

McKinsey Working Papers on Risk, Number 41



Between deluge and drought

The divided future of European bank-funding markets

Arno Gerken
Frank Guse
Matthias Heuser
Davide Monguzzi
Olivier Plantefeve
Thomas Poppensieker

March 2013

© Copyright 2013 McKinsey & Company

Contents

Between deluge and drought: The divided future of European bank-funding markets

Introduction and executive summary	1
European funding markets remain challenging for banks	3
Implications of the current environment	7
Regulatory changes suggest additional liquidity and funding gaps for the banking industry	8
Implications and structural resolutions	14
Conclusion	19
Appendix: A growing North-South divide?	20

McKinsey Working Papers on Risk presents McKinsey's best current thinking on risk and risk management. The papers represent a broad range of views, both sector-specific and cross-cutting, and are intended to encourage discussion internally and externally. Working papers may be republished through other internal or external channels. Please address correspondence to the managing editor, Rob McNish (rob_mcnish@mckinsey.com).

Between deluge and drought: The divided future of European bank-funding markets

Introduction and executive summary

In recent months, assessing the state of, and prospects for, European banks' funding and liquidity has been like trying to jump on to a moving train. A series of developments has led to a partial unfreezing of credit markets that had been effectively closed since the financial crisis erupted in 2007–08. However, despite some apparent short-term relief, culminating in January in the repayment by banks of some of the funds advanced to them by the European Central Bank (ECB) a year earlier, the long-term picture remains both complex and uncertain. While it is important to acknowledge that the situation now is more positive than it has been for some time, deep structural challenges face Europe's banks, and the system remains vulnerable to new shocks or setbacks.

These structural challenges are the principal focus of this paper. Europe's banks have struggled to build robust and stable funding models. They remain highly dependent on funding provided by the ECB, particularly via the Long Term Refinancing Operation (LTRO) in early 2012. Short-term unsecured funds are still elusive for most banks. Long-term funding is available, but at a price and not one that all banks can afford. The ability of banks to fund themselves has been further hampered by the sovereign-credit crisis in Europe, with country ratings downgrades often leading to follow-on downgrades for relevant national banks. In addition, new regulations from Basel and the European Union are steadily increasing the pressure on banks' balance sheets.

For much of 2012, credit markets showed little by way of recovery. There have been several key steps in a recent partial restoration of confidence. In September 2012, to the great relief of financial markets more generally, the ECB outlined how—under certain conditions—it would buy unlimited amounts of bonds from troubled euro-area countries. Thereafter, the European Commission laid out a plan for joint European banking supervision as part of a broader banking union, and Germany's constitutional court came out in support of the European Stability Mechanism.

Following these events, spreads on the government debt of peripheral countries significantly narrowed, pulling bank spreads down in their wake, and even large Italian and Spanish banking institutions regained some market access. A partial repayment of ~€140 billion of roughly €1 trillion of LTRO funding took place in January 2013, and this was seen as a sign of growing confidence among the banks that they are on the way back to full health.

Nevertheless, all is not rosy. Preliminary data suggest that overall cash injections appear so far have been largely ineffective in ensuring higher loan growth, because a significant portion continues to be held as liquidity either in government bonds or remains placed back with the ECB. In addition, because they are under additional balance-sheet and capital constraints, many banks face ongoing challenges as to how they can invest such extra funding.

In this paper we have attempted to address the longer-term structural issues facing Europe's banks. As will become clear below, this can be done at a systemic level, but true and necessary insight comes from analysis of individual countries or small blocs of countries with shared characteristics. Among our main findings are:

Long-term secured funding has fallen by roughly half since 2007 and average maturities have dropped from ten to seven years. There is a notable divide between Northern and Southern Europe as well as between secured and unsecured markets. While the market for secured vehicles, in particular covered bonds in many countries (including the German Pfandbrief), remains liquid and has extremely competitive prices, unsecured-funding markets have been largely closed for many banks.

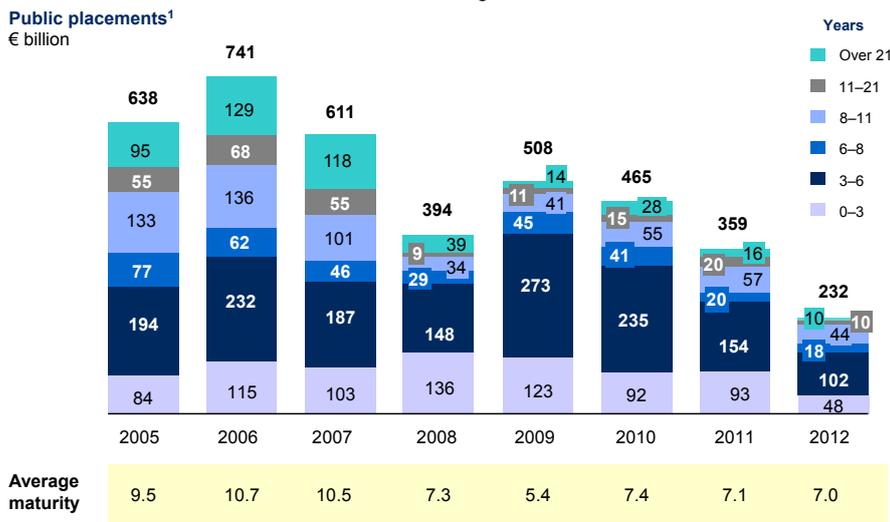
Thanks in part to lower credit ratings, banks' refinancing rates are still significantly higher than their historic averages. Investors are often shunning banks altogether or demanding sharply higher rewards for their liquidity. Banks' fortunes have been more strongly tied to those of their national sovereign credit.

Funding costs in Northern and Southern Europe have been gradually drifting apart, placing Southern banks in a weakened position to compete for international business against banks with access to cheaper funding. This is critical, because many of these Southern banks successfully expanded their international footprint over recent years, with Italian banks being very active in Central and Eastern Europe, Spanish and Portuguese banks being active in South America, and Greek banks expanding in the Balkans and Turkey.

Deposits still remain the most important refinancing base for banks, accounting for approximately 50 percent of European bank balance sheets. Deposit growth has started to slow significantly as depositors have been shifting their money toward safer banks or other nonbank investments, broadly in line with the slowdown of the region's economic growth. While deposits from households grew at 11 percent per annum from 2005 to 2008, growth has been only 1 percent since then. However, with the exceptions of Greece and Ireland, so far no European country has seen a significant decrease in deposits, and, in fact, deposits have been growing in aggregate throughout the crisis.

Elements of Basel III, the Liikanen recommendations, and the European Market Infrastructure Regulation (EMIR) challenge the current role of banks in the economy—even if recently announced adjustments to liquidity coverage ratios (LCRs) and the intention to introduce them gradually has roughly halved the original short-term liquidity gap compared to the previous proposal. Banks need to find an answer to the threat of disintermediation by their corporate customers, many of which currently have refinancing rates lower than or similar to the banks themselves. Banks, their Chief Financial Officers, Chief Risk Officers and their treasury functions, will need to develop a governance approach designed to ensure that emerging trends and regulatory changes are analyzed in a timely fashion, generating the appropriate insights for the business and treasury strategies.

Exhibit 1 Markets closed down for banks, reaching record lows in 2012.



¹ Covered bonds, unsecured bonds, preference shares, and medium-term notes.
Source: Dealogic

European funding markets remain challenging for banks

Funding markets are of crucial importance to the well-being of the financial system and the banks within it. However, since the crisis started in the summer of 2007, market mechanisms that should ensure efficient and full allocation of liquidity have not functioned properly. Today they remain far from having fully recovered.

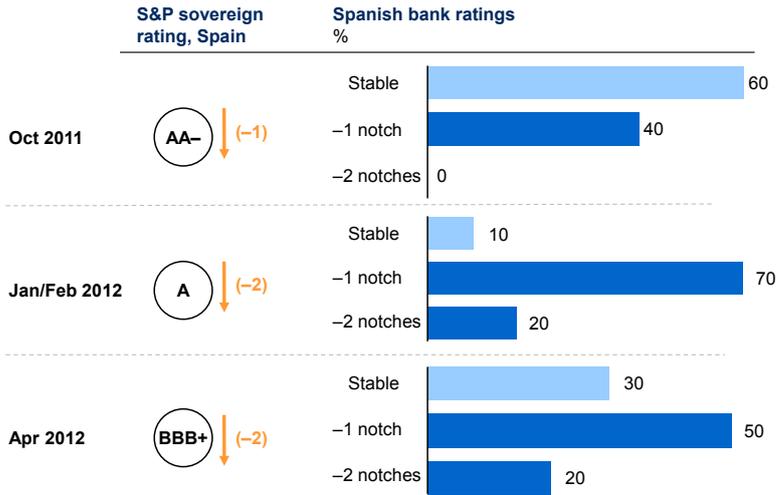
The most visible signal that markets are not functioning is the ongoing need for the ECB and other central banks to provide significant funding to banks. At the peak, more than €1 trillion of liquidity was poured into banks, while at the same time similar amounts sat in ECB deposit facilities. Banks have clearly been finding it difficult to build a robust and stable funding model, something made even more challenging by the uncertainties stemming from ongoing regulatory and business changes.

