



# Risk Transformation — Driving value in risk management

**Four propositions for effective and  
efficient risk management in banks**

KPMG International

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## Introduction

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# The Chief Risk Officer — Balancing regulatory requirements and cost pressures

The Chief Risk Officers (CROs) of banks have a delicate balance to achieve.

On the one hand, there are constantly rising expectations of risk management. The much-publicized “regulatory tsunami” is not weakening. On the contrary, supervisory authorities are constantly setting new priorities, such as the current focus on IT and sustainability risks (see page 3). These may require the CRO’s responsibilities to expand, leading to a corresponding increase in the risk management resources. In addition, there are growing expectations from internal stakeholders. Every new crisis, such as the recent COVID-19 pandemic, every new stress test, and every newly requested analysis underlines the importance of a flexible and responsive risk monitoring function.

On the other hand, the CRO cannot escape the cost pressures that are affecting banks due to the persistence low interest rate environment and a highly competitive market. Even specific regulatory requirements can often no longer justify high ongoing costs, let alone an increase in staffing.

To balance these opposing movements, a determined and radical transformation of risk management is required. KPMG International conducted a global study with CROs from 76 banks in 19 countries. Using the results of the study, we derive four central propositions for the transformation of risk management.

# New requirements for the Chief Risk Officer

## Focus on sustainability risks

Sustainability or ESG (environmental, social, governance) risks have become the center of social and political debates. The banking supervisors are reacting and expect banks to take concrete measures to integrate ESG risks into their existing risk management framework. The KPMG International market survey shows that almost all major banks have started this process. However, only 72 percent and 27 percent medium-sized and small banks, respectively, have begun.

For banks, concrete action is needed at several levels:

### #1 Clear agenda to address ESG risks

A clear roadmap should be developed for the consideration of sustainability aspects throughout risk management. For example, new types of risk drivers, such as rising sea levels, incorporating biodiversity risk or global CO<sup>2</sup> prices, should be integrated into risk inventory processes. In addition, risk strategy and appetite should also be expanded. This may at first need to be qualitative, before reliable quantitative risk metrics emerge. For example, banks directly supervised by the European Central Bank (ECB) were required to submit these roadmaps to the ECB in May 2021 as part of a “maturity assessment”. Moreover, other supervisors have also set out their expectations (e.g., APRA, HKMA, PRA, NGFS), showing that is likely to be a focus of all institutions in the near future.

### #2 Further development of quantitative risk measurement

Existing risk quantification methods should be developed further and complemented by new techniques. Typical time horizons of the new risk drivers of 30 to 50 years as well as the strong influence of idiosyncratic factors of individual borrowers require, among other things, a completely new type of scenario analysis and stress testing — with significantly greater importance of risk management than before. Large banks have already begun with the first focused analyses. Initially, so-called “transitory” risk drivers are prioritized, caused by the transition to a lower-emission society and economy. Banks also focus on the introduction of new policies and regulations as well as the emergence of disruptive technologies or abrupt changes in market prices. Top-down analyses of the effects of a selected scenario on the credit risk profile of particularly important portfolios, for example in the corporate sector, are another initial focal point. Here, too, supervisors will likely test banks’ capabilities. In 2021, the HKMA and PRA started stress testing exercises. In 2022, the ECB Climate Stress Test will follow and further activities are emerging from all key supervisory institutions across the globe (e.g., Canada, Australia, United States, etc.).



## Proposition 1

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# Strategic decisions required now

**Reviewing the status quo and prioritizing investments is a key task for CROs**

The increase in risk management requirements for banks is not ending. The inherent complexity and scope of responsibilities will likely continue to grow. As a result, strategic decisions should be made now. (Figure 1, page 5).

Our market survey shows that, in addition to the integration of new risk factors, large banks are already increasing efficiency in the right areas by investing in IT, improved data management, and process optimization. However, only about 25 percent of the CROs surveyed consider cost reduction to be the goal of dedicated programs. However, if IT transformation programs together with data and process management are used to move valuable resources from simple, standardizable tasks to more demanding, new activities, there could be a potential benefit to the risk management cost base. Through targeted increases in efficiency in the areas mentioned, the expanded range of tasks can be mastered with the same — or even a reduced — team.

The current environment requires CROs to review the status quo and prioritize future investments (see text box on page 5).

## Actions needed by the CRO

### #1 Reviewing the status quo

Consolidating the status quo and setting specific targets for effectiveness and efficiency are essential elements of risk management transformation.

