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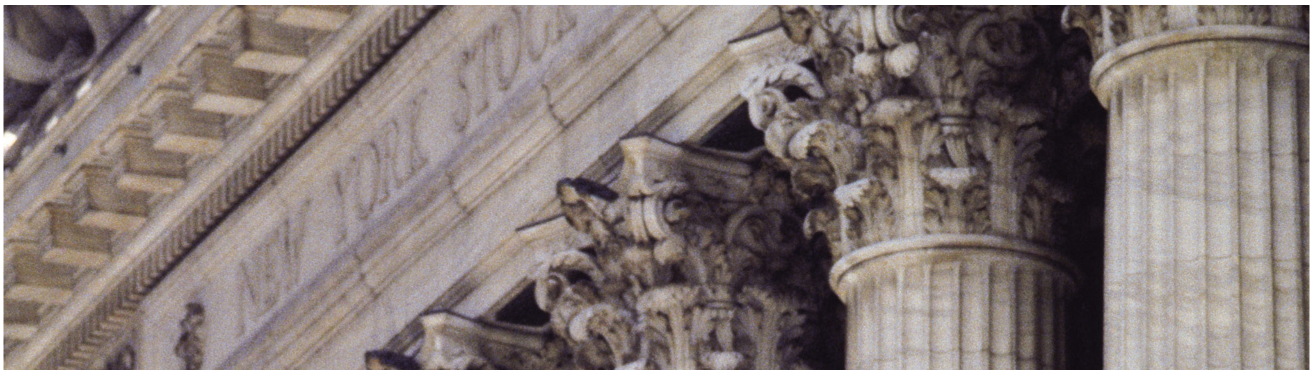


# Credit underwriting after the crisis

Daniel Becker

Holger Harreis

Stefano E. Manzonetto

Marco Piccitto

Michal Skalsky

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# *Credit underwriting after the crisis*

Prior to the recent financial crisis, numerous banks revamped their credit underwriting processes with a focus on speed, costs, efficiency, and customer satisfaction. The one thing they forgot to consider was effectiveness, or risk cost, and many subsequently got burned. Several banks are again re-evaluating their credit processes, now with an emphasis on lower losses and streamlined operations. By focusing jointly on efficiency and effectiveness, banks can draw important lessons from the crisis and accordingly adapt to the new dynamics of credit demand and supply. This document outlines the key structural trends that are reshaping banks' credit underwriting processes and discusses practical measures banks should take to extract significantly higher value from lending operations.

## *THE NEW DYNAMICS OF CREDIT UNDERWRITING*

Believe it or not, some financial market essentials have been stable throughout the crisis. Credit is, and will remain, the core financing source for companies and private individuals. It will also remain a core driver of bank revenues and profits for the foreseeable future. Assuming relatively competitive markets and informed customers, credit economics will continue to be driven primarily by three dimensions of the credit underwriting process: *efficiency* (operational cost) and *effectiveness* (risk cost) in combination with *pricing* (revenues).

Despite these elements of continuity, the credit business has changed dramatically and will in all likelihood not revert to pre-crisis norms for quite a while, and for good reason. We expect that higher demand for bank credit and weaker supply will continue to define and shape the "new normal" of the credit business.

As the economic recovery continues, demand for credit will rise as corporates pursue investments suspended during the crisis. These projects will be funded mainly through banks, as capital markets' appetite for this type of risk is much lower than in the previous decade. At the same time, the ongoing repercussions of the crisis will generate a wave of risk-related loan prolongations, and banks will need to evaluate these requests against a significant drop in the credit quality of borrowers. On the credit supply side, banks will bear higher costs for balance sheet usage, as both capital and funding (especially long-term) will be scarcer and more expensive resources in a stricter regulatory framework. In addition to this reduction in credit supply, secondary markets will have less capacity to absorb risk from banks.