Wholesale liquidity and funding markets for European banks have dried up in recent years

- Long-term wholesale-funding capacity has dropped since pre-crisis years. This is visible in annual issuance volumes of only €320 billion to €350 billion versus pre-crisis levels of ~€660 billion, as well as in the shortening of average duration from ten to only seven years. Further, the market has been increasingly dividing itself between secured vehicles (in particular selected covered bonds in prime countries, notably the German Pfandbrief, which remain liquid and have extremely competitive prices of only 50 to 60 basis points, or bp, over governments) and unsecured markets or asset-backed securities, which have continued to struggle both in terms of pricing and volumes. In addition, there has been a clear divide between Northern and Southern European banks: while some perceived safe-haven banks have continued to have access to funding markets at adequate cost, some Southern European banks have faced serious difficulties.
- In parallel, the cost of long-term funding exemplified by unsecured public issuance has increased significantly by approximately 50 bp (with significant differences among players and countries). Not only have average bank ratings declined, but the price banks need to pay for their liquidity also has risen significantly as refinancing spreads have increased:
 - These spreads increased by around 35 basis points, from 110 bp to 145 bp on issuances in 2012 compared with 2011.
 - The average bank has been downgraded by 1.2 notches in the last year, with an estimated effect of at least 30 bp in additional funding cost (Exhibit 1).
- Short-term unsecured interbank funding (that is, money-market funds) has diminished as most banks and institutional investors have reduced their exposures to European banks due to reputational issues related to the eurozone crisis, mistrust in the banking sector overall, and preparation for new regulatory requirements (LCR, leverage ratio, capital requirements in trading books, tighter counterparty limits). This was particularly critical for US money-market funds, which mostly withdrew from the European market between August and December 2011.
- Non-euro wholesale funding is under even more pressure for most institutions, as international investors view Europe overall and its banking sector in particular as high risk. In the past, banks transferred their funding risk in foreign currencies to the derivatives markets, where banks finance foreign-exchange assets via cross-currency (CCY) swaps and euro-denominated funding. This exposes banks both to basis-price risk when rolling over their CCY swaps and, more importantly, to greater liquidity risk through the requirement to post collateral depending on swap transactions.

Exhibit 2 After agencies downgraded Spain's sovereign rating, individual Spanish banks' ratings dropped as well.

CASE EXAMPLE

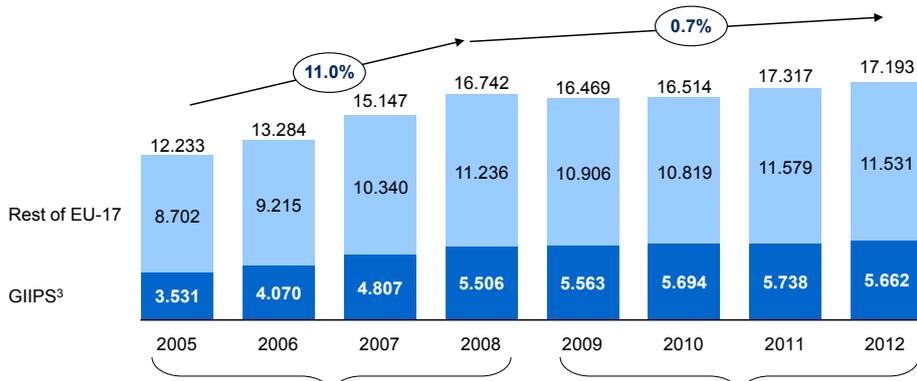


Source: Standard and Poor's

Exhibit 3 Deposit growth has clearly slowed down.

Deposits of eurozone MFIs²
€ billion

CAGR¹



GDP CAGR ⁴	Total eurozone	4.3%	0.7%
	Rest of EU-17	4.4%	1.5%
	GIIPS	4.3%	-0.8%

1 Compound annual growth rate.
 2 Monetary financial institutions.
 3 Greece, Italy, Ireland, Portugal, Spain.
 4 Annual GDP 2012 forecasted by Eurostat.
 Source: European Central Bank; Eurostat

Sovereign-debt crisis puts stress on the European banking market

Historically, the euro helped to limit the differences in refinancing costs among different member countries. This also helped banks gain access to capital at competitive rates. In the last few years, however, there has been an important structural shift in the perceived riskiness of different sovereigns, as well as a better understanding of the strong linkage between sovereign health and the health of local banking systems. In effect, we now have a split banking market:

- Rating actions on sovereigns have almost always led to a parallel downgrading of the banks in the relevant country. Further, rating agencies have changed their rating methodology, notching banks up and down depending on a country-specific base rating (Exhibit 2).
- Investors have become increasingly risk averse. Even when they allocate risks to countries under stress, they prefer to invest in sovereign credit rather than banks. This leads at the very least to an increase in banks' cost of funding, but in the worst cases, it can mean that banks are effectively unable to raise funds.

As a consequence, funding costs in Northern and Southern Europe have been gradually drifting apart, placing Southern banks in a weakened position to compete in international business against banks with access to cheaper funding. This is critical, because many of these Southern banks successfully expanded their international footprint over recent years, with Italian banks being very active in Central and Eastern Europe, Spanish and Portuguese banks being active in South America, and Greek banks expanding in the Balkans and Turkey.

Deposit markets are flat and show more structural downside risk versus upside potential

Deposits still remain the most important refinancing base for banks, with €17.4 trillion¹ accounting for approximately 50 percent of European bank balance sheets. During the first years of the crisis, the flight to quality and customers' higher liquidity preferences led to high growth in overall deposits, but over the last three years, this trend has ended.

Overall, as Exhibit 3 shows, deposit growth has started to slow down significantly as depositors have been shifting their money toward safer banks or other nonbank investments—while deposits from households grew at 11 percent per annum from 2005 to 2008, growth has been around only 1 percent since then. This partially reflects the slowdown in the overall growth of the European economy—yet over the same period, investment-fund volumes have increased by €2.5 trillion, or an increase of more than 60 percent since end of 2008.²

However, with the exceptions of Greece and Ireland, so far no European country has seen a significant decrease in deposits. We have not yet seen a systemic bank run, although there have been a few focused idiosyncratic ones (that is, focused on a particular bank for withdrawals amounting up to several hundred million euros in a single day).

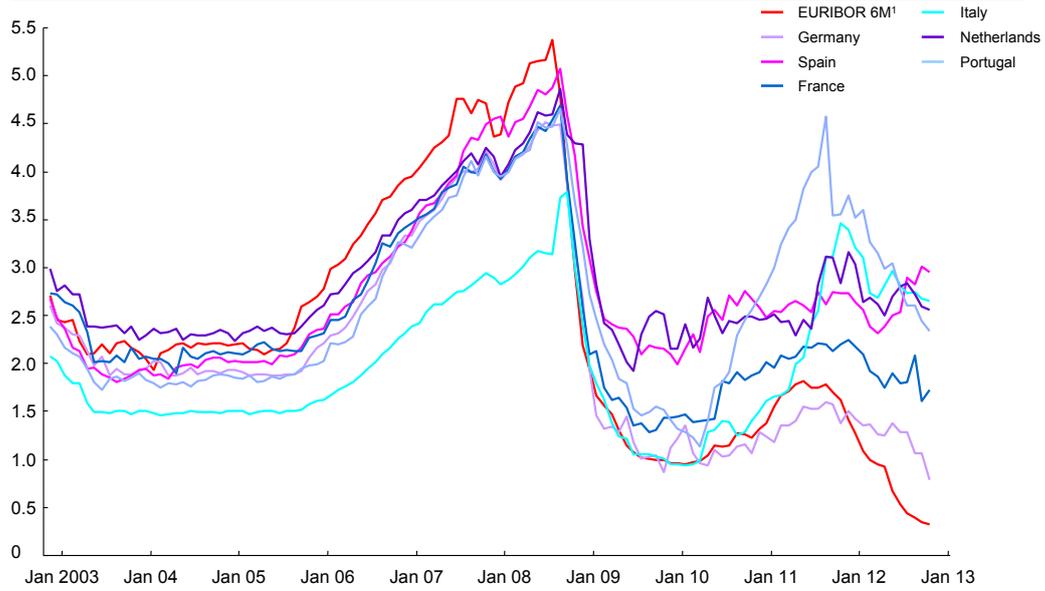
The pricing of deposits reflects the scarcity of funding in the respective markets. While overall the price level has dropped (in line with the low-interest-rate environment), Exhibit 4 shows how the gap between presumed safe havens such as Germany and liquidity-scarce Southern markets has widened significantly. Nevertheless, with the exception of the Spanish, Irish, and, to a limited extent, the Italian markets, most markets have not experienced “deposit wars” that increase the cost of resources.