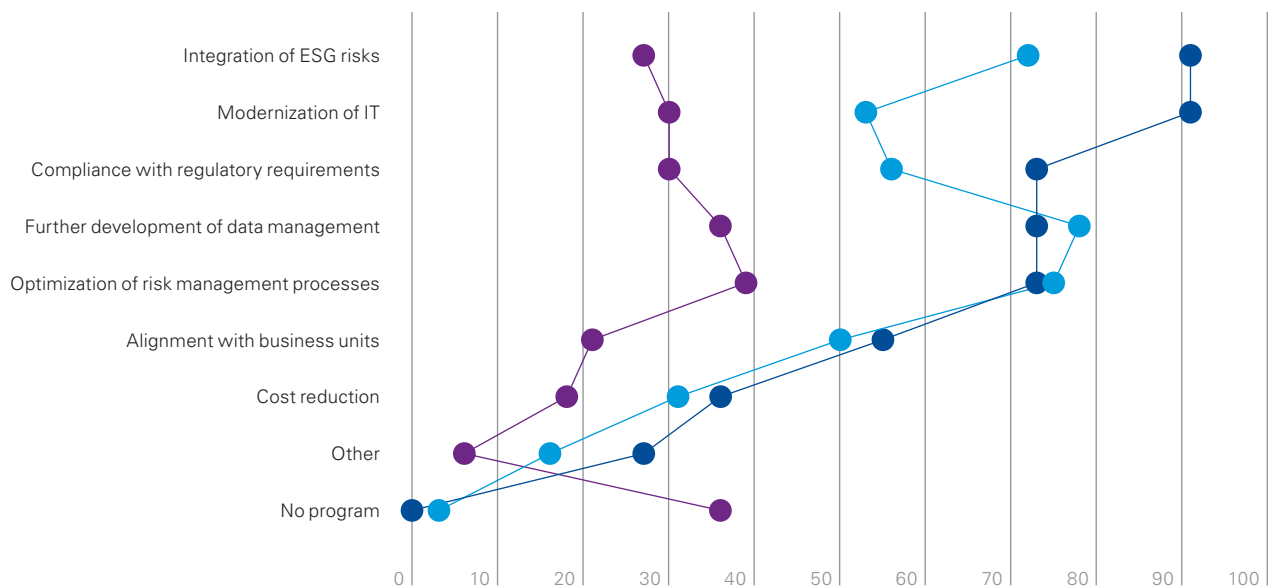
### #2 Prioritization of future investments

Investments should be clearly prioritized. Priority should be given to efficiency-enhancing investments that “create some breathing space”.

Figure 1

**Do you have a risk management transformation program that includes one or more of the following aspects?**

(Figures in percent, multiple answers possible)



- Big banks: Total assets greater than US\$250 billion
- Mid-sized banks: Total assets between US\$30 billion and US\$250 billion
- Small banks: Total assets less than US\$30 billion

KPMG International, Global CRO Transformation Survey (2021)



## Proposition 2

# Risk management taking account of the value chain

## Business-oriented risk control can increase value creation

The CROs of a number of large international banks clearly align risk management with the bank's value chain and thus contribute directly to their institution's success. In our KPMG study and in discussions with CROs, two areas for action are mentioned.

### Actions needed by the CRO

#### #1 Breaking down silos in the risk function

A risk management function organized by the main risk types often results in inefficient and ineffective cooperation between silos. The overarching needs of individual stakeholders — for example in stress testing across risk types — in the market areas or in business management, are addressed unsatisfactorily or late. A realignment along the value chain from data collection and modelling to analytical risk controlling can help here. At the same time, the systematic bundling of similar tasks in the individual risk types enables employees to be freed up for value adding tasks in risk control.

#### #2 Fine-tuning of the three lines of defense model

At several banks, a critical questioning of the distribution of roles and responsibilities between the three lines of defense has led to a strengthening of the collaboration model between first and second line and to a reduction of redundancies such as separate evaluation models. Some banks are introducing the function of a business-aligned risk controller to help improve collaboration between first and second lines.

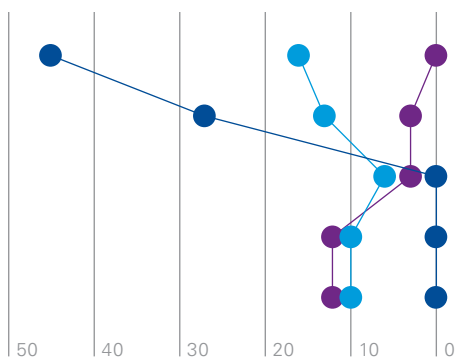
The survey shows, however, that despite the expected increase in the effectiveness of risk control, these considerations have not yet gained widespread acceptance. This is illustrated by the CROs' investment budgets. The investment budgets for meeting regulatory requirements continue to significantly exceed the investment budgets for harmonizing the risk function with the bank's business processes (Figure 2).