## *FIVE STRATEGIC AREAS OF PROCESS REDESIGN*

The new dynamics bear significant implications for practically every bank and call for the redesign of the credit underwriting process in alignment with the "new normal." Broadly speaking, this realignment would address five fundamental areas:

1) Start with a clear risk strategy

2) Make risk assessment a balance of hindsight and foresight

3) Strengthen an end-to-end risk mindset, from sales to processing

4) Boost effectiveness through improvements in efficiency

5) Shape a new organizational risk culture

As discussed at the end of this article, the benefits of process redesign are significant. Well targeted interventions in each of these areas can strengthen banks' credit underwriting processes, resulting not only in improved risk assessment but in reduced operating costs and increased capacity for new lending activity as well. In order to achieve these gains, information technology (IT) and operations should work jointly to ensure that the underlying infrastructure fully supports the new process throughout the entire organization. In many cases, IT can enhance functionality in ways that lead to new business opportunities. Post-crisis redesign of credit underwriting as well as other risk management processes provides an excellent opportunity for banks to conduct an end-to-end review of existing IT systems and consider major upgrades, or even replacement, to increase significantly the impact of the process changes.

### Start with a clear risk strategy

Before setting out to strengthen the credit underwriting process, any bank must first understand its own risk appetite and operationalize its risk-taking behavior in a risk strategy. Risk appetite is the level of risk an organization expects to take in the course of normal business operations. Ideally, an institution's risk rating is an accurate measure of its risk appetite, which can also be described as the risk-taking preferences (or tolerances) of the bank's equity and debt investors.

The bank's total risk appetite is reflected in its "lines of defense," which comprise business strategy, operational capacity, and risk strategy. Business strategy defines the intrinsic risk-return characteristics of the respective business units. Operational lines of defense include organizational skill, knowledge, and processes such as origination, structuring, and restructuring. Finally, the routine "lines of defense" of the business units are limited by the bank's "last line of defense" – its ability to absorb losses in different economic scenarios, as defined in the risk strategy. The risk strategy may be a 3-year plan with performance goals that fall within a framework of risk targets for different economic scenarios. To be effective, the risk strategy should be developed through collaboration among the business units, the CFO, and the CRO. While the CFO is responsible for financial goals and target risk rating, the CRO controls risk appetite by evaluating the effectiveness of the bank's "lines of defense" against excessive or extreme risks.

To operationalize the risk strategy and take the portfolio "on stream," the front office and risk function should break down overall limits into limits for business units and even further limits for specific segments. In addition to risk, return, and growth expectations, banks should consider core limiting factors such as capital, concentration, funding, and leverage in establishing sub-portfolio limits. Within specific segments or business units, the front office and risk function should develop detailed "credit standards" for application at the customer and (when possible) deal level. This approach allows the bank to define upfront basic parameters for risk decisions. The parameters may include industry sector limits, counterparty rating limits, and loan-to-value (LTV) limits. By working together to define portfolio limits and credit standards, the front office and risk function (with a right of veto) can reconcile their fundamentally different outlooks on risk, opportunity, and evaluative procedures to reflect the bank's overall policy on risk-taking (Exhibit 1, page 3).

