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Bridging the gap  
between risk data  
and business benefits

Risk data as a  
value generator



# Risk data as a value generator

Most banks have made significant progress toward implementing the necessary transformation of their infrastructure, to comply with the Basel Committee's principles for risk data aggregation and risk reporting (RDARR) (also commonly known as BCBS 239).

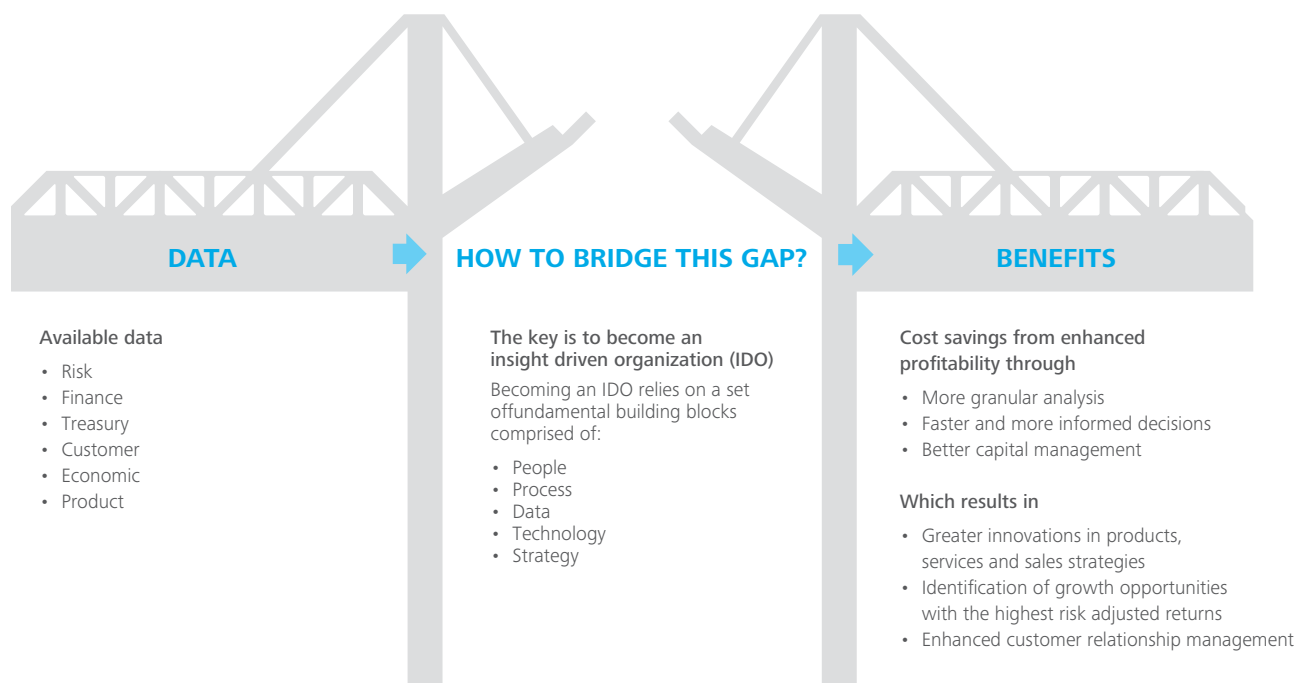
This has required a substantial investment of time, resources and money. But how do you ensure that this multi-million dollar investment becomes a value driver and not just a compliance cost?

## Bank profit margins are under increasing pressure

In the current environment, banks' profitability is being compressed at both ends. A constant barrage of regulatory expectations has increased the overall cost of doing business. These expectations are unlikely to abate, making an environment of heightened regulatory scrutiny the new norm. As a result, many Canadian banks are undertaking cost-cutting initiatives. There is also the threat of new sector entrants that could cannibalize traditional banks' market share and revenue. Widely recognized and nimble brands like Google, Apple and PayPal are targeting the financial services market, in addition to lesser known new players like OnDeck and Lending Club. Potentially disruptive innovations like digital banking, blockchain technologies and peer-to-peer lending threaten to further destabilize the existing banking model.

