

Basel III: What the draft proposals might mean for European banking

New regulations are likely to bring significant impact—and unforeseen consequences.

**Philipp Härle,
Matthias Heuser,
Sonja Pfetsch, and
Thomas Poppensieker**

Almost from the start of the financial crisis, there has been broad agreement that national and international banking systems needed reform. The Financial Stability Forum (now the Financial Stability Board, or FSB), a global group of regulators and central banks, started developing recommendations on regulatory reform as early as the fall of 2007. Its first findings were published in April 2008, six months before Lehman Brothers failed. Since then, the FSB has continued to develop its recommendations, which are regularly endorsed by the G20 governments.

The Basel Committee on Banking Supervision (BCBS) has translated the FSB's recommendations into a new regulatory capital and liquidity

regime and summarized its work in two consultative documents published in December 2009.¹ The proposal, which many are calling “Basel III” (after the regulatory regimes known as Basel I in 1998 and Basel II in 2004, both produced by similar processes), is likely to establish the rules for European banks for the next decade at least and to set the tone for local regulation in other parts of the world. The regulator aims to finalize the new rules by the end of 2010.

In parallel, the European Commission has launched a legislative process to issue its fourth Capital Requirement Directive (CRD), to be enacted in the second half of 2010. And the

¹ BCBS, “Strengthening the resilience of the banking sector” and “International framework for liquidity risk measurement, standards, and monitoring,” December 2009.

1.7	2.11	49.4	2'0+
0.9	2.26	43.1	un
4.2	1.51	4145.53	%9'0-
1.7	2.13	117.5	000'S+
1.2	3.52	318.0	%2'1-
4.0	4.07	76.7	0'0-
1.1	2.47	379.8	%0'1+
	6.97	690.0	%7'3-

commission and the BCBS are conducting a Quantitative Impact Study (QIS 6), in which banks are providing their view of how the proposed rules would affect them. To contribute to this debate, we have analyzed the proposal and identified its implications for the European banking industry.

On capital, Basel III proposes significant changes to the composition of Tier 1 capital; risk weights, especially in trading books; and capital ratios. We estimate that a chief effect of the proposals would be a capital shortfall of about €700 billion. The imposition of a leverage ratio, which is also proposed (though without specifics), would make the shortfall worse. This would represent an increase of 40 percent in the European banking system's core Tier 1 capital (the leverage ratio, if adopted, would boost this, possibly to 70 percent).

It is important to note, however, that this assumes today's business and group structures, whereas we know that some of the capital deductions would have passed from the scene in any event. Banks are also likely to revise their corporate structures to lessen the burden of some of the proposals.

On liquidity, Basel III proposes new standards for liquidity and funding management. As a result, funding would also be severely affected. Although the shortfall in funding is harder to estimate, we believe that European banks may need to raise between €3.5 trillion and €5.5 trillion in additional long-term funding, and they could potentially be required to hold an additional €2 trillion in highly liquid assets. By comparison, European banks currently have only about €10 trillion in long-term unsecured debt outstanding.

Before any mitigating action, these new costs for additional capital and funding could lower the industry's return on equity (ROE) in 2012 by 5 percentage points, or 30 percent of the industry's long-term average 15 percent ROE. To be sure, banks have some ability to mitigate the effects on their returns. In this paper, we explore some of the actions that banks might take.

We also highlight another concern. In an effort to move as quickly as possible, the BCBS has acted appropriately and responsibly by deploying several working groups in parallel. But the process has left the interdependencies and interactions between the various sets of proposals less explored. In our view, Basel III would have some unintended consequences, including an impaired interbank lending market, a reduction in lending capacity, and potentially even a decline in the financial system's stability.

The complexity of banking regulation and reform is daunting. Even seasoned industry insiders can be defeated by the Byzantine workings of the system. The regulator and the industry are working against the clock, under tremendous public pressure, and against a backdrop of unprecedented uncertainty. A massive deleveraging process has already begun, and the extent of loan losses in 2010 and 2011 is unknown.² Moreover, Basel III is only one piece in the puzzle. For example, it does not include some other big issues in banking reform, such as new accounting rules, "living wills" to allow for orderly bank wind-downs, or the effects of the shift, proposed by other regulators, of some large swathes of derivatives into clearinghouses with central counterparties.

Given all this, the new proposal is a significant accomplishment. But as the BCBS acknowledges,

²For more on the global deleveraging challenge, see Susan Lund and Charles Roxburgh, "Debt and deleveraging: The global credit bubble and its economic consequences," The McKinsey Global Institute, January 2010, mckinsey.com/mgi.

Exhibit 1

Alternative regulatory scenarios

An outline of the full Basel III scenario and a softened proposal.