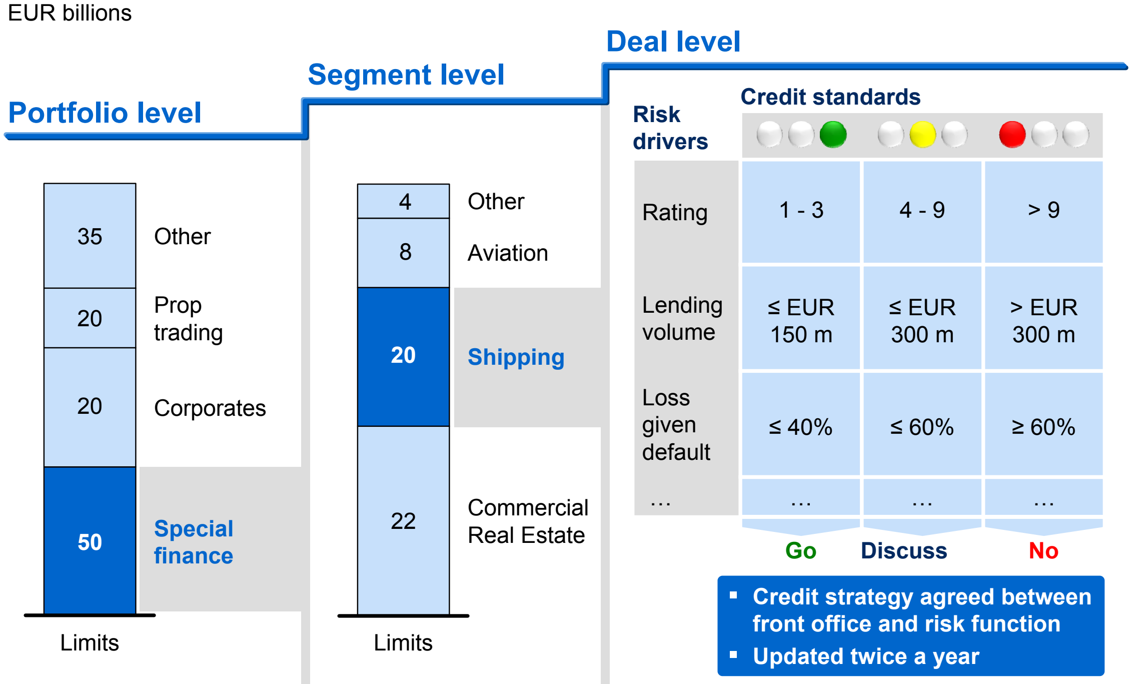
### Make risk assessment a balance of hindsight and foresight

Risk assessment has so far been overly reliant on hindsight (retrospective analysis). Most tools seek to reduce complexity through statistical analysis of historical data, such as annual reports or evaluations by rating agencies and credit bureaus (e.g., Fair Isaac, Experian, Dun & Bradstreet). But in addition to these historical or retrospective analyses, risk assessment should also incorporate forward-looking assessments based on a combination of public and confidential documents (such as business cases and the borrower's strategic plans) and the analyst's individual expertise and experience (knowledge of a company and its executives, familiarity with the industry, previous market experience). Risk assessment models, in other words, need systematically and consistently to apply individual, subjective judgments, which have been formed over the career of the analyst.

Exhibit 1

**Operationalize the target portfolio through a 3-step hierarchical breakdown from portfolio to deal level**

EUR billions




The introduction of forward-looking parameters will most certainly not make risk assessment easier, but we believe the combination of hindsight and foresight is essential for a thorough understanding of the potential root causes of strategic, operational, and financial difficulties in banks' portfolios.

To strike the right balance between historical and forward-looking analysis, banks will have to establish a new "pact" between rating engines and human insight. Automated rating processes should, for example, highlight factors contributing to risk such as internal indices of a borrower's poor credit management and credit bureau issues. Human decision makers, by contrast, can more effectively focus on the signs of future risk, forming links and relationships among disparate details, and capturing the nuances that are the blind spots of automated analysis. For instance, a relationship manager and/or credit analyst might weigh relevant news items such as a new investor entering with equity ownership, a strong trend of market concentration, or robust revenue flow from a specific industry sector (Exhibit 2, page 4).

Among the alternative approaches for implementing forward-looking risk assessment, two methods are most successful: the integration of forward-looking quantitative analysis (with statistically established metrics) into the existing rating model, or the running of two separate analyses, one historical, the other prospective.

In the first approach, the existing rating model incorporates a quantitative forward-looking component supported by statistical analysis. The financial analyst tries to quantify forward-looking rating variables (e.g., future balance sheet ratios) directly in the rating engine using a structured "soft information hardening" model. Such a model advances the analyst to the "hard" estimate of future ratios through a path of qualitative, "soft" questions. These assumptions are then validated against preset benchmarks (e.g., industry outlook) leading to a forward-looking quantification of the probability of default (PD). If historical and forward-looking evaluations differ, the analyst has to explain the difference. Of course, for retail portfolios, the process must be much leaner and faster, using automated sub-portfolio assessments, for instance by geography, age, profession, or income.

