



Transforming Risk Environment, Increasing Uncertainty

**Risk Management Trends in Financial Sectors
from the Perspective of Chief Risk Officers**

CRO Survey 2019 –
Banks, Insurers, Investment Fund Managers

November 2019

kpmg.hu







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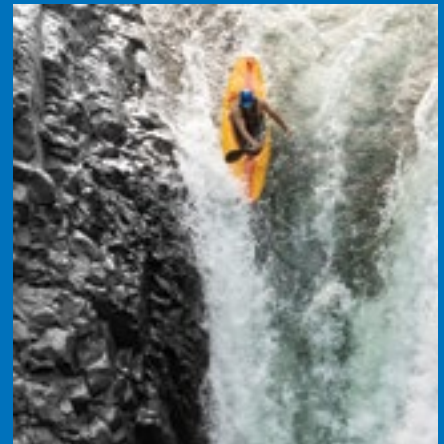
Contents

| | |
|-------------------|---|
| EXECUTIVE SUMMARY | 6 |
| KEY FINDINGS | 8 |
| ABOUT THE SURVEY | 9 |



| | |
|--|----|
| WHAT MAKES A CRO SUCCESSFUL? WHAT DOES SUCCESS ACTUALLY MEAN? | 20 |
|--|----|

| | |
|--|----|
| 1. Numbers and Empowerment | 22 |
| 2. Value Creation: Measurement, Analysis, Culture – and Speed? | 24 |
| 3. Labor Shortage, IT and Data Quality Issues | 28 |



| | |
|---|----|
| HOW IS THE ROLE AND INFLUENCE OF CROS CHANGING? | 10 |
|---|----|

| | |
|--|----|
| 1. Expanding Duties | 12 |
| 2. Strategic Embeddedness Has Strengthened | 13 |
| 3. Influence Continues to Grow Dynamically | 16 |



| | |
|--|----|
| WHAT ARE THE DEVELOPMENT GOALS OF CROS AND WHAT ARE THEIR PLANNING FRAMEWORKS? | 32 |
|--|----|

| | |
|---|----|
| 1. System Development vs Organization Development | 34 |
| 2. Focus on Strengthening the Competencies and the Data Quality | 36 |
| 3. Increasing Development Resources, Divergent Tendencies | 36 |

IV.

WHERE ARE THE MARKET AND REGULATORY ENVIRONMENT HEADING? 40

| | |
|---|----|
| 1. Increasing Rigor, Focus on Consumer Protection | 42 |
| 2. Diversity in the Evaluation of Product Strategies | 46 |
| 3. A Changing World – Transforming Risk Environment, Increasing Uncertainty | 48 |



INTERVIEWS

| | |
|---|----|
| Christian Kastens Member of the Board, CRO Commerzbank Co. Ltd. | 18 |
| Judit Kovács Chief Risk Officer and Actuary NN Insurance Co. Ltd. | 30 |
| Péter Schusztér CEO Axiom Investment Fund Management Co. Ltd. | 38 |
| Zsolt Zombor Chief Risk Officer Generali Insurance Co. Ltd. | 50 |
| Krisztina Zsiga Chief Risk Officer, Deputy CEO Erste Bank Hungary Co. Ltd. | 60 |



V.

HOW DO INNOVATION AND RISK MANAGEMENT INFLUENCE EACH OTHER? 52

| | |
|--|----|
| 1. Improving Customer Experience is a Strategic Goal | 54 |
| 2. Changing Trends in Development Methods | 56 |
| 3. Risks of Innovation | 57 |
| 4. Automation and Data Analysis | 58 |



Executive Summary

This year, we conducted a survey of risk management executives active in the domestic financial sector and performed the related analysis for the third time. Reading again our 2012 and 2016 publications, we can reaffirm that the risk environment is rapidly changing and the occurring challenges are extremely complex. According to our first publication from 2012, the energy of the CROs at that time was mostly absorbed by the recovery efforts/rehabilitation in wake of the financial crisis. In the context of strengthening economic growth in 2016, CROs were already primarily concerned with finding the most reasonable, optimal way to expand business and create value. Today's economic environment is still in a growth phase, but there are widespread concerns about how long it can be sustained in current form. In the meantime, business is becoming more and more agile and everything is speeding up, while it is increasingly difficult to allocate appropriate resources to each priority.

The international economic cycle has been rising for 10 years now, and although Hungary followed more like a W-shaped path since the outbreak of the financial crisis (there was a second, albeit less steep, local low in 2012), this positive cycle can already be considered relatively long based on the economic history data. However, there are warning signs: the growth of the German economy has fallen to near zero in the past quarter, the European Commission has significantly lowered the forecast for Hungary's next year economic growth to 2.8%, and we can also see that the reaction of market actors to the liquidity-absorbing steps taken by the Fed and the ECB is much more sensitive than expected. Are the clouds gathering? And if they are, where is the storm expected to come from? The answers are unclear.

Based on the responses to the questionnaire, risk management executives do not anticipate a radical worsening of the situation in the area of traditional financial risks. As a matter of fact, credit risk, market risk, and country risk have decreased in the past years. Nevertheless, they expect a slight increase in the coming years, but they do not anticipate the same degree of turbulence in these areas as in 2008-2009. Nor can we say that financial service providers have become overly optimistic as a result of years of economic growth and record profits and that the fading of memories would have caused them to turn their back on control mechanisms. According to the survey, respondents continue to experience the same significance or even further strengthening of the CRO function, and they expect this trend to sustain. Currently, 86% of the CROs are members of the board or report directly to the CEO. The sectors continue to be kept under a very strong regulatory/supervisory control and rigor; a positive aspect from the view of defense lines. Why can some sort of uncertainty be experienced then and

where will the problems arise? Of course, it would be very difficult to predict what risk event(s) will trigger a potential next crisis, but it can be stated that the risk environment is undergoing an essential transformation. More caution is needed in the future in the case of traditional risk types as well, however, the feedbacks suggest a growing significance of risk types that CROs have been less concerned with so far, or that are even completely new. According to the risk executives, the level of cyber risk has increased substantially and is expected to continue this trend (it will increase significantly in the next 2 years according to nearly 90% of respondents). This reinforces one of the findings of our international CEO survey this year. The same applies to the area of other risks of innovation, related operational risks, and the risk of financial crime. In addition, the exposure of the financial sectors is increasing for example to risks related to climate change, on the one hand in terms of insurance, credit and reputational risks, on the other hand in order to meet the regulators' increasing expectations. On top of all this, the effects of risks may add up much more in the future, and the cumulative losses may even be significantly greater.

Risk control has a strong position from an organizational and regulatory perspective, but how efficiently can it perform its activity in an increasingly agile business environment? According to our international CEO survey, 67% of CEOs think that "agility is the new currency of the business; if we are too slow, we will go bankrupt", domestic CROs do not attribute a relatively significant value to speed based on the responses received. Sufficient time is required for making good decisions, the question is whether it will be available or not. We initiated a lot of contacts and meetings when preparing this publication, and one of our personal experiences was that maybe it's never been so difficult to make an appointment. Risk management executives are extremely busy. There are plenty of tasks, in which regulatory/supervisory expectations and the perhaps unjustified sophistication of risk management systems play a role. It is a great challenge to give proper attention to performing and interpreting the necessary analyses in order to comply with the regulations. Meanwhile, several executives are already referring to the HR risk as a new type of risk, i.e. the risk arising from the difficulty of recruiting and retaining people with the right skills and expertise.

This publication aims to support the work of risk management executives and experts and to provide useful and up-to-date information to anyone interested in the major trends affecting the financial sectors or the trends influencing the financial risks in a broader sense. Our goal was, besides providing an accurate assessment of the current situation, to inspire finding the right directions leading to solutions and to share some related ideas.

Highlighting some of these ideas, CROs in the organization of some financial service providers already oversee organizational units dealing with risk types that were previously not allocated to them. Other institutions may also consider this trend. Agility is already an important organizational principle for some players, including the risk management function, ensuring, for example, their involvement in the development of an approval process at an early stage. As an alternative to traditional organizational structures, some institutions carry out risk analyses in cross-functional teams, which enables more attention paid, among other things, to the accumulation of risks. Quicker assessment is a general requirement that causes inevitable development needs in risk areas as well. However, this doesn't necessarily compromise the risk management considerations, we just need to know in case of which customers and which products it is allowed and how. This requires tools, a very good segmentation, automation, and clear risk appetite that is well understood by the organization. It has been said in our discussions that although the risks

surrounding us may be increasing, the tools available to us are also evolving; thus, the resulting total risk exposure may even be more favorable than at present. We find it very valuable that executives gave us brief statements on the added value of risk management areas. This can be both an ability to use the data in a progressive and smarter way, on the other hand, the representation of traditionally important common sense and analytical decision-making.

Our analysis covers many other topics in addition to the above. For example, it is visible how CROs perceived a shift in regulatory focus from capital requirements to consumer protection over the past 7 years, and how the views on the risk environment with regards to products/services varies by company size. We devoted a separate chapter to the relationship between innovation and risk management, further breaking down, for example, the perception of some risks associated with innovation and demonstrating that the risk managers' attitude towards working with xxTech companies is not yet established.



We thank all participants and interviewees for their valuable contribution to this publication. We hope our readers find relevant and useful information in here.



Ágnes Rakó

Partner



Péter Szalai

Director



Gergő Wieder

Manager

Key Findings

I. How is the role and influence of CROs changing?

- **Eighty-six percent of the CROs are members of the board or report directly to the CEO.**
- The areas supervised by CROs is expanding, including e.g. Compliance and IT Security.
- Since 2016, **CROs have been more actively involved** in strategy making and product development.
- **Nearly 80% of the insurers experienced a positive change** in access to information. The lack of recognition, a major barrier in the past, has fallen from nearly 70% to below 25% in the sector.

II. What makes a CRO successful? What does success actually mean?

- According to **bank executives**, the **success** of CROs can be best demonstrated by the change in **impairment and provisioning** and by the involvement in **strategic decision-making**.
- The least good indicator of success is the change in capital requirement.
- **Areas of value creation:** risk-aware organizational culture, decisions based on measurement and analysis, pricing and hedging of risks. Quick assessment appears to a lesser extent as a value for CROs.
- The most typical **obstacles** are lack of resources, IT issues and poor data quality. IT and data quality issues were highlighted by 100% of respondents in the fund management sector.

III. What are the development goals of CROs and what are their planning frameworks?

- **Banks and investment fund managers would primarily improve the risk management systems and the data quality.**
- While 100% of bank respondents would approach development by making technology investments, this

is only 40% for insurers. The latter rather focus on developing the risk culture and the expertise.

- **The expectations of bank CROs regarding development budgets have shown a positive trend since 2012.** Insurers are allocating their resources from Solvency II developments to other areas, including IFRS17.

IV. Where are the market and regulatory environment heading?

- **Country and credit risk decreased**, while market, insurance and liquidity risks did not change significantly.
- In the medium term, traditional exposures may increase, but the focus may shift to **cyber risk, operational risks of innovation, financial crime**, and other new and emerging risks.
- Regulations have become stricter in all areas. The focus moved to **consumer and investor protection**, where 100% of investment fund managers perceive significantly more restrictions.

V. How do innovation and risk management influence each other?

- **The enhancement of the customer experience would be supported by 95% of the CROs**, although its effect is questionable in terms of the risk awareness of banking customers.
- **The development strategy is a divisive area:** in-house development and partnership have received the most support compared to renting and buying, but this approach has many opponents as well.
- **The threat is increasing along with innovation**, especially in the areas of IT security, data protection, and counterparty risks. Accelerated business is another risk factor.
- **Automation is a clear priority (95%)** for the development of risk management areas as well, but support for data analysis and innovative sales are also in focus.

About the Survey

Within the framework of the KPMG CRO Club, we surveyed the opinion of CROs at banks and insurers on the situation of risk management executives in Hungary and market trends in 2012 and 2016, and we conducted it again this year, in 2019, having the investment fund managers as new participants. The questions raised fall into five major clusters:

- the role of the CRO on an institutional level;
- the general role of the CRO on a sectoral level;
- available resources and skills;
- general market trends; and
- innovation and risk management.

We received responses from 37 CROs as part of the survey. Contributors include banks (17), insurers (13), and investment fund managers (7). Respondents include small (10), medium (12), and large (15) institutions alike; the questionnaires have been completed in 2019.

The research has been done anonymously.

As a new element compared to previous research, we conducted interviews with several CROs this year.

We have compared the results of some of our questions with the results of the CRO opinion survey of banks and insurers conducted by KPMG Advisory Ltd. in 2012 and 2016. We have also performed comparisons between sectors and by company size.

In case of inquiries, our colleagues are at the disposal of stakeholders in these sectors for further personal presentation, joint verbal evaluation, and analysis of the results. The following colleagues from KPMG participated in the survey and in the evaluation of the responses: Márton Berta, Fanni Firon, Boglárka Korom, László Mucsi, Dániel Muth, Zsolt Nagy, Dániel Nyári, Gergő Radóczy, Ágnes Rakó, Johanna Steiner, Gergely Szabolcs, Péter Szalai, and Gergő Wieder.

I.

How Is the Role and Influence of CROs Changing?

| | |
|---|----|
| 1. Expanding Duties | 12 |
| 2. Strategic Embeddedness Has Strengthened | 13 |
| 3. Influence Continues to Grow Dynamically | 16 |







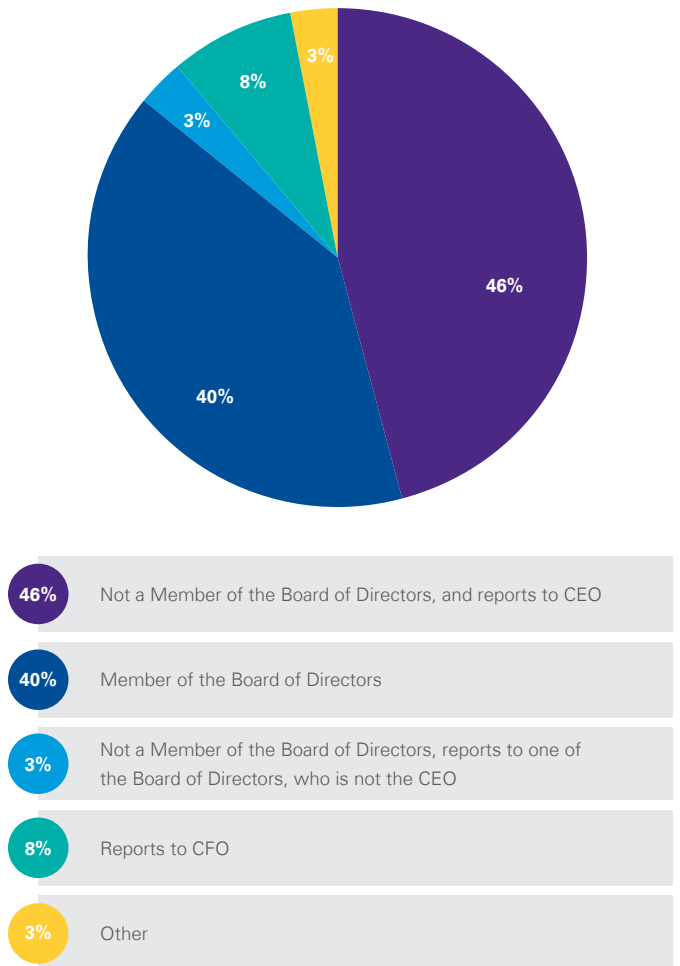
How Is the Role and Influence of CROs Changing?

1. Expanding Duties

The survey responses clearly reflect the strategic importance of the risk management function within organizations. Eighty-six percent of the CROs are members of the board or report directly to the CEO.

In the case of banks, 65% of the officers sit on the board of directors, compared with 15% and 29% for insurers and fund managers, respectively. This may be due to the earlier development of the formal banking CRO function compared to other sectors and the specifics of banking operations (in the case of insurers, the actuarial area is fundamentally a separate function from the risk management area, whereas in the case of investment fund managers, most of the risk is in the funds/portfolios they manage).

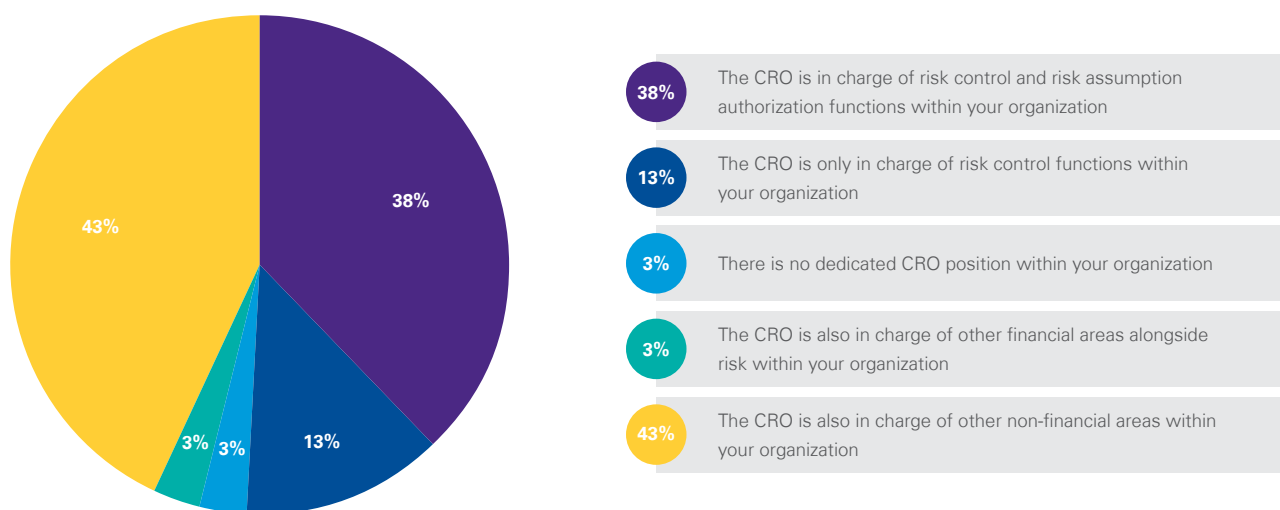
Figure 1. Aggregate – The CRO in your organizational unit...



Compared to the 2016 data, there is a sharp decline (84% in 2016 vs. 44% in 2019) in the number of institutions where the CRO oversees (only) the risk control and risk underwriting functions. However, this is not about a decrease in importance of the independent risk management function, on the contrary, **we can see a portfolio expansion with the introduction of the supervision of new areas.** This observation is also supported by the answers to the following questions and is currently typical in the banking sector.