1 Out of the €17.4 trillion, €6.4 trillion are deposits from monetary financial institutions (interbank lending), €0.2 trillion are deposits by central governments, and €10.8 trillion are customer deposits.

2 Of course this might also be due to underlying performance of the investments. Yet, the Eurostoxx 50 has been nearly flat since the end of 2008, whereas the Dax increased by approximately 50 percent.

Exhibit 4 Deposit prices are substantially widening across Europe.

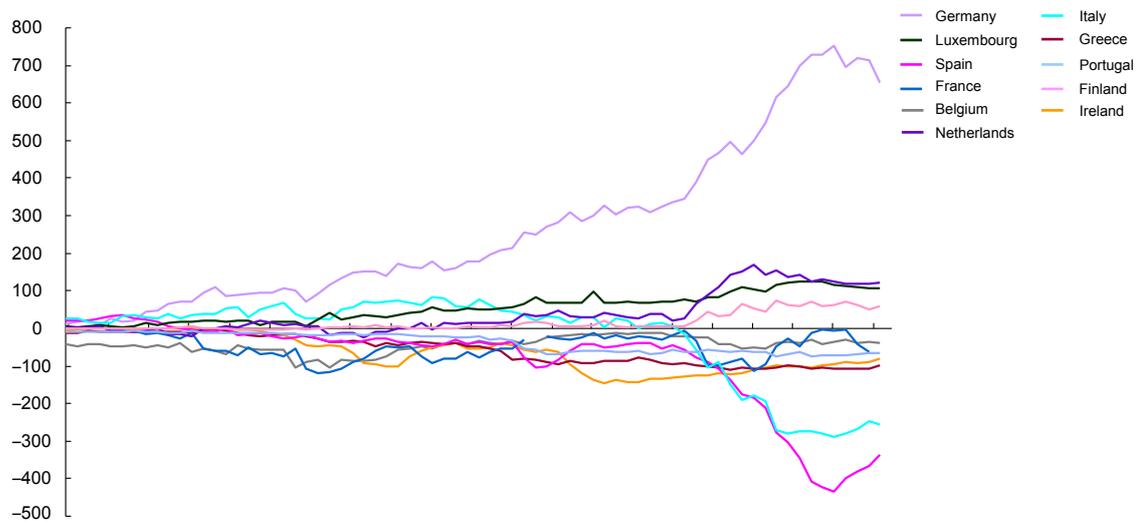
Deposit pricing, new business



1 Six-month Euro Interbank Offered Rate.
Source: European Central Bank; McKinsey analysis

Exhibit 5 Sovereign-debt crises in GIIPS¹ has determined a liquidity decoupling in the euro area.

Target 2 national central banks' net balances with the European Central Bank, Jan 2007–Dec 2012, € billion



1 Greece, Ireland, Italy, Portugal, Spain.
Source: Eurosystem; National Central Banks balance sheets

Central banks have stepped in to close the current funding gap

The ECB and other central banks have offered some relief by providing not only more short-term funding but also, and more importantly, long-term funding through the LTRO program. The ECB provided unprecedented liquidity to the markets both by maturity (three-year refinancing operations) and significantly reduced collateral requirements. According to ECB and national central-bank statistics, more than 50 percent of the LTRO amounts were absorbed by the Spanish and Italian banking systems. At the same time, large amounts of liquidity remain currently parked in ECB accounts, even at current rates of 0 percent interest. In sum, approximately €1 trillion was given to banks by the ECB at 0.75 percent, while €800 billion was parked by the banks in deposit facilities and current accounts at 0 percent at the central bank. The use of the LTRO and other liquidity programs has so far been split between banks with funding gaps to be closed and other banks with dedicated arbitrage strategies (for example, betting on the survival of the euro by buying bonds from Greece, Ireland, Italy, Portugal, and Spain—the so-called GIIPS countries—and refinancing via LTRO) or those taking advantage of opportunities in short-term interest-rate mismatches.

The disparity of these liquidity flows is reflected in the Target 2 balances and demonstrates the current non-functioning nature of the interbank markets (Exhibit 5)—even though spreads have narrowed of late in light of the events mentioned in the Introduction to this paper.

More recently the ECB also outlined how under certain conditions the ECB will buy unlimited amounts of bonds of troubled euro-area countries, reiterating its intention to do whatever it takes to preserve the euro.

Government-bond spreads since then have significantly narrowed, and large Spanish and Italian banking institutions have managed to regain market access and place on the primary markets. Approximately €140 billion of the ECB LTRO tender has been repaid, reflecting increased confidence among some banks.

Implications of the current environment

The current refinancing market has led to banks taking some structural steps to optimize their balance sheets and create a sustainable funding structure. However, there are also significant incentives for individual banks to continue to rely heavily on central banks and hope that market pressure remains consistent such that refinancing programs are rolled forward:

- Overall, banks' structural health and stability is progressively improving, and the risk of significant systemic shocks appears to be less immediate:
 - Banks are continuously improving their balance sheets on the asset side:
 - Loan-to-deposit ratios (LDRs) have improved gradually, thanks to a slight deleveraging on the asset side in previous years and to a reduction in new business.
 - Banks are progressively holding a higher proportion of liquid assets to prepare for upcoming LCR requirements.
 - Very recently market conditions have somewhat improved and some banks have regained access to capital markets, even for some longer-term issuance (albeit at elevated price levels).
 - Deleveraging is still taking place, especially in non-euro-denominated exposures and for corporate and investment banking (CIB) divisions.

- The short-term stability of the banking sector is being maintained by banks that receive sufficient cash to avoid short-term distress and/or generate sufficient market-eligible collateral or ECB-eligible collateral, thereby allaying investor fears of immediate systemic risks. One consequence is some recent improvement in banks' ability to access long-term unsecured funding markets.
- However, the structural health of the banking sector, as well as its ability to become a positive agent for economic growth, remains at risk:
 - Preliminary data suggest that overall cash injections appear ineffective in ensuring higher loan growth, because a significant portion is held as liquidity either in government bonds or directly placed back to the ECB. Overall, lending to European residents remained largely unchanged (there was a small reduction of €28 billion (−0.1 percent) over 2012 (until the end of Q3 2012)). In addition, many banks are facing challenges in investing such extra funding, because they face additional constraints on their capital or balance-sheet size.
 - In fact, it can be shown that in line with LTRO lending volumes, banks substantially increased their holdings of government bonds. Such a trade can be prudent from the perspective of holding a liquidity buffer, but it also opens the way for substantial carry trades (especially for Southern banks investing in their respective government bonds). The latter increases the linkages between the sovereign-risk crisis and bank funding and therefore limits the potential for a systematic solution. During the first nine months of 2012, banks bought approximately €120 billion of securities issued by European entities, mostly in the form of sovereign debt (an increase of 2.4 percent).
 - We can point to potential economic misincentives currently in place, as banks are tempted to continue relying on cheap central-bank funding rather than rebuilding their medium-term wholesale funding. The central-bank funds have a remaining maturity of two years and are still priced cheaply compared to any other available wholesale alternatives.
 - Some of the more sophisticated banks have found themselves able to generate revenues from a portion of LTRO through active and innovative usage in capital markets.

Regulatory changes suggest additional liquidity and funding gaps for the banking industry

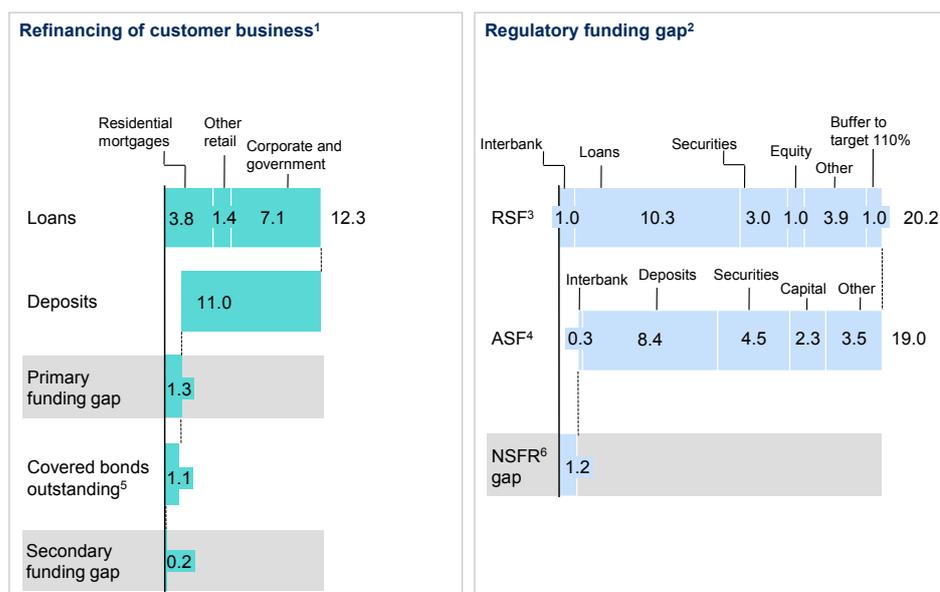
New regulation enforces good behavior but could change the structural role of banks in the economy

New regulations will significantly change the way the banking sector works and are currently influencing much of banks' day-to-day activities. While some regulation simply formalizes approaches and methods already employed by existing internal management systems, other rules might imply a structural change in the way the banking sector works and the role it has in the economy.