However, CROs can make progress. Examples in the market show that, by taking action in the above-mentioned areas, risk management can evolve from being a "nay-sayer" and compliance guardian to acting as a strategic discussion partner for the management team. Investments in the transformation of the organizational structure typically do not reach the proportion of the investment for regulatory compliance — even though it has at least the same relevance.

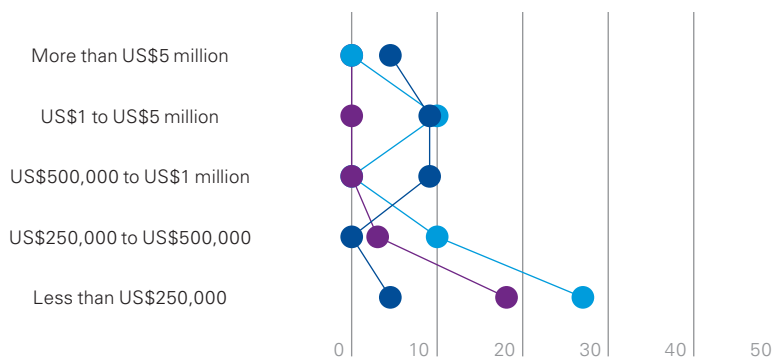
Figure 2

**How much money did you invest last year in improving regulatory compliance or in aligning the risk function with the business units?**  
 (Figures in percent, multiple answers possible)

Investments in improving regulatory compliance



Investments in aligning the risk function with the business units



- Big banks: Total assets greater than US\$250 billion
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# Technology trends to transform the risk management function

Greater effectiveness and efficiency through a modern IT architecture

Our survey shows that CROs at large banks have recognized that a flexible and scalable risk architecture is an essential part of a sustainable and competitive risk management function. Figure 3 (page 9) shows the main triggers of the IT transformations, some of which have been underway for years. Current technology trends address the identified weaknesses in different ways. The most important trends include the introduction of cloud solutions, the large-scale use of vendor systems in risk modelling, and the increased use of advanced analytics and machine learning in risk reporting (see text boxes on pages 8/9).

## Introductions of cloud solutions

### #1 Cloud solutions can increase scalability

Banks are shifting their risk infrastructure to the cloud. It is crucial that the mostly in-house developed applications are made cloud-compatible. This includes breaking down monolithic applications into individual services that can be freely accessed via programming interfaces (APIs) and are locked in containers, as well as continuously delivering new versions of these services (continuous delivery). Experience has shown this approach allows for high scalability and thus risk calculations which can be accelerated by a factor of up to 50. It also enables the use of the productive infrastructure for ad hoc analyses and stress tests with short release cycles.





## Vendor systems for risk modelling

### #2 Vendor models can reduce development effort

At medium-sized banks, there is a strong trend towards consolidated vendor solutions for which cloud capability is partially available, but not (yet) the focus. With a mixture of vendor and in-house software solutions, complex application landscapes can be streamlined, there can be a reduction in data multiplicity and the associated effort, and a minimization of development effort by adopting methods that have been tried and tested in the market. For example, it is foreseeable that the Financial Services Data Platform (FSDP) introduced with SAP HANA can and will drive a consolidation of the architectures for overall bank management, including risk controlling.

## Intelligent tools in risk reporting

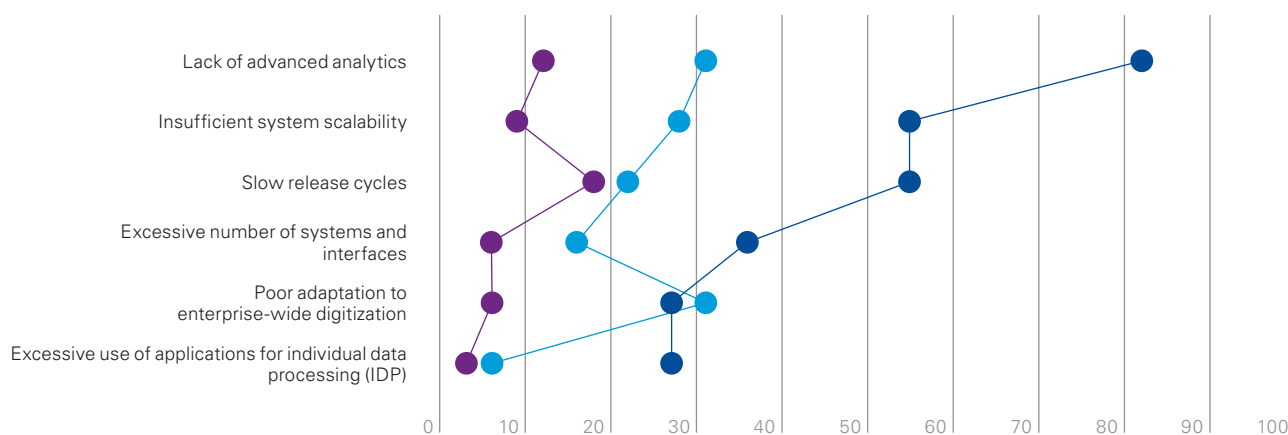
### #3 Data analytics and machine learning facilitate reporting

