





Universal Banking: A Unified Risk Function Is Key Part of Chartis and TCS's research series *The Future of the Risk Enterprise*





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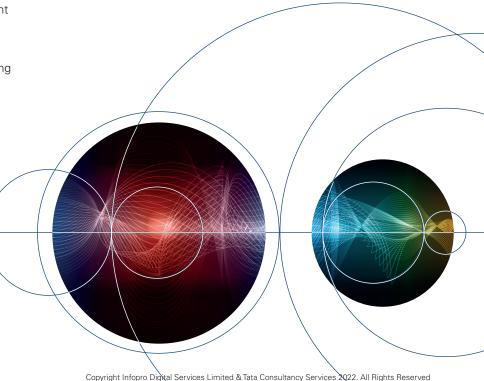
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Using expertise gained from working with global banks and insurers and regulatory and development institutions, as well as specialty firms, TCS has developed customizable solutions to help global BFSI organizations manage risks better, leverage ecosystems effectively and create value for customers.

TCS's Risk and Compliance unit is a focused strategic group that partners with CROs of global BFSI organizations in their transformation, innovation and regulatory change journey. With its subject-matter expertise, solutions and broader ecosystem capabilities, it has partnered with global BFSI clients in navigating the risk and compliance landscape, helping to create resilient and agile risk management capabilities.

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1. Executive summary

Working with chief risk officers (CROs) and other leading risk professionals, Chartis and TCS have undertaken an important piece of structural research and analysis that aims to understand how the CRO function¹ (or risk function) and its culture and processes are evolving. Focusing on operating processes, the research looks at the CRO function's overarching delivery mechanism, as well as the centralization and restructuring of the risk unit currently occurring in many financial institutions. Crucially, it examines the increased externalization of the risk function, its broader role, and the changing nature and impact of the services it delivers to the wider organization.

To gain a deeper understanding of the overall landscape, Chartis and TCS conducted both quantitative and qualitative research. This consisted of an extensive survey and a series of interviews and discussions focusing on CROs and risk IT staff within the risk function as a whole unit.

The research and analysis is contained in a series of seven reports:

- An introductory report, The Future of the Risk Enterprise: Enabling growth and competitive advantage, which provides an overview of the key findings and recommendations of our research.
- Five reports that consider firms in sub-sectors of the finance industry: retail banks, universal banks, buy-side firms (asset managers, hedge funds, etc.), insurance companies and investment banks. In these, we examine the specific pressures faced by firms in each sector and analyze how the risk function is evolving within each type of institution.
- A benchmarking report, Benchmarking the Risk Function: A Framework, which focuses on the benchmarks, roadmaps and analytical frameworks Chartis Research and TCS have built to enable financial institutions to analyze and understand where they stand relative to their peers.

When we refer to the 'CRO function' we don't just mean CROs. CROs can now have several people reporting to them, all of whom undertake a variety of tasks, including risk IT, risk methodology, quantitative development and technology risk. The overall risk function can be relatively large in some bigger organizations and highly distributed by business, geography and functional group. Some big banks can have hundreds of CROs, with many dedicated CROs for individual business lines under a group CRO.



2. Overview and context

Capital management challenges take center stage

In the universal banking sector, the role of the CRO function is increasingly being shaped by the need to manage a broad range of complex risks coming from a variety of businesses. As the restructuring of banking book credit progresses, the COVID-19 pandemic has helped to move credit operations and operational analytics to the top of firms' agendas.

This entails a significant structural modification in how the ongoing credit evolution progresses. The roles of analytics and external data continue to expand in the overall credit risk management process, and asset and liability management (ALM) and behavioral modeling are increasingly evolving into fully quantitative disciplines (see Figure 1).

Driving this change are several transformative forces. Triggered largely by regulations and reporting requirements such as Basel and International Financial Reporting Standard (IFRS) 9/ Current Expected Credit Losses (CECL), credit and credit analytics have become progressively more sophisticated, and different business lines and asset classes are increasingly using independent credit models. Indeed, 'risk-aware accounting' is setting the stage for more complexity in both the accounting and the overall finance functions. Accounting standards for credit risk have had an impact that goes deeper than just reporting - they

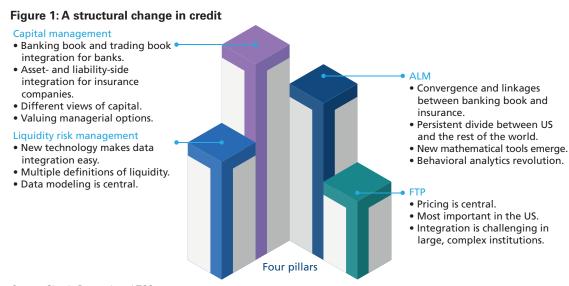
have triggered a fundamental restructuring of credit modeling.