Exhibit 2

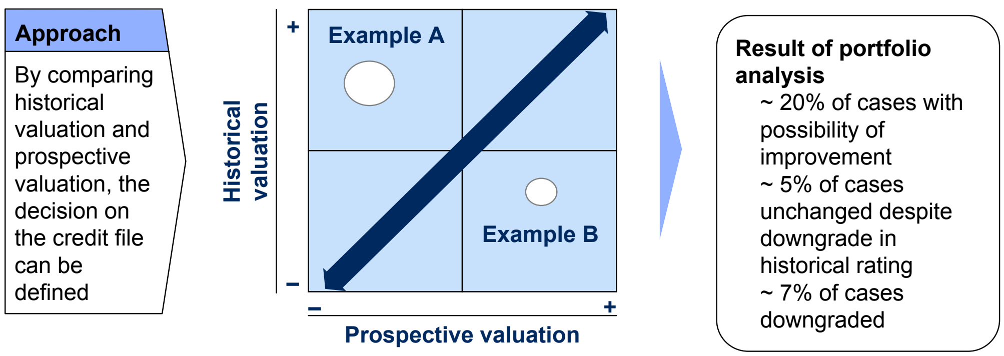
**Credit analyst valuation can drive a new pact with automated rating engines**

**Example A**

**Basel II historical valuation**
- Good valuation of the company, operating in luxury goods sector with stable profitability thanks to strong relationship with suppliers and client

**Forward looking prospective valuation**
- Bad prospective valuation due to deteriorating market conditions that drive income reduction

**Final decision**
Reduction of lines and increase of interest rate




**Example B**

**Basel II historical valuation**
- Bad rating, due to modest quality of P&L and slow increase of revenues in recent past in a highly competitive market environment

**Forward looking prospective valuation**
- Good prospective valuation, thanks to ongoing restructuring activity, giving the company competitive advantage and further improvement opportunity

**Final decision**
Change status from "decrease" to "increase"

In the second, a free-standing forward-looking assessment model operates side by side with the existing rating model, leveraging the possibility of adjusting the historic rating by the forward-looking evaluation. The adjustment is performed through a structured questionnaire to be completed by the analyst and incorporates analysis of all rating components such as leverage, liquidity, profitability, and efficiency. The analyst must explain the difference between the historic and forward-looking ratings and evaluate them against each other.

### Strengthen an end-to-end risk mindset, from sales to processing

Who is best qualified to lead risk assessment, the market-facing sales group or specialists in an independent risk office? The question is a subject of frequent and lively debate, particularly among wholesale bankers. The market-led model has obvious advantages: higher customer satisfaction based on better product capabilities and customization, higher predictability of credit decisions, and full accountability for both risk and revenue in the front office. But the risk-led model has distinct advantages as well: a higher degree of independence from market expectations and higher potential for process differentiation by type and complexity of deal (by achieving critical mass in a centralized risk function). We believe that the merits of a separate risk function should be revisited in light of the crisis, but ultimately the right balance between market-led and risk-led analysis depends on each financial institution's strategy – the types of market it serves, its customer communication and marketing strategy (e.g., mass market versus high touch), its strategy for future growth, its appetite for risk, and so on.

In general, banks should strengthen communication and partnership among the diverse teams and disciplines that steer a loan or credit instrument through the pipeline. To do this successfully, banks need to define an end-to-end risk process spanning the front and back offices and consisting of incentives, competency standards, certification, and individual accountability.

The front office and risk function should be encouraged to de-risk with incentives. Risk indicators such as adherence to risk cost “corridors” and collaboration between the front office and risk function provide a transparent qualitative basis for rewarding cross-functional teams for hitting risk targets. Performance bonuses should also contain long-term components, retaining a portion of bonuses for later payment to reflect the degree of accuracy in risk assessments over time.

