BCG
THE BOSTON CONSULTING GROUP

Risk and Reward

What Banks Should Do About Evolving Financial Regulations

Philippe Morel, Peter Neu, Pierre Pourquery, Andy Maguire, and Thomas Bulach

March 2010

Contents

Introduction

In the effort to understand the root causes of the "Great Recession" of the past two years, it is tempting to narrow the inquiry to a simple issue: Were banks, acting purely in their own short-term interest, primarily at fault? Or were regulators, so concerned with bolstering capital requirements and enhancing technical risk measures that they were oblivious to deeper vulnerabilities, the true culprits? The truth, in fact, is far more complex.

Today, as global markets continue to feel the lingering effects of the crisis, myriad regulators, governments, bankers, academics, and pundits of all stripes have shared their views on what really happened. Many opinions, some quite contradictory, have been offered on how to rebuild the current financial system into one that would be both more secure and more resilient when hit by unforeseen market shocks. It comes as no surprise that strident calls for a "new playing field" have been heard far and wide. But what should ultimately be done?

In this paper, the seventh in a series of publications by The Boston Consulting Group on risk management,[1] our aim is as follows:

- Review the key weaknesses in the global financial system that the crisis has exposed
- Discuss the different regulatory initiatives currently under way
- Examine the impact that these initiatives are having on banks
- Propose complementary steps that banks can take to avoid being hurt by a similar crisis in the future

Weaknesses Revealed

The crisis clearly exposed numerous weaknesses in the global banking system. Chief among them was the web of connections that enabled contagions embedded in specific institutions and investments to spread to others, gaining strength and toxicity. Banks were linked to each other, and to certain assets and risks, in ways that became clear only after the crisis deepened. A key role was played by the lack of transparency in the over-the-counter derivatives market. And just as alarming as this linkage, and the failure of regulators to identify the inherent menace, was the fact that so many financial institutions were caught completely off-guard.

expectation that financial markets would grow indefinitely, generating both high returns for investors and profits for their institutions. This belief was backed in part by the availability of cheap liquidity (from central banks), which created incentives for product proliferation and asset inflation all over the world. As a result, banks paid insufficient attention to strengthening the sustainability of their business models. A true awareness of the need for rigorous risk management was seldom prevalent, and sometimes it was completely absent. Taking risky positions, a practice that sometimes paid off handsomely, often fostered a culture of daring in which those who threw caution to the wind were seen as bold rather than reckless.

Moreover, chief risk officers at many banks did not have sufficient levers to either sanction or veto investment decisions. Compensation schemes were too closely linked to top-line performance only, with no adjustments for risk. In the end, many banks mistakenly believed that their strong performance amid rapidly growing markets constituted proof that their risk-management philosophy and techniques were adequate. Yet behind that perspective was, in many cases, a glaring lack of expertise concerning risk and valuation methodologies, the pricing of liquidity, the transfer of funding costs, and the effects of distressed markets on balance sheets. Even at the board level, experience in somewhat esoteric capital-markets products, such as collateralized debt obligations, credit default swaps, and structured loans, was often in short supply.

To overcome this lack of experience, banks frequently employed two equally dangerous strategies:

- Some financial institutions placed excessive emphasis on risk models and measurement, losing their perspective on the benefits of experience-based (as opposed to solely model-based) risk management. They also relied too much on a single risk metric, such as value at risk (VaR) or the Tier 1 capital ratio (with a comfortable level of the latter often being erroneously perceived as protection against liquidity risk), using data that were insufficient and derived from oversophisticated risk models.

- Other financial institutions "outsourced" their risk assessment to rating agencies, putting blind faith in the assigned ratings without understanding the complex underlying structures and primary markets. Obviously, the agencies had an incentive to assign high ratings (paid for by the issuer) and nothing to gain by giving lower ratings, even when clearly called for. With regulators also relying heavily on external ratings, the problem was reinforced rather than alleviated by regulators.

What is more, common sense regarding concentration risk was frequently not observed. And many institutions did not sufficiently integrate early-warning indicators for risk into their KPI schemes for financial controls, accounting, treasury, and business lines. As for liquidity risk, many banks relied excessively on short-term wholesale funding and had inadequate contingency plans for severe liquidity pressures. Resources were allocated to implementing new regulatory and accounting requirements, coping with a large number of new products, repairing bad data and inadequate valuation systems, and performing numerous day-to-day duties. There was not enough time left to interpret or analyze the numbers from a broader, business-impact perspective, or to consolidate IT infrastructure and industrialize key risk-management processes.