All of this has led to explosive growth in the variety, diversity and sophistication of credit analytics and credit data vendors, with regional and business variation intensifying. Traded credit markets are increasingly linked with the banking book, materially changing the competitive landscape for traded credit vendors. There are now many new managed service providers of traded credit analytics, alongside significantly expanded platforms belonging to historical players.

Many styles of credit risk intermediation

Risk intermediation used to be simple and straightforward, but the variety and diversity of credit institutions has exploded. Today many complex hybrids exist, including private equity firms, insurance companies and various combinations - in what has been a time of significant change globally.

As the use of credit analytics and operations broadens, ALM solutions (outside banking) are expanding their focus on illiquid incomegenerating assets, which are increasingly driving convergence. Sell-side risk analytics (and risk platforms) are increasingly becoming the de facto standard across the buy-side, while many large

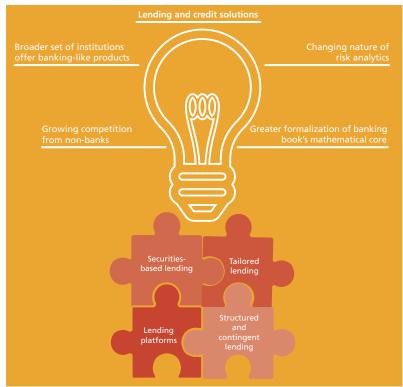




institutions and virtually all universal banks have multiple credit operations under one roof. The broad use of credit analytics has proved to be a big obstacle in creating a coherent framework for the many different styles of credit - a task that can be extremely challenging (see Figure 2).

As the credit market expands and the number of relevant vendors continues to increase and diversify, so does the role of the CRO function as it tries to adapt and learn the risk management frameworks across various asset classes. Having all credit operations in one place can lead to inhouse technological developments and solutions that can facilitate and support evolving credit analytics.

Figure 2: Creating a coherent risk framework





3. The evolving role of the CRO function

Disparate and fragmented

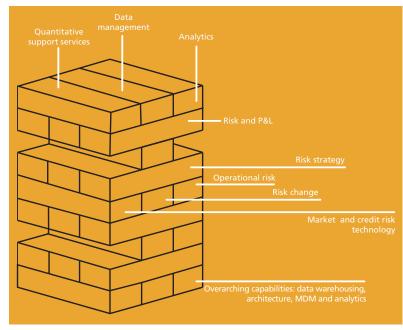
More than 80% of the respondents in our survey felt that the responsibilities of their risk function were disparate and not unified, and that strategies around increasing centralization and structural integration would be vital going forward. In fact, 'balkanization' is still widespread in the risk function in universal banks, characterized by widely varying technologies and operational frameworks. Almost every major risk organization is highly fragmented; larger institutions can sometimes have hundreds of individual CROs, in what can often be confusing combinations of roles and responsibilities.

To reduce this balkanization, firms must build a unified risk function, while preserving the autonomy of certain activities (see Figure 3). Around half of our respondents felt that their organizations were already making this centralization an operational reality.

Tackling risks, re-engineering models

Alongside these trends, changes in regulation and operational issues are driving the CRO function to reengineer credit modeling (see Figure 4).

Figure 3: Building a unified risk function



Source: Chartis Research and TCS

Figure 4: Re-engineering the models

Banking book

- Fundamental change in default risk computational techniques.
- Development of banking book performance analytics.
- Growth of credit portfolio strategies and frameworks. - Aligning regulatory and accounting risks.
- Ongoing data revolution.
- COVID-19 and credit shock.

Risk-aware finance

- Risk-aware finance solution: IFRS 9/CECL.
- Continued volumes. Linked with the banking book.
- Trigger for ongoing modeling shifts across the business.
- New applications: portfolio management.

Credit in shadow banks

Many monolines and shadow banks (money market funds, hedge funds, insurance firms, private equity funds, etc.) have generated very substantial credit exposure, often in non-standard combinations

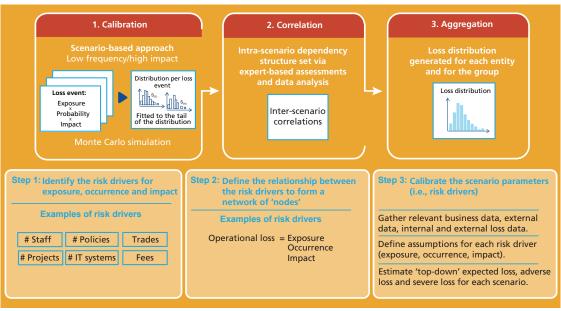
Traded credit markets

Continued rapid expansion of structured credit, CLO, CMBS, corporate bond markets and associated data/analytics, alongside strong market shocks, has created the context for a drive toward conjoined credit risk analytics (market and credit).