The analysis and reporting of risk data will likely be more flexible and supplemented by meaningful forecasts. In recent years, large institutions have had positive experiences with the introduction of data analytics tools, especially those with low entry barriers. Examples include the introduction of so-called data self-services, in which every employee is given easy access to freely selectable production data in order to carry out ad hoc analyses. Machine learning can be used to model and update relationships without parameters. In this way, simplified models of the bank as a whole are created. Finally, business intelligence solutions make risk reports clear, interactive and dynamic.

Figure 3

**When you think about modernizing your IT architecture, what concerns you most about the efficiency and effectiveness of your risk management?**

(Figures in percent, multiple answers possible)



- Big banks: Total assets greater than US\$250 billion
- Mid-sized banks: Total assets between US\$30 billion and US\$250 billion
- Small banks: Total assets less than US\$30 billion

KPMG International, Global CRO Transformation Survey (2021)

Proposition 4

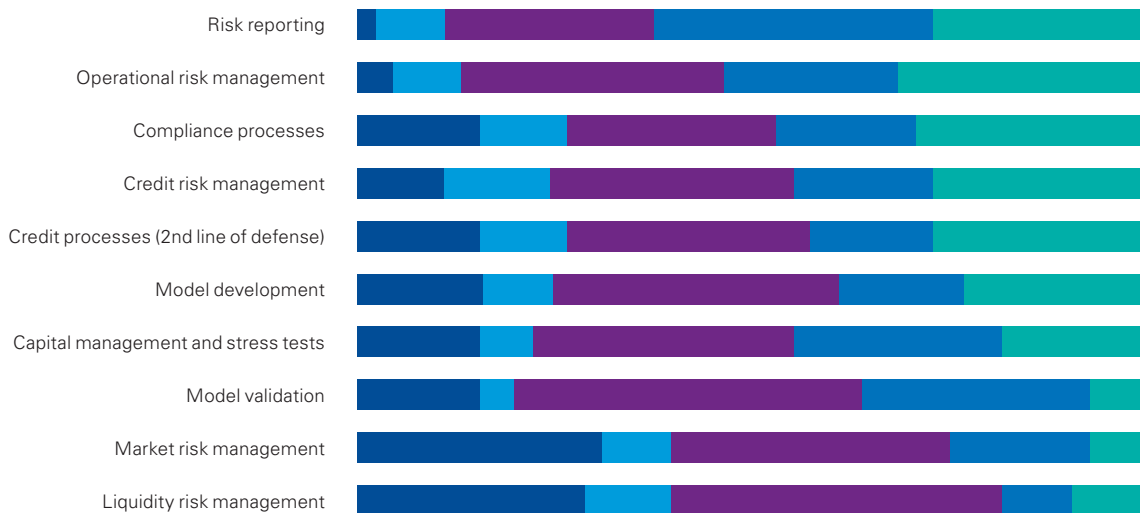
# Optimizing the risk processes creates capacity

## Stringent process management is not embedded in risk functions

In our survey, CROs frequently cite the challenge of a fragmented process landscape characterized by manual intervention. Our own client engagement experience clearly shows that in most cases, risk control functions do not have any stringent process management — in stark contrast to the banks’ customer-facing and trading processes, which are often already set up like “factories”. It is still very common to find a ‘responsibility set-up’, in which specialists for the respective risk types carry out the processes’ day-to-day operations — from data quality control to commenting on the reports — in a generalist manner while also being responsible for the further development of these processes.