Meanwhile, in the years leading up to the crisis, financial regulators were mainly concerned with bolstering capital requirements and enforcing numerous sets of controls—such as those stemming from the IASB, the Basel Committee on Banking Supervision, the Committee of European Banking Supervisors, and others. These efforts clearly failed to prevent a meltdown when a series of unique and unexpected events occurred. Since the crisis first broke, regulators have been hurrying to tighten rules and strengthen the overall financial system.

The Regulatory Response

Regulators' proposals are still unfolding,[2] but a pattern of greater conservatism and risk avoidance is clearly emerging. The regulatory response falls into five principal categories: enhancing risk assessment

2. As of this writing.

and measurement, strengthening the capital base, imposing a maximum leverage ratio, setting a global standard for minimum liquidity, and accounting for procyclicality and systemic risks.[3]

Enhancing Risk Assessment and Measurement. Regulators are generally aiming at correcting the faulty or misguided risk-measurement methods that proved problematic during the crisis for both market and credit risk. This includes assessing market risk by considering stressed rather than favorable market scenarios. Also, default and migration risk of counterparties in the trading business will specifically be recognized to account for potential defaults by large financial institutions. Derivative positions will receive longer margin periods to reflect potential illiquidity and will receive higher risk weights if not cleared with qualifying central counterparties. Finally, exposures to financial institutions will receive higher risk weights to reflect the observed higher correlation of rating deterioration during a crisis.

Strengthening the Capital Base. Regulators want to take a closer look at the "core" equity that is fully available to creditors in case of default, as well as introduce a narrowly defined "Common Tier 1 ratio." The predominant form of Common Tier 1 capital will be common shares and retained earnings. This means, in particular, that hybrid capital instruments will no longer be eligible for Common Tier 1 status unless they satisfy strict criteria (such as no incentive to redeem). Common Tier 1 capital will be reduced by new or increased deductions such as net deferred taxes, net defined pension deficits, minority interest, goodwill, and other intangibles. Special emphasis is being placed on the fact that these deductions should be applied uniformly across all jurisdictions, creating a level playing field for all banks. Common Tier 1 capital will also be reduced by unrealized gains and losses, putting an additional burden on banks by partially offsetting capital-preserving accounting treatments.

Imposing a Maximum Leverage Ratio. By introducing a maximum leverage ratio, regulators want to make sure that banks do not become "too big to fail" and thereby pose a systemic threat to the financial system. The leverage ratio will relate (Common) Tier 1 capital to the gross balance sheet volume, including off-balance-sheet items, at full credit conversion. Consequently, banks with lower average risk weights and a small equity base (such as mortgage banks), as well as banks with large off-balance-sheet positions (such as investment banks), will exhibit larger leverage ratios than traditional customer-focused banks.

It should be noted that the maximum leverage ratio somewhat contradicts the Basel II regulations. Banks that have brought their Basel II risk weights down—for example, by using internal rating-based (IRB) approaches or collateral—have a higher leverage ratio and will be punished again, while banks with less sophisticated approaches or those not using Basel II will fare better.

Setting a Global Standard for Minimum Liquidity. Banks will be forced to hold sufficient liquidity to survive a short-term period (30 days) of stressed market conditions and related stressed cash flow. Regulators also propose a long-term net stable funding ratio that would classify and compare both assets and liabilities according to their expected terms and liquidity. Specifically, short-term and nonstable funding will be reflected by significant deductions, posing a burden on banks that rely predominantly on wholesale funding.

Accounting for Procyclicality and Systemic Risks. Regulators also want to make sure that the financial system is sound with regard to the largest institutions and during periods of market downturn. They have therefore proposed to restrict dividends, use probability-of-default estimates from downturn periods, build capital buffers when markets are positive, and limit excessive credit growth. Accounting standards will apply the forward-looking expected-loss approach in provisioning. Additional capital and liquidity requirements will be adopted for systemic institutions.