The area of responsibilities frequently includes Compliance and IT Security. Having these functions supervised by CROs is a highly reasonable development, since the threat related to financial crime prevention (traditionally coordinated by the Compliance areas) and cyber risk (handled by the IT Security areas) is growing dramatically (see also questions under IV.3).

Figure 2. Aggregate – The role of CROs in the organization



2. Strategic Embeddedness Has Strengthened

Indicators showing the organizational development are aligned with the increased influence of the CRO role and of the risk management area in general. The most noticeable example of this is the more active involvement in product development decisions and strategy formulation.

In our opinion, access to information is an excellent indicator of the degree of embeddedness, as it can show how well a given function fits into the organization's decision structure. All examined segments showed significant improvement in this area, except for small organizations, where according to respondents, the influence of CROs has not changed substantially in the last two years. However, we would like to call your attention to an interesting observation that although **nearly 80% of domestic insurers experienced a positive change in access to information, CROs' perceptions have not changed since the last survey: the decisive factors that are the biggest obstacles to successful work are the internal organizational communication problems and the lack of information** (see question II.3).

There is a significant difference in the case of investment fund managers compared to the banking and insurance sectors. Influence on capital allocation and pricing of new products lags behind the other two mentioned sectors, by contrast, CROs at fund managers play a more prominent role in evaluating the performance of the business lines. This may be due to the fact that capital calculation is a much less prominent issue for fund managers compared to the other two sectors. However, business lines – mostly different funds, portfolios – are much easier to compare in terms of risk, since market-based risks (and returns), which account for the majority of risks of funds and portfolios, can be well quantified even on a daily basis.

Figure 3. Large company – How did the degree of influence of the CRO change over the past 2 years in your institution in the following areas? (scale of 1 to 5, from "significantly increased" to "significantly decreased")

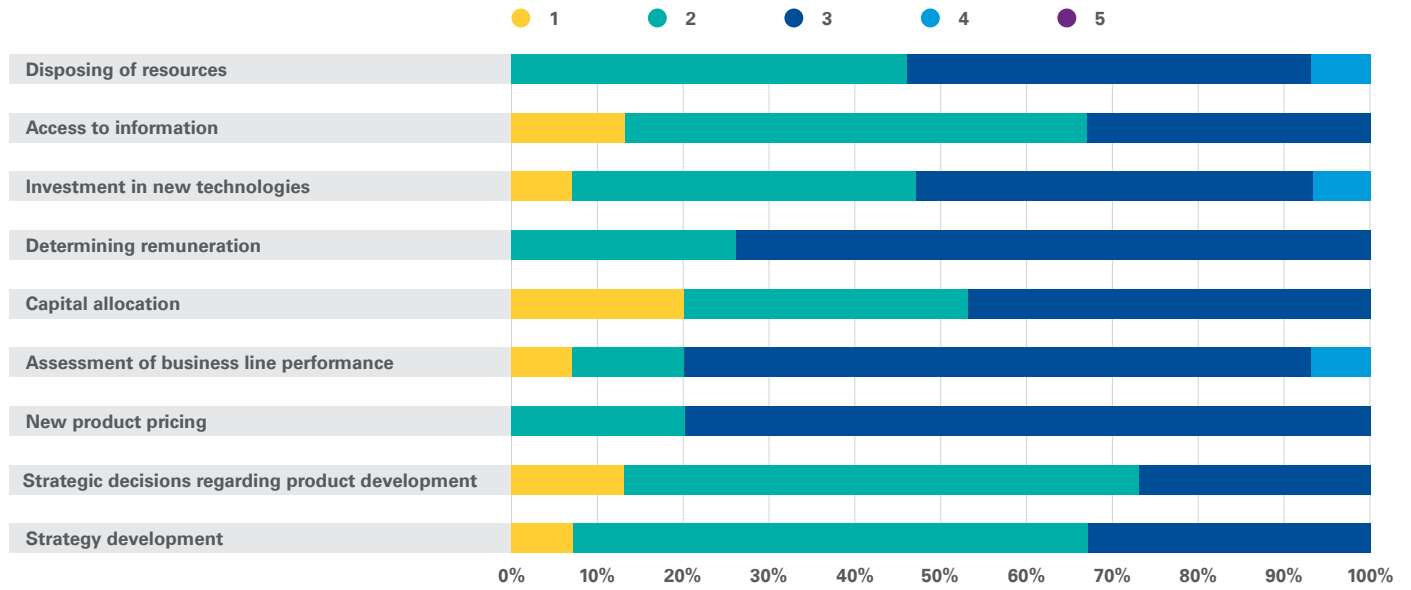
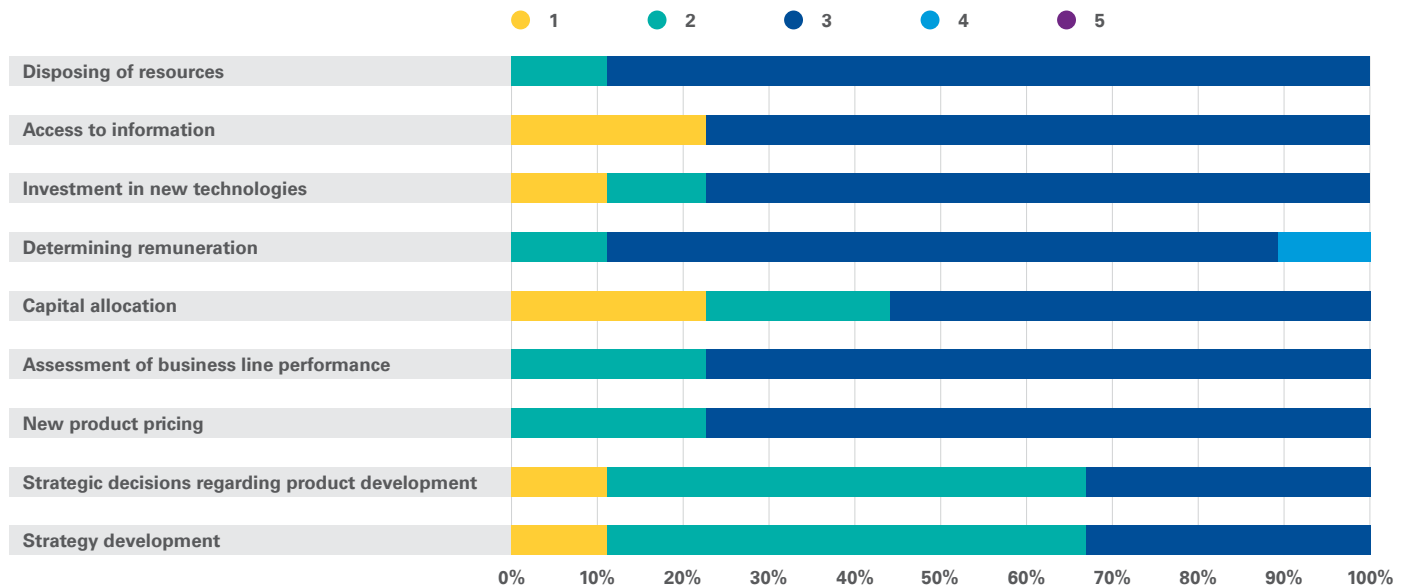


Figure 4. Small company – How did the degree of influence of the CRO change over the past 2 years in your institution in the following areas? (scale of 1 to 5, from "significantly increased" to "significantly decreased")



Compared to the 2016 results, the current survey shows a more balanced picture in terms of change regarding the influence of CROs (this is even more true compared to the 2012 survey). Our research three years ago showed a greater dispersion across sectoral and size categories. The background of these trends could be that the formal CRO

function has evolved faster in the banking sector, it has already strengthened as a result of the economic crisis and the regulatory environment, but insurers have been catching up, especially in recent years.



3. Influence Continues to Grow Dynamically

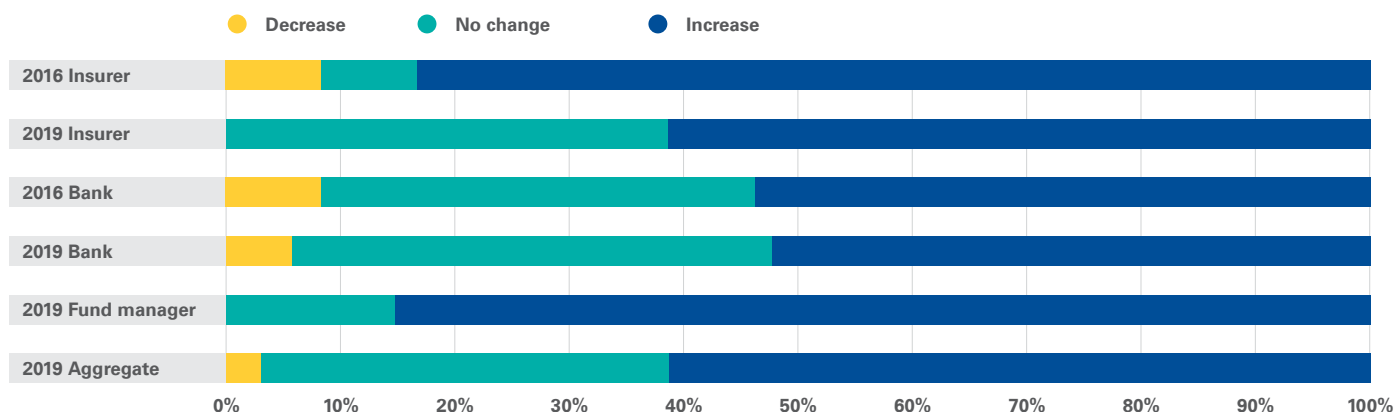
Overall, CROs have a positive view of the future evolution of the significance of their function, they anticipate a further increase in their influence and decision-making authority. This assumption fits well with the increased regulatory requirements. Since the 2012 survey, when 95% of respondents indicated growth, the CROs of financial institutions have been giving similar answers to this question, although there are differences on a sectoral basis.

50% of the CROs at banks, 62% at the insurers, and 86% at the fund managers expect an increase in the importance of their role over the next 2 years. The difference may be explained by the fact that bank CROs have played an important role for a long time now, thus it is less feasible for banks to further increase the influence of CROs. As the CRO of a large bank put it, "the role has already peaked in the last 4 to 5 years" or, as the CRO of a mid-size bank has pointed to a similar phenomenon, "in the last few years, the CRO has already been a full member of the board." In 2016, 84% of the domestic insurers expected a future increase in organizational significance; it is noticeable that this year

it is still strongly emphasized, but only 62% expect it. This leads to the conclusion that the function has undergone important changes and has entered a more mature stage in the organization.

The lack of recognition, one of the major barriers, has fallen from nearly 70% to below 25% in the insurance sector in the last 3 years (see question II.3).

Figure 5. – Significance, influence and decision-making authority of the CRO role in organizations in the next 2 years







Risk culture and trends from the perspective of a foreign CRO.

Christian Kastens

Member of the Board, CRO, Commerzbank Co. Ltd.

The Hungarian and German risk cultures are similar, but there is an important difference because of the different market conditions. In Hungary the lending market is more focusing on the secured exposures, says Christian Kastens, CRO at Commerzbank Hungary. According to Christian, a subsidiary bank can make good use of the synergies with the parent bank's risk management, but it can and must take into account local characteristics as well.

KPMG: You came from Germany. Are there any differences between Hungary and Germany in respect of the risk culture?

Christian Kastens: I do not see big differences between Hungary and Germany in that regard, we have almost the same risk culture as at Commerzbank AG. Our main risk at Commerzbank Hungary is credit risk. The basis for our credit risk assessment is always the understanding of the client's business model. To create a complete understanding, the risk analysts speak with the management and/or the owner, this is especially important at the SME segment. I was happy to observe that trust plays an important role within the Hungarian lending structure. Compared to Germany I think it is even more important in the risk analysis process.

KPMG: If we are talking about risk management, are there any differences in respect of risk management approaches & practices?

Christian Kastens: We have a similar risk management approach in Hungary as Commerzbank AG in Germany. But there is one important difference resulting from the market circumstances. The Hungarian lending business has a strong focus on collateralized financing to mitigate the loss in a default situation. Therefore, in Germany I experienced a higher focus on analyzing the sustainability of the business model and the cash-flow strength. Another aspect is that in Hungary information are easier to access compared to Germany due to many public sources. This does not lead to any other risk approach in Hungary but I see a little advantage that we can follow the performance of the company even more quickly. Putting all this together, our risk appetite in Hungary does not differ from that in Germany but the structural particularities mitigate our risk a little more compared to Germany.

KPMG: What do you think about the future of risk management in 5 years period?

Christian Kastens: From my perspective the scope of risk types will widen, and it is already happening: geopolitical risk, cyber risk, environmental risk and outsourcing risk are only a few examples. I would like to highlight, that cyber risk does not only have the potential, but it is already one of the most relevant risk types within a banking organization. Besides that, digitalization, artificial intelligence and machine learning will also have a big influence on the risk management

world. I expect that these innovations will make the credit risk evaluation process more smooth and efficient, but the decision making – including the understanding of the business model – will be done by humans for a long time. Trust can hardly be assessed by automated models, at least by now.

Besides this I also expect a more modular risk management world. Risk managers will need the help of external parties more and more. As a result, there will be a clear understanding on who is the best party to manage that risk.

KPMG: Do you think that the risk management will be more centralized in a multinational bank?

Christian Kastens: We have to differentiate between risk types. In case of market and liquidity risk I think it is a good approach to have a centralized methodology as we have within Commerzbank group. In case of credit risk it is a different story. I am convinced that being in the country where we are doing the business is very valuable. This is especially important with respect to the financing of the SME segment, where the communication, the trust and the knowledge of the local market are essential. Commerzbank operates this way in Central and Eastern Europe and Switzerland. As part of the new strategy called Commerzbank 5.0 this set up will be rolled out in Western European locations too.

KPMG: How can the subsidiaries utilize the synergy in a global credit institution in terms of risk management?

Christian Kastens: As mentioned before, we are integrated into the market and liquidity risk processes of our group. We can concentrate locally on the specialties of the market and add value with the experience of our team here. As an example, we are monitoring if any changes of the central risk models are needed because of Hungarian specialties. In case of credit risk, we have access to our sector teams in Germany and to the analysts of our other subsidiaries besides our own expertise and experience. I am convinced that this mix leads us to high quality credit decisions.

KPMG: How can a CRO support the stable operation of a Bank?

Christian Kastens: Developing a good risk culture between the sales office and the credit risk team is the key for me. Only if the first and second line work together cooperatively and debate all available information openly we will improve the quality of our individual credit decisions and our portfolio.

Making the decision processes more efficient has been one of the prioritized topics over the last years and it will remain an important topic supported by digitalization. But in a situation when we are seeing first strong signs of an economic slowdown it is also essential to have good people who make good risk assessments. So from my perspective a stable resource situation should be in the focus of the CRO as well.

KPMG: What do you think about environmental risk?

Christian Kastens: From my point of view the climate change risk needs to be separated into three different subtypes. Firstly, it is our own responsibility to make a positive contribution to our environment. During the last few years, we have managed to significantly cut carbon-dioxide emissions. To be carbon neutral the remaining greenhouse-gas emissions are being compensated through the purchase and retirement of high-quality CO2 certificates.

Secondly, within our credit decision process we pay great attention to reputational risk. The situation is neither black nor white, but we take seriously what the company does for sustainability. We have clients in the energy sector and we are in a close dialogue how they take the necessary steps to slow down climate change or offset the damage to their own operations. Of course, also the ratio of the polluting activities is considered. Besides the sector-specific requirements we also check cross-sectoral requirements like human rights and the situation of indigenous people.

Last but not least, we have to analyze how climate change will influence the business models and creditworthiness of our clients, just think about the trends in the energy and the automotive sector. Generally speaking, we strive for long-term business relationships, therefore it is important for us whether the customer's business model can stand the test of time as technology advances and can be sustainable if the social expectations change.



II.

What Makes a CRO Successful? What Does Success Actually Mean?

| | |
|---|-----------|
| 1. Numbers and Empowerment | 22 |
| 2. Value Creation: Measurement, Analysis, Culture – and Speed? | 24 |
| 3. Labor Shortage, IT and Data Quality Issues | 28 |







What Makes a CRO Successful? What Does Success Actually Mean?

1. Numbers and Empowerment

After reviewing the indicators that are best suited (according to CROs, based on the full sample) to measure the effectiveness of their work, **they again found the level of involvement in strategic decision-making to be the most appropriate (similarly to the 2016 survey), four-fifths of the respondents considered this characteristic to be important or very important.**

In addition to the above, there are visible differences on a sectoral level, which are properly reflecting the differences in the scope of the CRO function.

- Bank's performance indicators show a balanced picture, i.e. in the opinion of bank CROs, several indicators may be appropriate to measure the success of CROs. Two indicators were highlighted as the most suitable measure of the success of CROs: one is the change in impairment and provisioning, the other is the involvement in strategic decision-making.
- In comparison, the situation is different for insurers, the assessment of individual indicators is much more varied; but it can be said that involvement in strategic decision-making stands out very significantly from the other

indicators. Based on the answers – in line with previous years – the change in impairment and provisioning is not an appropriate indicator for insurers, which is understandable given its less relevance for insurers due to the different operation of insurers.

- In the case of fund managers, involvement in strategic decision-making and risk-adjusted performance metrics have reached extremely high values, which properly reflects the sector's operational characteristics. CROs are basically able to prevent risks by reviewing investment policies and strategies, on the other hand, in the case of investment funds and portfolios, performance and risks are typically well quantifiable, so both can be good indicators for measuring success.