	■ Focus of this article	Base scenario Full Basel III proposals	Softened scenario Partial implementation
1 Capital requirements	Capital quality	<ul style="list-style-type: none"> Exclusion of hybrid forms of capital Silent participations not strictly considered core Tier 1 but allowed with long-term grandfathering 	
	Capital deductions	<ul style="list-style-type: none"> Full deduction of minority interests, deferred tax assets, pension fund surpluses, and unrealized losses¹ 	<ul style="list-style-type: none"> No deduction of minority interests or pension fund surpluses 50% deduction of deferred tax assets
	Risk-weighted assets (RWA)	<ul style="list-style-type: none"> 3x increase of trading book RWAs ~20% increase in RWA for financial institutions 	
	Capital ratios	<ul style="list-style-type: none"> Core Tier 1 target ratio at 8%; minimum ratio at 4% Tier 1 target ratio at 10%; minimum ratio at 8% 	
2 Leverage ratio		<ul style="list-style-type: none"> Leverage ratio of ~4% (×25) Tier 1 No netting 	<ul style="list-style-type: none"> Leverage ratio of ~2% (×50) Tier 1 as backdrop only
3 Funding/liquidity		<ul style="list-style-type: none"> Full enforcement of net stable funding ratio (NSFR) (105%) Liquidity coverage ratio (LCR) at 100% requires an increase in liquid assets equal to 3% of balance sheet 	<ul style="list-style-type: none"> Full enforcement of NSFR (100%) LCR requirements met by asset shift to liquid bonds and cash

³Our estimates are based on the consultative documents published by the BCBS in December 2009. We followed the consultative documents closely with the following key exception. A literal interpretation would suggest that pension assets should be deducted from capital. We believe a more likely interpretation is the deduction of pension assets net of pension liabilities. Based on publicly available information from Q3 and Q4 2009, we analyzed the impact of these proposed rules outside-in and bottom-up for 30 banks, including the 16 largest banks in Europe. The results were then extrapolated to the entire European banking sector. It is important to note that the resulting effects are based on today's balance sheets and do not take into account any expected changes to bank balance sheets or other mitigating actions that banks might take before the proposed rules become effective. We have shared and discussed the results with colleagues, banking leaders, and industry experts and further refined our methodology as a result. We would like to thank all of them for their valuable input.

¹Impact of IFRS 9 still to be assessed (available-for-sale reserve for products that will be booked at amortized costs under IFRS 9 not to be deducted).

the proposal can be improved through deeper understanding and industry debate. We believe that regulators should take as much time as needed to build a financial system that is not only stable but also well functioning.

We do not claim to have all or even most of the answers and are aware that many of the figures under analysis will evolve over time. We hope, however, that a fact-based contribution like this will advance the discussion and, together with the views of experts in banking and in the academy, help banks and regulators create a regime that ushers in a new age of stability and prosperity for the global financial system.

Understanding the proposal

Basel III puts forward changes or new rules in four areas: capital quality, capital requirements,

leverage ratios, and liquidity requirements. The BCBS has also outlined additional requirements regarding compliance, such as new requirements for external and regulatory reporting, new process requirements, the use of new discretionary powers to make ongoing adjustments to capital and liquidity requirements, and new counter-cyclical measures. These will require additional investments by banks; we discount them from our analysis because they are more difficult to model and in our view will have less substantial effects on banks.

In this section, we summarize the new rules and their likely effects on European banks if implemented as written.³ In some cases, there is considerable room for interpretation; we have applied what we think are the most likely and realistic interpretations. These are

mostly congruent with the current consensus view in the industry, with some exceptions. While this paper summarizes the effects of Basel III as currently proposed, it appears likely that the proposals will be diluted in the coming months. We outline both the scenario that is the basis of our analysis and a softened proposal in Exhibit 1. As our estimates are based on publicly available information, they may differ significantly from estimates produced from banks' private information. We have tried to highlight these uncertainties wherever possible. Despite these potential problems, we believe that our estimates provide useful information about the size and some characteristics of the effect of the proposal on European banks.

Profound impact

If we look at the four dimensions of capital and liquidity regulation contained in the proposal and

outlined below, we can see that the Basel III proposal would massively affect the industry's capitalization and funding levels (Exhibit 2). We estimate that the industry would need to raise an additional 40 percent to 50 percent of its current Tier 1 capital base, or some €700 billion (before the effects of a target leverage ratio, which could increase the shortfall substantially). Some €200 billion of this would have to be borne by the 16 largest banks. Further, the industry would have to hold an additional €2 trillion in highly liquid assets and €3.5 trillion to €5.5 trillion in long-term funding. Of this, the top 16 banks would need to raise €700 billion in highly liquid assets and €1.8 trillion in long-term funding.

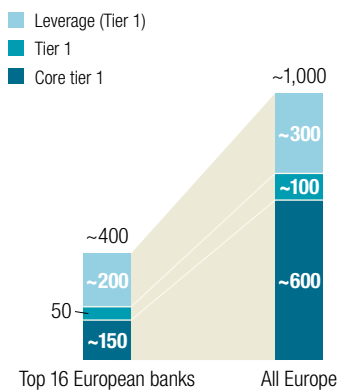
As mentioned, this estimate relies on today's bank portfolios and group structures. The ultimate capital shortfall will be smaller. Some effects will

Exhibit 2

Capital and funding shortfalls

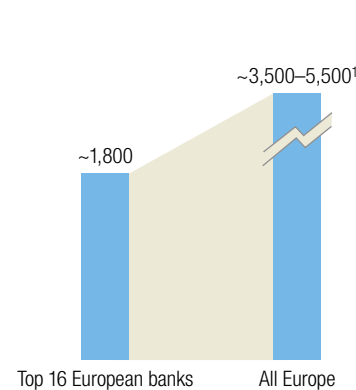
Basel III will affect capitalization and funding levels.

Capital shortfall, € billion



European gap equals cumulative retained earnings of last 11 years

Long-term funding shortfall, € billion



European gap equals ~50% of current long-term funding

¹ Estimate depends on asset-liability structure of other banks.