Enhanced analytics



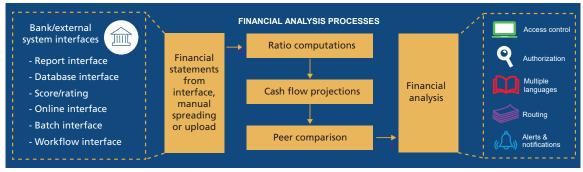
Figure 5: Operational risk quantification



Source: Chartis Research and TCS

Meanwhile, the broader push toward operational risk quantification – led by universal banks – is continuing through non-capital means (see Figure 5). can facilitate more productive business. Analysts can focus on data output while the CRO manages internal and external interfaces, ensuring proper protocols and channels are used in producing financial analytics.

Figure 6: Tighter integration with financial analysis



Source: Chartis Research and TCS

As credit risk management and the CRO's role shift alongside credit market regulations, the all-encompassing integrated model is developing slowly and from vastly different directions. Expanding the CRO's role to include such varied areas has created a need for technological advances, especially in operational risk.

Along with an OpRisk function, universal banks require CROs to be directly connected with the front office and its analytical processes, especially financial analysis (see Figure 6). Involving the CRO in these processes

A broader definition of risk

In fact, risk management technology in universal banks is moving beyond modeling and asset liability issues into a broader definition of risk. Although the CRO's role is expanding in different directions, a move toward operations has profound implications for the technology that firms use.

New operational or non-financial risks² are increasingly moving to the center of the CRO's world. The consequences of taking a more risk-

² It could be argued that these risks (technology risk, climate risk, environmental, social and governance [ESG], operational resilence, cyber risk, data privacy, etc.) are ultimately financial in nature but arise either from technology or business operations.



oriented approach to these risk types will become clearer over time, as insitutions learn to quantify, allocate, attribute and manage them.

However, while leading institutions are moving toward integrated 'enterprise risk management', they are doing so slowly, and from fundamentally different directions. As a result, firms may only see risks through discrete lenses, rather than the 360-degree view promised by a consolidated and centralized risk function (see Figure 7).

A framework for success

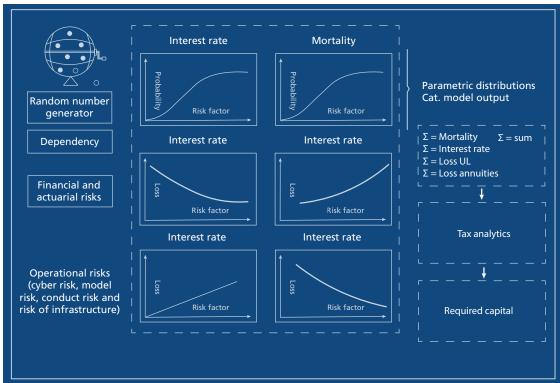
To succeed in this, the most advanced banks are using stochastic, all-risk aggregation approaches that leverage simulation, scenario and proxy models. They can incorporate financial, operational and actuarial risk into a single aggregation framework (see Figure 8).

Applications generally embed predefined templates and ad hoc reporting for users at any level. This enables them to disseminate risk information to regulators for compliance and risk reporting requirements, and to senior management to improve risk-related decision-making.

Figure 7: A 360-degree view of risk Risk function

Source: Chartis Research and TCS

Figure 8: A single all-risk aggregation framework





Each point of the triangle shown in Figure 9 risk aggregation, hedge analytics and asset management infrastructure – leverages the other functions in the interior of the triangle. However, while each capability leverages the same functions, risk management solutions normally focus on delivering either reporting, asset management or hedge analytics.

Creating and implementing a single all-risk framework is advantageous for banks, as it helps them to incorporate different risks (such as financial, operational and actuarial) into one element. By using a standalone stochastic model, banks can leverage simulation, scenario and proxy models. But developing an all-risk aggregation framework creates its own challenges, because firms must consider the different components of risk. Having functions that can leverage and utilize other capabilities is beneficial in simultaneously providing different technological solutions.