There are generally no significant differences relative to organizational size, although there are substantial differences in some responses. Responses of mid-size organizations differ significantly from those of other respondents on several indicators, **in their case risk-adjusted performance metrics have been selected with an overwhelming majority as the most suitable indicator for measuring success.**

Figure 6. – How well can the success of a CRO be measured using the following indicators?
(scale of 1 to 5, from "very important indicator" to "not applicable at all")

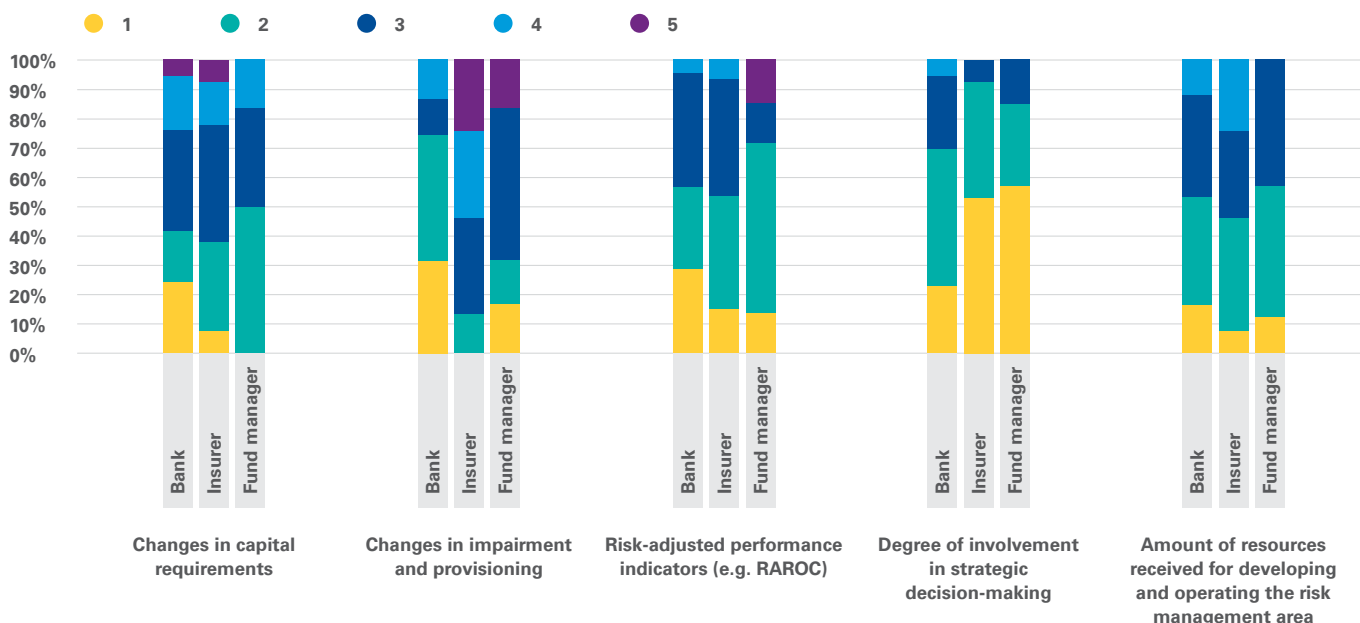
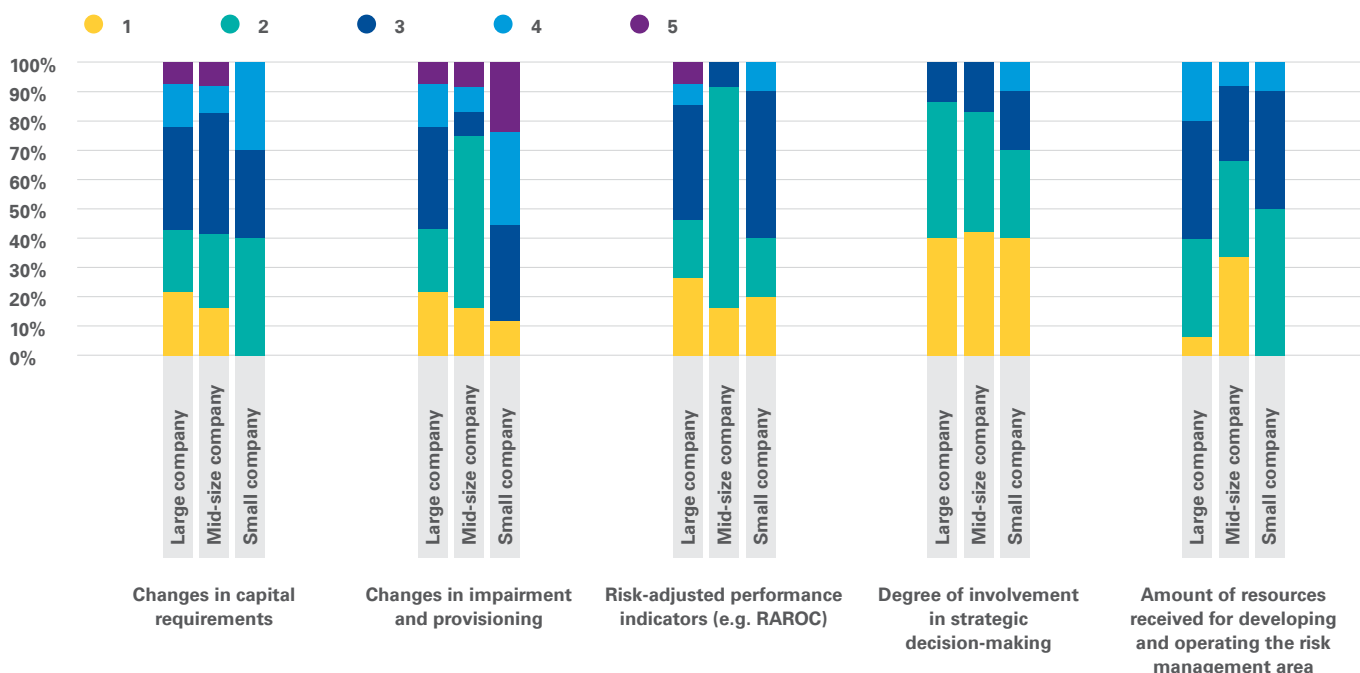


Figure 7. – How well can the success of a CRO be measured using the following indicators?
(scale of 1 to 5, from "very important indicator" to "not applicable at all")



As an overall observation, according to the responses, the least good indicator of the success of CROs is the change in capital requirements; this is thought-provoking, as one of the key objectives of both Basel II and Solvency II was that capital requirements should reflect the extent of risk assumed as much as possible.

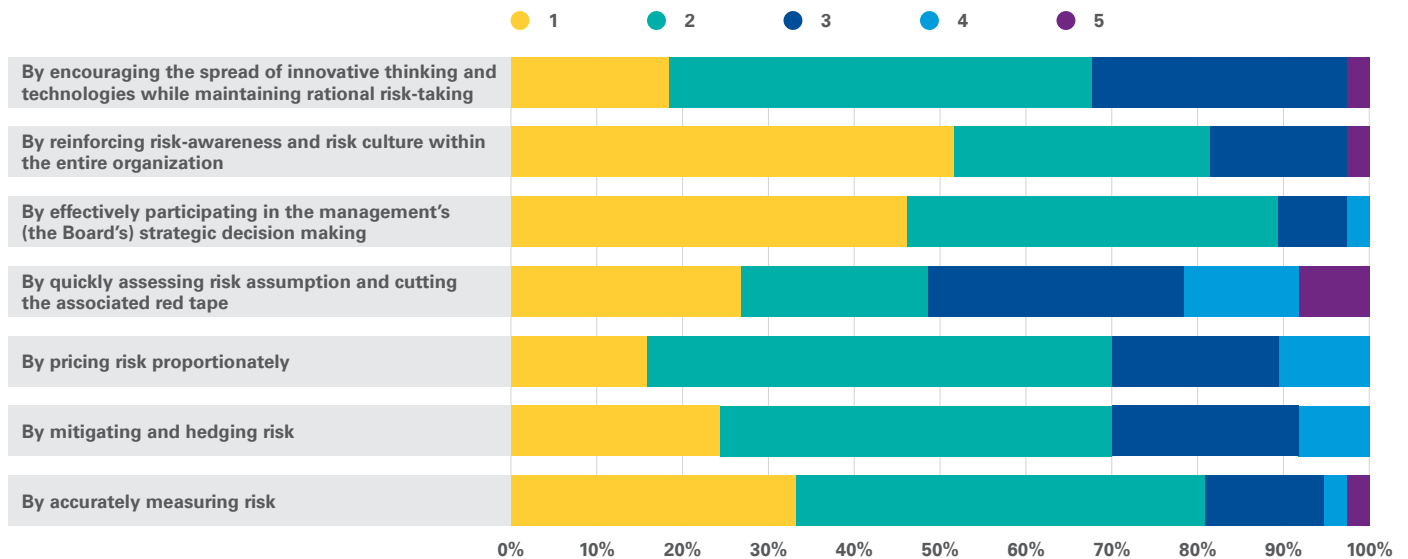
In the case of insurers, this may be explained by the fact that capital calculation is basically handled by the actuarial area and (in the domestic market) the calculation is typically

based on a standard formula, which leaves little room for maneuver. In the banking sector, several CROs claim that the established capital requirement is so heavily dependent on the supervisory opinion and the applied methods (and their changes) for calculation that its employment to measure success is questionable. While the capital requirement is obviously dependent on the institution's business strategy, it would be advisable to make progress so that CROs may think that there is a closer link between the changes in capital requirement and the effectiveness of their work.



2. Value Creation: Measurement, Analysis, Culture – and Speed?

Figure 8. Aggregate – What is the best form of value creation by the risk function in terms of the institution’s long-term successful operation in the upcoming two years? (scale of 1 to 5, from “most” to “least”)



We also asked CROs which of their activities can best contribute to their organization’s successful business operations in the coming period. In the survey, the respondents rated the individual value-creating categories relatively uniformly, except for one category. The exception is the quick assessment of risk assumption and cutting the associated red tape, all other options are value-creating according to 70% of the respondents. Compared to the 2016 results, **strengthening a risk-aware organizational culture, supporting management’s strategic decisions, and the accurate measurement, pricing, and hedging of risks continue to be considered the key value-creating functions of risk management areas.**

to 30% by 2019. The reason for this rating may be that CROs have less influence on these processes; speeding up the risk assessment is in most cases not a priority of the risk management area, it rather comes from the business; with regards to administration, CROs are in many cases bound by the administrative requirements prescribed by law.

From the perspective of the institution’s effective operations, all of the activities listed above are of high relevance and constitutes potential added value by the investment fund managers’ CROs, except the quick assessment of risk assumption.

Bank CROs assessed each category relatively similarly in their responses, showing a consistent picture.

A significant decrease can be observed in the insurance sector in the importance of the quick assessment of risk assumption and cutting the associated red tape. This is the category where CROs create the least value according to their responses, but the change over time of this significantly outlying data is also noticeable. In 2016 55% of insurer CROs considered it of essential importance, this value has shrunk

Figure 9. Bank – What is the best form of value creation by the risk function in terms of the institution’s long-term successful operation in the upcoming two years? (scale of 1 to 5, from “most” to “least”)

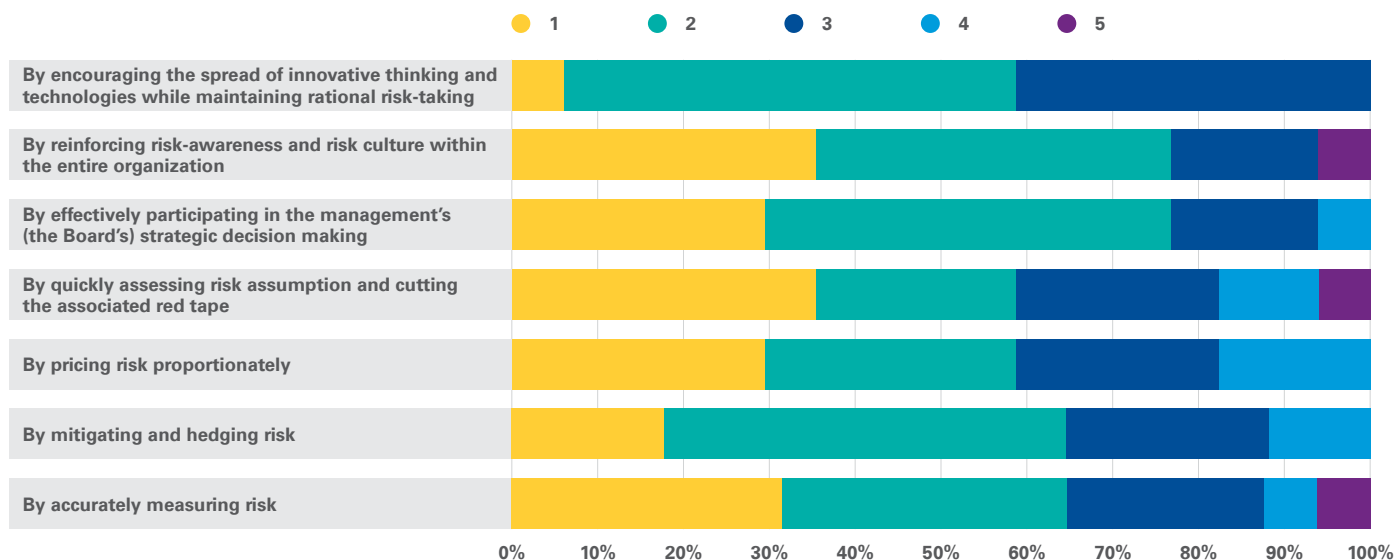


Figure 10. Insurer – What is the best form of value creation by the risk function in terms of the institution’s long-term successful operation in the upcoming two years? (scale of 1 to 5, from “most” to “least”)

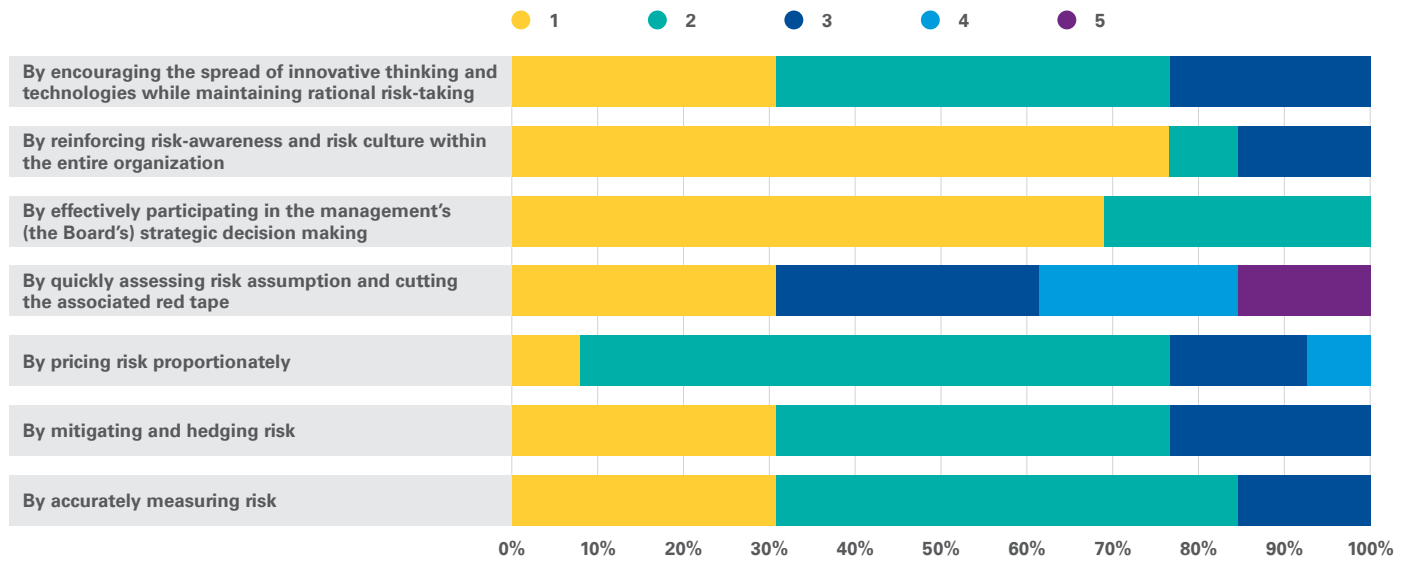
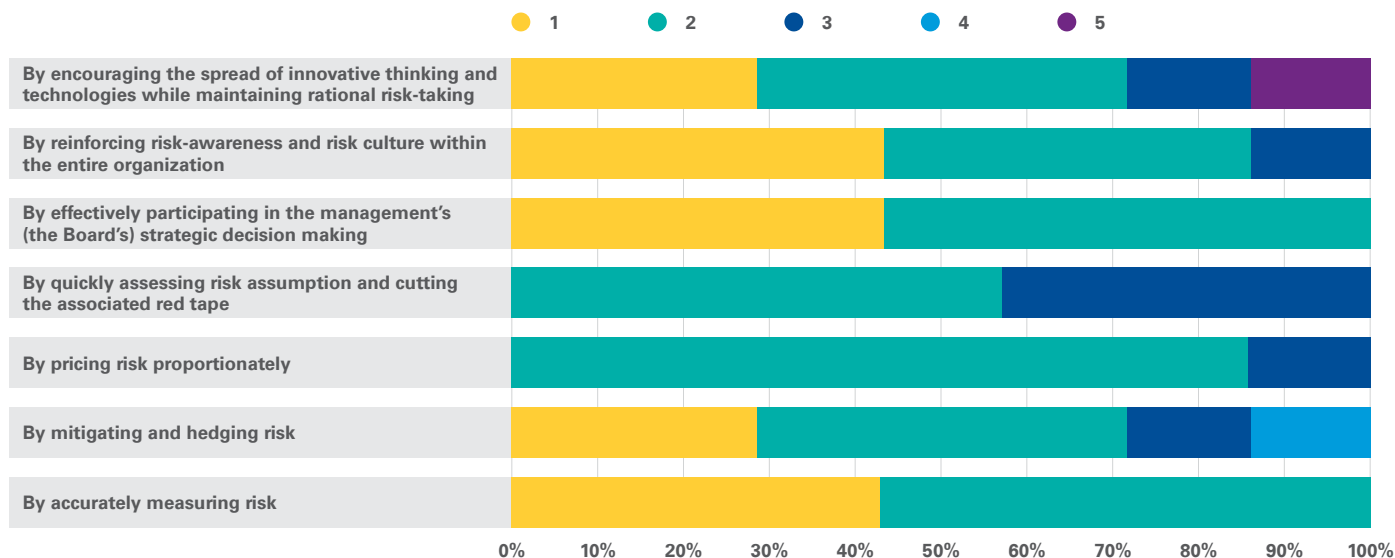


Figure 11. Fund manager – What is the best form of value creation by the risk function in terms of the institution’s long-term successful operation in the upcoming two years? (scale of 1 to 5, from “most” to “least”)



KPMG conducted its international executive survey again this year, and according to that, the opinion of global CEOs is that organizations have to become agile or else they may lose their competitiveness (KPMG Global CEO Outlook 2019). A significant number of CEOs agreed with the strong wording that “agility is the new currency of business and being too slow risks bankruptcy.” Based on the responses of CROs in Hungary, agility may be considered important, but the effects are expected to be partly different in the risk areas compared to other areas. Speed as an important attribute of agility appears to a lesser extent as a value in the mindsets of CROs, although the need to speed up risk analysis and assessment processes is unquestionable. However, other important basic principles of agility, such as transformation of the organizational culture, involvement and participation, measurement and feedback, are also of paramount importance to CROs based on the responses.