Source: *BIS Quarterly Review*, March 2010; Dealogic; McKinsey analysis

solve themselves over grandfathering periods (for example, deductions for deferred tax assets will decrease significantly if the industry produces strong profits). Banks will solve others by changing their business mix (say, by reducing their trading books) or group structures (for example, selling majority-owned subsidiaries or buying out minorities). These and other possible bank responses are described later in this paper.

As noted, the proposals in Basel III would reduce the industry's ROE by 5 percentage points (before mitigating factors), or at least 30 percent of the industry's long-term average ROE, which we estimate at 15 percent (Exhibit 3).

We now examine the four sets of changes that threaten to alter banking economics so profoundly.

Improved capital quality and deductions

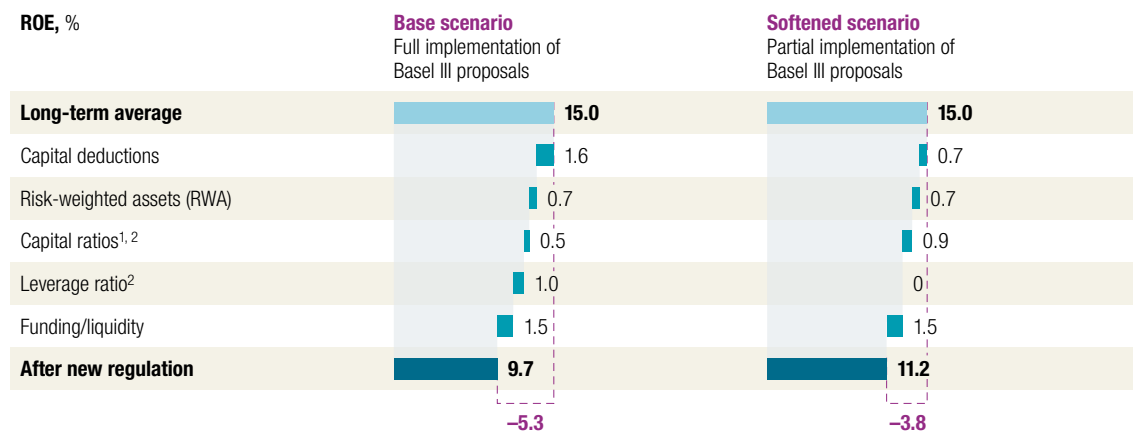
The regulator has clearly shifted focus from Tier 1 and Tier 2 capital toward core Tier 1 capital—the immediately available capital that best absorbs losses and contributes significantly to the bank's status as a “going concern.” In essence, the new definition of core Tier 1 capital is something very close to the shareholder equity carried on the balance sheet. However, the proposal makes several adjustments to core Tier 1 capital, for example, excluding all hybrid forms of capital, such as perpetual securities and silent participations,⁴ which are viewed by the BCBS as economically equivalent to subordinated debt; deducting “intangible” assets such as deferred tax assets; and no longer considering minority interests as core Tier 1. It should be noted that there is some room for interpretation in the definition of some of the positions, such as pension assets and liabilities; these

⁴Silent participations were the primary means by which the German government capitalized banks during the crisis. They are similar to preferred shares, as they have a fixed coupon and do not have voting rights; they are, however nontradable.

Exhibit 3

ROE impact on European banks

Basel III would reduce the industry's return on equity (ROE) by 5 percentage points.



¹As some deductions effectively only shift capital from core Tier 1 to noncore Tier 1, the Tier 1 ratio gap might be higher in the softened scenario than in the base scenario.

²We have assumed that all Tier 1 gaps are filled by equity. This is particularly relevant for the leverage ratio. In an alternative scenario, banks might fill gaps with hybrid capital. Depending on the cost of hybrid capital, this might have a lower ROE impact.

questions will require further clarification from the BCBS.

The effect will be to disallow capital that banks now hold as core Tier 1, reducing the average core Tier 1 capital ratio by 30 percent for European banks. That said, the effect on institutions will vary widely (Exhibit 4). Those whose capital currently features deferred tax assets and minority interests, typically those banking groups that have joint ventures in foreign markets or that act in some ways as central banks, will be worst affected.

We estimate the effect of the proposed changes to capital quality will be to reduce industry ROE by about 1.6 percentage points.

Increased risk weightings

Earlier amendments to the Basel II market risk and securitization frameworks (that is, CRD III)

