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# Getting risk governance right

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## **Abstract**

This paper sets out the criteria that boards and supervisors should use to determine whether banks are governing risk correctly. First, boards have to set an overall risk target consistent with the overall return target. Second, the bank's business model has to set a risk capacity and risk appetite that can enable the bank to meet its target for risk and return. Finally, the bank has to ensure that its three lines of defense (management, risk management and compliance, and internal audit) function well, both singly and in combination.

**JEL Classification Codes:** G21, G28, G30, G32, G38

## Introduction

Few would argue with the notion that corporate governance within a majority of financial institutions requires improvement, and that shortcomings in this area played an important role in the recent crisis [Walker (2009)]. In response, policy-makers have implemented extensive reforms to corporate governance within banks and other financial institutions, particularly with respect to risk governance,<sup>1</sup> and supervisors are stepping up their reviews of how effectively banks govern risk [Bank of England Prudential Regulation Authority (2011)].<sup>2</sup>

Shareholders also have an interest in strong risk governance. For banks, risk governance is critical, for banking is the business of taking – and being adequately compensated for – risk. Boards, therefore, need to focus on three questions:

1. Does the bank have the correct overall risk target?
2. Does the bank have the right business model?
3. Is the bank taking risk correctly?

Good risk governance would enable the bank to answer “yes” to each of these questions.

### What should be the overall risk target?

The overall risk target must be set in conjunction with the overall return target for the institution. The two targets must be consistent with one another.

Prior to the recent crisis, they were not. Many banks were too ambitious. They targeted Return on Equity (RoE) at 20% or more while stating that they would simultaneously maintain a credit rating of AA or better. Some banks achieved this at the peak of the cycle, but when the crash came, profits plummeted and ratings collapsed. In many cases, the bank in question had to seek public assistance. The combination of high RoE and low risk proved unsustainable (Figure 1).

### Supervisors seek to eliminate banks’ ability to pursue high-risk strategies

<sup>1</sup> The Basel Committee on Banking Supervision (2010) provides general guidelines. These are being implemented in various jurisdictions including the U.K. [FSA (2010)], the E.U. [E.C. (2011)] and the U.S. [Federal Reserve System (2012)].

<sup>2</sup> See for example Bank of England Prudential Regulation Authority, 2011, p. 13.

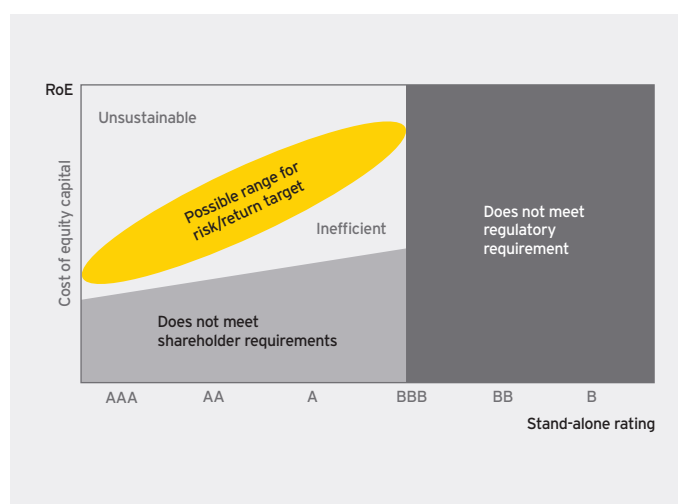


Figure 1: Banks need to set a target for risk and return

As a consequence of the recent crisis, regulators (supervisors and central banks) are now focusing on risk significantly more aggressively than they did in the past and the regulatory reform agenda [FSB (2012)] has two major objectives:

1. To reduce the risk that banks will fail. To this end, the Basel III accord [BCBS (2011)] significantly increases the amount and quality of capital that banks must hold. It also institutes, for the first time, a global liquidity standard that will require banks to measure and manage their liquidity risk and to hold a buffer of liquid assets to allow them to meet unexpectedly large outflows of funds.
2. To make banks “safe to fail.” The objective is to enable the authorities to resolve a bank that fails to meet threshold conditions promptly at no cost to the taxpayer and without significant disruption to the financial markets or to the economy at large. To this end, the Financial Stability Board (2011) has developed a list of key attributes that bank resolution regimes should have and these are now being implemented in major jurisdictions around the world.