In terms of value creation, some CROs have created definitions of the essence of risk management that can be regarded as a motto:

- “Measurement and analysis, and good interventions at the right time based on these”
- “Let’s teach the organization to analyze before making decisions”
- “Representing the meaningful, rational voice”
- “It’s important to take risks that can make money and to price those risks”
- “You need to be able to properly evaluate the risk trends, and at times you have to let the business grow within certain risk assumption boundaries”
- “Very smart usage of data for doing business at a favorable risk level, for being able to make good business decisions”

3. Labor Shortage, IT and Data Quality Issues

Overall, most obstacles can be traced back to deficiencies of the IT system and data quality issues, and scarce resources also pose significant challenges for CROs. These difficulties fit well with the challenges arising from the enhanced and necessary use of data analysis using digital technologies.

According to several CROs, the effect is further amplified by the fact that compliance with regulatory requirements is very resource-intensive and that risk measurement and management systems may be subject to excessive complexity or sophistication.

Nearly 100% of the executives stated that implementing state-of-the-art risk management systems and improving data quality will be absolute priorities in the development list for the coming years (see in a later section). The scarcity of resources in itself has become a separate risk factor.

Figure 12. 2016 - What impedes CROs the most in carrying out their work successfully?
(multiple selections possible)

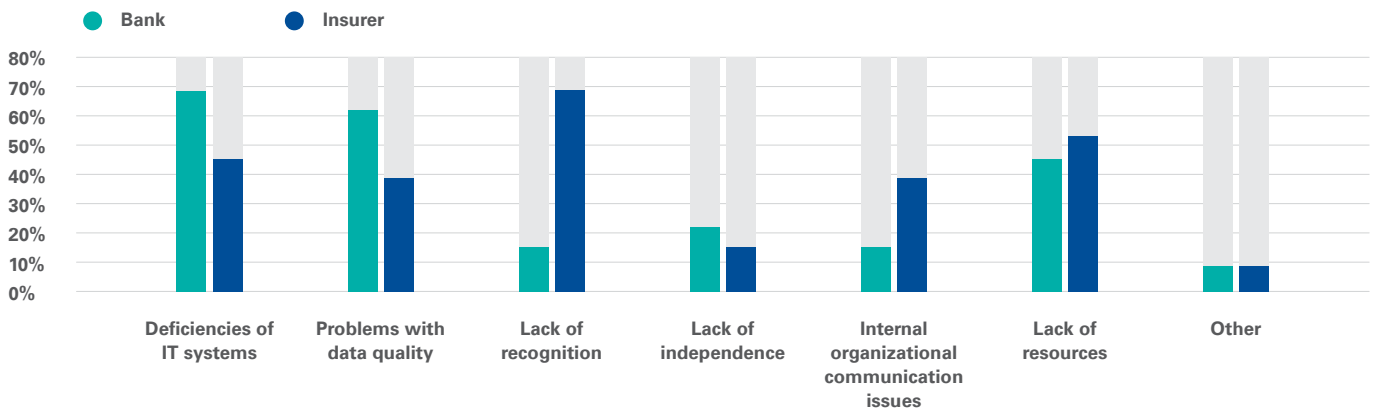
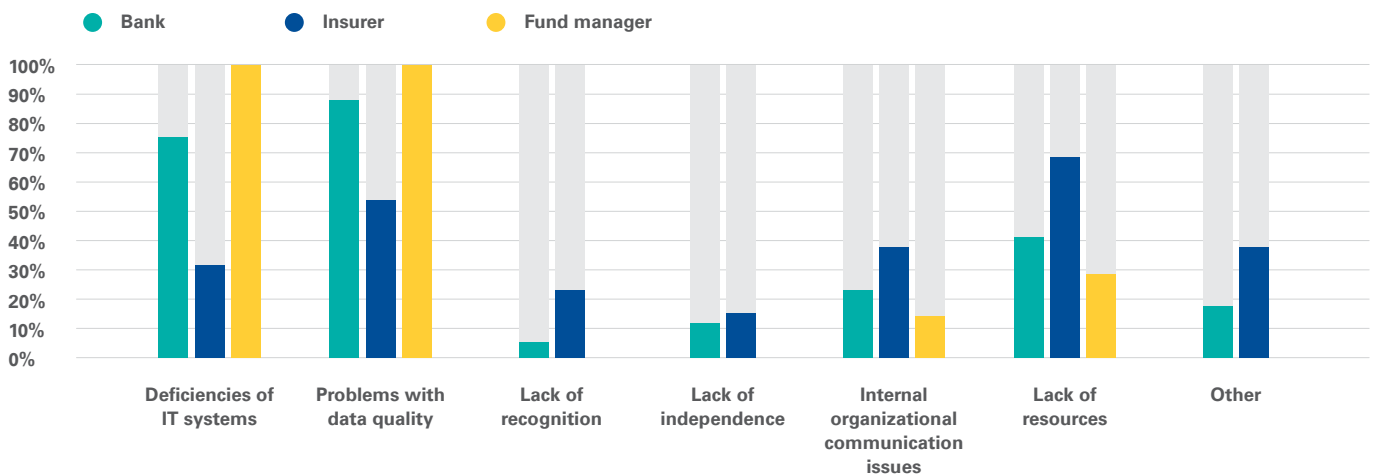


Figure 13. 2019 - What impedes CROs the most in carrying out their work successfully?
(multiple selections possible)





However, considerable differences can be observed on a sectoral level based on the responses to impediments:

- Looking at the results of the 2016 and current surveys, bank executives consider the deficiencies of IT systems and data quality issues to be even more serious in 2019, and this is in line with the previous explanation.
- For insurance companies, IT system and data quality issues are less pressing compared to other sectors (reinforced by the fact they intend to allocate fewer resources to these based on the answers to question III.2), but scarce resources (mentioned by 70% of the respondents) and internal organizational issues (lack of information, management's low level of risk-related knowledge) are major challenges. **Compared to 2016, insurer CROs believe to a significantly lesser extent that their lack of recognition impedes their successful work.** This positive development was justified by the implementation of Solvency II, which created and expanded the CRO role and required the implementation of projects involving multiple organizational units; as a consequence, the recognition within the institution increased significantly.
- For fund managers, an extremely high ratio (100% of the respondents) indicated that they were impeded by the deficiencies of IT systems and by the data quality.

There are also notable differences by organizational size, which are particularly pronounced in terms of the severity of the data quality issue – the perception of this factor is decreasing proportionally with the size of the organization. The same can be stated about the lack of independence, although it appears to be less noticeable.

INTERVIEW



Agility can only be achieved in an agile way.

Judit Kovács

Chief Risk Officer and Actuary, NN Insurance Co. Ltd.

NN started large-scale automation in the spirit of agility years ago, and by now more than a third of the incoming offers pass through the risk assessment process without human intervention. According to CRO Judit Kovács, risk management played an important role in the development processes. In her opinion the solvency ratio has not been devalued, it's just out of sight because the values are high across the sector.

KPMG: Unlike others, you have identified the speeding up of the underwriting process as one of the most important tasks related to risk management. Why do you think so?

Judit Kovács: Risk assessment is one of our most important risk management tools. We are operating in a relatively tight market, and the customer experience during risk assessment plays a decisive role in increasing the insurance coverage. This includes the streamlining of the processes and speeding up the assessment within those. For example, if we want to grow in the area of risk life insurance, which goal is also supported from a risk management perspective that is no longer possible with the same manual, overcomplicated processes were existed years ago. Speed is not in contradiction with risk considerations, so we need to apply them together during the optimization of processes. Risk management has to support the streamlining of the activities of business operations taking into account sustainability considerations.

KPMG: What does this mean in practice?

Judit Kovács: In the traditional model, this would have meant more human work, but we decided to automate, and we implemented it in an agile framework. By now, we have reached a stage where more than a third of the incoming offers pass through the risk assessment process without human intervention. A lot of work went into this because we had to review all our practices and models for what could be automated, taking into account our risk appetite and sustainability analyses, as well as meeting the requirements of the GDPR.

KPMG: What does agility mean to you on the risk management side?

Judit Kovács: From a work organization point of view, risk management should not be the end of the development process as a final checkpoint. In this case it is too late to formulate expectations and considerations, and much of the development work already done may become redundant. Therefore, risk management has to be involved in the development process from the beginning. The best and most effective risk assessment negotiations are those that start in the early stage of development, and the joint thinking is the best way to enforce our viewpoints which is also the most useful for the business areas. In my opinion, this change

in organizational culture points in the same direction as the strengthening of the risk culture. At the same time, the agile approach means that the traditional department structure had to be transformed, which involved a transformation of responsibilities. We had to demolish old silos and set up multifunctional development teams. Doing all this in a way that does not deteriorate the risk level and the processes remain under control.

KPMG: Each organization has Run and Change functions, the former being responsible for normal business operations, the latter for implementing the strategic goals and for renewal. Do these need to be separated in order to make the organization agile?

Judit Kovács: There are several known methodologies, there is no model that works perfectly in every situation, whatever we choose, it has to be adapted to our company. Agility is not a goal, but a tool for us to achieve our strategic goals in a way that enhances customer centricity, efficiency, value-based decision-making, and transparency, as well as the employee experience. Therefore, we have created in NN an organization and a division between the Run and Change functions that is appropriate for our own operations. In addition, it is important that we operate in a strictly regulated industry, where legal and supervisory compliance and reporting are the basis of normal business operations. Of course, reporting processes can be improved, but they do not change essentially even in an agile organization. Our key experience is that agile organizational transformation can only be done in an agile way, with the organization constantly learning and changing where required.

KPMG: How do you see the functioning of the capital requirement indicator for risk measurement purposes? It has drastically devalued according to our survey.

Judit Kovács: In my opinion, it has not devalued, but because the solvency is high in the entire insurance sector, it does not always come to the fore, although it plays an important role in decisions. This indicator exceeds 220 percent for most insurers today, and as long as it is so high, the attention tends to be focused more on stress tests.

KPMG: The ex-post evaluation of the 2008 crisis placed great emphasis on banks' remuneration practices; according to analyses, this contributed to their exposure being too high. Nowadays, less is heard about the analysis of remuneration systems from a risk perspective. What is the reason?

Judit Kovács: Indeed, we do not hear much about this in the Hungarian insurance market, but this may be due to the fact that the insurance companies operating in here are subsidiaries of large international companies and these topics are regulated by the parent companies who learned a lot from the crisis. Deferred or risk-adjusted bonuses are ubiquitous by now, i.e. only the decisions that have proved their worth in the long run can be rewarded with bonuses.



III.

What Are the Development Goals of CROs and What Are Their Planning Frameworks?

| | |
|--|-----------|
| 1. System Development vs Organization Development | 34 |
| 2. Focus on Strengthening the Competencies and Data Quality | 36 |
| 3. Increasing Development Resources, Divergent Tendencies | 36 |







What Are the Development Goals of CROs and What Are Their Planning Frameworks?

1. System Development vs Organization Development

CROs also answered the question on how they plan to allocate their resources over the next year. Compared to the 2016 survey, there are several trends that deserve detailed study.

Based on the responses, the most striking difference can be observed in the area of risk management systems and data quality. Banks and fund managers alike clearly want to increase their resources in this area.

Unlike banks, insurers would like to focus on the development of the risk culture and expertise, in conjunction with the development of the board members' risk expertise, which is more important than in the banking sector.

The differences between the two sectors can be explained by the fact that these regulatory expectations have been formally developed much earlier in the banking sector, whereas

Figure 14. Bank – How do you plan to allocate your resources among the following development goals in the coming year? (scale of 1 to 5, from "significant increase" to "significant decrease")

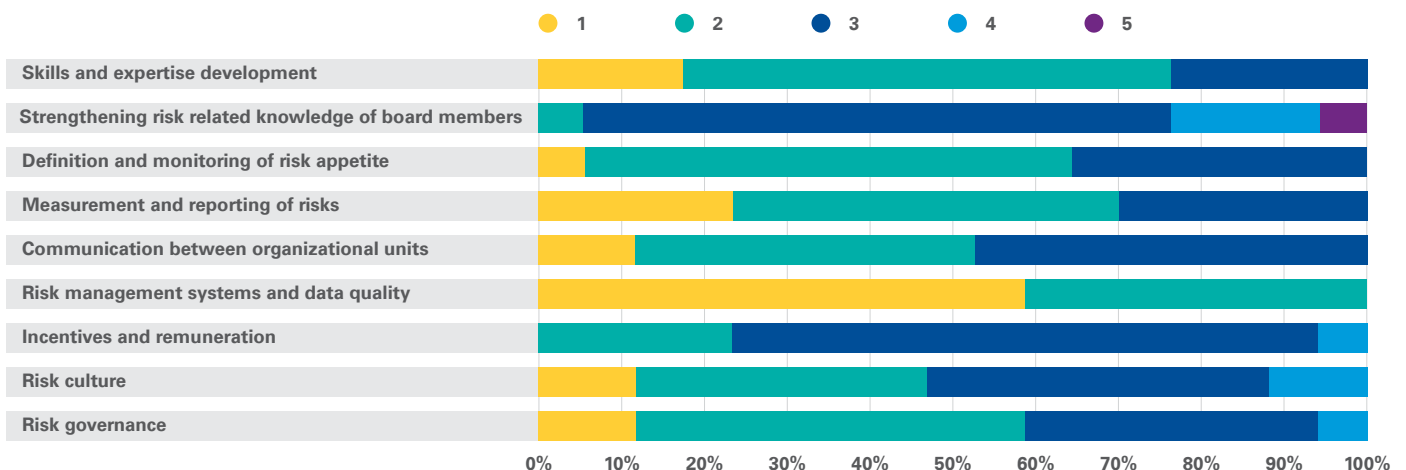


Figure 15. Fund manager – How do you plan to allocate your resources among the following development goals in the coming year? (scale of 1 to 5, from "significant increase" to "significant decrease")

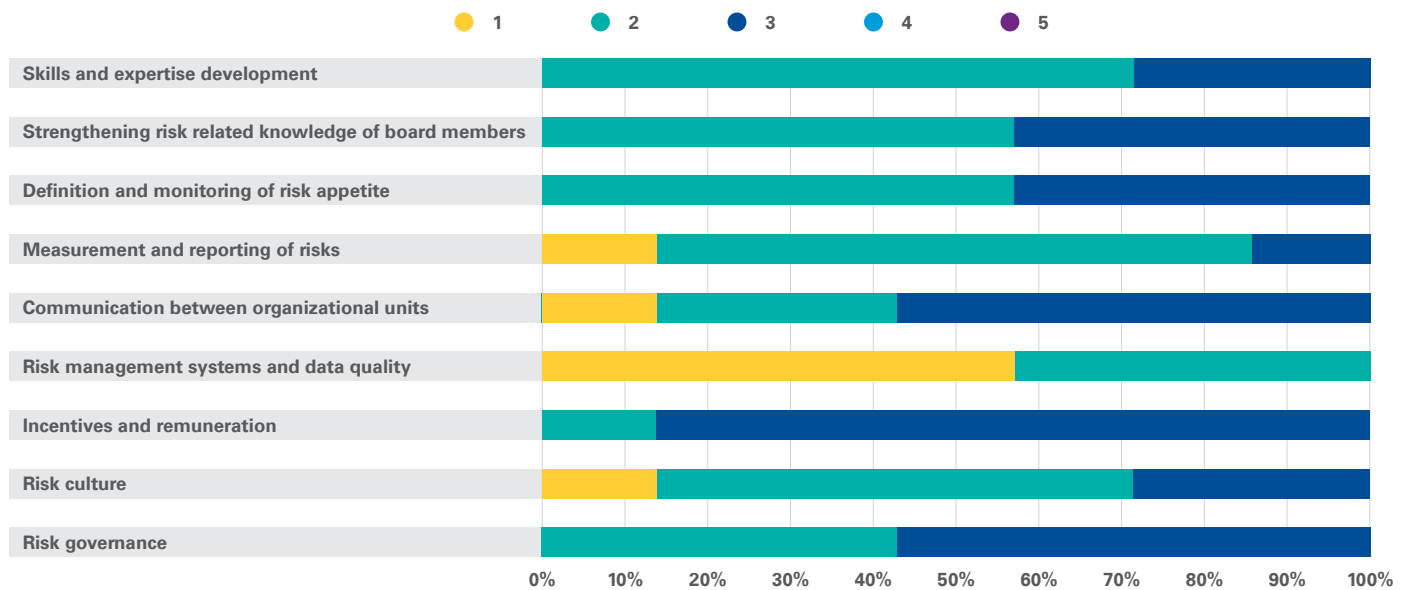
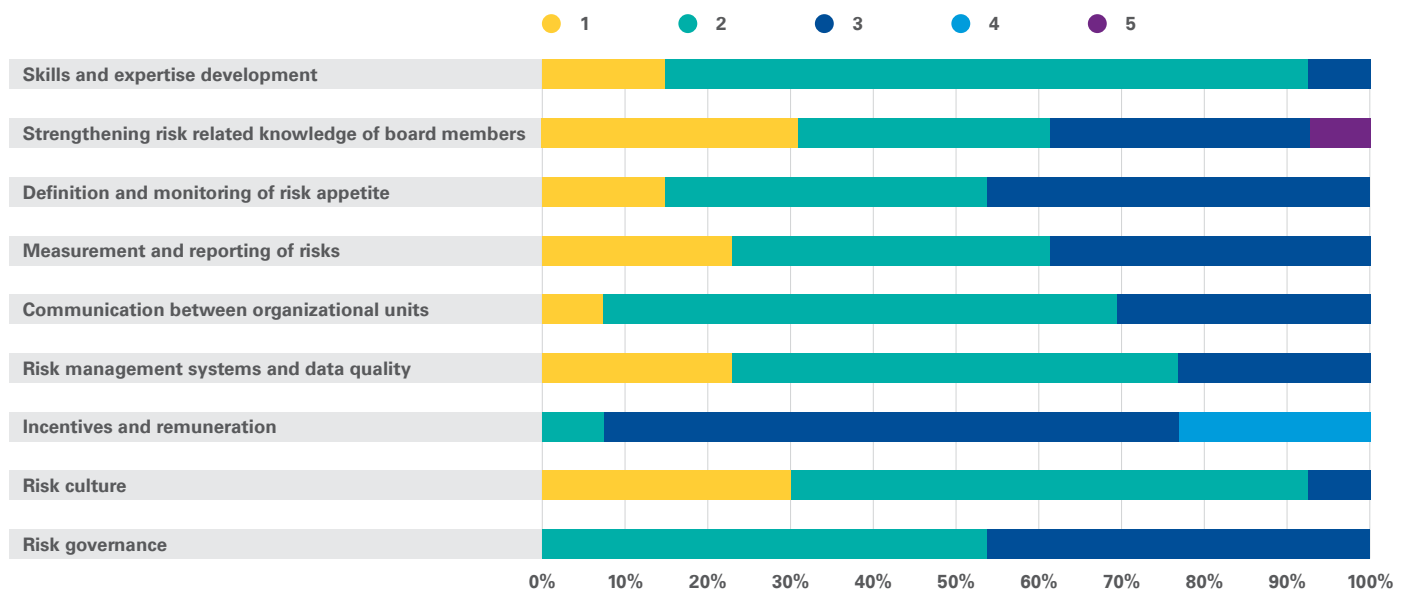


Figure 16. Insurer – How do you plan to allocate your resources among the following development goals in the coming year? (scale of 1 to 5, from "significant increase" to "significant decrease")



these requirements were imposed in the insurance sector only later. Especially after the implementation of Solvency II, several Pillar 2 requirements arose, which made it important for the entire organization to strengthen risk awareness and risk culture. It is important to note that the remuneration policy is still out of focus, moreover, it has received the least emphasis in all three sectors in terms of resource allocation. This is interesting because, in 2009, KPMG's international survey found that bank executives considered the errors of remuneration structures to be most responsible for the outbreak of the crisis (Never again? KPMG, 2009).