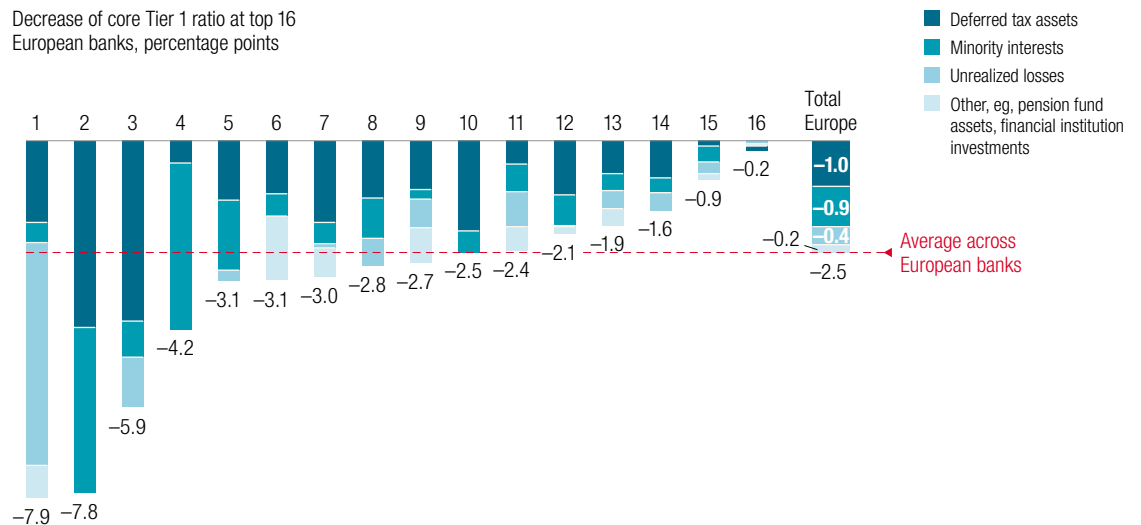
had already proposed big changes in risk weightings for trading book assets as of the end of 2011. We see particularly severe effects on (re-)securitizations and “correlation” books.⁵

Basel III, together with CRD IV, proposes further changes to the trading book in the form of increased risk-weighted assets (RWAs) for over-the-counter (OTC) derivatives that are not centrally cleared. In addition, banks will be subject to a capital charge for mark-to-market losses, called the credit value adjustment (CVA) risk. This risk was not covered at all under Basel II, but was a source of great losses during the crisis. In the banking book, the most notable change is the increase of the risk weighting for financial institutions; the BCBS sees that the correlation risk in these positions is significantly higher than previously realized (and most would agree; this was a key learning from the crisis).

⁵The term “correlation book” refers to portfolio-based products whose price is a function of the default correlation among the individual assets in the portfolio. Correlation products include liquid collateralized-debt-obligation tranches and nth-to-default baskets.

Exhibit 4
Impact of proposed change

The effect on institutions will vary widely.



The impact of CRD III was estimated at an increase of a factor of three (or 200 percent) in a previous QIS begun by the BCBS in 2009. The regulator has also declared this to be the target factor, and so this is the factor we use for the trading book. In our experience, however, most recent internal calculations by banks show that the actual impact factor for trading books might be higher, perhaps as high as 20. The key is the significant additional impact from (re-)securitizations. In addition, very early indications are that the new CVA rule will also have an unexpectedly high impact.

The regulator also clearly intends to reduce counterparty risk by creating incentives to drive higher standardization in derivatives and move their clearing to central clearinghouses. The intention is clear, for example, in that the proposal assigns a zero risk weighting to counterparty risk at central clearinghouses, while at the same time significantly increasing the risk weighting of derivatives in the trading book, as mentioned. Similarly, the proposal calls for a lower collateral requirement for derivatives that are centrally cleared.

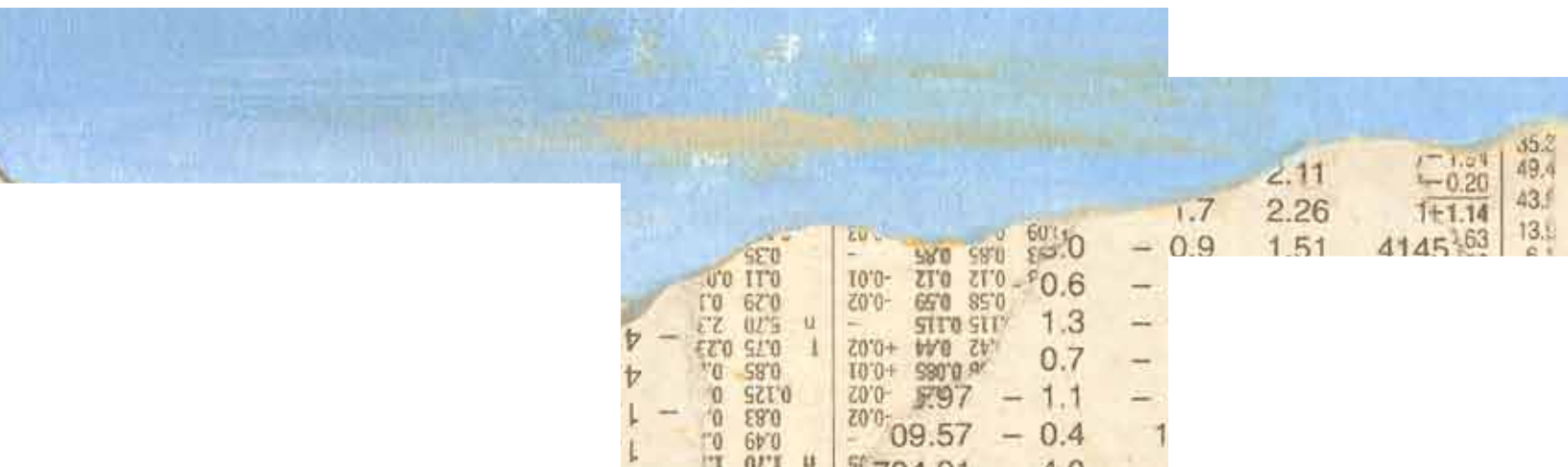
The effect of increased capital requirements will be to reduce industry ROE by 50 basis points.