As important as incentives is the transparency of standards used to define the limit of an individual’s authority to make credit decisions. Thresholds for each level of credit authority (or “competency”) should be intuitively logical, quantitatively measurable, and consistently predictable (i.e., non-volatile). Economic capital figures, for example, seem to be a poor measure for evaluating credit-decisioning competency, because they are too volatile and vulnerable to manipulation. Total exposure, rating, asset type (secured versus unsecured), and risk-weights are more stable parameters and suitable for the establishment of clear and pragmatic competence levels.

In order to ensure that only qualified people make credit decisions, banks should also establish a credit underwriting “driver’s license.” This is a way to recognize competency in addition to seniority. The skill of credit underwriting is part experience (seniority), part knowledge and part talent, so “credit authority,” or one’s authority to make credit decisions, should be based not on seniority alone but should reflect all dimensions of underwriting skill. Potential decision makers can increase their license level, for instance, according to the number of decisions they made in the past, the quality of the portfolio they underwrote through the cycle, or the risk training and capability-building programs they attended. The license level can be used both to assign decision-making competencies and to monitor performance and create incentives. Promotion to a senior credit executive role would, for instance, require the highest license level.

In developing the credit driver’s license, coordination among the risk, operations and IT groups can simplify procedures for routing origination documents by assigning access rights more dynamically and not simply on the basis of hierarchy (seniority) to qualified officers.

The final step in building an end-to-end risk mindset is to strengthen individual accountability. Credit committees are common and in some cases appropriate, but they can actually weaken the quality of credit decisions. Evidence reveals the danger of socializing responsibility, where individuals involved in decisions requiring review and signoff by large numbers at varying levels feel diminished responsibility for their own personal evaluation and judgment. Consequently, credit competence structures, as explained above, should be aimed at assigning a credit decision directly to an appropriately qualified individual or, when necessary, a committee with a limited number of members. This reduces the number of people and committees involved in a single decision, thus increasing the personal accountability of the actual decision makers. Furthermore, credit competence structures should ensure that decision makers invest sufficient time in their individual analysis and decision making (i.e., avoid decision overloading).

However, credit committees can play an important role in the credit process: they can strengthen the risk culture by establishing a platform for discussing complex cases, which facilitates the emergence of a common understanding across business units and hierarchical levels. This cross-functional alignment in turn strengthens credit standards going forward.

## Boost effectiveness through improvements in efficiency

Speed and cost will remain important considerations in the redesign of the underwriting process, and in the wake of the crisis, efficiency has become a primary objective as a better foundation for strategically appropriate risk decisions. To be perfectly clear, there is no trade-off between efficiency and effectiveness. To the contrary, improvements in efficiency lead to fewer mistakes and misunderstandings, more stability in the underwriting process and, ultimately, increased effectiveness in risk decisions. Banks can boost both efficiency and effectiveness by standardizing processes, differentiating underwriting work according to complexity, and streamlining to eliminate waste.

Banks should aim for consistency in decisions across teams, geographies, etc. Standardizing and reducing variability in the underwriting process increase process efficiency and the quality of the risk decision. They also facilitate the sharing of best practices, training, coaching, and good team management. Credit standards are an important starting point in standardizing the actual risk assessment, which is at the heart of underwriting. The sales function's loan application memo and the credit vote should be structured within these standards in order to save time otherwise lost in preparing, reading, and discussing the applications. The sales and risk functions can then focus on the same standard risk categories agreed upon upfront so that risk decisions can be geared to the truly important elements of deals.

A significant driver of efficiency is the differentiation of deals according to risk profile and underwriting complexity, and their routing along separate processing tracks. Large, complex, risky deals require more attention and time than small, low-risk deals. In most cases, banks can speed up the underwriting process by clustering deals into specific categories, defined, for example, by riskiness, complexity, and exposure size. Basic underwriting parameters should be established according to each category's risk profile. Process differentiation works equally well for the wholesale and retail businesses. In the wholesale business, the time freed up can be used to extend the scope of quantitative analysis of historical performance (of individual companies) and forward-looking trend analysis (of market segments or industry sectors) for more complex deals. Due to the comparatively poor quality of data on financials for small and medium-size enterprises (SMEs), quantitative analysis in this client segment can be complemented by deeper qualitative research, particularly for deals in the high-risk segment (Exhibit 3, page 7).