Figure 4

**How important are the following processes in your optimization program?**  
(Figures in percent)



- Not the focus of the optimization strategy
- Low priority
- Medium priority
- High priority
- Core objective of the optimization strategy

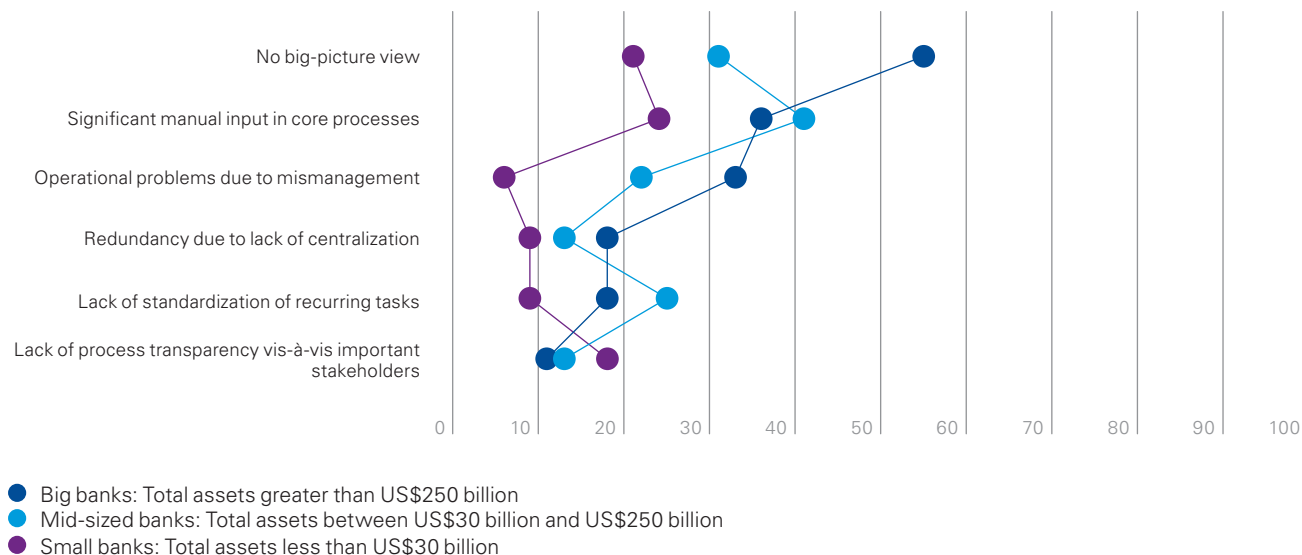
KPMG International, Global CRO Transformation Survey (2021)

Hand in hand with a transformed organizational structure and IT architecture, the optimization of risk processes can free up capacity for other value-adding activities. Figure 1 (page 5) shows that about 75 percent of the large and mid-size banks in our survey have already started such programs. The focus of these programs is mainly on: risk reporting, operational risk management as well as compliance and credit processes. (See text box on Page 12 for further detail on process optimization and process management)



Figure 5

**When you think about optimizing your risk processes, what concerns you most in terms of effectiveness and efficiency?**  
 (Figures in percent, multiple answers possible)



KPMG International, Global CRO Transformation Survey (2021)

A broad range of solutions are available on the market and supported by established methods.

It is increasingly important for CROs to become familiar with these solutions to form the foundation on which they can develop their own optimization and automation strategy.

## Solution areas

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### #1 Process management

- The starting points are a transparent process map, effective governance facilitating regular review and improvement of core processes, and the recognition that good processes are of great importance in the culture of the risk management function.
- Process mining often supports ongoing data-based monitoring and identification of process weaknesses. The procedure is particularly applicable for high-frequency processes (such as daily risk reporting).
- At the most developed stage, the workflow is fully automated: process control, data consolidation from different systems, automation of decisions and much more from one source.

### #2 Process optimization

- The starting point is the classic stocktaking and documentation of main and secondary processes as well as understanding the related capacity of resources. This enables the organization to identify where there are opportunities for standardization, automation, centralization, or outsourcing.
- Often, Robotic Process Automation (RPA) offers an entry point into process automation for simple and repetitive tasks. This is an inexpensive and quickly deployable option, but experience has shown that it tends to mask the actual problems.
- A higher degree of maturity can be achieved by connecting processes to workflow systems. This offers significantly higher potential for improvement than RPA. Moreover, the costs of adapting such solutions are manageable, especially if related systems are already established in other areas of the bank.

# Conclusion

The risk management function should take action to remain resilient, sustainable, and effective. CROs should act now, and with determination, to initiate and actively shape the radical transformation of their risk management function.

KPMG helps CROs around the world including clients from Europe, US and Asia on this journey and offers a service that can align to the challenges and opportunities banks face. Leverage our industry expertise, tools, and accelerators for managing the conflict between cost pressures and increasing regulatory requirements — from strategic status quo assessment and maturity analysis to program implementation. Contact us for an in depth discussion around

- Integrating and managing new emerging risks
- Establishing stringent process management
- Leveraging technology to help improve the risk architecture
- Establishing efficient and effective governance
- Striving to ensure functional excellence.

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