Changes to capital ratios and an additional leverage ratio

The consultative documents say only that BCBS is considering establishing a new minimum ratio for core Tier 1 capital and raising its target ratio for Tier 1 capital. Further, the committee proposes a buffer of Tier 1 capital, which can be drawn down in bad times (though not without restrictions, for example, on dividend payments).

The new ratios are not yet defined, and while it is difficult to judge right now what they will be, we believe that regulatory capital will become an even greater constraint on bank capital. We estimate that banks will wind up holding core Tier 1 capital of about 8 percent of their risk-weighted assets. This is not far from the current industry average after extensive recent capital raising—but bear in mind that the definition of core Tier 1 will be substantially adjusted, as discussed above. Our estimate is based on a new minimum core Tier 1 ratio, which could be between 3 percent and 4 percent, and an assumption that the industry will hold additional core Tier 1 capital equal to 100 percent of the minimum.

In addition, Basel III proposes the introduction of a general leverage ratio (that is, the ratio of unweighted assets to the bank's capital), broadly



Regulatory capital will become an even greater constraint.

in line with International Financial Reporting Standards (IFRS) accounting. Again, the maximum permissible ratio is not stated in the documents. It is important to note here that the calculation of the leverage ratio (however it is eventually defined) is heavily dependent on the accounting regime used. In particular, the extent to which netting is permitted in the calculation of the ratio is critical. For example, Deutsche Bank published its general leverage ratio as of the end of 2008 at 33:1 under United States Generally Accepted Accounting Principles (GAAP), which permit netting, but under IFRS, which does not permit netting, it would be over 70:1.⁶ In most cases, those countries that have already applied general leverage ratios have allowed for netting as implemented in local GAAP.

In addition to the uncertainty about the definition of the ratios and the minimum hurdle, it is also still unclear if the target ratio would be a Pillar 1 ratio (that is, a binding regulatory minimum) or a Pillar 2 requirement (in which case it would be up to the bank to demonstrate that its measurement of regulatory capital is appropriate). Given the broad range of possibilities, it is difficult to estimate the effects. We have composed several scenarios that suggest that the effect of the introduction of a new general leverage ratio would be to reduce industry ROE by up to 1 percentage point.

New liquidity requirements

Last, the Basel Committee has also outlined new requirements for funding and liquidity management, embedded in two regulatory metrics:

- The liquidity coverage ratio (LCR), which is dedicated to improving banks' resilience against short-term liquidity shortages
- The net stable funding ratio (NSFR), which looks at banks' long-term funding

The principles of the proposed ratios are not surprising, and their fundamental logic is actually commonly used in many banks' internal liquidity-management models. In fact, some similar ratios have been used by national regulators in Germany and the United Kingdom. But the Basel III proposal is far more comprehensive and conservative than earlier instances.

The LCR estimates the bank's liquidity against net cash outflows over a 30-day period under stress assumptions. The net outflow has to be covered by the bank's liquidity reserves, consisting basically of cash and central-bank-eligible securities. The purpose of the liquidity coverage ratio is to ensure the bank can manage a short-term liquidity crisis.

The NSFR requires a bank to hold at least an amount of long-term funding equal to its long-term assets. "Long term" typically means more than one year. The aim is to significantly reduce the refinancing risks on the balance sheet.

However, the proposed ratios seem quite conservative; for example, bonds of financial institutions are considered long-term assets, even though they are typically central-bank eligible.

⁶Deutsche Bank Annual Report, 2008.

Even covered bonds such as high-quality Pfandbriefe will be subject to a 20 percent to 40 percent “haircut” in the calculation of liquidity. Retail loans will be severely penalized with a requirement that they be 85 percent funded with long-term funding, compared with 50 percent for corporate loans. Furthermore, there are also significant short-term funding requirements for liquidity facilities for which, under the LCR, banks are expected to hold 100 percent liquid securities.

Compared with the typical ratios that we see in banks’ internal treasury models today, after the worst liquidity crisis in generations, the proposed NSFR implies much greater liquidity than what most banks currently consider a prudent funding position. This may force banks to restructure their liquidity portfolios and may also have an impact on issuers.

The effects of the two new liquidity ratios would be substantial. The LCR would require European banks to raise approximately €2 trillion in highly liquid assets. Of this, the top 16 banks’ share would be €700 billion. The NSFR would require that the industry will raise an additional €3.5 trillion to €5.5 trillion of long-term funding (out of which those same 16 big banks would have to raise €1.8 trillion).

We assume that banks can find long-term unsecured funding in these amounts in today’s markets, which may not be the case. This would represent an increase in the current funding base of 35 percent to 55 percent and could increase funding costs by €40 billion to €55 billion. Put another way, the new liquidity requirements would reduce industry ROE by about 1.5 percentage points.

How banks may respond

Banks will need to consider many of their activities—funding, credit, capital management, asset-liability management, and so on—and almost every business line to understand what they must do to comply and how to make their compliance as profitable as possible, while also building resilience and flexibility where needed. While the final rules will almost certainly differ from the proposal in some key respects, in most cases only the figures will change—the impact will be as broad as in the draft documents now under review.

To design their response, banks can begin by dividing the effects of the proposal into three categories: (1) general effects on the group’s balance sheet, (2) general effects on capitalization levels and funding costs that are felt proportionally by every business, and (3) specific rules and penalties on individual products and businesses (Exhibit 5). Each of these sets of effects can in turn be addressed by three measures: (1) making changes to the balance-sheet structure, (2) undertaking improvements in every business to address the general increase in capital and funding costs, and (3) reviewing and potentially restructuring those businesses that are specifically and disproportionately affected.