This is where banks' recent investment in risk infrastructure could pay off in a big way.

Figure 1: How to bridge the gap between data and its benefits



ADDRESSING DATA PERFORMANCE ISSUES IS NOT JUST A REGULATORY EXPECTATION. THE SAME DATA ISSUES LIMIT THE ABILITY TO PERFORM EFFECTIVE RISK ANALYTICS. ANALYTICS CHALLENGES INCLUDE:

- An inordinate amount of time spent cleansing, structuring and linking data to make it fit for analytics consumption
- Lack of clarity on what the data is saying due to inconsistent definitions of important terms and variables
- Poor analytics performance capabilities, resulting in slow time-to-market and an inability to adopt a “test and learn” approach
- Limited access to analytics tools within the organization

### How can your recent risk data infrastructure investment tap into potential value?

A number of financial institutions (FIs) are well on the way toward implementing most necessary risk capabilities, including a state-of-the-art risk data warehouse, cutting-edge analytical reporting tools, and an ongoing commitment to improving data aggregation and management capabilities. Risk data warehousing capabilities enable the collection and recovery of critical data for risk engine processing, including data around credit origination, collections and recovery, loan loss provisioning, liquidity profiles, trading risks and stress testing. Notably, as they put more advanced reporting tools into place, some FIs are already producing more accurate, informative reports grounded in better quality information.

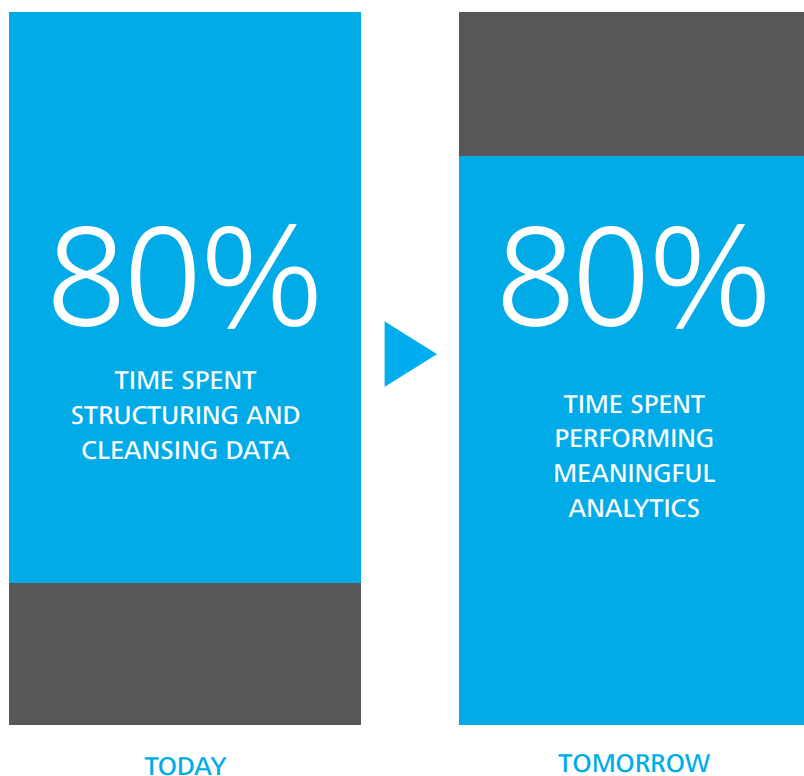
Moreover, organizations that are looking to maximize the benefits of their data aggregation initiatives have also begun improving the way they deal with non-risk data. While the new RDARR principles may provide the basic impetus for development, it's organizations that commit to a full-on data transformation agenda that will reap the broadest business and strategic benefits. This means also leveraging other internal information, such as customer management databases, delinquency management/collections databases, trade finance systems information and wealth management databases. Also being considered are external sources such as: macroeconomic data and statistics, third-party information (e.g. Reuter's, Bloomberg, Risk Metrics), data from research providers (e.g. Economist Intelligence Bureau, brokerage houses) and unstructured data from social media.

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“To remain competitive, FIs should capitalize on the opportunity to aim beyond compliance and establish the capacity to optimize the value of their data. Tomorrow's successful FIs are those that create a data vision and strategy that permeates their operations today.”