Externalization is growing and maturing in key areas

Having an externalization program in place is a relatively new practice in universal banking. Many institutions face capital and/or regulatory constraints, which have shifted their own business models significantly. Having correspondent banking relationships allows risk services to be successfully managed as a shared responsibility (see Figure 10).

For many commercial banks, capital constraints and other structural and regulatory limitations

Figure 9: Delivering key capabilities Risk aggregation

Source: Chartis Research and TCS

have implied a significant shift in the business model, with an increasing focus on a distributed model in banks' core loan operations. Equally, one of the main areas of potential growth has been in the provision of treasury services to corporate customers. This allows risk services to be provided to a firm's customers, while de-risking their exposures.

Figure 10: Commercial and retail risk externalization



- Correspondent banking relationships are the centerpiece of retail and commercial banking externalization.
- The other significant area of retail externalization involves financial planning and advice, both of which are increasingly informed by the risk function.



4. The way forward

Across the entirety of this research we have explored strategic shifts in the way that risk departments and functions are being organized, how they are interacting with other business groups, and how far they and their institutions have moved toward commercializing and externalizing the risk function and its activities. This has involved an analysis of the mechanism by which risk units are involved, directly or indirectly, with customer management – how the risk function is enabling customers of institutions to manage and control their own risks.

The research has revealed enormous variance in these situations and approaches. Some risk organizations are centralized, some are highly distributed, some collaborate closely with their business units, some even have special units designed to collaborate. And still others are highly commercialized, providing repackaged services to create commercial value and/or stronger customer relationships. From the institutions' perspective, some of this repackaging and commercialization serves strong business ends, enabling them to 'de-risk' in a way that does not disrupt existing customer relationships.

Looking ahead, we expect these themes - greater interaction with front-line business units and greater commercialization and externalization of risk units – to continue and expand across the industry as organizations and risk units mature. The mechanics of these developments will vary from organization to organization. We will see greater diversification of the personnel who work within risk units to include a wider variety of backgrounds, such as technology and financial risk, engineering, data science and other disciplines that complement core risk capabilities.

As we have noted, there are correct and incorrect ways for firms to approach the evolving risk function and its fit within the wider organization. Any plans must be properly structured – firms' response to these evolving dynamics will vary depending on their size and type and the nature of their customer relationships. Institutions must manage the necessary growth and change, but they must also calibrate and measure themselves appropriately as they evolve. This is a complex process, and to succeed firms will have to break down some existing cultural ideas around how risk units should be organized.

In that context, when establishing this culture, processes and methodologies are often far more important than high-level conceptual approaches. Senior management must consider the organizational maturity of the risk function and what it needs to achieve, setting out very clear guidelines and targets around the level of interaction between risk and other business units. As our research highlights, formal rules, processes and methodologies are vital elements in driving risk culture throughout an organization.

Finally, it is one thing to talk about culture and quite another to define and communicate it effectively. The more formal rules and well-defined methodologies firms have, the more likely they are to avoid problems. And carefully benchmarking how they are achieving this is key – what you can't measure you don't understand and you can't control

Universal banking: more complex strategies

Universal banking is a flexible category that overlaps with others; however, from our perspective, a variety of organizations have characteristics that qualify them as universal banks (such as multiple and relatively independent lines of business). In our view, these institutions generally have a set of core characteristics that distinguish them sharply from more focused and specialized entities. These include:

- · Organizational complexity.
- More complex technology platforms.
- Varied operational risk.
- · Overall business stability.

Many of these institutions also tend to be local, regional or national champions, and often have a strong symbiotic relationship with the broader financial and business community. Many, if not all, of these firms offer a variety of institutional services to other financial entities and corporates (such as treasury, prime brokerage, securities services, etc.).

In our view, three key trends will evolve in universal banking:



- Matrix risk organizations will emerge, with a clearer definition of matrix interfaces.
- There will be a strong push to externalize and commercialize risk units in part or completely. Many universal banks are at the center of complex regional, national or international networks, which in our view creates an ideal context for driving increasing commercialization and externalization of the risk function.
- There will be a very strong push to incorporate operational risks that range from climate risk and ESG to technology and cyber risks.

Ultimately, universal banks will have to develop more complex strategies because they must balance the often complex demands and requirements of different intermediary-oriented business units (such as capital markets and investment banking units) with more retail-oriented groups. For entities that are naturally oriented toward intermediaries, the focus is on creating sophisticated externalization and commercialization activities, and the appropriate business models, without generating conflicts of interest. Crucially, universal banks must work with intermediary groups, but must also focus on their particular competencies and strengths.