- The establishment of a common ratio to measure both structural health (net stable funding ratio, or NSFR) and short-term liquidity (LCR) is in line with good market practices in banks and is helpful in allowing outside investors transparency on the risks a bank takes, forcing the sector toward a more prudent balance-sheet profile. The impact of the ratios can be quite diverse, depending on different business models. Among some possible outcomes are the mismatching of long-term funding needs versus short-term investment preferences, a trend towards homogeneous balance-sheet structures (with associated increased systemic risk), and a related tendency for banks to move into extremely illiquid assets in order to maintain their margins.

- The recently announced adjustments to the LCR (in particular the broadening of the scope of available assets for liquid asset calculations and adjustments to outflow factors), as well as the staged run-up to the target ratio of 100 percent over time, will facilitate regulatory compliance by the banking sector. Initial calculations suggest that, on average, LCRs will go up by ~20 percentage points, but this might vary strongly depending on both the specific composition of the liquid asset buffers and the relevant underlying business model. However, the outcome beyond pure regulatory compliance is as yet unclear. A number of constraints might restrict a fundamental loosening of LCR requirements toward regulatory minimums: local regulators might continue to impose stricter rules for a number of reasons (for example, upgrading local market requirements to align with other jurisdictions or maintaining steady pressure on banks partly in order to avoid political vulnerability), while rating agencies or bank investors might put “synthetic” pressure on banks via rating criteria and activism respectively.
- Elements of Basel III, the Liikanen recommendations, and EMIR challenge the current role of banks in the economy:
 - NSFR requirements (which are currently under review) might limit the ability of the banking sector to intermediate between long-term investment objectives and short-term investment preferences. Here there might be a structural imbalance, given that the long-term investment needs of the real economy still need to be satisfied. This might lead to higher prices and stricter boundaries, especially for longer-term funding-intensive businesses (for example, project finance). In addition, capital penalties on intrabank business imply that the intrasector netting, which has historically made up 15 to 20 percent of gross balance sheets, is becoming less attractive, placing both funding-rich and funding-poor banks in a dilemma as to where to place or gather funds.

Exhibit 6 European banks’ funding gap is more than €1.3 trillion.



1 Loan book and customer-based refinancing (deposits and secured/covered bond issuances).
 2 Approximation of NSFR requirements given current balance-sheet structure and assuming a NSFR target ratio of 110%.
 3 Required stable funding.
 4 Available stable funding.
 5 Not including public-finance-covered bonds.
 6 Net stable funding ratio.

Source: European Central Bank statistics; European Covered Bond Council; McKinsey analysis

- Additionally, substantial collateral from EMIR (and the more recent Basel Committee on Banking Supervision proposal on noncentrally cleared trades) will be required to meet future regulation to manage counterparty exposure. This will particularly affect instruments not eligible for central counterparty clearing and thus make banks' balance sheets more collateral heavy and derivatives trading structurally less attractive. Additional risk comes from new rules on intraday liquidity, which are currently under review.
- Liikanen suggests a separation of trading and retail activities. In Europe, there is a legacy of universal banks (on balance, these have held up well during the crisis), which leverage the benefit of the retail/commercial deposit base for wholesale business and in return allow for better deposit margins as part of a diversified business model.

Structural funding gap in the context of new regulation is in excess of €1 trillion

- From a pure volume perspective, as Exhibit 6 shows, European banks' funding gap is in excess of €1 trillion, resulting from the need to fund a loan business of approximately €12.3 trillion with deposits in the range of €11.3 trillion. Taking into account the newly proposed regulatory requirements under Basel III, a similar funding gap of €1.2 trillion exists for European banks' collective balance sheet from the NSFR. Required stable funding is in the range of €20 trillion (assuming a 5 percent NSFR buffer).³ Of this, only half (€10 trillion) is required to fund the loan business, while the remainder funds other balance-sheet items, particularly interbank positions, securities and equity holdings (approximately €5 trillion), and other external assets (approximately €4 trillion). Available funding in the current liability structure is on the order of magnitude of €19 trillion.
- This gap seems quite stable over time. However, based on current consensus forecasts of economic growth and deposit generation, the gap will grow by an additional 20 percent or €200 billion by 2018—an indication that this issue will not resolve itself via growth and time, but will require structural changes. Our growth assumptions on the economy and the respective share of bank lending are based on consensus forecasts⁴ by country (annual growth rates range between 0.5 and 1.5 percent until 2018). Additional requirements from global activities are not captured in this calculation.
- Overall credit demand from the economy is €19.7 trillion, with banks providing the largest part (approximately 60 percent). The above calculations assume this mix to be constant. Corporate bond markets on a European level are at the size of approximately €900 billion and therefore represent only a fraction of the underlying credit demand. To close the existing funding gap and refinance the conservative growth assumptions made in our calculations, the corporate-bond market would have to roughly triple (growing to comparable UK and US levels of overall size and importance in the economy). This implies several industry-level transformations, for example, with banks' "originate to distribute model," new origination approaches toward issuers, and education and active marketing toward final investors on banking assets.

Significant gaps exist at the country level

Adding to the concern about a Europe-wide funding gap, there are significant imbalances within the euro area. While on an aggregate European level there is a structural challenge, on an individual country level the situation is even more aggravated. The strong dispersion in the Target 2 balances and the strong dispersion of ECB usage on the creditor and debtor sides are showing big country-by-country variations across Europe.

³ Based on the evidence from our current Asset Liability Management Treasury Survey, this assumption seems to be at the lower end, as 80 percent of participating banks target a ratio between 100 and 110 percent, 13 percent above 110 percent, and 7 percent above 115 percent.

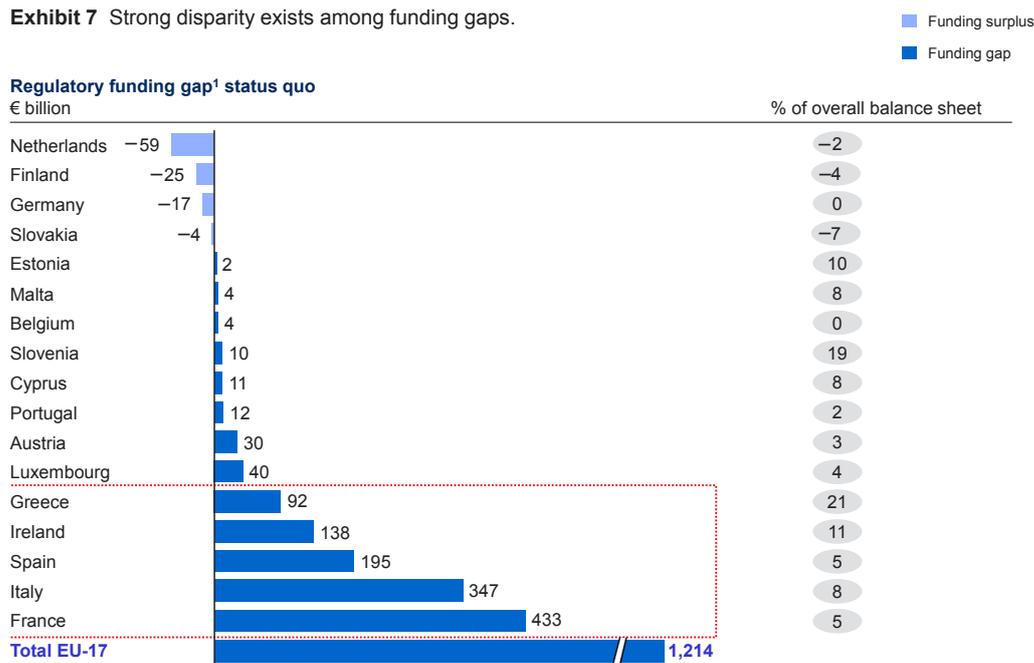
⁴ We used averages of the International Monetary Fund, Eurostat, Global Insight, and Economist Intelligence Unit forecasts for individual countries and the European Union.

- Funding gaps are primarily driven by the economic history of the respective country. Major drivers include the following:
 - *Savings rates and internal deposit refinancing capabilities.* Those countries with a high savings rate are showing no significant funding gap, while countries with low savings are much more vulnerable.
 - *Development of wholesale-funding markets and investors.* Countries with a strong insurance and institutional-investor base with liquid bond markets (both secured and unsecured) are clearly showing a more advanced NSFR profile.
 - *Differences in business models.* Countries with banks that do either large wholesale or international financing business show a more significant funding gap.