Restructuring the balance sheet

Some effects of the proposal will affect the bank overall and are independent of the business and its related asset portfolios. These effects stem in particular from rules concerning capital deductions and the general treatment of liabilities not linked to customer businesses, such as liabilities to other financial institutions and interbank loans and deposits.

Exhibit 5

Crafting a response

Banks can divide the effects of Basel III into three categories.

	1 General balance-sheet-related impact	2 Proportional/ratio-related impact	3 Business-specific impact
(Core) Tier 1 capital	<ul style="list-style-type: none"> All general deductions <ul style="list-style-type: none"> – Minority interests – Pension funds – Deferred tax assets 	<ul style="list-style-type: none"> (Core) Tier 1 ratio and buffer 	<ul style="list-style-type: none"> Treatment of trading book assets Deduction of (re-)securitizations Treatment of financial institution loans
Leverage ratio	<ul style="list-style-type: none"> Definition of leverage ratio, in particular netting of non-business-specific items (net tax position, etc.) 	<ul style="list-style-type: none"> Leverage ratio and buffer 	<ul style="list-style-type: none"> Treatment of specific businesses <ul style="list-style-type: none"> – Netting on derivatives positions – Exclusion of domestic loans
Funding/liquidity	<ul style="list-style-type: none"> Liquidity portfolio structure (financial institution bonds, covered bonds) Treatment of ‘other’ assets/liabilities 	<ul style="list-style-type: none"> Liquidity/funding ratios and buffer requirements 	<ul style="list-style-type: none"> Treatment of business-specific positions <ul style="list-style-type: none"> – Corporate/retail deposits – Corporate/retail loans – Securities/derivatives

Importantly, these issues may be addressed by restructuring the balance sheet without the need for additional capital—and without substantially worsening the profitability of the bank. We see several possibilities here. Banks might, for example, reduce pension or tax assets, restructure their minority shareholdings, and move away from unsecured interbank funding, in particular within larger banking groups. Similarly, banks might evaluate their accounting and reporting choices and where possible choose those that offer the most favorable treatment of assets, improving their leverage ratio and lessening the impact of new regulation. Finally, the implementation of regulatory requirements may differ across countries; banks must factor in local specificities as well as global frameworks such as Basel III. It may be possible that banks will find opportunities to optimize the booking location of certain transactions, as is already done for tax purposes.

Meeting the bar of higher capital costs

However, we expect that a large part of the impact from the additional capital and liquidity

requirements will not be susceptible to mitigation of the kind sketched out above and will have a direct impact on banks’ capital. This is especially true of new and increased target ratios on capital and liquidity, including required buffers. These proposed changes affect all businesses and assets—retail and wholesale—in a general or proportional way. The changes include in particular the new core Tier 1 ratio and the proposed buffer for the new leverage or funding ratios.

In response, the group will likely have to allocate more capital across all businesses, leading to a general increase in capital and funding costs. Banks can construe this as a performance challenge; in effect, the new rules will raise the bar for each business. Each business will see its capital cost rise in proportion with its risk-weighted assets, together with a generally allocated charge to cover the higher cost of funding.

As a reaction, businesses may search for optimization potential in regulatory measurements—

Exhibit 6

RWA optimization

Banks can fine-tune their risk-weighted assets (RWA) models, improve data quality, and optimize asset segmentations.

		Selected examples	
		Optimization lever	
No business impact	'Capital hunt'	Internal models and RWA calculation	<ul style="list-style-type: none"> • Optimization of internal risk parameter estimate • Through-the-cycle rating models • Precise asset class segmentation
		Booking and collateral management	<ul style="list-style-type: none"> • Accurate and timely booking of credit lines • Comprehensive booking of collateral
Data quality		<ul style="list-style-type: none"> • Review of eligibility of collateral • Improved rating coverage • Transparency on underlying assets 	
Business impact	Capital-light business model	Credit/trading processes	<ul style="list-style-type: none"> • Active credit-line management • Added risk sensitivity to credit lines • Improved monitoring/workout
		<ul style="list-style-type: none"> • Increased collateralization, eg, enforce covenants • Optimized product mix, eg, RWA-efficient product choice • Improved outplacement capabilities, eg, standardization of products • Optimized lending contracts 	
Typical savings in % of RWA			15–25
			10–30

much as they did under Basel II. While the crisis may well have resulted in part from banks' underestimation of some risks, on other risks they were actually too conservative. They can fine-tune their RWA models, improve their data quality, and optimize their asset segmentations (Exhibit 6).⁷ Businesses may also seek to reduce their cost base or adjust their pricing schemes and pass on some of the costs to their customers. They may have an "umbrella" under which to reprice, as several banks will likely be seeking to do the same thing.

However, those businesses whose ROE remains marginal even after optimization will likely be crowded out or substituted by alternative product

and business structures. Examples of these low-margin businesses with increased funding or capital requirements under Basel III could include public finance, parts of the retail mortgage business, and high-grade long-dated lending activities.

The right answer for each bank will be highly dependent on context, of course; high-cost businesses with a healthy market share may still have a place in the portfolio if their pricing power is strong, as we discuss next.