Together, these regulatory initiatives will have a significant impact on banks, especially the systemically important financial institutions that are at the heart of the global financial system. Banks will become more similar to nonfinancial corporations. They will experience higher funding costs as their business risk

and their leverage increases. The reform of resolution presages an end to “too big to fail.” Investors, not taxpayers, will have to bear the cost of bank resolution. This means that creditors will be exposed to more risk (see box on page 82 for explanation) and the risk premium that banks will pay to borrow on an unsecured basis will, *ceteris paribus*, rise as well.

Supervisors, however, have no intention of leaving all other things equal. Their strategy is to reduce the risk that banks can take. In finance terms, supervisors are seeking first of all to eliminate the ratings pickup that banks derive from implicit government support so that there is no difference between a bank’s stand-alone rating and its overall rating (Figure 2). This element of the strategy is already showing some signs of success. In response to reform in resolution regimes, rating agencies have begun to reduce the credit that they give to banks for the support that governments might supply to banks if they were to become distressed. In some cases this revision has resulted in a downgrade in a bank’s overall rating even though its stand-alone rating remained unchanged.

Second, supervisors are aiming to ensure that banks maintain a stand-alone rating that is comfortably investment grade at all times (even at the trough of the cycle) so that the bank will remain a considerable distance from resolution (Figure 2). The principal means to this end is higher capital requirements. Under Basel III the minimum capital ratio will increase substantially. If a bank wishes to have the flexibility to pay dividends or make distributions to shareholders, it must maintain capital greater than or equal to 7% of its risk-weighted assets. For systemically important banks, the ratio must be higher still. Such banks will incur a surcharge of up to 2.5% of risk-weighted assets. And, banks must meet these higher requirements with higher-quality capital, namely tangible common equity.

Supervisors are also reinforcing this tougher capital regime in three ways. Stress tests are being employed to ensure that banks meet the capital requirements, not only on a current basis, but also prospectively even under very adverse economic conditions. In a number of jurisdictions, notably the U.K. and Switzerland, banks are being required to maintain substantially higher total capital ratios (primary loss absorbing capacity) than the minimum required under Basel III. Leverage ratios are being introduced as a backstop to risk-weighted capital requirements. Finally, regulators

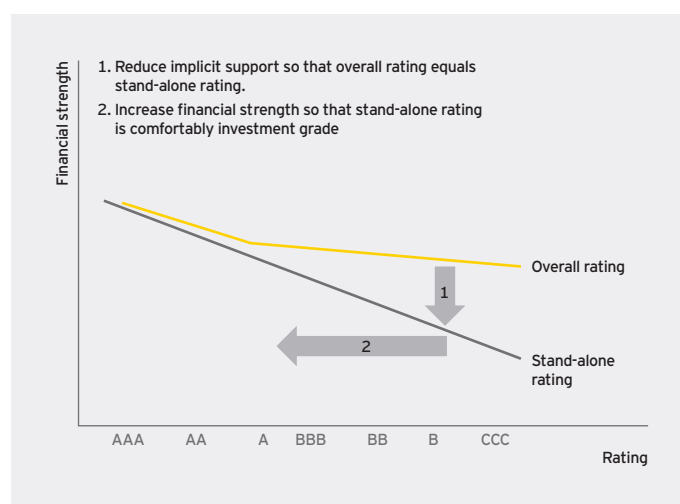


Figure 2: Supervisory strategy to reduce risk

are introducing a global liquidity standard. This will force banks to measure and manage their liquidity risk as well as keep a liquid asset buffer. As noted above, the overall objective is to reduce the risk that the bank will fail. In finance terms, supervisors are seeking to eliminate banks’ ability to adopt a high-risk strategy.

### Shareholders seek to assure banks earn their cost of equity capital

Over time, the bank has to earn its cost of equity capital. Otherwise, equity investors will divert their funds to companies that do so, and the bank will find it costly or difficult to raise new equity capital.

But the cost of equity capital is not constant. It depends on the risk of that capital (Figure 1). This depends on the business risk that the firm runs and the leverage that the firm employs. Supervision aims to limit the former factor and regulatory reform will lower the latter. This should reduce the risk of the bank’s equity and the cost of (or required rate of return on) that equity.