- While our analysis estimates a potential NSFR gap at a country level, it must be noted that among countries we can see a clear delineation between individual banks, driven both by differences in their underlying (wholesale versus retail) business models, as well as by idiosyncratic developments.

- Exhibit 7 shows the funding gaps that are driven by the availability of deposits (that is, the primary funding gap) as well as an estimation of the gaps toward fulfillment of an approximated NSFR ratio (such as a regulatory funding gap). Markets such as Belgium, Germany, Finland, the Netherlands, and Slovakia largely show a funding surplus (or, compared with balance-sheet size, a negligible funding gap).
 - Finland and the Netherlands are benefiting from their overall balance-sheet structure and strong placement channels in the wholesale-funding market. In both cases, debt securities issued and external liabilities represent approximately 40 percent of balance sheets. However, the requirement

Exhibit 7 Strong disparity exists among funding gaps.



¹ Approximation of Basel III outflow factors and European Central Bank balance-sheet statistics; rough approximation assuming a 5% buffer on net stable funding ratio (NSFR) requirements—no full balance-sheet NSFR simulation.
 Source: European Central Bank statistics; European Covered Bond Council; McKinsey analysis

to fulfill regulatory ratios in these countries, combined with the lack of a strong deposit base, poses significant risks if market access continues to be stressed over the coming years. Also, in the Netherlands in particular, a strong concentration of mortgage lending on the asset side remains, which puts additional strain on the balance sheet, for example, via the leverage ratio.

- Germany, Belgium, and Slovakia benefit from a strong domestic (retail) deposit bases (around 54, 56, and 73 percent of the balance sheet, respectively) and, in the cases of Germany and Belgium, there are also relatively well-established funding and placement markets, both secured and unsecured.
- Access to wholesale-funding markets has been also partially constrained for these countries. In particular, the ruling on how much encumbrance is acceptable from a regulatory perspective is still not harmonized—for example, the Belgian regulator accepts only up to 8 percent of balance-sheet encumbrance for covered bonds.
- On the other hand, the GIIPS countries, as well as France, face a significant funding gap both in absolute terms and compared to bank balance-sheet sizes. This leads to these countries having a higher dependency on short-term or ECB refinancing.
- Spain and, to a slightly lesser extent, Italy, both have a high deposit base and also well-developed wholesale-funding markets (in particular, the secured covered bond markets in Spain). However, these provide insufficient coverage for the long-term and lending-heavy business model. It must be noted however, that in some countries issued bonds are placed to private investors instead of retail depositors. If this were reflected in the calculations, then the funding gap would be smaller.

Exhibit 8 The liquidity situation in each country's banking sector remains distinct.

	Refinancing structure (Sept 2012)				LDR ¹ and development (Sept 2012)			Other factors			
	Customer deposits/assets	Bank deposits/assets	Securities issued (stock)/assets	Covered bonds issued (stock, 2011)/assets ²	LDR	Deposit growth (2007–12)	Loan growth (2007–12)	External assets/external liabilities (Sept 2012)	Country CDS ³ spreads (Nov 2012)	Total Assets/GDP ⁴ (Sept 2012)	Core Tier 1 ratio (2010)
Germany	37%	17%	15%	7%	94%	4%	2%	126%	15.7	3.3	12.7%
France	23%	23%	14%	4%	122%	7%	4%	114%	48.6	4.3	10.6%
Netherlands	36%	6%	20%	2%	125%	4%	3%	85%	21.5	4.2	11.3%
Belgium	43%	13%	5%	-	61%	4%	-1%	115%	47.2	3.2	11.8%
Luxembourg	23%	22%	5%	3%	60%	0%	3%	112%	155.0	23.5	-
Austria	33%	23%	23%	0%	116%	4%	4%	232%	25.0	3.3	10.2%
Sweden	22%	9%	32%	17%	213%	10%	8%	126%	12.9	3.3	12.5%
Finland	21%	6%	12%	3%	145%	9%	7%	75%	28.8	3.5	-
Denmark	14%	11%	41%	30%	308%	2%	3%	86%	21.3	4.9	12.1%
Italy	36%	20%	22%	2%	134%	12%	6%	83%	223.2	2.7	8.4%
Spain	43%	21%	11%	11%	120%	2%	1%	125%	260.9	3.4	10.2%
Portugal	40%	18%	18%	6%	120%	5%	2%	74%	488.9	3.3	11.0%
Greece	38%	35%	1%	5%	146%	-4%	5%	110%	14904.4	2.0	-
Ireland	17%	23%	6%	5%	137%	-1%	-6%	118%	142.4	7.7	16.1%
Poland	59%	4%	4%	0%	109%	10%	13%	25%	77.8	0.9	-
Hungary	42%	11%	9%	5%	118%	2%	-1%	44%	282.3	1.1	13.1%
Czech Republic	64%	5%	6%	4%	70%	7%	8%	187%	70.7	1.2	-
Romania	49%	4%	0%	-	120%	5%	6%	10%	212.5	0.7	-
United Kingdom	29%	12%	9%	2%	103%	2%	-2%	114%	25.9	5.8	11.1%
Switzerland	54%	18%	12%	5%	89%	1%	0%	93%	49.0	5.0	14.9%

1 Loan-to-deposit ratio.

2 Covered bond statistics from European Covered Bond Council and therefore not consistent with EZB classification.

Source: Bank explorer; Dealogic; European Central Bank

3 Credit default swaps.

4 Luxembourg based on 2011 GDP; others are based on 2012 Economist Intelligence Unit estimates.

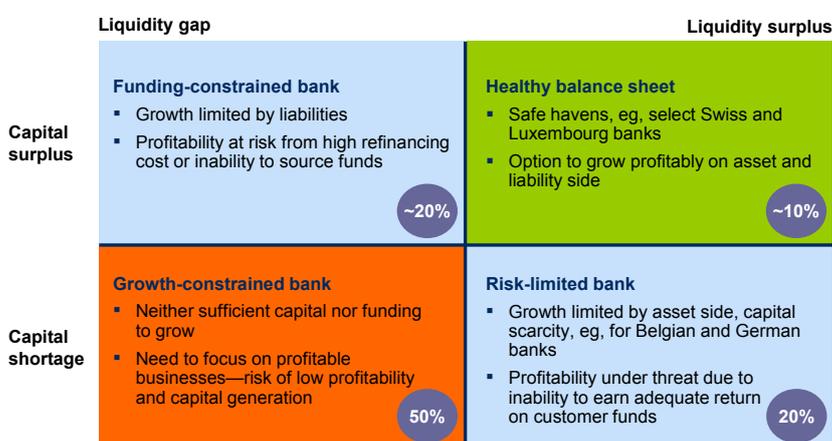
- France has a relatively low deposit base, and it also has one of the most pronounced short-term refinancing profiles. While on average across Europe only 1.5 percent of the overall balance sheet is refinanced with debt securities with remaining maturity of less than one year, the equivalent in France is close to 4 percent, or approximately €350 billion.

Additionally, Exhibit 8 gives a more detailed overview of the refinancing structures and capital bases in major European countries. Overall, funding structures remain very country specific:

- Customer and bank deposits represent between less than 20 percent of overall assets (in some of the Nordic countries, for instance) and more than 70 percent (for example, in Switzerland). A strong customer-deposit base has proved to be a stable source of refinancing and is also reflected as such under regulatory measures. On the other hand, a functioning interbank deposit market allows for flexible balancing of gaps, but it is (and has been in the past) quite sensitive to shocks. In some countries, interbank deposits are driven to a large degree by banking groups (for example, savings and cooperative banking groups) placing money with their respective central institutions.
- A well-established wholesale-funding market provides access to further funding diversification. If the country also has a well-established base of secured refinancing, this provides increased stability. Measured in percent of total assets, wholesale-funding markets are virtually nonexistent in many Central and Eastern European (CEE) countries, but they can reach approximately 70 percent of overall balance sheets in other countries, for example, in Denmark where the figure is largely driven by domestic mortgage bonds.
- Apart from Ireland and Luxembourg, the United Kingdom has the largest banking sector compared to overall GDP. In general, the United Kingdom has a relatively limited scope for deposit refinancing. Access to capital markets for the largest banks is functioning quite well.
- LDRs have slightly improved for virtually all Western European countries, driven by stronger deposit growth compared to loan growth or even by partially shrinking loan volumes. In many CEE countries, however, loan growth has outpaced deposit growth and has led to a further deterioration of the LDR.

Exhibit 9 Economic issues have become even more challenging as few banks can aggressively grow their business.