Addressing business-specific regulatory challenges

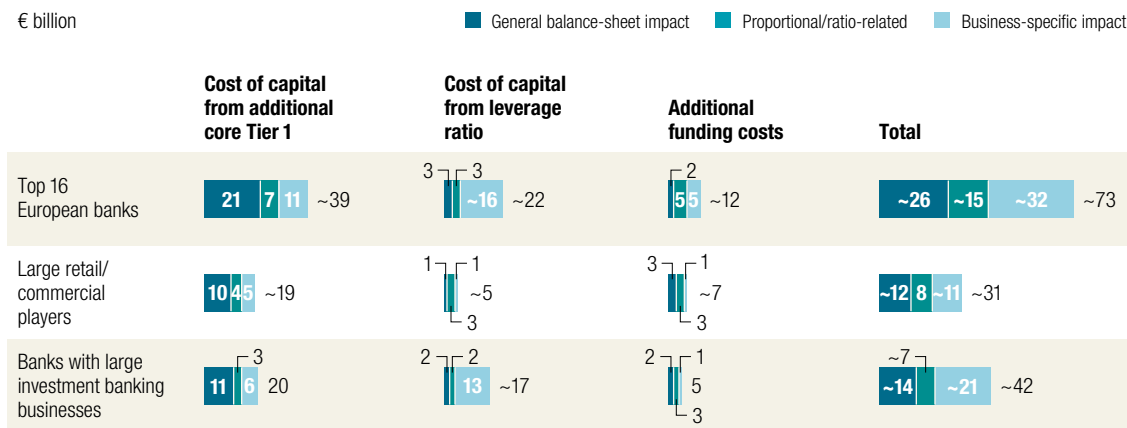
Finally, the proposals make good on the regulators' clear intentions by including specific

⁷For more on effective capital management, see Erik Lüders, Max Neukirchen, and Sebastian Schneider, "Hidden in plain sight: The hunt for banking capital," *The McKinsey Quarterly*, January 2010, mckinseyquarterly.com.

Exhibit 7

Cost implications

Banks can use this breakdown to understand industry profits and three lines of business.



penalties for certain subsegments and products, especially in capital markets businesses. These include the new capital requirements for trading activities generally and securitizations in particular. The proposal also sets out new risk weights for lending to financial institutions and limits on netting OTC derivatives under a leverage ratio, both of which will challenge capital markets businesses. This set of effects includes product-specific rules that apply the new liquidity ratios to securities and trading portfolios, especially the treatment of financial institution (FI) positions.

These new regulations will spur businesses to think about reconfigurations to their business models. This may include some cost or pricing adjustments, by which the business seeks to pass its additional capital and funding costs on to customers. This may again be possible to some degree in some lending and deposit activities. More radically, however, some units may require significant portfolio restructurings and scale-downs, including abandonment of some activities altogether. Businesses susceptible to such restructurings include derivatives units and

market-making activities that feature products that cannot be highly collateralized or executed via exchanges or central clearinghouses.

A broader view

We can use the same breakdown of effects to understand the impact on profits of the industry overall and on three big lines of business (Exhibit 7). And we also can see a distinct possibility of some unintended effects.

Effects on the industry

For the 16 biggest banks in Europe, we estimate that the potential impact may be an increase in funding costs of some €12 billion and some €60 billion in additional cost of capital to carry the roughly €400 billion of additional capital these banks would need. Again, this is before mitigating factors.

When we view this €73 billion across the three categories we laid out in the previous section, we see that about €26 billion stems from costs associated with the current balance-sheet structure, €15 billion is related to a general increase in capital and funding require-

ments, and €32 billion is related to business-specific levers.

For Europe overall, we estimate the impact at up to €190 billion, of which €40 billion would show up as P&L impact from the cost of additional funding and up to €150 billion would appear as the cost needed to meet the proposed capital requirements.

Effects on lines of business

As noted, all banking businesses will be affected by increased costs of capital and funding. This will make some businesses with lower ROEs appear unattractive. Additionally, banks will need to consider any business-specific effects. Finally, they must also consider the differences between businesses in their ability to mitigate the effects of Basel III. Bearing all that in mind, we see the following outlook for three key lines of business:

- In **retail banking**, the business-specific effects would seem limited, with the exception of short-term retail loans (Exhibit 8). Retail banking units with substantial deposits will be less affected by higher liquidity costs. It is important to note, however, that while retail banking may be less affected than other lines of business, it also has much less flexibility to respond. Repricing, cost cutting, and changes in business mix are much more difficult for retail banks than for, say, corporate or investment banks.
- The business-specific impact on **corporate banking** also seems light, with two exceptions.

First, the change of relative attractiveness of corporate loans versus corporate bonds, due to the different liquidity treatment, combined with the expected broad-based rise of corporate lending margins due to overall Basel III effects, will result in a shift from borrowing to bond issuance as a source of credit for corporates. Second, the liquidity rules will provide an incentive for corporate banking businesses to concentrate on customers with whom they maintain an operational relationship and to collect deposits from these clients. However, the active management of credit portfolios may be significantly constrained by the proposed new requirements on hedging and capital markets transactions, detailed below.