2. Focus on Strengthening the Competencies and the Data Quality

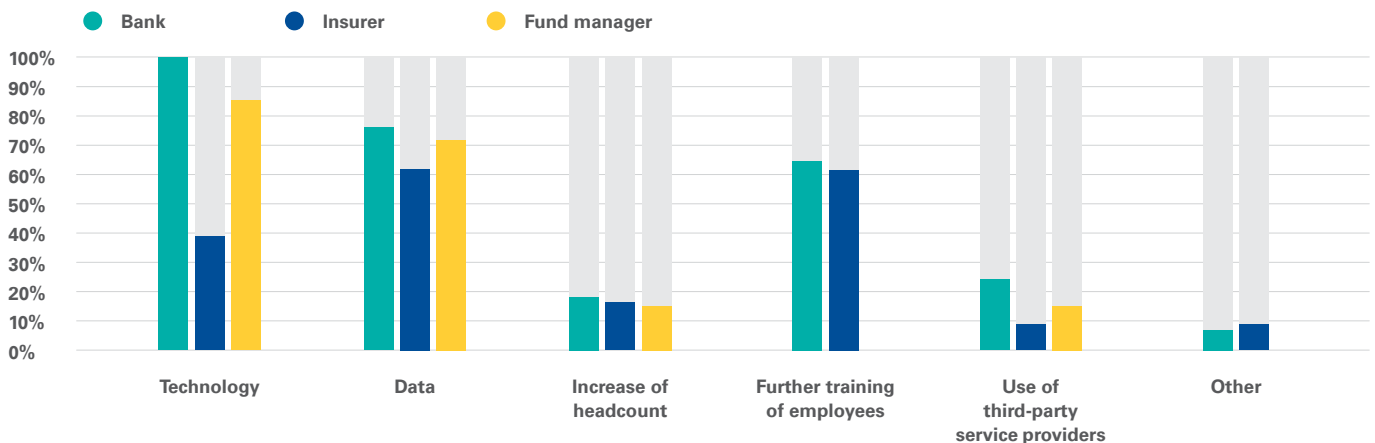
The planned use of CRO development resources is similar to 2016. The primary investment target here is technology and data, which is also in line with the fact that IT and data quality issues have been identified by banks and investment fund managers as the biggest impediments.

On the other hand, it is a significant difference that insurers would allocate substantially fewer resources to technology compared to banks and investment fund managers, and would proportionally devote most of their resources to data and training of employees (multiple selection was possible for this question).

Two interesting trends can be observed with regard to company size. One is that the priority of data-related developments is proportional to the company size. The background of this may be that larger institutions generate

more data to begin with and that the resource requirements for managing them do not increase linearly. The other observation we'd like to highlight is that in this year's survey, mid-size companies expressed the most need to use external providers. This may be related to the fact that a significant increase in responsibilities can be observed in the case of these respondents. In 2016, almost 80% of mid-size organizations stated that the CRO was only responsible for risk acceptance and/or risk control functions, while according to the current survey, 42% are responsible for these functions only and more than half are also responsible for other non-financial areas (e.g. compliance, back office or IT).

Figure 17. – What would you like to use your development resources for in the next year in order to accomplish the development goals as much as possible? (multiple selections possible)



3. Increasing Development Resources, Divergent Tendencies

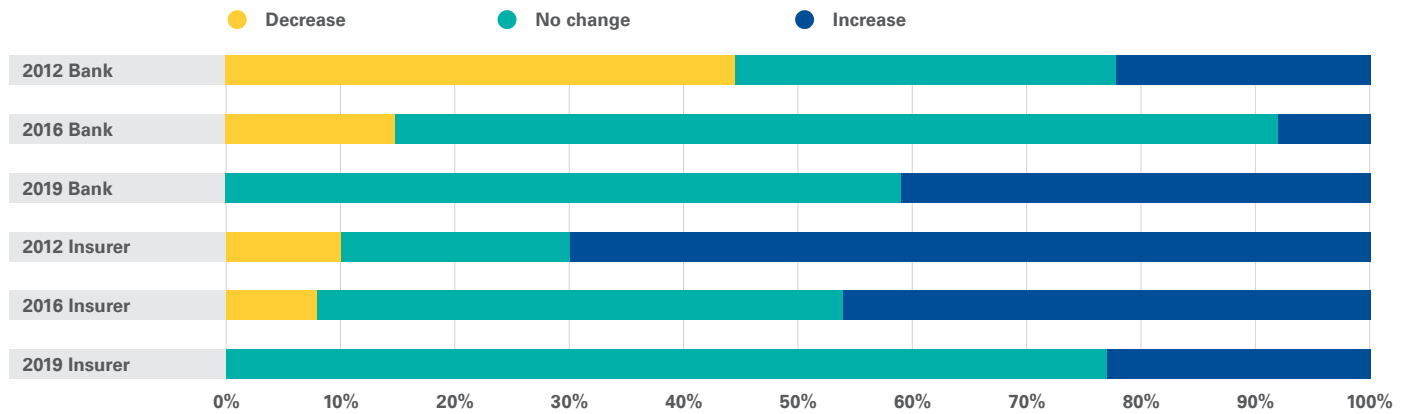
Based on the whole sample, the current results indicate that no one expects development resources to decrease in the future. One-third of CROs expect growth, but the majority foresees no change. No significant trend can be observed in the breakdown by company size, all the more so when examining by sector.

In the case of insurers, 46% thought of an increase in development resources in 2016, 70% anticipated an increase in resources in 2012; in this year's survey, this value decreased to 23%.

CROs in the insurance sector required significant additional resources in 2016 due to the implementation of Solvency II, but after the implementation of that legislative package, the allocation of resources within the organization turned to other types of projects, such as the implementation of IFRS 17.

In terms of development budgets, bank CROs already have more positive expectations in 2019 compared to the 2016 results – even more so compared to the 2012 responses.

Figure 18. – How will development resources change in the future (in the next 2-3 years)?



In 2012, 45% of bank CROs anticipated a decrease in resources. In 2016, only 15% anticipated a decline and 77% of the contributors believed that resources would not change in the near future. By contrast, no one has indicated a decline in expectations this year, and not only do they anticipate a stagnation of resources, 41% of participants thought an increase was expected. This can be explained by the fact that the initial resource requirements for data quality improvement and IT projects (these are the highest priority areas based on other answers) are higher.



INTERVIEW



The biggest challenge is the algorithmic handling of risks.

Péter Schuszter

CEO, Axiom Investment Fund Management Co. Ltd.

Péter Schuszter, CEO of Axiom Fund Management, who has been dealing with investment management for over 25 years, sees digitalization as the biggest challenge facing the profession. This will require more data analysts and automation experts, but overall fewer employees; Axiom already relies on automated solutions for many issues. In the current market environment, clients are necessarily turning to niche markets, including private equity/hedge fund operations.

KPMG: What do you see as the biggest challenge for risk manager executives working at investment fund managers?

Péter Schuszter: Definitely the task to incorporate risk considerations into 'algorithms'. This profession is robotized at a frantic pace; automated data processing and even interpretation are gaining ground, so I think in 15 years' time only the biggest companies or only special areas will have human employees, almost exclusively in decision-making positions. Additionally, more and more data are generated worldwide and it is important for the decision makers to efficiently process and adequately structure the data. In order to accomplish this, the automation and algorithmic handling of risk management tasks are essential and that will be a major challenge for the profession. Not only fund managers have to be prepared for this, but other financial institutions as well. Obviously, this is true for all other tasks related to the back-office area.

KPMG: Does this mean that the "parameterization" of risks comes to the fore?

Péter Schuszter: Precisely. Risk control functions are increasingly defining frameworks and parameterizing risks; the monitoring and tracking of these risks are performed/supported by automated solutions, so the circle of colleagues executing operative tasks within the risk areas is changing. We need more and more data specialists but the headcount may decrease.

Another essential process is the increasingly automated measurement and modeling of risks; this is a help for the business, i.e. the portfolio managers. For this, we already have platforms that calculate reliable risk values for investments if parameterized correctly; in my opinion, their knowledge and effectiveness will increase significantly.

KPMG: Are you using such platforms?

Péter Schuszter: Yes, we are making attempts. The plan is to mostly use such platforms, but we are already mainly relying on Bloomberg's suite of risk management tools. We enter all our transactions there, so it knows exactly our current portfolio composition, and we can immediately retrieve important risk indicators for any stress scenario. It has default settings but it's possible to deviate from those. So our main task is to define the limits and build those into models, the monitoring will be performed by the system itself. It sends

an alert if a portfolio manager crosses the thresholds, it can prevent or does not authorize the transactions that would increase the risk too much.

KPMG: You're a big believer in robots.

Péter Schuszter: Not so much, but the fact is that I personally like new technologies. For example, I do remember that 20 years ago everyone was talking about how investment fund managers will have no local offices and organizational units by now, everything will be done from one center. And what do we see now? The same local units are in the same places. Of course, their powers are cut back and many things are centralized, but local knowledge is still needed. Artificial intelligence is trendy now, but the discussion is not about how a robot will determine risk levels, it is about how we will define them and the robot will measure them. And the machines are still far from making strategic decisions on issues such as towards which markets and asset classes should we as fund managers move.

KPMG: What are these in your opinion?

Péter Schuszter: I see that niche markets, such as private equity/hedge fund type operations, are gaining ground. Otherwise, it is difficult to achieve good results in today's low-yield environment. This is especially true in Hungary where the state has introduced the promise of a 5 percent minimum yield for retail customers. This means that we have to find niche markets and build appropriate funds on them because this is the only way to achieve promising returns, say above 10 percent.

KPMG: The supervisory authority may have a word or two about that.

Péter Schuszter: Obviously, since they have an opinion on lot of things. Regulations have been getting tighter for years now, there are more and more compliance rules worldwide. This is a trend we have to live with. In this form, I personally do not agree with its extent, I find it problematic that back-office activities will greatly increase cost levels. This clearly drives fund managers towards greater risk-taking, as the costs of these processes and colleagues need to be covered from somewhere and it matters a lot to the fund manager if it is 4 percent instead of 2. Additionally, these regulations do not sufficiently differentiate between the requirements based on company size. The problem with MiFID 2 was the same; some rules are useful for society but it puts a disproportionate burden on smaller players because of the lack of proper differentiation.



IV.

Where Are the Market and Regulatory Environment Heading?

| | |
|--|-----------|
| 1. Increasing Rigor, Focus on Consumer Protection | 42 |
| 2. Diversity in the Evaluation of Product Strategies | 46 |
| 3. A Changing World – Transforming Risk Environment, Increasing Uncertainty | 48 |







Where Are the Market and Regulatory Environment Heading?

1. Increasing Rigor, Focus on Consumer Protection

Based on the responses, there is general agreement that regulatory requirements have become stricter in all areas, and the emphasis on growth has shifted to regulations related to customer management / consumer protection / investor protection.

In the case of banks, CROs indicated the same three areas as in 2016 when asked about most restrictions in the last two years (customer management / consumer protection, liquidity, capital), but the order has changed.

According to the responses, the capital-related rules have tightened the most in the years prior to 2016, but by now the focus has shifted to customer management / consumer protection / investor protection.

This trend has been observed since the 2012 survey, with responses at the time clearly considering the tightening of capital-related regulations as the most significant (100% of the respondents back then gave answers of 1 or 2 regarding capital, which may have been an effect of the implementation of Basel II regulations and of the tightening following the economic crisis), while customer management was only ranked fourth.

Figure 19. 2012 Bank – In your opinion how have regulatory requirements changed in the following areas in the last two years? (scale of 1 to 5, from "significantly more restrictive" to "not more restrictive")

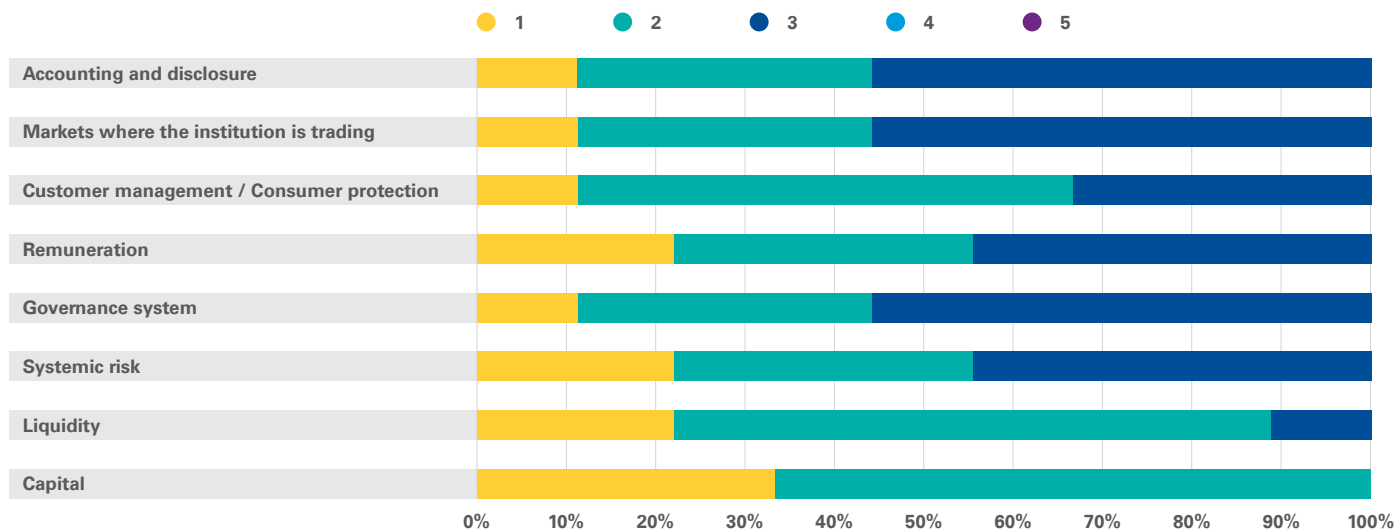


Figure 20. 2016 Bank – In your opinion how have regulatory requirements changed in the following areas in the last two years? (scale of 1 to 5, from "significantly more restrictive" to "not more restrictive")

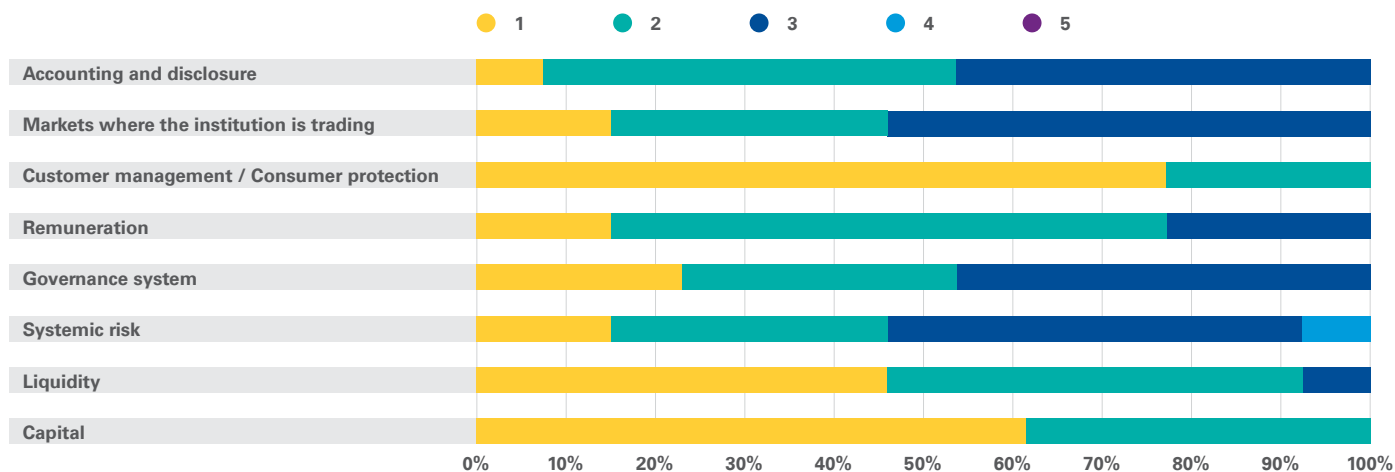
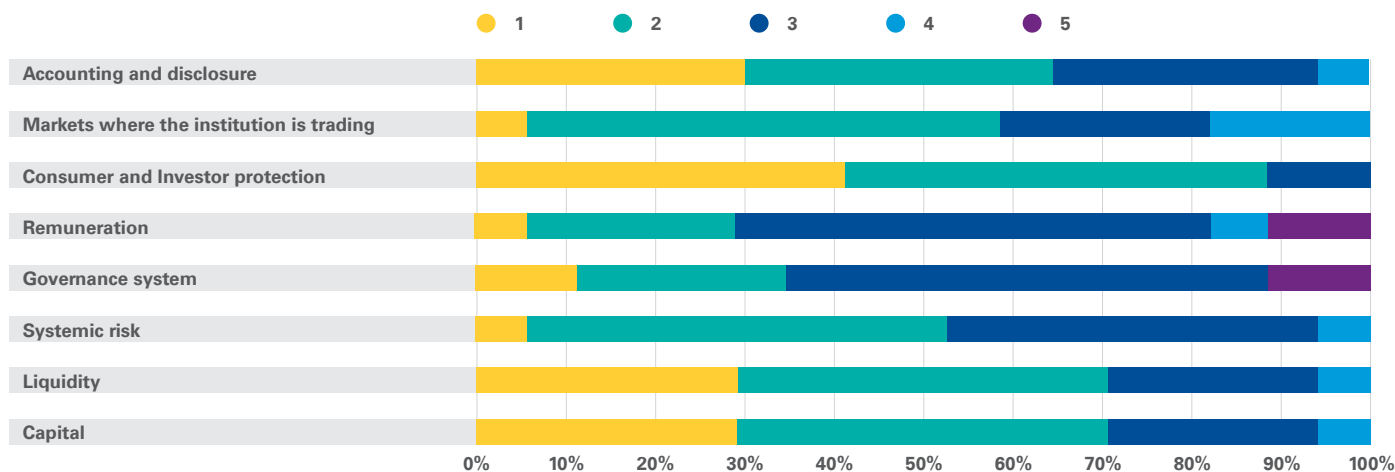


Figure 21. 2019 Bank – In your opinion how have regulatory requirements changed in the following areas in the last two years? (scale of 1 to 5, from "significantly more restrictive" to "not more restrictive")



In the case of insurers, the tightening of customer management / consumer protection / investor protection was also of the highest extent, followed by the rules related to the governance system. The background of this development can be the implementation of IDD, the increasing supervisory expectations in the pragmatic application of the Solvency II regime and the amended/new recommendations of the MNB. In their case, the tightening of capital regulation is not so pronounced, which may be explained by the fact that the implementation of Solvency II has already resulted in higher levels of capitalization, thus CROs are less concerned about further tightening.