However, this new lower risk or lower return environment need not reduce the return to shareholders (Figure 3). Return to equity investors depends primarily on whether or not the bank earns a return in excess of its cost of equity, not on the level of the cost of equity. Low return-low risk equities can perform just as well as, or

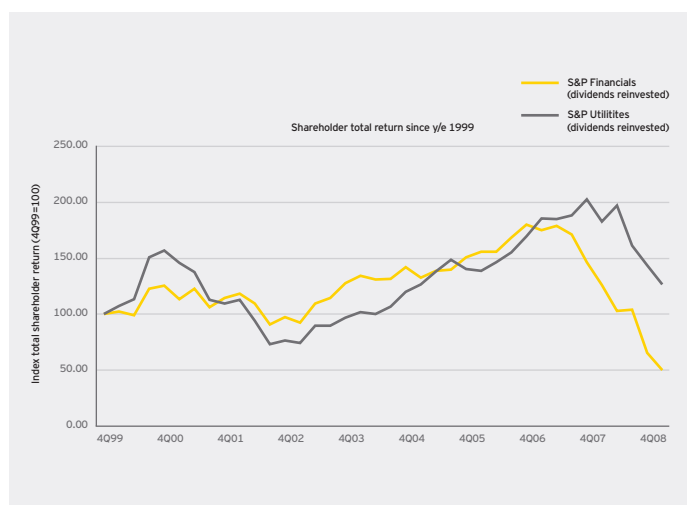


Figure 3: Maybe being a utility is not so bad

better than, high return-high risk equities. In fact, total return to shareholders from holding utility stocks (a proxy for low return-low risk equities) has compared favorably with the total return realized by shareholders in financial institutions [Huertas (2009)].

**Does the bank have the right business model?**

Today, few banks have an investment-grade stand-alone credit rating and even fewer are covering their cost of equity capital. The question is how they can expect to achieve both, simultaneously and consistently, over time. The answer lies in the bank’s business model. This has to spell out how the bank earns its money. What risks is it taking and what is it being paid to take those risks? What capital does it require in order to support those risks, both in normal times and under stress?

For example, take a simple borrow-short/lend-long business model. The bank should be able to build up to its target rate of return on equity by identifying the return that it expects to get from taking credit risk, interest-rate risk, and liquidity risk as well as the contribution that leverage will make (Figure 4). It should consider whether the credit risk premium is adequate to cover the losses that may arise as a result of operational risk, conduct risk, or documentation risk. The bank should also be able to calculate the risk premium that it will have to pay on its own funding. Together, these factors should yield the target rate of return on the bank’s equity.

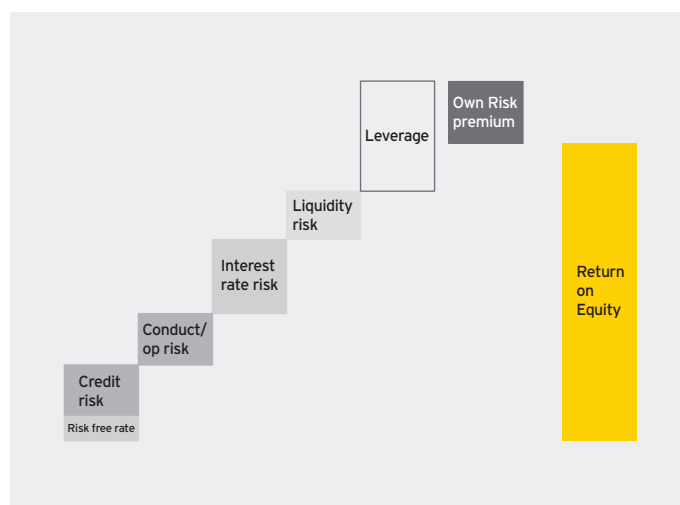


Figure 4: Return results from taking risk

At a minimum, the board will wish to periodically conduct what might be called a “business-model checkup.” This can be the first step toward improving the bank’s performance. Such a checkup would include a review of whether: the bank is ignoring one or more risks; is mis-pricing one or more risks; is spending too much to acquire or administer the risks that it does take; has sufficient risk capacity to survive under stress; and has a risk appetite in line with its risk capacity.

**Does the business model include all the risks the bank takes?**

The business model must include all the risks that the bank takes. Had such an analysis been conducted prior to the crisis, banks might have seen that they were ignoring or underestimating liquidity risk as well as conduct and operational risks.

Particularly high returns may in fact signal that the bank is assuming a risk without knowing it is doing so or without appropriate controls. Take, for example, the very high returns that banks were recording on their holdings of mortgage-backed securities in the years immediately prior to the crisis. After the crisis, it became obvious that a good deal of the pre-crisis return stemmed from the assumption of market liquidity risk – a risk that banks’ models by and large failed to incorporate. Another example is the very high returns that banks in the U.K. earned from selling payment protection insurance. Subsequently, it

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became apparent that a good deal of these returns stemmed from mis-selling. A third example is unauthorized trading. In a number of instances the trader in question reported significant profits on what should have been low-risk positions. This should have triggered alarm bells. Indeed, examining the reasons for superior returns may be equally or more important as diagnosing why a bank is losing money. Rather than simply ascribing superior returns to management proficiency, boards should assure themselves that such returns are not based on hidden risks. That can help the bank avoid future losses.

