

White Paper
The Digital CRO

Gerold Grasshoff, Thomas Pfuhler, Volker Vonhoff, and Stefan Bochtler

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Microsoft founder Bill Gates once said, “We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten.” That sentiment is especially true when it comes to technology. Digital disruption seems like an abstraction until it is thrust upon one’s own business and industry.

It’s safe to say that in banking, disruption is already here. Innovations that were cutting-edge just a few years ago, such as robotic process automation, machine learning, artificial intelligence (AI), and cloud computing, are becoming mainstream. Likewise, fintechs and digital leaders born in the last decade have begun to form strategic banking partnerships and carve out specialized niches. As transformation accelerates, open banking, instant payments, and other advances will create enormous value for fast-moving institutions and, at the same time, disintermediate those that prove slow to adapt.

But just as banks cannot sit idly by, the risk function shouldn’t either. Chief credit officers are already busy optimizing their credit processes (See the BCG White Paper “*Credit Process Excellence: The Key to Unlocking Banking Performance*”). Now it’s time for the chief risk officer (CRO) to leverage the power of digital technologies across the entire risk function.

Risk Control of the Future

Imagine a virtual boardroom in which powerful, user-friendly dashboards allow risk leaders to simulate and stress-test potential strategies on the spot, a function in which steering is integrated and predictive modeling tools provide early notice of financial, operational, compliance, and cyber risks. That’s the future, and it is not a distant one.

Indeed, within ten years, leading CROs will have these capabilities. Big-data analytics, machine learning, AI, and service-based IT architectures that use decoupling API layers and centralized data storage will provide the risk control function with numerous capabilities. These include the ability to process reams of structured and unstructured data, to gain transparency into the banking and trading book in real time, and to anticipate changes in the broader markets. Productivity will improve as digitally-redesigned processes automate work cycles, improve compliance, reduce manually-induced errors, and free resource capacity. Sophisticated, real-time modeling will lower

risk and give managers the confidence-weighted insights they need to protect the bank’s interests, improve performance, and generate value.

Given the unique skills and data that are present within the risk function, a digital CRO could become both a nucleus and a force multiplier for bank-wide digital transformation. Achieving these benefits, however, will require a clear digital strategy, well-aligned use cases, and the right enablers. (See the below exhibit).



Start With Strategy

To see which digital capabilities will deliver the most value, the digital strategy should be based on a comprehensive market and competitor assessment—factoring in the bank’s strategic objectives, overall digital maturity, and major operational and customer pain points.

In designing the target operating model, leaders will need to rethink roles and relationships. As regulatory reporting becomes largely automated, the CRO will be able to focus on economic and risk-based steering, providing predictive insights to guide C-level discussions and assist other stakeholders. Risk IT’s role will also expand to act as a full-service provider for the entire risk stack. Governance mechanisms will also need to adjust in order to support greater collaboration among risk control, finance, and treasury—while still maintaining appropriate separation.

To keep the transformation on track, execution must also be thought out with a clear time frame, clear lines of accountability and a clearly-established implementation roadmap.

Digitize the Core

For the CRO of the future, regulatory reporting processes will be automated, with steering integrated and decisions managed by a small, highly-skilled team with specialist expertise.

By digitizing core risk-control processes, the CRO will improve the quality and speed of decision-making, free capacity, reduce errors, and foster forward-looking quantitative discussions. Data visualization, big-data analytics, and AI will dramatically improve model performance. Our comprehensive database of about 160 digital risk-use cases shows improvement potential for many processes in risk control. For instance, automated model development using fintech solutions will allow teams to run source data through concurrent simulations, select the most accurate ones, and use the time saved to address other important business questions.

Digitize Beyond the Core

Digitization will also allow the CRO to bring specialized risk-management expertise to other parts of the organization. By examining the needs of key stakeholders across the bank, risk control can pave the way for broader digitization. Using advanced modeling techniques, for example, the CRO could create an early-warning system. Pattern analysis tools would comb customer transaction data and external information—such as online ratings or satellite data—looking for signals and triggers that would allow risk managers to take effective countermeasures. Our project experience shows that a fully automated system could accurately predict a negative event in time to send an early warning signal as far as 18 months in advance.

Create the Right Enablers

As organizations detail strategy and plan the implementation, they also need to ensure that the necessary building blocks are in place.

From an organizational perspective, the risk control function needs to ask what type of structure will advance operational agility. Risk will need to adapt its processes and mode of interaction to the changing ways of working in the broader organization, as well as tailor agile approaches to its specific internal needs. Enabling teams to develop solutions will require new metrics, incentives, and reporting practices. Different skills and talent profiles will also be required. Risk teams will

need business intelligence specialists, data scientists, and “business translators” who can convey the function’s needs and priorities to IT and other stakeholders.

From a data and technology perspective, the risk control function needs to inventory existing data sources, determine where the gaps are, and consider how additional data can be accessed and stored. Working with IT, risk leaders will then need to lay out the optimal IT architecture. Instead of monolithic legacy systems, they will need a flexible, service-based architecture (employing APIs) that enables application autonomy, cloud computing, and real-time processing to manage ongoing regulatory changes and support fintech interfaces. The underlying data platform will need to serve as a single point of truth, leveraging the ability to pool structured and unstructured data from multiple sources. These sources will include commercial data providers and publicly-available repositories, as well as the bank’s own internal sources such as customer, transaction, account, and online data.

To speed up and de-risk the transformation, the CRO should assess which parts of the digital value chain make sense for the function to build or buy. Identifying best-in-class providers and forming strategic partnerships with promising fintechs and “risktechs” can provide the risk function with the kind of talent and fast-track innovation that the fintech sector is cultivating. Out of a universe of about 13,000 fintechs, we have identified and catalogued 1,300 “risktechs” that can support the digitization of a CRO function. (See the below exhibit).



Managing the evolving fintech ecosystem will require risk leaders to formalize the outsourcing of governance and logistics. Moreover, leveraging the significant innovation that is occurring in the fintech ecosystem will require the building of a digital platform that can support the integration and growth of the CRO's ecosystem of suppliers and partners.

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Now Is the Time to Digitize

Given both the speed and certainty of change, the CRO must move swiftly. We recommend the following steps to get started.

- 1) *Conduct a digital readiness assessment*: Inventory existing skills, processes, data, and IT architecture to identify critical gaps where digital tools and capabilities would add the greatest value.
- 2) *Run pilots*: Prioritize a handful of processes where rapid digitization could deliver quick wins, and use pilots to establish proof of concept.
- 3) *Manage new types of risk*: Address emerging risks—such as model risk, third-party or vendor risk, and cyber risk— and establish corresponding processes, while also meeting regulatory and supervisory demands.
- 4) *Create a formal roadmap*: Chart needs and requirements at each stage of deployment to ensure that the necessary resources, budget, and performance measurement processes are all in place.

Gerold Grasshoff
Thomas Pfuhler
Volker Vonhoff
Stefan Bochtler

About the Authors

Gerold Grasshoff is a senior partner and managing director in the Frankfurt office of Boston Consulting Group. Thomas Pfuhler is a partner and managing director in the firm's Munich office. Volker Vonhoff is a principal in BCG's Stuttgart office. Stefan Bochtler is a principal in the firm's New York office.

You may contact the authors by e-mail at:

Grasshoff.Gerold@bcg.com

Pfuhler.Thomas@bcg.com

Vonhoff.Volker@bcg.com

Bochtler.Stefan@bcg.com

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