A noticeable change for insurers is that, accounting and disclosure regulations have been significantly tightened compared to the 2016 survey; the background of this can be the difficulties in the practical implementation of Pillar 3 disclosure obligations and the expected appearance of IFRS 17 rules.

Compared to the other sectors, investment fund managers have highlighted the tightening of rules related to the customer management / consumer protection / investor protection area to an even greater extent, and they clearly see this as the most significant change (100% of respondents indicated a significant tightening).

The main reason for this was the implementation of the MiFID 2 regime (the entities participating in the research are generally also performing investment service activities), which caused a very significant compliance task compared to previous regulations. These additional duties are even more profound considering the smaller size of the investment fund managers compared to other organizations providing investment services (several market participants highlighted the “lack” of the principle of proportionality).

Figure 22. 2019 Insurer – In your opinion how have regulatory requirements changed in the following areas in the last two years? (scale of 1 to 5, from “significantly more restrictive” to “not more restrictive”)

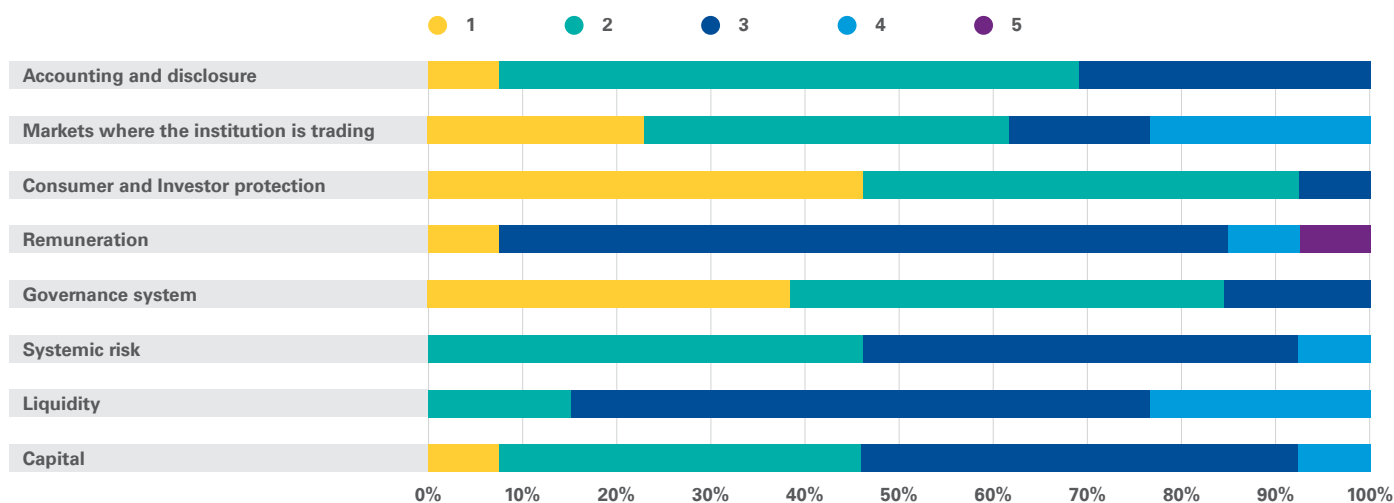
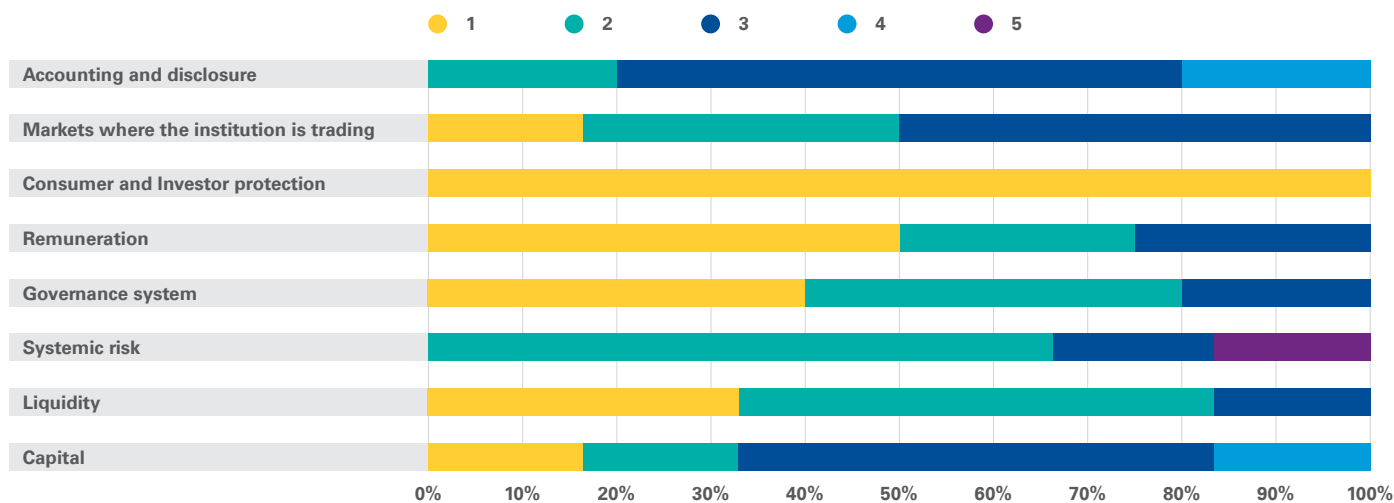


Figure 23. 2019 Fund manager – In your opinion how have regulatory requirements changed in the following areas in the last two years? (scale of 1 to 5, from “significantly more restrictive” to “not more restrictive”)





A notable difference between sectors can be recognized in the assessment of the remuneration regulation in connection with the changes in regulatory requirements.

Bank and fund manager CROs both marked this topic as the 4th most tightening area, while insurer CROs did not perceive tightening in this area. In the case of investment fund managers, the extent is even more prominent, due to the implementation of the MiFID 2 regime described earlier.

2. Diversity in the Evaluation of Product Strategies

The answers grouped by size differ significantly. At large banks, there is no significant difference between respondents, the focus is on SME lending and retail products.

Mid-size and small banks have very different views on the risks of expansion in individual products.

Responses are divided in both institutional circles, particularly regarding SME lending and retail lending, which can be explained on the one hand by institutional specialization, on the other hand by risk tolerance. The SME sector is currently expanding rapidly and many players would like to take advantage of it, but this is a higher risk segment that only larger or focused institutions are taking on (presumably they

have better risk management tools in place). The impact of specialization is even more visible at small institutions in the unsecured retail segment, where 20% explicitly support and 80% explicitly oppose the expansion in this area.

In the case of insurers, there is a significant difference by size in the assessment of motor third-party liability insurance. The CROs of mid-size companies are the most supportive of this area, probably because a significant customer base can be acquired using good pricing and keeping risks on a properly manageable level since the prices are easily comparable.

Figure 24. Bank – Considering the risk effects of recent years, from the risk side how much do you support the expansion of the following products? (scale of 1 to 5, from "in support of expansion" to "against expansion")

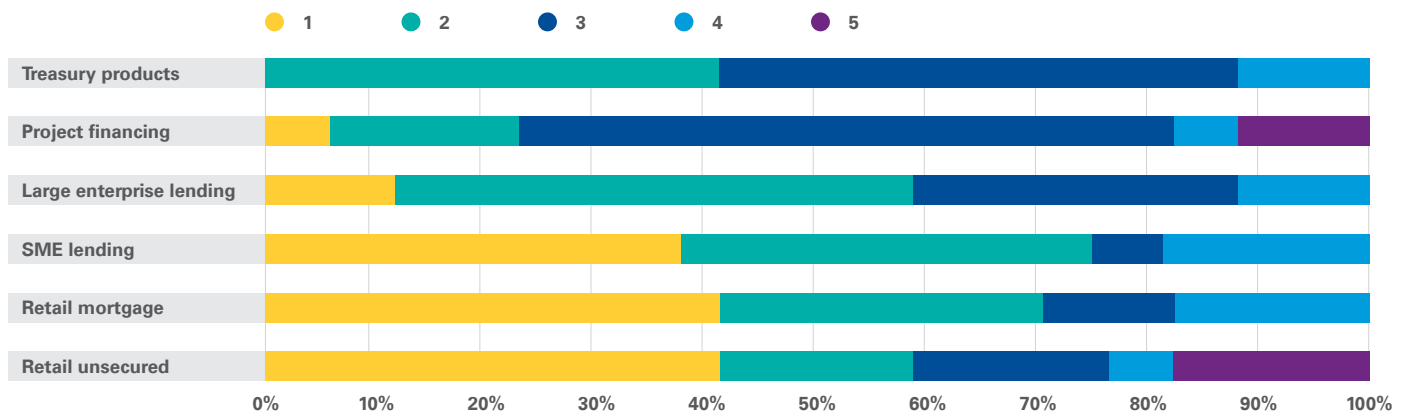


Figure 25. Insurer – Considering the risk effects of recent years, from the risk side how much do you support the expansion of the following products? (scale of 1 to 5, from "in support of expansion" to "against expansion")

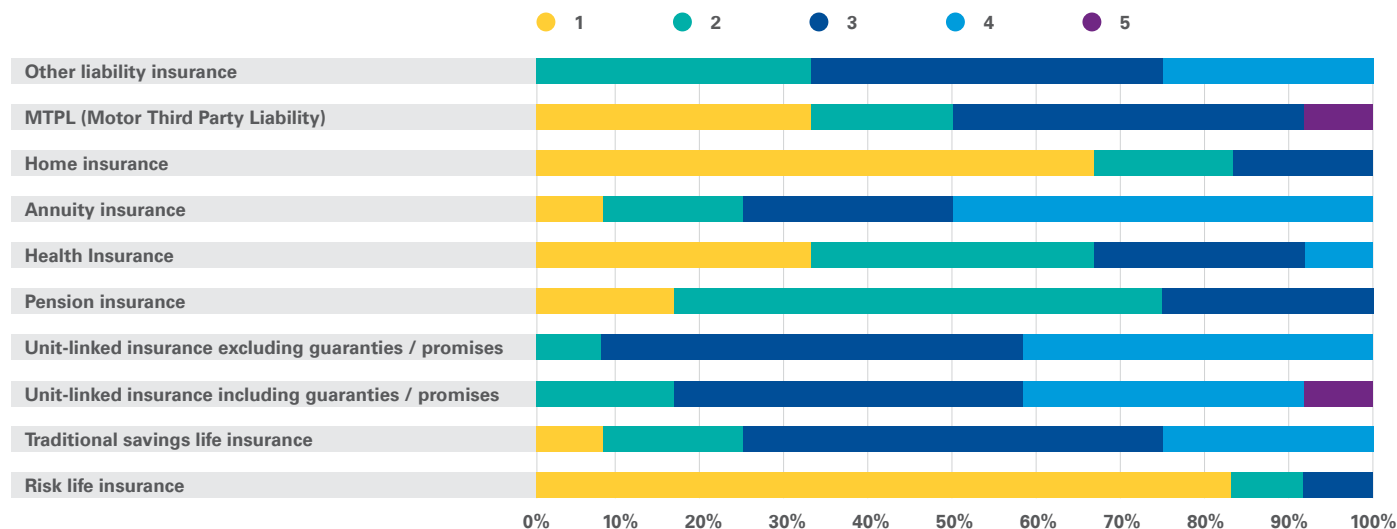
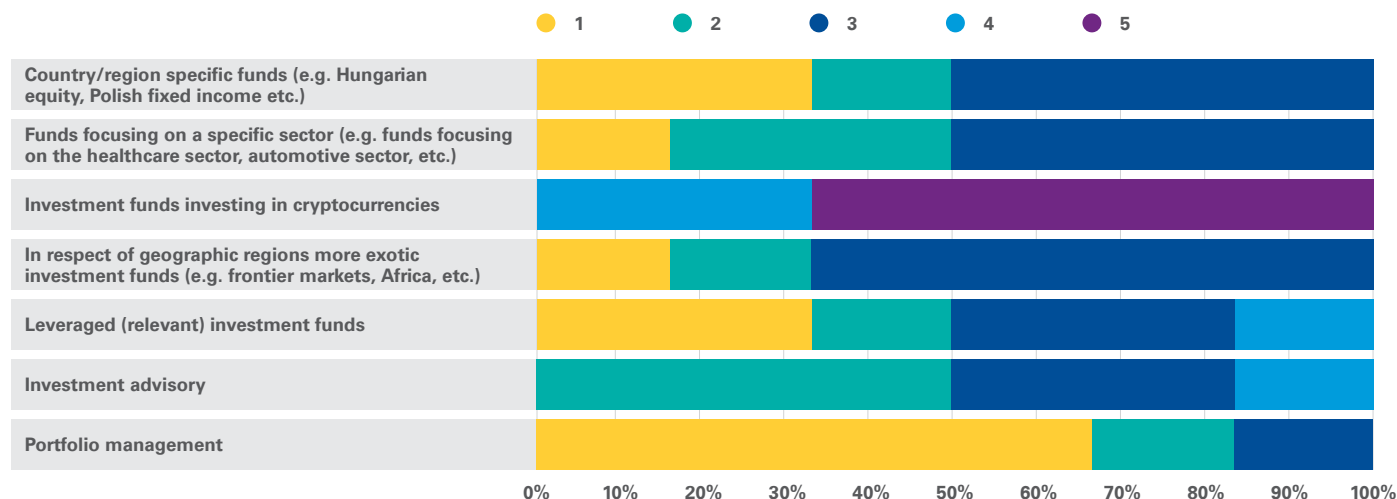


Figure 26. Fund manager – Considering the risk effects of recent years, from the risk side how much do you support the expansion of the following products? (scale of 1 to 5, from "in support of expansion" to "against expansion")



In the case of large insurers, home insurance, pension insurance, and risk life insurance (not as investment) are the most supported areas, the explanation for this support can be the high profitability – which covers the risk costs – and the existing stable customer base. With regards to risk life insurance, all contributor CROs of large insurance companies indicated their support, and the clearly supportive opinion exceeded 80% in the entire sector.

Investment fund managers would support a well-balanced further growth in several areas, with some notable exceptions. Respondents are strongly opposed to investing

in cryptocurrencies, probably mainly due to regulatory uncertainties and security risks. **However, fund managers would support to a significant extent the development of products with differentiated pricing (e.g. portfolio management) because the low-interest-rate environment makes it more difficult to provide growth in a traditional way, taking into account all risks.**

3. A Changing World – Transforming Risk Environment, Increasing Uncertainty

According to CROs, country risk has decreased significantly over the past two years, credit and counterparty risk have decreased, and market, insurance, and liquidity/ALM risks have not changed significantly.

However, the cyberattacks, the risks inherent in the use of innovative technologies, the associated operational risks, and the risks of financial crime have increased considerably.

Generally speaking, the relative importance of traditional risk types has decreased, this is attributable to the upturn, a more optimistic business environment, and the availability of more advanced risk measurement and management technologies compared to the previous periods. New risks of different types present a greater threat today and this trend may further unfold in the future.

The responses given to the evaluation of future risk trends, both on a two-year and a ten-year horizon, reveal that CROs see the increase in cyberattacks and the risks associated with innovative technologies as the most significant, while the associated operational risks and the threat of financial crime remain high. This is closely correlated with the proliferation and implementation of digital and more advanced, innovative technologies and the strengthening of challenges arising from the vulnerability of the systems (connected by many threads) that can be formed as a result. This topic will be discussed in more detail in the next section.

Looking ahead on a two-year and ten-year horizon, CROs also expect an increase in exposures linked to traditional risk types, for example, the ratio of those expecting an increase in credit risk exceeds 60% on a 2-year horizon, it is close to 70% on a 10-year horizon, and the ratio of those expecting an increase in market risks exceeds 60%. However, based on the responses, CROs do not anticipate crashes similar to the 2008 crisis stemming from these types of risks.

Respondents gave high values for the level of regulatory risk, especially in relation to the recent period. Obviously, this also reflects the number of resources that had to be allocated to compliance tasks, but it is also clear from the decreasing risk level forecasted in the responses that CROs are expecting improvements in this area in the coming years.

In addition, CROs are increasingly concerned about the risks arising from increased complexity. On the one hand, business processes and supporting technologies are interconnected by so many threads that **the addition of effects caused by different risk events and their simultaneous occurrences may cause unprecedented cumulative losses.** On the other hand, the increased complexity of risk measurement and management technologies and tools themselves makes it difficult to see the situation clearly.