#### **Does the business model price risk correctly?**

The business model should ensure that the bank prices risk correctly. It should induce the bank's line businesses to demand externally a full price from the customer for the risks that the bank assumes and to pay internally a full price for the capital and liquidity that the line businesses require.

Undercharging customers for the risk of credit is particularly dangerous. Banks that follow such a policy will gain a disproportionate share of such credit and fail to earn enough income over time to provision adequately for the impairments that will arise. Should the bank have to sell such underpriced credit to third parties, it will be able to do so (even if the loan is performing) only at a discount.

Poor funds transfer pricing also undermines good business performance. Prior to the crisis, banks commonly failed to credit deposit-generating businesses with the full market value of the funds that they supplied to the bank's central treasury. Many banks further compounded this error by allowing business divisions that required funding to borrow from the central treasury pool at a rate that did not fully reflect the risk of the division that borrowed (and in some cases, at a rate that was below the bank's own overall marginal cost of funds). Such arrangements artificially inflated returns in the divisions that were permitted to borrow on preferential terms, and may have induced banks to allocate assets and capital to such divisions.

Correcting such mis-pricing is important. Indeed, in many respects the proposals to separate trading businesses from retail and commercial banking and to place a ring fence around either the trading business [Liikanen Group (2012)] or the retail and commercial bank [HMT (2012)] can be seen as efforts to correct

the funds transfer mis-pricing that had occurred in many banks prior to the crisis. But such regulation is no substitute for an accurate funds transfer pricing mechanism, and banks should have systems in place to ensure that internal transfer prices are in accord with market rates.

#### **Is the business model efficient?**

The business model also has to ensure that the bank operates efficiently. Although banks have made vast strides in this area in recent years, two areas for possible improvement stand out: asset/capital efficiency and compensation.

► **Asset/capital efficiency** - with respect to assets and capital, banks have to ask the same types of questions as nonfinancial firms: are they operating in lines of business in which they have a competitive advantage, and are they maximizing the turnover (revenue) that they get from holding each asset?

Restricting activity to lines of business in which the bank has a competitive advantage should raise margins and, therefore, increase the bank's rate of return. As the bank exits businesses in which it has no competitive advantage, it frees up capital, allowing such capital to be reallocated to more efficient uses.

But allocation is only the first step to capital efficiency. Even for businesses in which the bank has a competitive advantage, it is important for the bank to employ assets and capital efficiently. Just as retailers keep a keen eye on their turnover to inventory ratio, so should banks review exactly which assets they need to hold for how long in order to generate revenue and profit.

What distinguishes banks is their ability to respond quickly to customers' demands for new credit – be that intra-day credit to facilitate payments, short-term credit to finance receivables or consumer purchases, or longer-term credit or bonds to finance investment in factories or houses. In order to be able to continue to offer consumers credit card limits or overdrafts, to offer businesses revolving credit facilities, and to respond quickly to requests for long-term credit (be that in the form of loans or bonds), banks must have sufficient capacity available, both vis-à-vis the individual borrower (so that the new loan will not break counterparty limits) and the market (so that the new credit in aggregate will not cause the bank to breach capital or liquidity limits).



Once a loan has been made, or a bond underwritten, banks are not necessarily the most efficient holders of assets. Investment funds exempt from corporate tax may be much better placed to hold assets.

This suggests that banks may wish to revisit the “originate to distribute” strategy. In concept, the strategy makes sense – for it focused on what should be banks’ comparative advantage (origination) and minimized the amount of assets that the bank needed to hold relative to turnover (revenue) that the bank could achieve. But to make such a strategy work in the future, banks will have to develop the distribution leg<sup>3</sup> and put in place processes to better manage the conflicts of interest that such a strategy may imply.<sup>4</sup>

► **Compensation** – compensation is the largest component of a bank’s cost after interest expense and any business model must ensure that the bank’s compensation system sets the right incentives, i.e., that it is consistent with effective risk management and with shareholders receiving an adequate return on capital employed. As is well known, prior to the crisis, compensation structures, particularly at major trading banks, had departed from these principles. Many banks accrued bonuses as a percentage of revenues, allowed management a significant say in policies with respect to revenue recognition, and paid the total bonus in cash annually on the basis of reported earnings for that year. This practice contributed to excessive risk-taking [IIF (2009)].