In addition to the above reforms proposed by regulators, governments are discussing the possible addition of stringent measures targeted directly at banks' business models. These measures are mainly focused on restricting the size and activities of individual banks. "Deposit takers" and "investment

3. See, for example, two consultative documents issued in December 2009 by the Basel Committee on Banking Supervision—*Strengthening the Resilience of the Banking Sector* and *International Framework for Liquidity Risk Measurement, Standards and Monitoring*—both of which are available for comment until April 16, 2010.

banks" may be separated or even split up, with the former prohibited not only from owning, investing in, or sponsoring a hedge fund or private-equity fund but also from trading for their own profit (that is, other than in the course of serving customers). Size restrictions will limit the growth in market share of overall liabilities at the largest financial institutions. Finally, incentive packages may be revised to avoid "moral hazard."

The Impact of Regulatory Changes on Banks

Regulatory reforms will have a strong impact on banks. For example, Standard & Poor's has estimated that European banks will each need up to €300 million in additional capital in order to comply. BCG estimates that the new regulations will burn up to 50 percent of today's Tier 1 capital, driven mainly by the new rules on hybrids, intangibles, and minority interests. Also, banks will need an increase in risk-weighted assets owing to higher risk weights for both market and credit risk. To reach a possible new benchmark common equity (Tier 1) ratio of 6 to 8 percent, banks will further need to recapitalize between 15 and 40 percent more common equity.

Since the amount of resources required is unlikely to be available in the capital markets, a new wave of consolidation or even nationalization may occur. Also, proposed limitations on market structure (such as derivatives trading) and business models (such as the separation of deposits and investments) may reduce the efficiency of many banks.

From a macroeconomic perspective, the new regulations create the risk of slowing the recovery of the real economy, because banks will be forced to deleverage—resulting in higher financing costs and a reduction of loans for customers. This effect may be felt more deeply in Europe than in the United States because of the greater role that European banks play in financing their national and regional economies.

When it comes to individual banks, the exact impact of regulatory changes will depend on the specific nature of the current business model and balance sheet structure. The first priority of every institution should therefore be to fully understand the potential impact of the proposed reforms—especially those pertaining to risk measurement, capital, leverage, and liquidity—on the institution's own business model (taking into account both clients and products) and on that of competitors.

In addition, banks will need to invest significant amounts of time and senior management resources to participate actively in the consultative phase of the proposed regulations. The changes are too far-reaching to be delegated to regulatory risk managers or "quants." Also, banks will need to communicate closely with both investors and analysts to clarify the impact of the regulations and explore potential strategies for coping with them. To be sure, capital markets should be provided a fair and accurate assessment of the bank-specific implications from the start.

To at least partly offset new liquidity constraints and the expected shortage of capital, we expect banks to take measures such as the following:

- *Increase risk-weighted assets (RWA) efficiency* (by restricting OTC derivatives)
- *Restructure capital* (by converting hybrid instruments to core capital)
- *Deleverage the balance sheet* (by exiting certain businesses)
- *Enhance liquidity profiles and funding mixes* (by restructuring eligible collateral, enhancing wholesale term funding, and generating stable retail deposits)

Furthermore, banks will need to adjust for increased costs of capital and funding in the structure of their business, especially in the financial markets segment. We expect changes in products (such as deep out-of-the-money derivatives that hedge stressed-market VaR and reduce RWA), as well as either higher margins or shrinking business volumes in the most affected businesses (such as OTC derivatives, proprietary trading, and money market securities).

Needless to say, the jury is still out on whether the new regulations will truly address all the relevant issues and create a "level playing field" globally. While the review of accounting standards is driven by the IASB itself, adjustments to the operating models of the rating agencies have not yet been addressed. Introducing a maximum leverage ratio (not reflecting the riskiness of assets) on top of existing Basel II rules creates a double limit on the size of banks. This could lead to an overregulation of European institutions already subject to Basel II, while U.S. banks (which are not yet applying Basel II standards) might not feel the intended consequences. Conditions such as these may give rise to calls for a global "watchdog" body, both to enforce consistent application of the rules by local regulators in different markets and to monitor macro factors such as credit and money circulation, in the hope that such a body would be able to detect the next looming crisis before it actually happens.

What Banks Should Do to Avoid Being Hurt by the Next Crisis

In our view, the reforms that the crisis has prompted will create a false sense of well being. History shows that regulation typically seeks to set a framework that will enable markets to avoid past mistakes. Yet past frameworks have obviously not been foolproof. For example, increasing capital requirements will not, per se, protect banks. Before the crisis, the vast majority of banks already had high Tier 1 capital ratios (between 6 and 8 percent), and some institutions with ratios even above 10 percent collapsed (such as Fortis and Merrill Lynch).