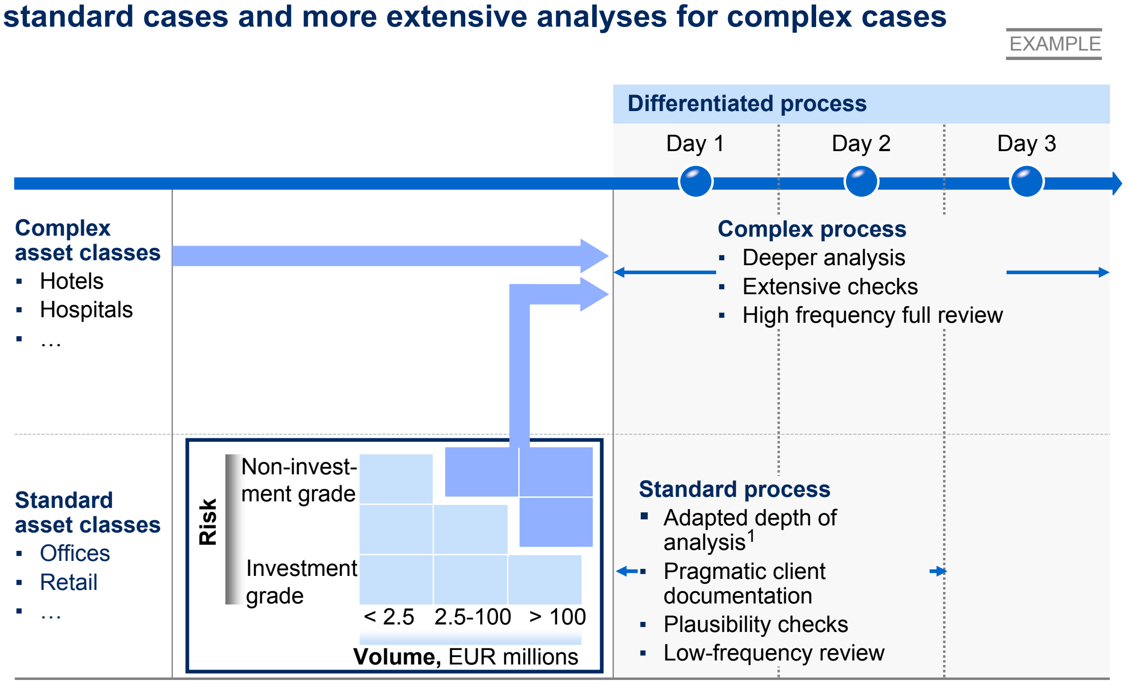
Best-practice banks mirror these process changes in the supporting IT platform in order to increase efficiency as well as to limit the "human factor." Routing mechanisms based on complex multi-parameter algorithms are complemented with electronic exception management and approval functionality. In addition, increased automation enables convenient on-line reporting and monitoring of multiple key performance indicators (e.g., productivity, speed of response, acceptance rate). This is a significant intervention requiring the joint participation of the IT, business, and risk functions in order to sustain a successful process redesign over the long term.

After differentiating underwriting work by complexity, risk, etc., banks should next streamline the risk assessment process by eliminating waste in each variant or segment. There should be a clear separation between administrative and risk-related work, and streamlining IT (reducing interfaces and data) can significantly improve process efficiency.

Waste is common in the credit pipeline. Some deals ultimately fail only after spending significant time in the pipeline before the final cancellation decision. Closer collaboration between sales and risk through simple pre-rating tools and knockout filters can accelerate "no-go" decisions. Such tools, in combination with pipeline meetings and upfront deal reviews involving short one-page deal memos, not only save significant time by promptly eliminating deals not in line with the bank's strategy, but they also enhance risk selection by fostering discussion, alignment, and a joint culture.