Figure 2: Shifting the focus for analytics towards timely and effective decision making

### A DECISION-CENTRIC APPROACH IS BECOMING THE CENTRAL FOCUS FOR MOST BUSINESSES



These capabilities will influence the way organizations make decisions. Those that are prepared to shift their focus towards becoming an insight driven organization (IDO) will be in a better position to leverage their analytics capabilities to make more timely and effective decisions at all levels of the organization.

### The benefits of improved data management

While the purpose of RDARR is to improve data quality, reporting accuracy and the rigour applied to major banks' risk decisions, the principles also create an extraordinary opportunity for FIs to move beyond minimum compliance. By transforming their direction and strategy, FIs can also uncover new business opportunities, reduce costs, mitigate risk and grow the business. To reap these rewards, however, they will need to invest in enhancing their data analytics capabilities.

With analytics, FIs can begin to break down the silos that keep their data repositories separate. By enabling a seamless data flow across the enterprise, stakeholders can aggregate data, regulate its integrity and gain access to the information that matters most.

Basic RDARR compliance will still deliver a range of risk-related benefits. However, to realize a true long-term advantage, organizations will need to move beyond the minimum requirements of RDARR by extending their analysis to business and customer data, rather than confining it to risk data.

# The benefits

## Benefits for risk management and capital optimization

With an advanced data warehouse in place and the ability to aggregate and manage data from a broad range of key internal and external sources, FIs have the basic framework to realize multiple risk-related benefits. For instance, consistent data taxonomies—including agreed-upon product definitions and established volume and growth measures across lines of business and risk and finance operations—will enable better internal dialogue, ultimately driving better and faster decision making. Potential benefits include:

### More accurate loss projections

Loss provisions for large loan portfolios can amount to hundreds of millions of dollars in many large FIs. Despite this, estimates of losses have historically been made using data that is often inaccurate, poorly segmented and incomplete, before supplementing it with human judgment. In some cases, an inability to aggregate data across the finance and risk functions, and the collections and operating groups, results in inconsistent categorization of similar loans. In other cases, projections over- or under-shoot actual losses, often considerably, with little understanding of the sources or expected size of the error. However, the size of errors can be brought down, and the sources of error better understood, by applying statistical techniques and data mining exercises to consistent data sets across an organization—and across silos—creating a clear and consistent picture of loss sources.

There is also an opportunity to increase the forward-looking impact of underlying drivers and lessen the focus on prior history. By making risk data aggregation and disaggregation more flexible and granular, FIs can

distinguish and consistently manage loss drivers across the customer lifecycle. Aggregate losses at the top of the house can be disaggregated and traced to their various sources, yielding better visibility. Inconsistently segregated loans can be accurately separated and reclassified as well. This enhanced analytical capability not only improves understanding of loss impacts, but it also leads to better risk management.

### Better capital management

Higher confidence in loss forecasting for existing initiatives, driven by higher quality data and insightful application of predictive analytics, could provide insight into where conservative capital buffers could be reduced. This would free up capital for reinvestment in growth initiatives. Similarly, risk-weighted assets related to unexpected losses may be better understood and the sources of risk traced and managed. This improves insight into the risk return profile of the enterprise, operating groups, projects, initiatives and lines of business as the data used to measure risk-adjusted return on capital (RAROC) and other metrics will be consistent across silos. Effective analytical techniques also improve the accuracy of performance comparisons between regions, lines of business and other business segments. With insight driving decisions from the top of the house to each line of business, FIs can allocate capital to optimize their risk return profile. They can also limit investment in initiatives that earn short-term profits at the expense of longer-term stability and reward those that generate true long-term value, ultimately optimizing their returns on capital for the amount of risk undertaken.

## KEY RISK/ANALYTICS QUESTIONS ALL ORGANIZATIONS SHOULD ASK

1. Are our models over- (or under-) estimating our risks?
2. How do we use risk data and risk metrics to make better decisions?
3. How do risk-return indicators relate meaningfully to our organization's other KPIs?
4. How do we find and mitigate (or enhance) risk concentration (or diversification) effects?
5. How do we compare our results to peers in a meaningful way that can inform our strategy?
6. What excuses are being used to justify the inability to answer questions?
7. Does our data provide insights on cost reduction and revenue improvement opportunities?
8. Do we have the right people in place to take our analytics strategy to the next level?