Broadly speaking, most corporate banks will do rather well, as we expect that in most markets, they can recover a substantial portion of the overall Basel III impact through higher (loan) pricing and cost cutting. Two groups of corporate banks, however, will be particularly affected by the changes entailed in Basel III. One is the central institutes in the savings and cooperative banking sector, which typically have a broad minority shareholder group and rely on FI deposits from their sector banks for funding. As noted, FI-related funding will be heavily discounted under the new regulation. Another affected group will be specialized public finance businesses, which—in addition to their funding challenge—will need to change their business models because of their high leverage ratios.

Most corporate banks will do rather well under Basel III compared with retail and investment banks.

• **Investment banking with substantial capital markets activities** will be significantly affected by some of the specific rules for trading businesses, including capital treatment, the new leverage ratio under the proposed IFRS accounting treatment with limited netting, and the new funding requirements for trading portfolios. These targeted interventions, along with the broader impact of Basel III, mean that investment banking units with substantial

capital markets activities are the most challenged of all businesses. We see three specific implications:

- Flow businesses and market-making activities will suffer. Higher costs for capital and funding will inevitably lead to reduced margins. This is especially true for FI bond trading, given its particularly high capital and funding requirements.

Exhibit 8

Impact on selected products

The business-specific effects of capital and funding costs are limited, except on short-term retail loans.

Products		Funding cost			Capital cost ¹			Total
		Today	After regulation	Delta	Today	After regulation	Delta	
		Basis points (bps)						
Retail banking	Short-term (ST) retail loans	30	80	50	60	70	10	60
	Mortgages >60% LTV ²	80	90	10	60	70	10	20
	Mortgages <60% LTV ²	40	40	0	60	70	10	10
Corporate banking	ST corporate loans	30	60	30	85	100	15	45
	Long-term (LT) corporate loans	80	90	10	85	100	15	25
Financial institutions (FI)	ST FI loans	15	15	0	25	35	10	10
	LT FI loans	80	90	10	25	35	10	20
Securities >1 year	Government bonds	5	5	0	0	5	5	5
	Corporate bonds >AA-	30	20	-10	25	30	5	-5
	Corporate bonds >A-	40	45	5	60	70	10	15
	Covered bonds	5	45	40	25	30	5	45
	FI bonds	20	90	70	25	30	5	75
	Illiquid	60	90	30	85	100	15	45
Investment banking	Over-the-counter (OTC) derivatives ³	15	90	75	25	75	50	125
Off balance sheet	Credit facilities	15	10	-5	25	30	5	0
	Liquidity facilities ⁴	20	90	70	20/85	50/100	30/15	100/85

¹Assuming 15% return on equity and target ratio of 8% core Tier 1.
²Loan-to-value ratio.
³Relative to market values/current exposure.
⁴Capital cost: short term/long term.

- Structured and OTC businesses will be affected by significantly higher RWAs resulting from counterparty risks and the potential constraint of the leverage ratio. Additionally, these businesses will incur higher hedging costs, where flow hedges cannot be executed via central clearinghouses.
- Primary market activity, on the other hand, may increase. Bond origination, for example, will become more attractive than lending. Even then, primary markets will not be a panacea. They will be held back somewhat by reduced liquidity in the secondary market. And for FI bonds, issuers will need to find new investors, as banks will no longer be willing to hold each other's paper.

While investment banking units generally have a great degree of flexibility to respond to these challenges, it appears likely that some of today's

businesses will be fundamentally challenged. In some cases it will not be enough to restructure businesses; a scale-down or exit seems inevitable for many banks.

Unwanted effects

It should be clear that the changes entailed in Basel III will severely affect the banking industry. Indeed, if we also consider a number of other regulatory changes not discussed in this paper, this might constitute the most severe external structural shock to the banking industry in recent history.

Some might argue that this is not necessarily a bad thing. However, we would note in conclusion that Basel III might also set in motion three unwanted effects. First, even after all the mitigating factors, banks will still need to raise significantly more capital and funding. But their ability to do so will depend on their earning



power and the return they can offer to outside investors. As profitability would seem to be significantly impaired, there is a strong likelihood that an increase in stability would come at the cost of reduced lending capacity. Assume for the sake of analysis that banks' management actions reduce the requirement for additional capital and funding by 70 percent. Banks would still need €170 billion to €300 billion in capital and €1.2 trillion to €1.8 trillion in funding. This represents some three to four years of projected earnings and a doubling of long-term bond issuances for two to three years (this at a time when banks are absent as investors). Leaving aside the issue of funding availability, if banks should fall short and raise only half of this reduced capital requirement, this could result in a reduction in lending capacity of €1.2 trillion to €2.5 trillion.

A second effect would arise from the sale and closure of specific business activities, in particular in investment banking. While regulators may approve of this outcome, it may also lead to banking customers taking on additional risks outside the banking system. Corporates,

insurers, hedge funds, and other institutional customers may take their refinancing needs and their quest for market risk into the unregulated financial system. Even mundane refinancing may shift to the "shadow" banking system.

Finally, the specific intention to limit interbank funding may lead to an increase in systemic risk. The constraints on interbank funding may mean that that market will occasionally dry up. Unless nonbanking institutions choose to provide liquidity, central banks may have to act as central clearinghouses for liquidity.



Given the potential significance, it seems important to understand the implications of the proposed regulations much better before they are finalized or implemented. The consultative process, the results from QIS 6, and an understanding of the impact of the proposal on the broader economy are more important than ever, if the desired result—a stable, fair, and enforceable regulatory regime—is to be achieved. ○