Figure 27. Aggregate – In your view, how has the risk environment changed over the past two years for the following risk types? (scale of 1 to 5, from “risk exposure significantly increased” to “risk exposure significantly decreased”)

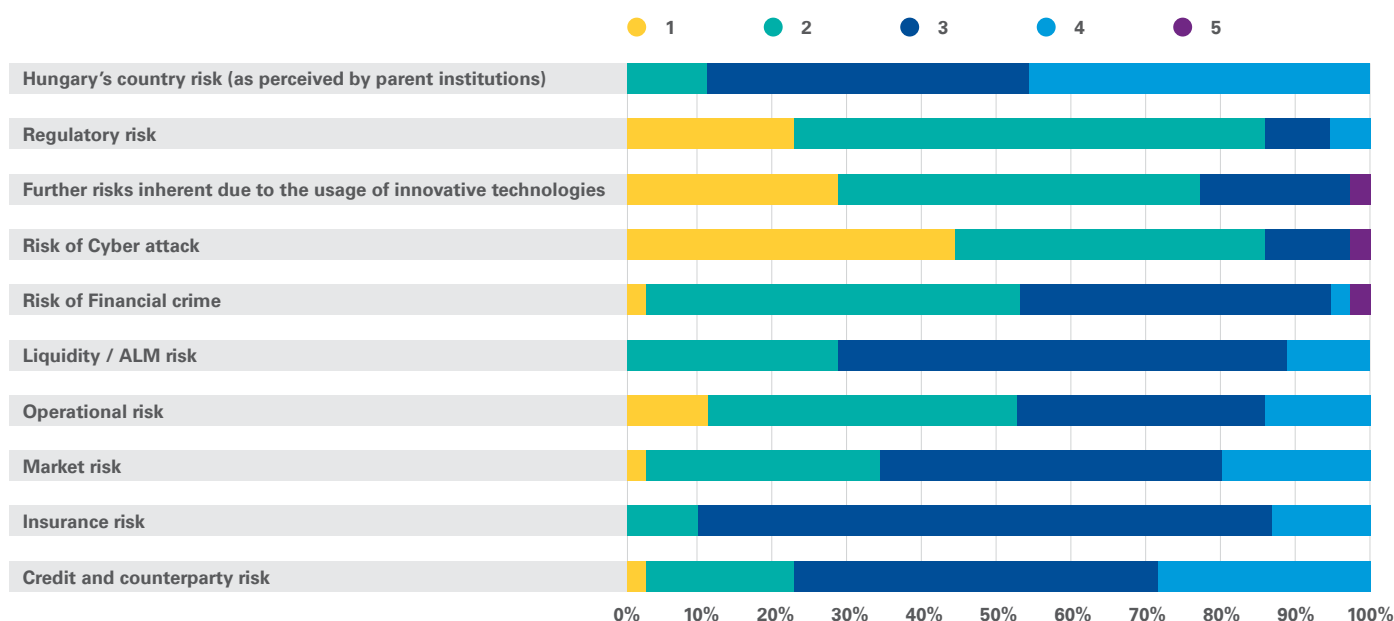
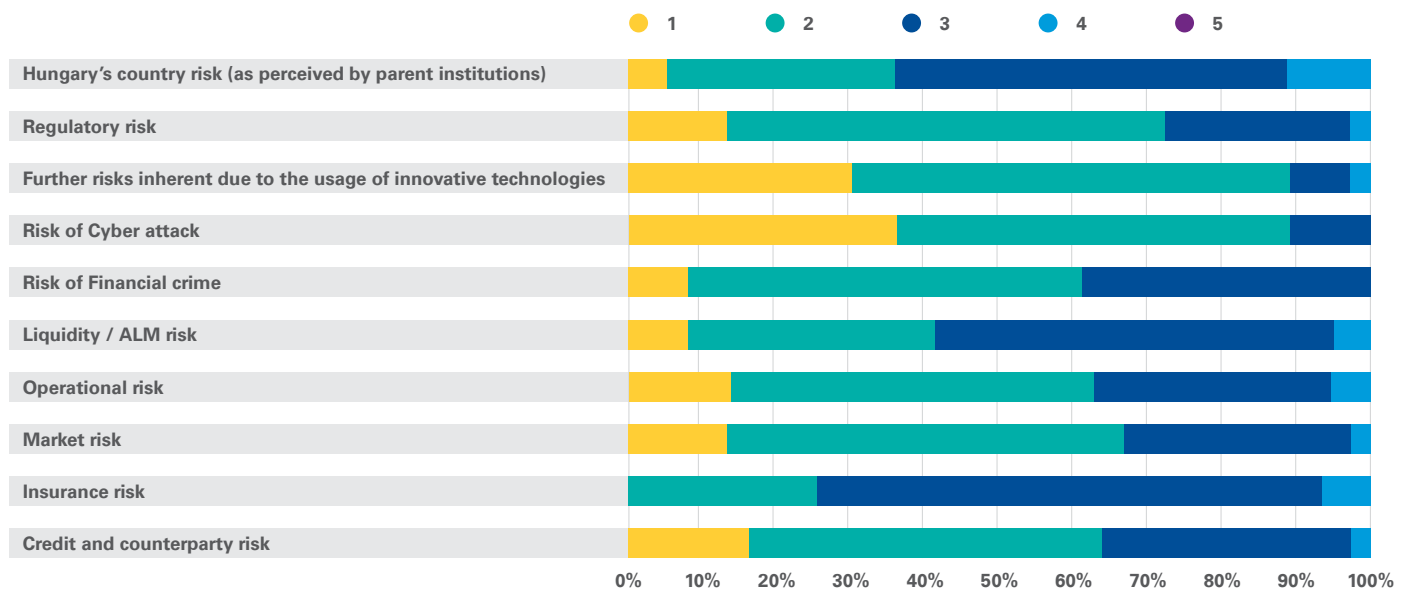




Figure 28. Aggregate – In your view, how will the risk environment change over the next two years for the following risk types? (scale of 1 to 5, from “risk exposure will significantly increase” to “risk exposure will significantly decrease”)



According to several respondents, the handling of HR-related challenges has emerged as another new element on the risk horizon of CROs, this is the risk related to attracting and retaining employees having appropriate skills.

This is particularly true in relation to the deployment of innovative technologies, here it is very difficult for risk management areas to keep up with business areas in terms of resources.

Summarizing the above, we can state that besides maintaining and further strengthening protection according to the traditional types of risks, the expected development of the risk environment poses new challenges that may even require a fundamental renewal of the operations and tools of the risk areas.

INTERVIEW

**Both risk management and advisory.****Zsolt Zombor**

Chief Risk Officer, Generali Insurance Co. Ltd.

The CROs advisory role is strengthening in the insurance industry, says Zsolt Zombor, CRO of Generali Insurance.

The recognition of the role has improved significantly in recent years, but in some situations, it remains a challenge to maintain a balance between business and risk points of view. According to the CRO, operational risks are increasing as a result of IT development and innovation efforts, while market processes tend to growing insurance and investment risks.

KPMG: You have worked mostly in the insurance sector during the nearly three decades of your career, and as a risk management executive for the last 15 years. What is the circumstance that you would bring to the attention of risk professionals in the early stages of their careers, which they need to be prepared for spiritually?

Zsolt Zombor: There is hardly any bankruptcy in the insurance sector in Hungary; there are no bad examples in the eyes of managers, the industry is fundamentally profitable. In such an environment, it is more difficult to have people accept the importance of risk management activities and to raise awareness of the risks to the company. Because safety is something we do not notice until we have it. It is relatively rare for a risk manager to be able to point to an event and say "this is a tangible and existing hazard and it was avoided with my help." Not everyone understands necessarily the role of a risk manager, and there may be resistance or opposition to their work. Not only in Hungary but even in England, for example, although they are well ahead of us in the development of financial institutions. Of course, this should not discourage novice risk managers. One can achieve great success in this area with the right attitude, cooperative and supportive behavior, and a little perseverance of course.

KPMG: Given the difficulties you mentioned, should we think that the CRO is moved to the background?

Zsolt Zombor: I would not say that at all. The profession may have been a bit confused earlier when regulations made it mandatory for insurers to hire a CRO, but they have understood by now why this function is important. There are areas where we can explicitly contribute to a stable, balanced, more profitable operation through proper risk control. I would say that in this sector, besides embodying the risk control function, the CRO also has a sort of strong advisory role.

KPMG: What are the areas where the advisory role carries more weight?

Zsolt Zombor: As a result of their work, risk managers are well aware of corporate processes, see through the operation of the insurer and notice things that do not occur to those operating the first line of defense because their focus is different. They have observations, can analyze data from different perspectives, can use the known risk management methodologies for other purposes, so they can provide

management with useful advice in order to promote more efficient, more profitable operations, avoid recurring mistakes, eliminate unnecessary costs and losses, and exploit the untapped potential. As the risk managers examine the risks in a comprehensive way, taken into account their context, the advisory role can be present in all areas. I feel it is important when establishing the key strategic directions and also when implementing the existing goals.

KPMG: Can you give an example where this advisory role was decisive?

Zsolt Zombor: At a previous job, the idea of starting a new business was born. The business opportunity was extremely popular back then and it seemed very tempting to take it. Although risk management was not automatically involved in deciding such issues back then, we raised our concerns. Despite the good sounding idea, we did not see the topic as fit at all and the financial calculations didn't justify the significant risk-taking in view of the expected business result. Eventually, the management of the insurer abandoned that business development plan and later that turned out to be a good decision. All in all, as a CRO, I think we can create the most value by representing and enforcing the standpoint that we should only take risks that produce an appropriate financial return. Risks should be priced and those that do not generate enough profit should be minimized and we should aim to eliminate the related activities.

KPMG: How do you feel about your independence and how important is it to you?

Zsolt Zombor: I report to the CEO. This helps me to operate from above, seeing through the operation of the insurer, but not closely linked to any area, this way I can provide independent advice and support with objective risk analysis. It also gives me sufficient empowerment to take on the necessary conflicts.

KPMG: What kind of conflicts do you have?

Zsolt Zombor: CROs can have confrontations with business areas on many fronts, as they often need to set limits and to draw the attention to malfunctions in certain areas in order to deliver stability and long-term profit interests. For example, CROs can have confrontations with the investment area or business areas with regards to the assessment of counterparty risks, if those areas would take more risks than required in order to achieve their plan for the given year. There are conflicting interests here and, of course, the risk manager cannot take the most comfortable position (let's not take any risk) but he has to step up against business demands with inherent risks.

KPMG: In your opinion, what are the areas where the risk is increasing?

Zsolt Zombor: One is the IT exposure, by that I mean not only cybersecurity but also maintaining a continuous customer experience. The importance of the customer experience is increasing, which forces financial service providers to continually develop and innovate, but the innovation itself and the deployment and operation of new systems also carry new risks. A data migration that went wrong, an unfortunate development, the linking of mostly old legacy systems with new features; all these pose operational risks, can lead to downtime and malfunction and can erode customer confidence in us. As a CRO, I prefer to first develop and test in a separate small environment in order to minimize risks. In addition, the traditional insurance risk is increasing due to intense competition between insurers. The economic environment and the low-interest-rate environment that is expected to stay with us for a couple of years are pointing towards increasing liquidity and ALM risks.



V.

How Do Innovation and Risk Management Influence Each Other?

| | |
|---|-----------|
| 1. Improving Customer Experience is a Strategic Goal | 54 |
| 2. Changing Trends in Development Methods | 56 |
| 3. Risks of Innovation | 57 |
| 4. Automation and Data Analysis | 58 |







How Do Innovation and Risk Management Influence Each Other?

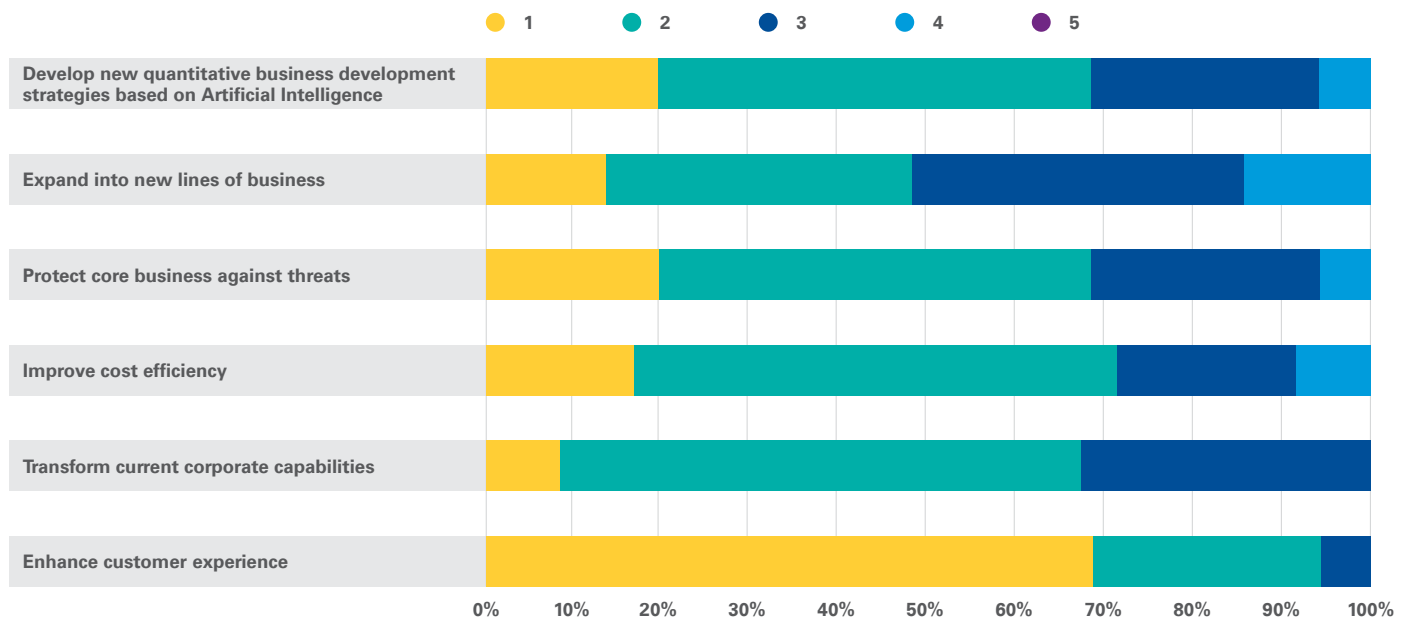
1. Improving Customer Experience is a Strategic Goal

In terms of supportability of strategic innovation goals the main focus is on improving customer experience across all sectors, whilst entering new areas received the least support; quite understandable from the perspective of a CRO since, in the absence of previous experience, this goal may involve the greatest risk.

In terms of improving the customer experience, an interesting and important question for the banking sector is how the increasingly accessible loans will impact the clients' risk awareness in the medium and long term.

The answer to this question is unclear. According to several respondents, easily and almost instantly available loans can reduce the clients' risk awareness, but are expected to enable them to reach several new segments, possibly with more favorable risk, i.e. proper segmentation, proper calculation and incorporation of risk costs into prices will be particularly important in this regard.

Figure 29. Aggregate – While creating an innovation strategy, which of the following strategic goals would you support, taking into account the associated risks? (scale of 1 to 5, from "I'd most probably support" to "I'd most probably not support")



In the insurance sector, besides improving the customer experience, the transformation of corporate skills and capabilities was also in focus, with a much greater emphasis than in the other two sectors.

This is correlated to the insurance risk management priorities mentioned before that are related to the development of organizational risk culture and skills. It is understandable that insurer CROs' priorities differ from those of bank CROs, as they run areas having significantly smaller headcount than their banking counterparts, so they exercise their impact on the company's risk-taking much more through the activities of the entire organization and all employees, relying even more on the capabilities of all three lines of defense (business – risk management – internal audit).

Institutions support the protection of their basic business activities in proportion to their size, i.e. when defining strategic goals, large institutions put those in the foreground much more than mid-size and small institutions. Besides all these, small institutions support to the least extent – and many respondents oppose – entering new business areas, a reason for this can be that in the case of small institutions, available resources do not allow them to be focused in several areas simultaneously, and their risk tolerance is also relatively smaller.



2. Changing Trends in Development Methods

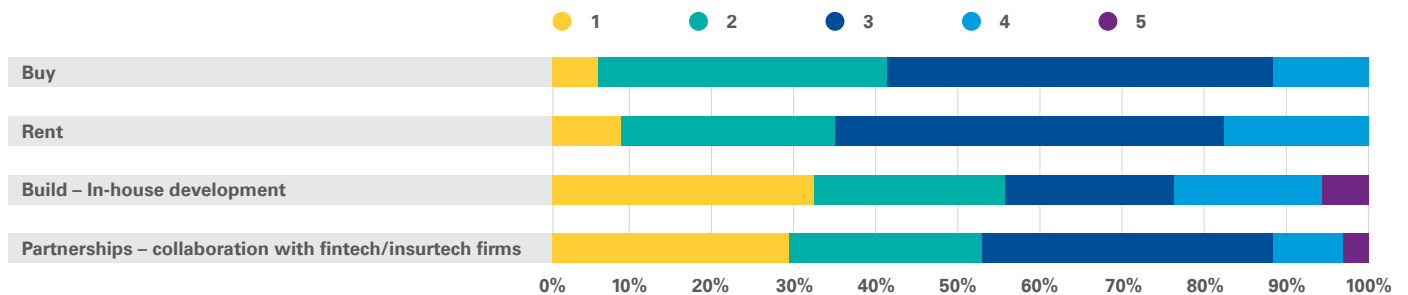
In this question, we were interested in the CROs’ views on innovation development strategies. Basically, there is no unanimous position among CROs in this regard, and no strong tendency can be observed among the solution options either by sector or size. Based on the interviews, innovation strategies are mostly influenced by other factors (e.g. availability of internal resources, financial planning rules, parent company’s approach) that are not constant over time, moreover, in our experience, the strategies of individual players are often renewed at a different pace.

In-house development and partnership received the most supportive feedback in connection with innovation development strategies; however, each alternative divided the contributors of the questionnaire, they received (strong) support from some respondents and were rejected by others, which is well reflected in the aggregate figure. The possibility of a partnership solution can be mentioned as an exception in the case of investment fund managers; this is supported by several contributors and is not opposed by any respondent.

Large companies may also consider a different possible solution, and although most emphasis would be on in-house-development (70%), more than 20% do not support this approach.