## Benefits for customer relationship management and profitability

Although the benefits of risk data analytics are considerable, organizations that extend their analysis beyond risk data to incorporate broader business and customer data stand to reap exponential rewards. By combining high quality, granular, properly aggregated risk data with additional customer data, it becomes easier to overcome the traditional barriers between the risk and sales functions. This will allow organizations to:

### Implement better decisions on the ground

Use business intelligence and data visualization, along with better customer targeting and management systems, to apply risk profiles when setting business line-level targets. For example, by understanding customer attributes, behaviours and performance, management can determine which customer segments have been most valuable to the organization based on the risk-adjusted return on capital of various historical initiatives.

### Make decisions faster

Predictive analytics can use combined external and internal risk data to anticipate changes in risk rating and creditworthiness related to region or industry. In this way, losses in business lines expected to encounter difficulty may be proactively mitigated in advance, avoiding over-investment. Reliance on more predictive models can also help you accelerate decision-making and react more quickly, fuelling the ability to fine-tune corporate strategy more dynamically.

### Make decisions at less cost

Currently, data quality and availability issues require considerable manual intervention. Higher quality data would mean a reduced reliance on manual processes, which would decrease both operations costs and errors.

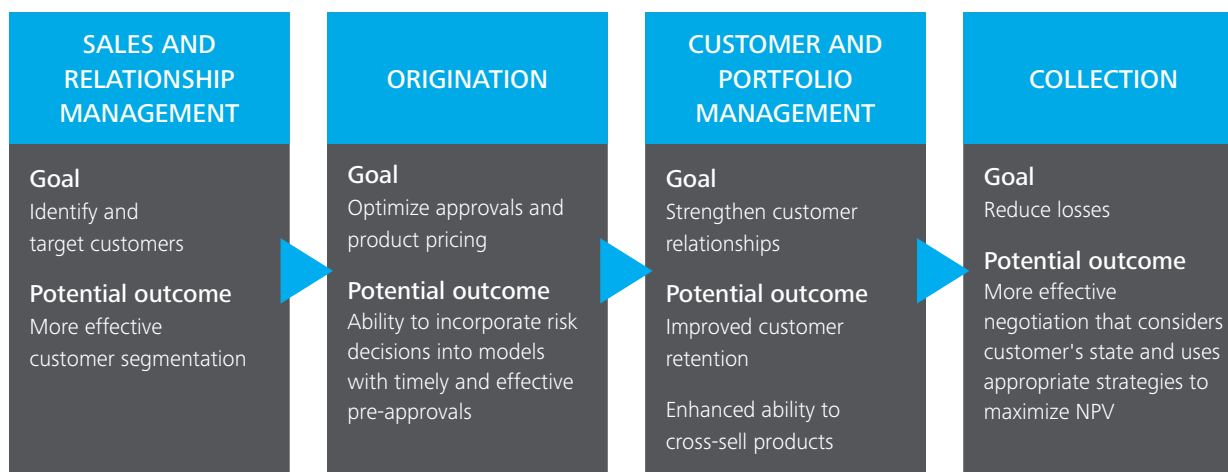
### Develop products, services and sales strategies

With access to more timely data about customer product and service preferences, FIs will be better placed to refine their market offerings on a continuous basis. Customers seeking information about products offering downside protection, may be preparing for losses and a possible credit downgrade. Service offerings to such clients may be extended to manage or mitigate credit downgrades or to anticipate hedging or capital needs. Robust risk and customer data will also enable customer insight-driven offers (e.g., just-in-time customer next best actions), rather than relying on the traditional generic, product-focused approach.