Exhibit 3

**Enhance credit process effectiveness through increased efficiency for standard cases and more extensive analyses for complex cases**




1 For example: use of internal database and models instead of case-by-case property assessment for smaller real estate assets

A further important aspect for streamlining processes is the principle of "first time right." In our experience significant inefficiencies result from one employee having to work on the same case multiple times. For example, people in the legal department may start reviewing a deal, reading through all the material, and completing three-quarters of the case only to discover that the front office has omitted relevant information. The case is returned to sales and lands back on the legal desk some days later. At best, the same employee resumes his review but will surely have to reread major parts, having dealt with numerous other cases in the meantime. Getting it right the first time, not surprisingly, is an easy task if processes and documents are standardized.

## Shape a new organizational risk culture

During the crisis, even well-refined models and data did not prevent collective failures. Now, most organizations are more often than not focused on improving existing risk management systems and models rather than on tackling the underlying culture, the mindsets, and behaviors. To cut the distinctive edge and bring about a fundamental and lasting change in the credit business requires a new understanding of organizational risk culture. McKinsey & Company has worked extensively to establish a comprehensive, rigorous definition of risk culture and developed a distinctive method for analyzing and strengthening an organization's collective mindset and behavior in risk-taking.[1] Close evaluation of behaviors and attitudes can reveal outdated mindsets that compromise the effectiveness of the underwriting process. Our research has identified a limited number of key factors ranging from communication and cooperation to openness to challenge and speed of responsiveness. Together, the factors represent an organization's respect for and tolerance of risk. By diagnosing weaknesses

1 For more this topic see Cindy Levy, Eric Lamarre, and James Twining, "Taking control of organizational risk culture," *McKinsey Working Papers on Risk* 16 (February 2010).

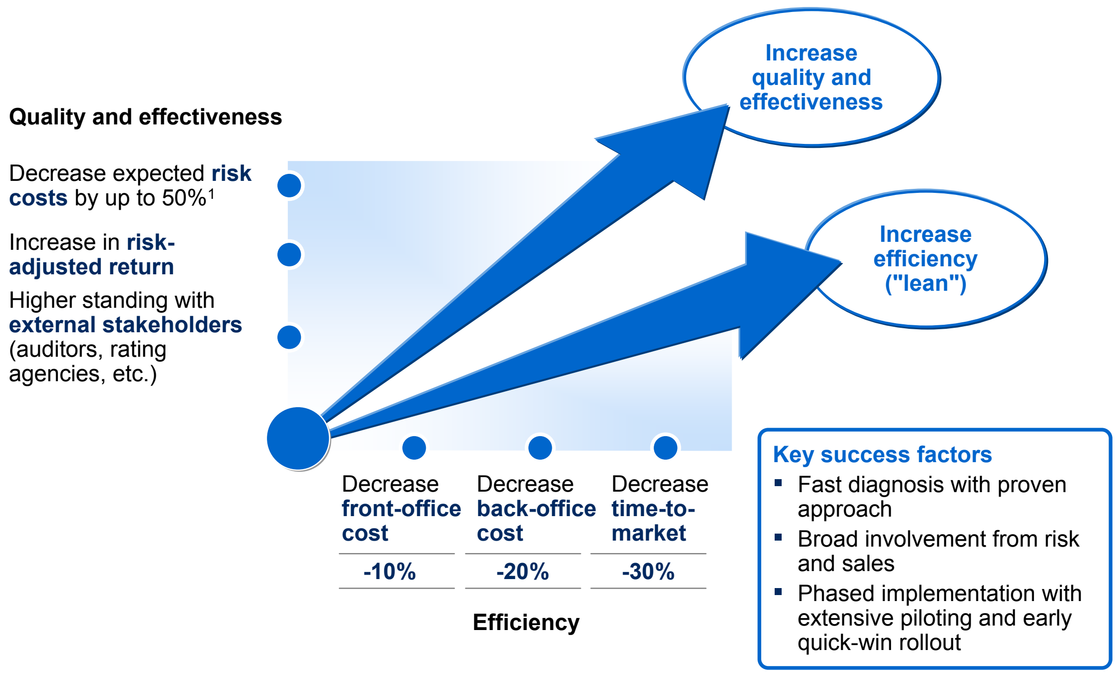
in individuals' perception and performance of duties, a bank can chart a course to transform the mindset and align the organization's risk culture with its strategic appetite for risk. To accomplish this change, executive management must engage the organization and launch it on a journey.