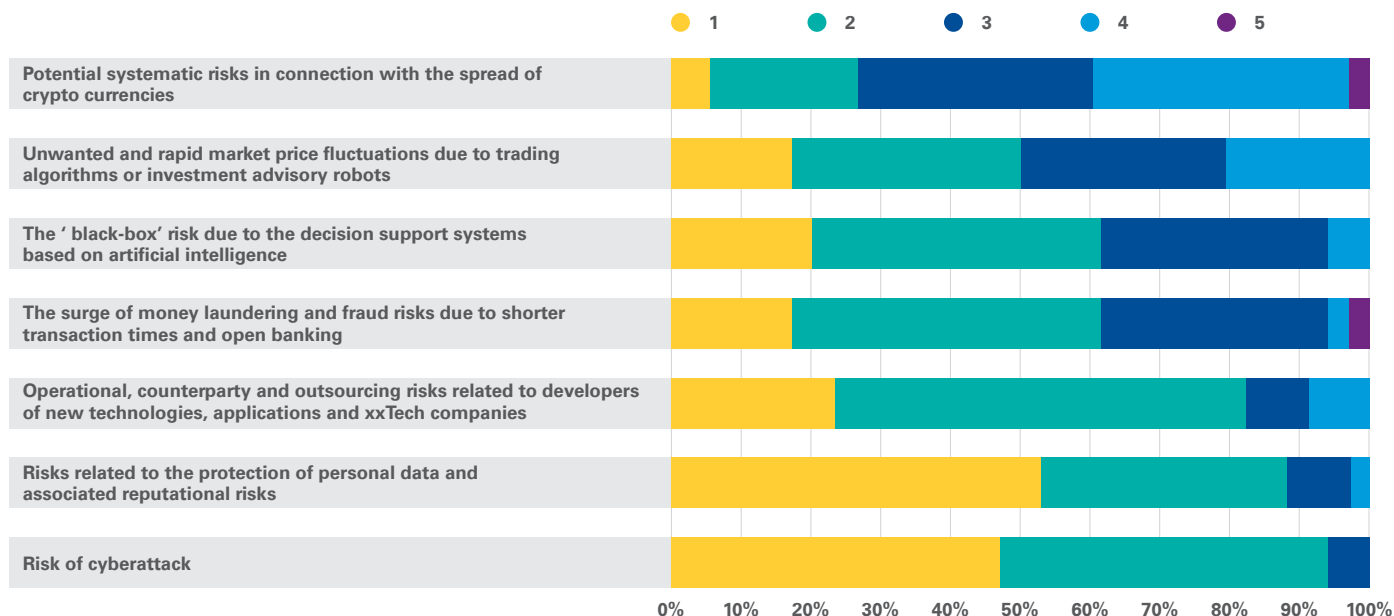
In the KPMG International Global Fintech Survey, 2017 we examined how financial institutions work together and use fintech companies for growth or development. On an international level, 81% of executives support the development strategy of collaboration with partners and 52% support in-house development. So, collaboration with other companies in the development of innovation areas has (still) much greater support globally than with domestic respondents, although it should be noted that the respondents of the international survey were top bank executives and not primarily from the risk management area.

Figure 30. Aggregate – Which of the following innovation development strategies would you support utmost, taking into account the associated risks? (scale of 1 to 5, from “most support” to “least support”)



3. Risks of Innovation

Figure 31. Aggregate – In your opinion what types of risk exposures increase the most with the use of innovative technologies in the financial services market? (scale of 1 to 5, from "critical increase of risk exposure" to "no increase of risk exposure")



There is an agreement in the market, across sectors and company sizes, on the risk factors most relevant to the development and application of innovative technologies. CROs have typically highlighted the risks associated with cyberattacks, the protection of personal data, and developers of new technologies and applications. The risks associated with the proliferation of cryptocurrencies were considered to be the smallest threat, mainly due to their current low presence in the business environment of the affected institutions. In addition, based on the communications of supervisory authorities, no change is expected in the perception of cryptocurrencies in the near future (see Libra), so in our experience, domestic players are not anticipating them to spread in the short to medium term.

After the three risks highlighted above, banks ranked fourth the risks of open banking that causes a shortening of transaction times, while insurers and fund managers ranked fourth the risk of transparency of artificial intelligence. In view of the answers given to the questions in the previous chapters (e.g. HR risk), it is important to take into account that the institution should expand not only the competencies of business/IT areas when developing and implementing innovative technologies; the risk management function should also be able to establish/ maintain competencies that enable them to provide efficient control activities that constitute a second line of defense. In this context, one of the CROs highlighted the following as a key issue:

“The key question is whether the risk area has competent resources to keep up with the pace set by business areas.”





4. Automation and Data Analysis

Based on the responses of the CROs, automation clearly stands out in connection with the development of their own area, with 95% of the responses giving it first or second priority.

This question is in strong correlation with the fact that on the one hand, the data-driven economy is gaining ground requires more and more data to be entered and processed, on the other hand, regulators require more and more reports/disclosures, thirdly it is increasingly difficult to find enough professionals to provide these while maintaining profitability. Through automation, institutions can improve their efficiency and profitability and at the same time reduce the risk of a lack of appropriate professionals and, for many tasks, the operational risk, which has key importance according to CROs.

On a sectoral level, CRO opinions are basically moving together, except for database extension/linking, Big Data and other techniques where, unlike insurers and banks, investment fund managers do not consider their development a high priority. The main explanation for this may be that although data quality is key in their case (see section 1.3), the complex analytical databases needed to manage funds and portfolios are already available on the market (e.g. Bloomberg, Refinitive, Thomson Reuters).

By size, significant differences can be seen in several cases:

- All of the mid-size institutions place high priority (besides automation) on risk analysis for new innovative products and services, and on support for innovative sales channels and techniques, developing these could be an opportunity for them to break out. Based on question 2 in this section, this often could be done in their case by partnering with fintech/insurtech companies; this one had relatively the highest support in their group, out of the four innovation strategies analyzed previously.
- In the case of small institutions less supportive feedback was received for each category compared to mid-size and large institutions. The background of this can be that internal local resources required for innovative development are more limited and cooperation with external partners is more difficult. The reason for this can be that sufficient internal resources are needed for starting such cooperation, as each such partnership will require a detailed assessment of business/legal/compliance/IT risks.

Figure 32. Large company – While developing the risk function and tools, what exploitation of innovative opportunities/ solutions receives the top priority at your institution? (1 – first priority, 2 – second priority, 3 – low priority)

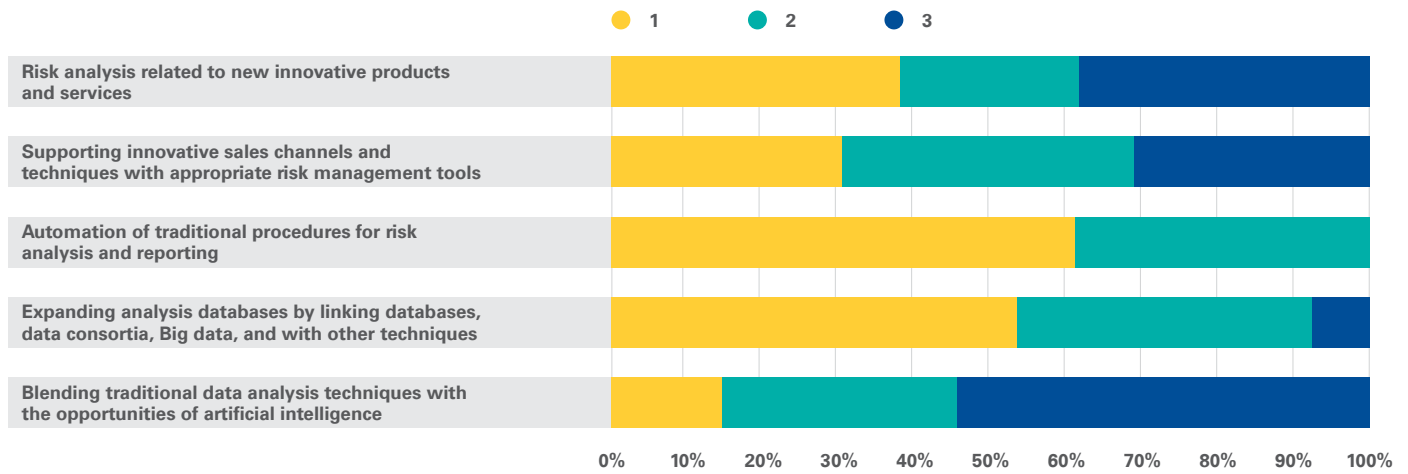


Figure 33. Mid-size company – While developing the risk function and tools, what exploitation of innovative opportunities/ solutions receives the top priority at your institution? (1 – first priority, 2 – second priority, 3 – low priority)

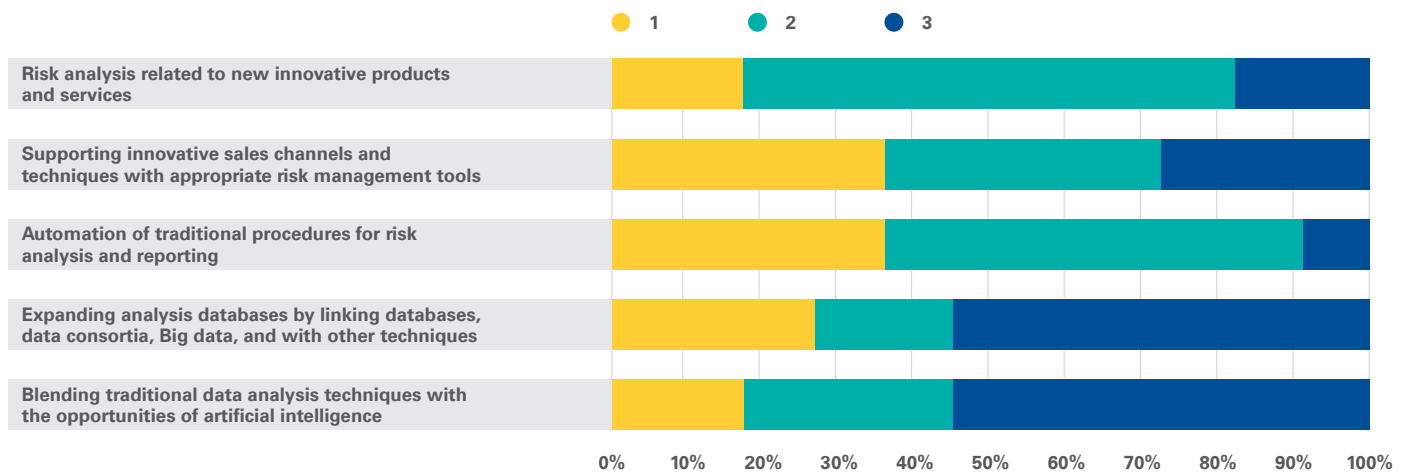
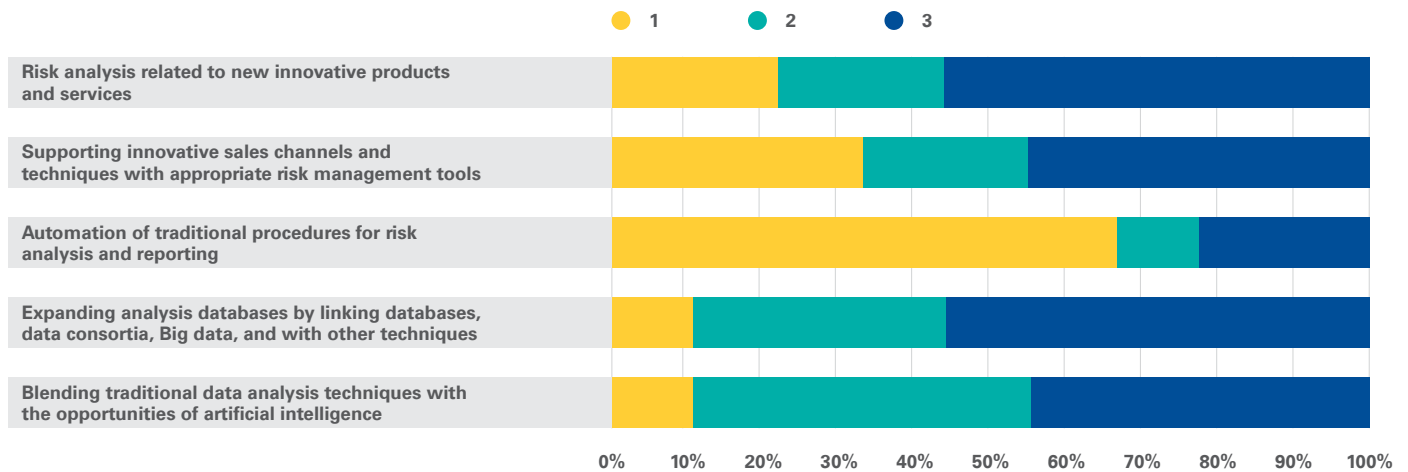


Figure 34. Small company – While developing the risk function and tools, what exploitation of innovative opportunities/ solutions receives the top priority at your institution? (1 – first priority, 2 – second priority, 3 – low priority)



INTERVIEW



The increasingly complex environment makes the understanding of the simple basic dynamics more valuable

Krisztina Zsiga

Chief Risk Officer, Deputy CEO, Erste Bank Hungary Co. Ltd.

A lot of new risk indicators have emerged since the crisis, most of which compress complex content into a single indicator using complex definitions. Their information content is leveraged, it is difficult to work with them and to predict risks, says Krisztina Zsiga, Chief Risk Officer and Deputy CEO of Erste Bank Hungary.

KPMG: Ten years ago, during the crisis, you worked abroad in a regional position, so you had a comprehensive view of what was happening. Since then, the economy has been in a fairly long upswing, and there is a sort of general expectation that another turnaround may come soon. Do you see any signs of this, which might call for caution?

Krisztina Zsiga: I think that in the current changed economic situation when economic fundamentals are being shattered, it is very difficult to identify the signs of crisis from macro-processes. I do not know what the starting point of the next crisis will be, I can imagine that the trigger will not be a single event, but the combined effect of several smaller negative developments that may still be manageable one by one.

However, if we were to start preparing for a possible crisis now, we would be far too late. A credit portfolio will not get crisis-proof by suddenly pulling the handbrake and quickly tightening our credit risk strategies and rules. A portfolio will be crisis-proof as a result of a consistent and responsible credit policy applied over years. In lending, many positive constraints appeared in the practice of banks in terms of risk management. They learned from the crisis and put more value on clients' creditworthiness versus collaterals; it has become clear that lending will not be sustainable in the long term just because it is a secured exposure.

KPMG: You said that general indicators are limited in their ability to predict risks, the goal could be achieved by tracking the key dynamics and forecasting main trends from there. How should this be understood?

Krisztina Zsiga: The quality of a loan portfolio is often assessed by the amount of non-performing loans, the risk cost or even the coverage ratio. However, they carry historical information and say very little about the risk that banks have taken over the past 2 to 3 years when placing new loans. That's why it is very important not to lose sight of the fundamentals, the basic processes, the operational analyses that provide information about the real risk dynamics without the effect of different changes in methodology. Let's take an example. There is a set of rules defining when a loan is considered to be in default (typically debt over a certain amount and over 90 days). So far, so good; this can be measured objectively. However, if the regulator stipulates that the number of days late is to be calculated differently, the time series will no longer be consistent. Therefore it is

important to have consistent indicators that provide long-term, undistorted information that can be compared without adjustments about the underlying dynamics for both new lending and the entire portfolio. This gives us a more accurate picture of what changes are having an impact on the risk level of the portfolio, be it external environmental impacts or internal credit policy changes.

KPMG: Data analysis has been ranked high in the responses to our questionnaire 3 years ago. What has changed since?

Krisztina Zsiga: The importance of data analysis and its potential has long been a central theme. Risk management has relied heavily on rating models for decades, and good quality data having proper granularity are essential for their development and continuous updating.

Over the last 3 to 5 years, we have invested a lot of energy into consolidating our databases; in addition to regulatory compliance, we wanted to make them usable in all areas. Digitalization has brought many convenience features and immediacy to clients. Banks are also under great pressure to not only simplify processes and products but also anticipate customer demand and find the customers with an offer when they need it. This requires analysis and modeling, but above all, databases and behavioral data.

KPMG: As a CRO, you also oversee the IT Security area. In your opinion, what are the characteristic similarities and differences between traditional bank risk management and IT risk management? How is it worthwhile to organize the relationship between the two areas?

Krisztina Zsiga: Basically both areas perform a control function as independent organizational units. Even within Erste Group, there are countries where IT Security belongs to IT, not risk management. Both setups have their justification, especially as we see an increasing portion of tasks becoming cross-functional, spanning several areas. And these challenges, which are increasingly complex, can only be answered in close cooperation, getting rid of the "silo" approach.

KPMG: Speaking about agility, many executives see it as a key success criterion. To what extent is that true for risk management?

Krisztina Zsiga: I do not think the risk management area could be translated one-to-one into an agile model. Instead, certain elements of the agile model can be translated into risk management. Most banks' organizational structure

remains largely unchanged for a long time now, with activities vertically divided into typical functions (Finance, Business, IT, Risk Management, etc.). However, the changing world brings more and more challenges that cannot be covered by these verticals alone. In the case of risk management, the emphasis is on creating the interfaces; risk management must be involved as a constructive partner in negotiating new business needs, but the decisions that are essential from the risk-taking point of view cannot be taken away.

KPMG: It is evident that changing or strengthening social expectations, behavioral consensus, and consumer habits result in increased reputational risks for companies. What do you think about that?

Krisztina Zsiga: The customer-centric approach has naturally led companies to be very attentive to their image and perception established in society. At the same time, the number and scope of rules that protect clients' interests have increased, and their implementation is a complex task with the potential for error. In addition, there is a new type of reputational risk. For example, the instant payment that is convenient for clients can be implemented (i.e. it will be instant) only if not only the bank initiating the transfer but also the one receiving it can handle the payment correctly. However, from the clients' perspective, in the case of a failed instant payment, it is – understandably – totally irrelevant for them whether the error was committed by their account-holding bank or the receiving bank. From there on, it is a failed transaction that they will associate with their account-holding bank. A similar challenge in terms of reputational risk in the PSD2 framework is the activity of third-party service providers authorized by customers. By getting access to clients' financial information, these providers bring vulnerabilities to the system and if they make a mistake, clients will likely attribute that to the bank keeping their account, even if that is innocent in that particular case.

Maybe that's why we should focus more on where we can be active, we should further build customer confidence and engage in dialogs on issues of social importance. To this end, Erste has developed and implemented a comprehensive program that places emphasis on responsible employment along the lines of diversity and equality. Emphasis is placed on responsible business conduct, which does not put profitability above the interests of the clients. We provide special funding opportunities for non-governmental organizations that support socially disadvantaged groups, and there are many important green initiatives too.





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