Regulation has forced banks to align compensation structures with effective risk management. Bonuses must be adjusted for the risk incurred to generate the profit that justified the bonus and bonuses can no longer be paid fully in cash. At least one-half must be deferred, and the deferred amount must be subject to claw back and paid in a form (i.e., equity) that stands to lose value over the deferral period if risks to the firm crystallize.

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3 In many banks prior to the crisis, “originate to distribute” had mutated into “acquire to arbitrage” [Huertas (2011)]. Banks originated the assets but failed to completely distribute to third parties. They either retained some or all of the risk on their own balance sheet or provided financing and/or liquidity put options to structured investment vehicles that were technically off-balance sheet but under the bank’s management and control.

4 In particular, many banks that outsourced origination to third parties (i.e., mortgage brokers) or to affiliates, failed to adequately control the quality of the origination efforts conducted by such third parties or affiliates. In many cases, loans were made on the basis of incomplete and/or inaccurate information. Nor did the rating agency processes control for such shortcomings. Ratings generally took the information presented at face value with only limited checks for accuracy.

But regulation does not ensure that compensation systems are consistent with ensuring that capital receives an adequate rate of return. Bonus is still accrued “above the line” rather than (as is the case in private equity or hedge fund contracts, with investors) as a percentage of the profit realized after equity capital has been paid a minimum rate of return. Shifting some portion of bonus to “below the line” would further align compensation to effective risk management (in that it would force management to recognize the cost of equity capital) and it would help ensure that equity receives a minimum rate of return [Huertas (2011)].

#### **Will the business model survive under stress: what is the bank’s risk capacity?**

A bank’s business model must also ensure that the bank can survive under stress. The first step toward an answer is to estimate the bank’s risk capacity – roughly the amount of money (in absolute terms) that the bank could afford to lose over the next year without reaching the point of non-viability.

Regulation is seeking to ensure that banks will have adequate risk capacity. Increasingly, regulation is requiring banks to hold up front, sufficient capital to withstand a fairly adverse macroeconomic scenario, so that the bank will still meet minimum capital requirements after taking into account the losses that it might incur in such an economic environment. Banks that do not meet such criteria are forced to file plans that will enable them to do so within a relatively short time frame. Such plans may include raising capital or changing their business model so that they can reduce risk, reduce capital usage, and generate significant retained earnings.

Risk capacity can be quite sensitive to changes in the business model, and banks will want to employ tools, such as strategic balance sheet forecasting, that allow them to estimate quickly how capital and liquidity ratios would evolve under various strategies and economic scenarios. This will allow the bank to maximize its risk capacity as well as to take precautions that will enable it to survive should stress materialize.

#### **Will the business model make the bank prone to stress: what is the bank’s risk appetite?**

Risk capacity sets out how much risk the bank could take. Risk appetite indicates how much of that capacity the bank wishes to utilize. Boards need to ensure that the bank’s risk appetite is in

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line with the bank's risk capacity while recognizing that the bank has to be able to take a minimum level of risk if it is to compete successfully in various lines of business.

In the long run, the bank's risk appetite cannot exceed its risk capacity. Either the bank has to raise its risk capacity or cut its risk appetite. Conversely, as risk capacity contracts, so should risk appetite, unless the bank can take countervailing measures quickly to restore capacity.

The prudent bank will, therefore, leave a cushion between risk capacity and risk appetite. It will wish to hold some risk capacity in reserve, particularly as it is difficult to forecast how well funding will hold up once the bank suffers a loss to capital. This reserve should be higher, the fewer or weaker the bank's recovery options are. Banks should anticipate that supervisors will pay increasing attention to this space. They have already demanded recovery plans from banks and they are stepping up their review of risk appetite statements.

Setting the overall risk appetite is, however, only the first step. The aggregate appetite (and capacity) has to be allocated to the bank's businesses and this needs to be reconciled with the bank's business model. For example, if a bank is to compete in offering credit cards to consumers, it has to be ready to offer customers limits that are in line with the spending habits and income of its target customer base. The bank should only enter the business if it has sufficient risk appetite (and risk capacity necessary to support that appetite).