% of top 30 European banks



- Finally, measuring external assets over external liabilities gives an indication of the usage of funds to fund growth abroad—most apparent in countries such as Hungary, Poland, and Romania, which are funded significantly from abroad (in large part counterbalanced by the corresponding Austrian figure). Countries such as Germany, France, and Spain still fund more assets abroad than they receive funding from abroad.

European banking markets will diverge

Overall, the development of the banking industry in each country will be driven by funding and capital. In the remainder of this paper we focus on the liquidity implications (Exhibit 9).

We can see different categories emerging among the different countries:

- **Safe havens.** Examples include selected banks in Switzerland and Luxembourg, which remain the relative winners of the crisis, with strong inflows from all sources. However, these countries' banks are troubled as to how to monetize their good fortune, because the reinvestment of excess funds is difficult to manage and offers very low yields in the current interest-rate environment.
- **Deposit rich but capital scarce.** Belgium and Germany are the most prominent cases here. While the countries may be rich in funding and therefore liquidity is not a short-term constraint, it remains difficult for banks to capitalize on this as they are struggling to find capital. Further, high levels of competition depress margins, making the commercial model unattractive (some banks are even contemplating positioning origination teams in those countries to optimize global asset-liability management (ALM) from a group perspective). A core challenge is how effectively to channel funds from deposit-rich banks to banks with asset opportunities.
- **Funding and liquidity constrained.** The majority of countries face the issue of how banks can refinance the economy in light of liquidity and capital constraints.

Discussions are under way about the creation of a European Banking Union (EBU); this could potentially relieve some of the above pressures. In principle, the EBU would consist of three main elements: an integrated system for European banking supervision, a single European deposit insurance scheme, and a European restructuring scheme/resolution fund. In reality, however, it is unclear at this stage how and when banking union will be implemented, meaning that it is difficult to foresee any looming benefits.

Implications and structural resolutions

In the coming years, we anticipate that a new funding equilibrium will develop, shaped by—among other trends—the following major forces for the core funding sources.

- **Intrabank funding.** Intrabank funding is driven by three major influences:
 - regulatory changes still undergoing review and refinement, for better or worse—however, there is an ongoing and strong drive for nationalization that prevents liquidity flowing between funding-rich and funding-constrained banks
 - market trust returning, but remaining highly volatile and fragile to shocks
 - a move toward secured interbank funding markets and the potential end of unsecured intrabank funding outside connected institutes—or, at least, no return to old levels

- **Institutional funding.** Several elements matter here:
 - revisiting risk appetite/risk assessment by institutional investors for bank debt, sovereign debt, and repricing of credit through banks
 - overall, some stabilization (at revised pricing levels and with some trust and confidence returning), yet remaining highly vulnerable
 - continuing investment pressure for insurers/pension funds and absence of alternative fixed-income investments with manageable risks
- **Deposit-based funding.** Today's deposit base is inflated. Investors in general are risk averse, and low interest rates are limiting the opportunities available for retail investors in particular. Once trust in the stock market returns and debt is more attractively priced, banks can expect significant net outflows as depositors seek yield. Providing attractive investment opportunities (for example, certificates) for retail customer segments might be a longer-term opportunity to secure this funding channel.
- **Lending alternatives.** On the asset side, one of the major trends emerging from the banks' response to the current environment is the ongoing growth of substitutes for lending, especially further development of corporate-bond markets and growth of bank-like investors (for example, insurance companies and pension funds).⁵ Banks will potentially fall out of business for certain segments (for example, highly rated corporates), as they will not be able to provide attractive economics at adequate (regulatory and economic) risks; this will be even further enforced by the introduction of NSFR, which, from our perspective, is still not strategically embedded in banks' decision making.⁶

Taking into account the substantial changes not just of liquidity markets but also banks' capital requirements, regulatory burden, and customer-trust issues, the potential outcomes are very hard to predict and will, with a significant likelihood, include scenarios that imply a structural shift in the role of banks in the economy:

- **Shift in market share but banking model unaffected.** Even though interbank markets remain frozen, self-funded or deposit-rich banks play out their advantages over rival business models. Traditional deposit-rich institutions will continue to see strong pressure on investing the respective funds at reasonable rates of risk-adjusted return. An expansion of the underlying business model into further areas of business might ensure the required growth on the credit side. However, this does come with operational risks during any buildup of the required skills, and it will not be an option in some areas of bank lending (for example, long-term project finance). In such a business model, banks would explicitly earn their margins via maturity transformation on the underlying deposits.
- **Disintermediation of the banking sector.** Given considerations such as risk appetite and the ability to build necessary risk capabilities on the investor side, a full disintermediation of the banking sector seems rather unlikely. In an originate-to-distribute model, banks shift their business models fast enough to place assets in structures or with customers instead of taking them on their own book. In this model, the balance-sheet size will shrink and only the highest-yielding assets, or assets with secured funding potential, will remain on the balance sheet. In this environment, banks take a more explicit intermediary role. Here the competitive advantage will come from distribution and investor access favoring banks with proprietary access to cash-rich investors (for example, small depositary banks or insurers) or a professional distribution

⁵ This strongly depends on the potential regulatory actions taken toward shadow-banking segments.

⁶ Based on our survey, banks only expect compliance with Net Stable Funding Ratio (NSFR) regulations for 2017 or later and continue to display huge skepticism about the NSFR-introduction timeline and final calibrations.

model. The rise of such a model will also depend on the risk appetite and the ability and speed of insurers, pension funds, and other investors to take up the new (direct) investment opportunities. In a slightly less extreme version of this scenario, a bank-arranger model would offer origination, servicing, and syndication to institutional investors and also continue to hold part of the risk on the bank's balance sheet.

- **Shrinkage.** In this model, liquidity constraints force banks out of multiple businesses, especially where customers and investors believe (rightly or wrongly) that they don't need banks' services in risk assessment, structuring, or risk taking any more, but can choose to interact directly with one another. While for some markets, such as high-grade corporate bonds, this is reasonable, for others it is unclear if the shift into unregulated markets poses other economic risks. Banks will become the boring providers of standard products for captive customers or the fields that regulators deem safe. In this environment, the government might be forced to be more active in the financing of specific markets via customized programs to support growth or specific objectives (for example, the European Investment Bank). The banking sector itself would conceivably shrink in balance-sheet size and would then be primarily asset backed and deposit financed, with additional financing needs provided by the alternative channels outlined above.
- **Old normal.** An option is to return to the old normal, potentially at a higher price point, where banks, via new channels and instruments and the ability to reprice their book, are able to continue as before with some reductions in businesses that economically are not providing adequate risk-adjusted returns. This implies that there will be less regulatory pressure on reducing interconnectedness and that there will be beneficial effects via short-term investor memory.

The eventual outcome for the European banking industry will be significantly influenced by emerging regulatory practice and new regulations. What is certain is that instead of a path toward harmonization and more European competition, we will see different countries developing along different paths. Depending on the economic and regulatory pressures, a more diverse and heterogeneous environment will emerge across different banks and regions. The appendix at the end of this paper contains a snapshot of each of the major relevant national markets.

While the focus of this paper is not to judge the overarching benefit from a macroeconomic perspective, it is clear that, overall, the mix of new market reality and regulation will make loans more costly and scarce, particularly in asset-heavy business lines. Self-financing will become much more important with funding-rich business lines that will also adjust but deleverage less.⁷

The strategic response to the above scenarios will strongly differ according to the respective bank business models. Before we jump to a series of no-regret moves that do apply to all banks, we will outline some of the individual and strategic responses.

- **Universal banks** will have to answer the question to what degree they are willing and able—given potential constraints on transferring liquidity—to use funds from funding-generating business areas to fund other businesses and to take the associated risks, especially on maturity transformation. In sum, this might imply a shrinking of funding-consuming businesses (for example, the longer-term asset-financing or project-financing businesses) with the simultaneous gross or lesser constraints from a funding perspective on self-financing businesses. The classical funds transfer pricing (FTP) approach and other mechanisms to steer the balance sheet will be indispensable to facilitate the above adaptations. Wherever a competitive advantage on the affected businesses exist (for example, client franchise, capabilities in underwriting,

⁷ For an overview of the impact on different business lines, see *McKinsey Working Papers on Risk*, Number 29, "Day of reckoning? New regulation and its impact on capital markets businesses," October 2011, and *McKinsey Working Papers on Risk*, Number 36, "Day of reckoning for European retail banking," September 2012 (mckinsey.com).

portfolio management, or operational settlement), the bank needs to develop alternatives to capitalize upon those gains, especially around offering those capabilities to a “better owner” of the underlying assets. The universal-banking model can expand the benefit of funding access, while carefully steering the opportunities that arise.