We believe that by focusing solely on tightening and extending measurement rules, regulators will lose the race against market innovation. (See the sidebar "The Real Economy Needs Large Banks and Efficient Markets: A Plea for Avoiding Overregulation.") Regulation and risk management must contribute to a change in the behavior of market participants. It is therefore mandatory to address, in addition to the proposed adjustments, the following four critical aspects of risk management: creating a culture of risk awareness and accountability, improving risk evaluation and monitoring, changing the role of innovation, and structuring to avoid contagion if another crisis develops. To a great extent, banks will have to tackle these initiatives themselves.

Creating a Culture of Risk Awareness and Accountability. We believe that the first line of defense against risk lies with the front office—as opposed to having the front office push on the accelerator when the risk department tries to step on the brakes. In other words, banks should foster a culture of accountability at every level. Although the overall risk-management function regarding standards, infrastructure, and methodologies should be centralized, every individual at every trading desk and every other entity should be held responsible for any activity or position that involves risk.

The Real Economy Needs Large Banks and Efficient Markets: A Plea for Avoiding Overregulation

Why does the real economy need large banks? Broadly speaking, both retail and wholesale customers with complex and sophisticated banking requirements need institutions with global reach that are capable of providing both large loans and structured, tailor-made solutions. Small banks do not have the risk-bearing capacity for large-cap loans, nor can they bear the costs and complexity of structured financial products for risk management, operations, and settlement.

As for efficiency, global financial markets need traders, market makers, and arbitrageurs for efficient price-finding and liquidity support. Derivatives, for all the potential dangers they can bring about when not used prudently, are in fact efficient instruments for managing risks without utilizing liquidity.

Indeed, overregulation can have some very undesirable effects. If banks are obliged to hold more capital as well as larger, lower-yield liquidity buffers, return on equity will fall. Since banks must compete with nonbanks for capital, banks will either adjust their business models to lower the volatility of their earnings or find new ways to take risks that earn the returns that investors desire. Experience shows that the latter scenario is the most likely. We therefore believe that regulators are paying too much attention to systemic risk elements. Even a systemic crisis such as the current one has revealed huge differences in the roles that large banks have played and the ways they have been affected. In our view, regulators should spend less time focusing on systemic risk and more time validating the business models and overall robustness of individual banks.

Specifically, we recommend four measures:

- ◇ Maintain strong independence of risk control functions, with oversight as high as possible within the organization. The risk function needs to get out of its "ghetto." What's needed is a culture of true risk management—not just risk reporting and upward delegation. Risk managers must be properly remunerated and recognized and their independence from the front office guaranteed. The risk function can potentially be evaluated by a board-level risk committee.

- ◇ Ensure that senior management has the necessary competence in risk management activities and is fully involved in them. Those banks that have best weathered the current crisis typically possess a wealth of accumulated experience in risk management, including at the board level.

- ◇ Adopt incentives that take risk management performance into account. The key issue is not pure bonus levels but the need to explicitly link bonuses to risk-adjusted performance over a sufficient period of time. Such an approach can only be adopted as part of a systemwide effort, with regulators playing a role.

- ◇ Place a strong focus on internal communication and encourage healthy debate. Deals, especially the most complex ones, must be discussed in depth. The role of risk committees in fostering such discussions is essential.

Improving Risk Evaluation and Monitoring. Risk evaluation and monitoring should be less reactive, less statistical, and more forward-looking—utilizing scenario-based risk analyses linked to macroeconomic developments. A stronger focus should be placed on infrastructure, skill sets, and human resources within the organization. Obviously, risk personnel need the right combination of technical and people skills. Reporting and risk analysis should be more highly focused on actual relevance—particularly with regard to the bank's business model, risk appetite, market position, clients, and products—and less focused on sheer comprehensiveness.

Stronger emphasis must be placed on balance sheet management (asset-liability management, funding, asset and market liquidity, RWA, and capital), with strong links to planning and P&L forecasting. Scenario analysis with respect to RWA and cash flow mismatches is critical for the latter. Also, an "extreme risk" team close to the chief risk officer should be established to analyze early-warning factors and develop contingency plans. A platform such as a board or an internal committee should be established to discuss the impact of potential scenarios and plan responses.