The allocation mechanism should also have an effective brake. Boards should ask whether the bank can continue to control its risk appetite if others in the industry lose their risk discipline. At what point does pricing become so unsatisfactory that the bank will stop writing new business, and does the bank's business model give it the option to take a temporary pause until market pricing again reflects the risk to the bank?

### **Is the bank taking risk correctly?**

Finally, boards will want to know how management assures itself that the bank is taking risk correctly. In effect, boards must ask how well the bank's "three lines of defense" (management, risk management and compliance, and internal audit) actually work. To some extent, boards may rely on the opinion of the bank's external auditor, but boards will also want to satisfy themselves more

directly that the three lines of defense are working as they should. The first line of defense is the management itself. How does it regard risk? Does management view risk as the core of what a bank has to manage or as an appendix to the "real" business of selling products to clients? In financial services, taking risk is a necessary input to generating returns, and the board will want to know that management places the proper emphasis on managing risk.

Evaluating the second and third lines of defense will predominantly fall to the risk and audit committees of the board.<sup>5</sup> The risk committee of the board will naturally focus on the second line of defense – risk management and compliance. To facilitate this review, the bank's chief risk officer should have a reporting line to the chair of the risk committee (similar to the relationship that the bank's chief auditor has with the chair of the audit committee).

With respect to compliance, the board will want to know that the bank is in compliance with all the relevant rules and regulations in each of the jurisdictions in which the bank operates. How does compliance convince management that this is the case?

The board will also want to think through issues that could become compliance concerns in the future. Complying with the letter of a regulation may not provide an adequate defense against supervisory or judicial action if the results flaunt what society perceives to be fair. Nor will reliance on market practice necessarily be a good defense against a violation of the letter of a regulation, if a government or court reviews that practice in the cold light of day at some point in the future.

The audit committee of the board will focus on the third line of defense. Central to the effort of the board in this area is a dialogue with, and assessment of, internal audit (IA). Is IA covering all the major risks the bank takes? Is IA discovering the right issues? Is management recommending the right remedies and implementing them promptly? Does the director of internal audit have a direct line to the audit committee of the board, and how do they use it?

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<sup>5</sup> The Risk and Audit Committees should work in a coordinated fashion, possibly via cross-membership on the two committees. At some institutions, for example, the Chair of the Risk Committee is also a member of the Audit Committee, and the Chair of the Audit Committee is a member of the Risk Committee. This helps ensure that each committee is aware of the agenda of the other.

**The board should be asking the big questions**

In summary, risk governance is central to the business of banking, for banking is the business of taking – and being adequately compensated for taking – risk in various forms, including, without limitation, credit, liquidity, interest rate, market, and operational risks. Both shareholders and supervisors are looking to boards of directors to ensure that:

- ▶ The bank targets a return above its cost of capital while maintaining a risk profile that ensures that it can retain an investment grade stand-alone rating.
- ▶ The bank constructs a business model that will generate the target combination of risk and return.
- ▶ The bank assumes risk in a controlled fashion so that its three lines of defense – line management, risk management and compliance, and internal audit – each function correctly and reinforce one another.

Bringing these elements together would create a strong risk culture at the bank and help lay the foundations for its lasting success.

**Resolution determines risk to investors**

The resolution regime has a significant impact on the loss that investors expect when they extend unsecured credit to a bank and, therefore, on the risk premium that a bank will have to pay when it borrows.

	Too big to fail	Safe to fail
Probability that bank will fail to meet threshold conditions	20%	20%
Probability of rescue	95%	5%
Probability of resolution	5%	95%
Loss given resolution	25%	25%
Expected loss	25bp	475bp

A simple example illustrates why. Take an institution that is too big to fail. The probability that it will fail to meet threshold conditions and that intervention will be required is 20%. If the market judges that the bank is too big to fail, the market is effectively stating there is a very high probability (say 95%) that the government will rescue the bank (so that there is no loss to investors). Correspondingly, the market is stating that there is a low probability (say 5%) that the authorities will place the bank into resolution. If the bank does go into resolution, the expected loss to investors is 25% of their exposure at the point of resolution. Accordingly, the expected loss to investors in the too big to fail bank is 25 basis points (bp).

Now make the same bank safe to fail. Assume there is no change in the probability that the bank will fail to meet threshold conditions (this remains at 20%). Assume as well that the loss the investor suffers if the bank does go into resolution remains at 25%. The only change refers to the probability that the bank will be rescued. If the bank is safe to fail this falls to 5% and the probability that the bank will be put into resolution rises to 95%. As a result, the expected loss to investors in the safe to fail bank is 475bp.

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