- **Wholesale banks** might be even more affected given particular spikes or concentrations in their business models related to certain sectors, customers, and product segments. This might imply—at the extreme—an all-or-nothing decision for the bank if its self-financed or fundable business areas are below critical mass. A diversification in funding generation (for example, the buildup of a direct bank), systematically improving deposit-gathering strategies, and capturing new funding opportunities (for instance, on secured refinancing) will be key; the potential to innovate regarding funding, product offering, and pipeline models will also be essential to remaining in business.
- **Retail banks**, on the contrary, must carefully evaluate their opportunities to invest funds generated appropriately, as growth in their core client franchise might be limited. Extending reach with regard to customer segments and products should be an option only if underlying required skills and capabilities can be built up—and if the bank is a privileged owner of these assets.

Banks’ liquidity and funding management will become instrumental from a strategic and operational viewpoint

One consequence of the funding situation is that banks’ treasuries have to operate under considerable pressure. Depending on a particular bank’s situation, there can be tension between accommodating short-term liquidity needs and protecting the franchise and core business going forward, while waiting for uncertainty in the markets about future regulation to decline. Banks can manage this tension by thinking along three dimensions: managing the short-term liquidity position, developing a mid- to long-term funding strategy, and establishing flexible and effective governance structures and decision processes that link market and business perspectives to ongoing funding and liquidity management and strategy.

Manage the short-term liquidity position and improve short-term resilience to further funding shocks

- **Collateral management and collateral enablement.** The current focus has to be on ensuring that all eligible collateral is captured and managed centrally. This implies an investment in the necessary systems and governance. In addition, the treasury team can ensure that new assets meet the criteria for collateral usage. This is especially important for underwriting and rolling over loans.
- **Regulatory liquidity management.** All products should be appropriately reflected in the new liquidity ratios. Special attention should be paid to the setup and structure of the liquidity buffer, optimal mapping of products and positions into different buckets, and revision of product characteristics to align with new regulatory requirements. Overall, such specific regulatory liquidity management offers the chance for a comprehensive review of the asset base and might open up the opportunity for additional short-term (secured) funding opportunities.
- **Optimized internal ‘liquidity hedging.’** Optimal balance-sheet management in the new environment will have to consider the scarcity of funding for securities investments. As such, a reduction in balance-sheet lengthening through structural positions can be expected—and will certainly have implications for the stability of interest income and banks’ P&Ls. Banks are currently reorganizing how their liquid-asset buffers are managed to ensure that they fulfill regulatory ratios, manage potential credit-spread risks, and conduct appropriate yield management techniques in the current low-interest environment.

Based on our 2012 ALM/Treasury Survey, it seems that banks view it as imperative to adjust their funding structures. More than 75 percent of our survey respondents plan to diversify their funding base, increase their deposit base and improve their deposit-gathering strategies, and begin optimizing their funding costs. Most treasurers report that they see a clear need for more effective resource allocation—this involves a much stronger integration of planning of risk-weighted assets, capital, funding, and return dimensions.

Develop a mid- to long-term funding strategy

- **Optimal funding structure.** There is a structural shift in the funding of balance sheets away from short-term and long-term unsecured funding. In the future, such funding will be available to a very small degree. Banks need to respond in a structured way, building a resilient funding structure across instruments, investors, and regions. This will require a focus on building secured-funding platforms and liquid instruments to place funds to institutional investors. Banks will have to build structural processes to cover institutional investors and develop an integrated product and sales approach, shifting institutional sales toward a “funds gathering” approach. Targeted efforts in specific regions and investor bases will be required.

Our ALM Treasury Survey shows that some leading institutions are working on more innovative funding sources and structures, especially optimizing their asset encumbrance and collateral strategies. At the same time, banks are working on their deposit models, in particular, testing the validity of their assumptions about customer behaviors.

Overall, given not only the ongoing regulatory discussions, but also the macroeconomic environment, a funding strategy must now incorporate flexibility and optionality. Banks will need to react quickly to changing circumstances.

- *Business levers.* New business models must assume a world of expensive liquidity. Product and customer pricing need to be adapted to balance the competitive needs of the business, while ensuring that the bank is making decisions that are economically sensible in the long term. All customer-linked funding sources (for example, deposit gathering and collateral enablement) must be leveraged as effectively as possible. Product specifications should be made more attractive from a liquidity perspective.
- *Strategic balance-sheet optimization.* We believe senior bank management has to address some structural questions as to how returns can be maximized given their structural balance-sheet constraints. Current balance-sheet management is struggling on multiple fronts. The historical FTP approach based on the marginal cost of wholesale funding can potentially lead to highly volatile balance-sheet steering. While it sets good short-term incentives (for example, it favors deposits), it can choke off asset production and leave banks with a combination of overpriced deposits and insufficient assets to pay for the FTP.

Banks need to find an answer to the threat of disintermediation by their corporate customers, many of which currently have similar refinancing rates to their would-be suppliers of credit. This could lead to the revival of the originate-to-distribute model for longer-term, balance-sheet-heavy transactions; a number of larger transactions have taken place in this space in recent months.

It seems clear that new regulatory requirements will strongly influence banks' funding strategies via their impact on funding and liquidity stress testing. However, our experience suggests that stress testing of liquidity and funding in many instances still needs to be much more integrated into steering and management processes.

Banks also need to decide on how they best manage their net versus gross positions and how they deal with the greater complexity of intragroup funding due to a sharper focus by regulators on default protection and local liquidity independence.

Implement proper governance and decision processes

- The treasury function will need to develop a governance approach designed to ensure that emerging trends and regulatory changes are analyzed in a timely fashion, generating appropriate insights for the business and treasury strategies.
- This will require the establishment and upgrading of two core management processes:
 - Asset/liability management committee/treasury governance needs to focus more on understanding structural challenges and how a bank should react, including a strong focus on improving transparency and enhancing reporting and control mechanisms; data availability and data quality, systems, and automation of the above will be operationally challenging.
 - Liquidity allocation/FTP needs to be closely linked to each business to ensure that the relevant stakeholders and affected business understand early on the implications and can react accordingly. This implies a need for greater sophistication in the standard FTP model, which uses marginal pricing, to more diverse models reflecting the special challenges of a market or institution. Additionally, a “new” FTP will not only run against one standard curve of funding but will be much more granular and flexible (against self-funding of certain businesses, underlying asset quality/usability, and so on). This implies greater sophistication and strategic insight from the business as a whole and within it the treasury function.
 - In general, the question of decentralization versus subsidiarization needs to be revisited. Local scrutiny and requirements (for example, on local buffers) lead to limitations on a bank’s ability to fund across different jurisdictions. This can result in trapped pools of liquidity, geographically segregated liquidity buffers, and significant differences in funding costs among legal entities. Such decentralized requirements are not always properly reflected in organizational structures and management mechanisms.

Conclusion

In sum, the liquidity situation of the European banking sector remains challenging. New regulations—if implemented as planned—will impose additional stresses in the future. There are some signs in recent weeks that the markets have become more optimistic about banks and are willing to increase their lending to them. It can only be hoped that over time the core stakeholders find a solution that meets the justified requirements of a safe and stable banking market and acknowledges the needs and benefits of a dynamic and diverse market in which different business models compete against each other.

Appendix: A growing North-South divide?

The country-by-country picture highlights the challenges different countries are facing in this new environment. While some, such as Germany, have more scope to solve today's structural issues, other countries face a significant challenge to remedy the issue of liquidity surplus.

- **Germany.** A country with a healthy funding surplus, Germany has been clearly benefiting from a flight to quality. The real question is how the associated liquidity is allocated among different players and what the resulting consequences will be for the structure of the market.
 - The large sectors (such as cooperative and savings banks) need to resolve the disadvantage of their model in the new environment. This can happen either via special arrangements allowing an aggregate view as opposed to a legal-entity-by-legal-entity view, or via adjusted products and pricing.
 - Private universal banks need to leverage their three strengths: deposit base, ability to issue covered bonds in the most liquid markets, and position in the corporate-bond market.
 - All banks need to counter the threat of nonbanks competing on a structurally different cost base (for example, mortgage issuance by insurers).

- **France.** The French banking market has a few critical dimensions.
 - A concentrated competitive landscape consists of four universal banks (with retail business, CIB division, asset management, private banks, and so on) together with smaller retail banks with an overall presence of cooperative structures (allowing efficient capital collection from customers).
 - A mismatch between lending and savings from a macroeconomic perspective partly is explained by excess in “assets” through overrepresentation of French banks in international markets (structured finance, trade finance, capital markets) and shortage of “liabilities” due to the importance of life-insurance savings, which are predominant in France as compared to standard deposits used for LDRs.
 - Banks are currently rolling forward larger amounts of shorter-term unsecured refinancing and therefore have to find ways significantly to increase retail or corporate deposits eligible for inclusion in the LDR and tap capital markets at longer maturities through active investors' coverage and marketing.