### Benefits of process redesign

Banks that stay focused on the combined goals of efficiency and effectiveness can capture significant value from a restructured credit underwriting process. Efficiency improvements often reduce approval times by at least 30 percent and increase productivity by up to 30 percent, freeing up resources for more sophisticated risk assessment, new sales, customer service, and process improvements in other operational areas. Gains in effectiveness include reductions in risk cost by as much as 50 percent, increases in risk-adjusted return and higher standing with external stakeholders (e.g., auditors, rating agencies, and shareholders; see Exhibit 4).

Exhibit 4

**The cost and performance benefits of process redesign are significant**




1 Client example: probability of default: -33% from 1.5% to 1.0%; exposure at default: -22% from 90% to 70% of limit

## *MAPPING THE NEW PROCESS*

But how to reap the gains of process redesign? It's one thing to describe the components of a highly efficient and successful risk process, but another to instill each individual, team, and business unit with a new set of standards and practices reflecting an organization's risk appetite and business strategy.

In order to lay the foundation for a new, more robust risk culture, the redesign of the credit underwriting process should follow a path determined by the specific situation, needs, and aspirations of a given organization. The measures outlined in this article can improve performance across the full spectrum of a bank's credit services, including corporate lending, asset-backed finance, small business, and retail lending. These efforts should be coordinated across all business lines.

### Key factors for success

Banks should first engage representatives from across the organization, forming a multidisciplinary project team with participants from sales, branches, risk management, and loan processing. The full journey typically requires 4 to 5 months and ideally begins with a 1-day credit walkthrough to survey the credit underwriting landscape. This enables the project team to shape hypotheses about specific areas of improvement and gain insight into the type and potential magnitude of improvements to be realized. On the basis of this initial review the team should establish three areas of agreement:

1) **Identify the levers of value.** The review team should determine early on the levers that will add value to the risk process (either through efficiency or effectiveness) and then prioritize these levers and establish an action plan to exercise them.

2) **Buy-in across all stakeholders.** If the journey is undertaken in earnest, the redesign will not only change the risk process but will also transform the mindset of individuals and hence the risk culture of the organization. The project team should conduct interviews, workshops, and other activities to ensure broad participation in the development of solutions.

3) **Engage the board of directors for alignment with overall bank strategy.** The involvement of both the executive board and board of directors is crucial to ensure that decisions are timely and strategically appropriate and drive the adoption of solutions across all business units.

Necessary adjustments and transformation of IT systems and landscape naturally require more time. Many banks proceed with a pilot without major IT changes and then plan delivery of the required IT functionality in several waves, typically lasting 12 to 24 months.

* * *

The true journey is a path to transformation. By traveling along this path, individuals gain a new understanding of their role in forming the organization's risk culture and driving its performance. We believe that the current circumstances present a unique opportunity for banks to engage in such a journey, transform the credit organization, and ultimately break free from the "overshoot-undershoot" swing pattern that often follows crises. Banks that go the distance in this journey will position their organization to master the next series of challenges and gain a new competitive edge that allows them to take full advantage of future growth opportunities.

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***Daniel Becker*** *is an expert associate principal in the Cologne office,* ***Holger Harreis*** *is an associate principal in the Düsseldorf office,* ***Stefano Emanuele Manzonetto*** *is an associate principal in the Milan office,* ***Marco Piccitto*** *is a principal in the Milan office, and* ***Michal Skalsky*** *is an engagement manager in the Prague office.*

**Additional authors contributing to this paper:**
***Uwe Stegemann*** *is a director in the Cologne office,* ***Nils Beier*** *is a principal in the Munich office,* ***Andrea Cristofori*** *is a principal in the Rome office,* ***Enrico Scopa*** *is a principal in the Prague office, and* ***Katya Defossez*** *is a principal in the Lyon office.*

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