### Identify growth opportunities with the highest risk-adjusted returns

A more complete understanding of liquidity and capital position, both under stress and forecasted conditions, can allow for better targeting of M&A opportunities that complement the FI's current risk position and compensate for vulnerabilities. For example, risk diversification benefits may contribute to synergies between a target and an acquirer, and these may be assessed and more accurately valued with good data and the right analytics. Conversely, acquisition targets with high quality data will enable acquirers to identify and quantify key variables affecting potential synergies and should be able to command a higher valuation. While this may not be the sole determinant of whether to acquire or not, it is becoming an increasingly important consideration.

Figure 3: Credit risk lifecycle and some illustrative benefits of the effective use of analytics



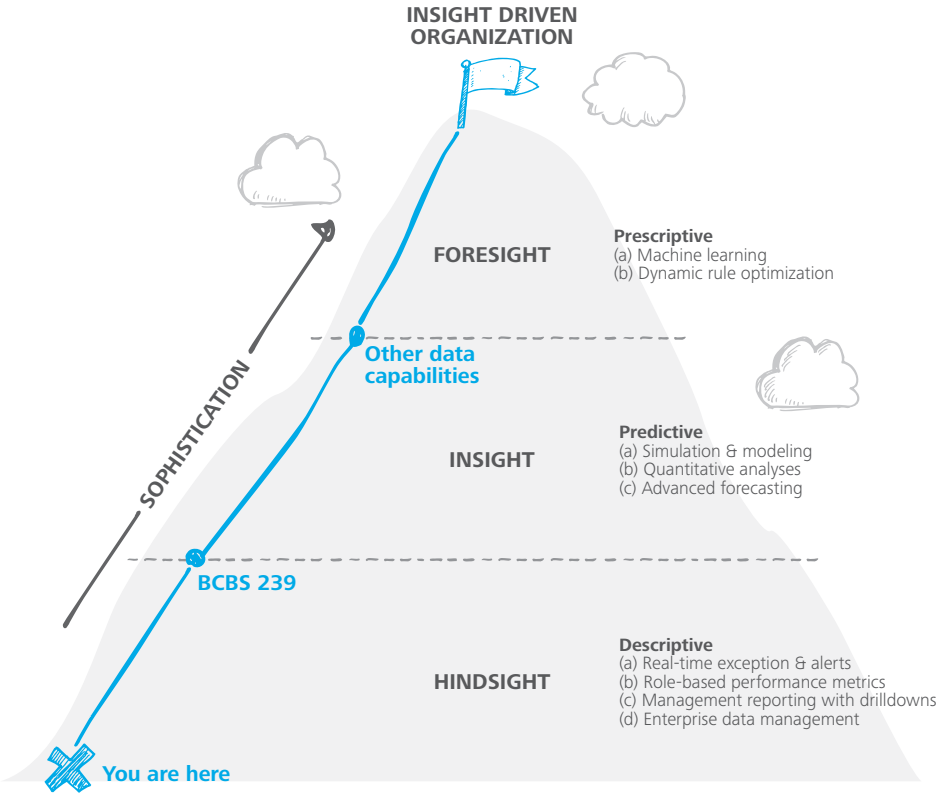
### Embarking on the analytics journey

For decades, banks have been plagued by problems with data availability, accuracy, completeness, timeliness, consistency, integration and application. With the introduction of RDARR, however, many of these problems are being addressed. Banks are moving towards the development of an integrated data model that combines enterprise risk data with other internal and external data sources to create a base knowledge framework from which further analytical processes can flow.

At the peak, where the analytics journey culminates, sits the insight driven organization, reaping the benefit of enhanced foresight. To scale this peak, however, FIs will need to move beyond descriptive data analysis based on historical performance to increasingly predictive and even prescriptive forms of analysis.

Fortunately, the application of analytics—and the recognition of its relative importance to performance and success—is growing. Companies have slowly started investing in analytical capabilities and integrating analytics into decisions and processes, and even basic investments in risk analytics can move companies up the maturity slope. However, those organizations that fully embrace analytics across the enterprise stand to gain even more than the ability to tackle the most complex business problems and address evolving global economic trends in near-real time. With the right strategy, people, processes, data and technology in place, these forward-thinking FIs will be positioned to take a true leadership position in today’s evolving data-driven business world.

Figure 4: Journey to analytics





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