and efficiency

- **Embracing generative AI**

  To optimise, enhance and validate processes using Gen. AI, we have co-pilot tools like **ChatPwC** which is secured in a ring-fenced environment.

- **Transitioning to cloud and open-source solutions**

  Leverage tools like **Coding & Compliance (CoCo)** to translate between coding languages, write documentation and perform compliance assessments in an efficient and complete manner.

- **Maximising data potential**

  Creating **personalised credit risk monitoring dashboards** to enhance data quality, aid automation, and provide insightful visualisations.

*CoCo tool*

*Credit risk monitoring dashboard*

## Access to PwC's leading technology alliances and industry benchmarks/insights

Combining our expertise and our alliance partners' technology to help solve your key priorities.

Microsoft, aws, quantexa, Palantir, Google Cloud, dataiku

- **Thought leadership:** Perspectives on a range of topics including ESG, Basel 3.1 and IFRS 9.
- **Industry insights through market surveys**
- **Quarterly credit risk newsletter:** Insights on topical market activity from key regulations, transitioning to open source, and more.

# Contacts:

**David Wong**
Partner
david.l.wong@pwc.com

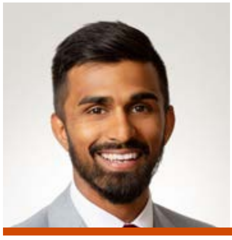
**Symon Dawson**
Partner
symon.k.dawson@pwc.com

**Rishi Patel**
Director
rishi.k.patel@pwc.com

**Ajay Raina**
Director
ajay.raina@pwc.com

**Craig Luff**
Associate Director
craig.j.luff@pwc.com

**Kishan Mistry**
Senior Manager
kishan.mistry@pwc.com



**Ramesh Swaminathan**
Manager
ramesh.x.swaminathan@pwc.com

**Sreya Ray**
Manager
sreya.ray@pwc.com

**Ruby Thompson**
Senior Associate
ruby.thompson@pwc.com

pwc.co.uk