Changing the Role of Innovation. In banking, particularly investment banking, innovation represents a potential source of future profit and competitive advantage. In our view, banks need to be trend creators rather than simply copy the moves of their competitors—unless doing the latter blazes a clear path to higher profits. Every innovation needs to be analyzed in depth, not just in terms of potential revenues but also in terms of the institution's ability to support the product or service operationally. Does the organization (front office, risk, finance, back office, legal, and so on) truly understand the product, the upside, and the underlying risks? Does senior management fully grasp the implications? Are IT and operations able to support the trades or deal flows resulting from the innovation?

Also, transparency regarding profitability by division beyond the top line (that is, including indirect costs, costs of risk and capital, and costs of matched funding) must be ensured. Hedges and investment decisions that are overly complex should be avoided. Part of each year's profits should be allocated to rescue funds. Banks should also limit and control maturity transformation through enhanced matching funding. Costs that arise should be allocated to the relevant transaction, which will require term funding.

Structuring to Avoid Contagion If Another Crisis Develops. Risk is an unavoidable element of banks' business models. And another crisis is inevitable. Acknowledging this, banks should organize to prevent a replay of the current crisis when threatening circumstances present themselves again. We recommend stronger "compartmentalization" of business lines in order to allow for an effective quarantine when a crisis strikes. In the future, we expect to see a greater focus on legal versus divisional structures, with more banks organized as holding entities. Balance sheet size and funding should be adjusted to local markets to act as an indicator when a local crisis strikes. Cross-border funding and currency mismatches should be limited to the greatest degree possible. Asset growth should be linked to local currency funding (for example, by using loan-to-deposit ratios as the KPI in planning and controlling). Regulation of local units should be carried out by a local "host regulator" in coordination with the "home regulator" from the head office.

In conclusion, we would like to return to the issue put forth at the beginning of this paper: Was it the banks (acting shortsightedly) or the regulators (acting misguidedly) that were principally at fault in the development of the crisis? The answer, of course, is that some responsibility rests in both camps. Moreover, since another crisis will certainly come, both banks and regulators share the burden of preventing the sort of systemic contagion that we have just experienced.

While it is debatable whether any bank can completely avoid the effects of the next crisis, it does seem clear that regulators are serious about changing the rules and the playing field. And in the new world of higher capital reserves, lower leverage, tighter restrictions on derivatives, more expensive funding, and myriad other measures, the banking industry can take many directions. We may see a flight of capital to other industries. We may witness high-risk games of arbitrage to boost returns where regulators have shut the doors—leading to a series of minibubbles. We could also see a lot of the risk in the financial world disappear into something that resembles a parallel universe concentrated around hedge funds—where returns appear to be very high (and are very seductive).

Banks therefore need to adapt accordingly. Some institutions may do this more successfully than others, finding ways to benefit from the new rules. But overall, banks need to do more. They need to make sure that they build organizations and decision-making processes that will help them avoid the worst when the next crisis strikes. This means developing new cultures and new habits. It means fixing things that no regulator will be able to fix for them.

The current crisis has demonstrated that a culture of risk awareness is critical. Unquestionably, wise and prudent behavior amid constantly shifting market dynamics will be an increasing source of competitive advantage—far more than capital, market share, or models. This, ultimately, is the new banking reality.

About the Authors

The authors are members of BCG's risk expert team.

Philippe Morel is a senior partner and managing director in the Paris office of The Boston Consulting Group. You may contact him by e-mail at morel.philippe@bcg.com.

Peter Neu is a partner and managing director in the firm's Frankfurt office. You may contact him by e-mail at neu.peter@bcg.com.

Pierre Pourquery is a partner and managing director in BCG's London office. You may contact him by e-mail at pourquery.pierre@bcg.com.

Andy Maguire is a senior partner and managing director in the firm's London office. You many contact him by e-mail at maguire.andy@bcg.com.

Thomas Bulach is a principal in BCG's Frankfurt office. You may contact him by e-mail at bulach.thomas@bcg.com.

The authors would like to thank Philip Crawford for his editorial guidance during the preparation of this paper, as well as other members of the editorial and production teams, including Kim Friedman and Janice Willett.

For Further Reading

The Boston Consulting Group has produced a number of working and discussion papers on risk management, including the following:

Liquidity Risk Management: Managing Liquidity Risk in a New Funding Environment, May 2009

Operational Risk Management: Too Important to Fail, February 2009

New Risk Regime, December 2008

All Dried Up: The Impact of the Subprime Crisis on Liquidity Risk Management, April 2008

The Current Crisis: Is the Worst Behind Us? March 2008

The Subprime Crisis: Do Not Ignore the Risks, September 2007

3/10