- **Italy.** Italian banks will face some of the most significant challenges as they struggle with the sovereign-debt crisis, which has significantly damaged their balance sheets.
 - The massive funding need that emerged from the crisis is now fully compensated from the Eurosystem (as of December 2011, the Eurosystem was lending a record amount of approximately €215 billion to Italian banks, the equivalent of about 8.9 percent of their collective balance sheet).
 - With just two years left before the maturity of the LTRO and the introduction of the LCR, Italian banks need to transform their balance sheets quickly in order to close their liquidity gap. Any solution could be difficult and painful, despite the fact that some larger Italian banks have recently regained some wholesale market access. A potential path—already under way to some extent—is for the banks to convert their significant indirect funding (mutual funds) into direct funding (retail deposits) with the likely drawback that this will negatively affect already-stressed margins and require further changes in their business model.

- **United Kingdom.** The UK funding market is dominated by the big five High Street banks, which have sufficient size and systemic relevance to be seen as eligible counterparties. Thus, although the fundamentals, especially the size of banks relative to the overall economy and the leverage in the banking system, are high, the banks still have access to capital markets and can issue debt—albeit at costs that are hurting future profitability significantly. There is a high degree of price competition for deposits.
- **Spain.** The Spanish funding market was originally driven by a stable and strong deposit base and by the Spanish banks' good placement capabilities in the unsecured and secured funding markets (Spanish covered bonds). In light of the sovereign crisis and the severe downturn of the real-estate sector, placement opportunities are substantially distorted. Deposits are still stable, but the Spanish deposit market is among the most expensive in Europe. Spanish banks absorb a large portion of the LTRO program.
- **Austria:** Austria has a stable deposit base (in line with European averages) and generally well-established wholesale-funding markets. However, for the large banking players and for the market as a whole, the banks' funding position is heavily distorted by the need to fund major operations in CEE countries, which possess a considerable liquidity constraint to the banking market. Local self-refinancing for the respective CEE operations can only be built up over a longer time period, so any relief on the overall funding position can only be expected over the same time frame.
- **The Netherlands:** The Dutch banking market has deposits and wholesale capacity in line with European averages. The funding situation remains slightly divided between universal banks and cooperative-banking groups. However, a funding gap remains because, on the asset side, banks hold lots of long-term mortgages, posing a structural challenge, especially for the leverage ratio. A structural solution to deal with this would require innovative solutions for the underlying business model or external outplacement of some of the banks' current capabilities.
- **Belgium:** Despite the demise of multiple local banks, Belgium remains the “island of happiness” of funding, thanks to its strong savings, leading to the luxury problem of excess funds. Here the main question will be how the local regulator will allow funds to be “upstreamed” into the relevant head office.

Arno Gerken is a director in McKinsey's Frankfurt office, **Frank Guse** is an associate principal in the Cologne office, **Matthias Heuser** is a principal in the Hamburg office, **Davide Monguzzi** is a consultant in the Milan office, **Olivier Plantefevre** is a principal in the Paris office, and **Thomas Poppensieker** is a director in the Munich office.

Contact for distribution: Francine Martin
Phone: +1 (514) 939-6940
E-mail: francine_martin@mckinsey.com

McKinsey Working Papers on Risk

- 1. The risk revolution**
Kevin Buehler, Andrew Freeman, and Ron Hulme
- 2. Making risk management a value-added function in the boardroom**
Gunnar Pritsch and André Brodeur
- 3. Incorporating risk and flexibility in manufacturing footprint decisions**
Martin Pergler, Eric Lamarre, and Gregory Vainberg
- 4. Liquidity: Managing an undervalued resource in banking after the crisis of 2007–08**
Alberto Alvarez, Claudio Fabiani, Andrew Freeman, Matthias Hauser, Thomas Poppensieker, and Anthony Santomero
- 5. Turning risk management into a true competitive advantage: Lessons from the recent crisis**
Gunnar Pritsch, Andrew Freeman, and Uwe Stegemann
- 6. Probabilistic modeling as an exploratory decision-making tool**
Martin Pergler and Andrew Freeman
- 7. Option games: Filling the hole in the valuation toolkit for strategic investment**
Nelson Ferreira, Jayanti Kar, and Lenos Trigeorgis
- 8. Shaping strategy in a highly uncertain macroeconomic environment**
Natalie Davis, Stephan Görner, and Ezra Greenberg
- 9. Upgrading your risk assessment for uncertain times**
Martin Pergler and Eric Lamarre
- 10. Responding to the variable annuity crisis**
Dinesh Chopra, Onur Erzan, Guillaume de Gantes, Leo Grepin, and Chad Slawner
- 11. Best practices for estimating credit economic capital**
Tobias Baer, Venkata Krishna Kishore, and Akbar N. Sheriff
- 12. Bad banks: Finding the right exit from the financial crisis**
Luca Martini, Uwe Stegemann, Eckart Windhagen, Matthias Heuser, Sebastian Schneider, Thomas Poppensieker, Martin Fest, and Gabriel Brennan
- 13. Developing a post-crisis funding strategy for banks**
Arno Gerken, Matthias Heuser, and Thomas Kuhnt
- 14. The National Credit Bureau: A key enabler of financial infrastructure and lending in developing economies**
Tobias Baer, Massimo Carassinu, Andrea Del Miglio, Claudio Fabiani, and Edoardo Ginevra
- 15. Capital ratios and financial distress: Lessons from the crisis**
Kevin Buehler, Christopher Mazingo, and Hamid Samandari
- 16. Taking control of organizational risk culture**
Eric Lamarre, Cindy Levy, and James Twining
- 17. After black swans and red ink: How institutional investors can rethink risk management**
Leo Grepin, Jonathan Tétrault, and Greg Vainberg
- 18. A board perspective on enterprise risk management**
André Brodeur, Kevin Buehler, Michael Patsalos-Fox, and Martin Pergler
- 19. Variable annuities in Europe after the crisis: Blockbuster or niche product?**
Lukas Junker and Sirus Ramezani
- 20. Getting to grips with counterparty risk**
Nils Beier, Holger Harreis, Thomas Poppensieker, Dirk Sojka, and Mario Thaten
- 21. Credit underwriting after the crisis**
Daniel Becker, Holger Harreis, Stefano E. Manzonetto, Marco Piccitto, and Michal Skalsky
- 22. Top-down ERM: A pragmatic approach to manage risk from the C-suite**
André Brodeur and Martin Pergler

EDITORIAL BOARD

Rob McNish
Managing Editor
Director
Washington, DC
rob_mcnish@mckinsey.com

Martin Pergler
Senior Expert
Montréal

Andrew Sellgren
Principal
Washington, DC

Anthony Santomero
External Adviser
New York

Hans-Helmut Kotz
External Adviser
Frankfurt

Andrew Freeman
External Adviser
London

McKinsey Working Papers on Risk

23. **Getting risk ownership right**
Arno Gerken, Nils Hoffmann, Andreas Kremer, Uwe Stegemann, and Gabriele Vigo
24. **The use of economic capital in performance management for banks: A perspective**
Tobias Baer, Amit Mehta, and Hamid Samandari
25. **Assessing and addressing the implications of new financial regulations for the US banking industry**
Del Anderson, Kevin Buehler, Rob Ceske, Benjamin Ellis, Hamid Samandari, and Greg Wilson
26. **Basel III and European banking: Its impact, how banks might respond, and the challenges of implementation**
Philipp Härle, Erik Lüders, Theo Pepanides, Sonja Pfetsch, Thomas Poppensieker, and Uwe Stegemann
27. **Mastering ICAAP: Achieving excellence in the new world of scarce capital**
Sonja Pfetsch, Thomas Poppensieker, Sebastian Schneider, and Diana Serova
28. **Strengthening risk management in the US public sector**
Stephan Braig, Biniam Gebre, and Andrew Sellgren
29. **Day of reckoning? New regulation and its impact on capital markets businesses**
Markus Böhme, Daniele Chiarella, Philipp Härle, Max Neukirchen, Thomas Poppensieker, and Anke Raufuss
30. **New credit-risk models for the unbanked**
Tobias Baer, Tony Goland, and Robert Schiff
31. **Good riddance: Excellence in managing wind-down portfolios**
Sameer Aggarwal, Keiichi Aritomo, Gabriel Brenna, Joyce Clark, Frank Guse, and Philipp Härle
32. **Managing market risk: Today and tomorrow**
Amit Mehta, Max Neukirchen, Sonja Pfetsch, and Thomas Poppensieker
33. **Compliance and Control 2.0: Unlocking potential through compliance and quality-control activities**
Stephane Alberth, Bernhard Babel, Daniel Becker, Georg Kaltenbrunner, Thomas Poppensieker, Sebastian Schneider, and Uwe Stegemann
34. **Driving value from postcrisis operational risk management : A new model for financial institutions**
Benjamin Ellis, Ida Kristensen, Alexis Krivkovich, and Himanshu P. Singh
35. **So many stress tests, so little insight: How to connect the 'engine room' to the boardroom**
Miklos Dietz, Cindy Levy, Ernestos Panayiotou, Theodore Pepanides, Aleksander Petrov, Konrad Richter, and Uwe Stegemann
36. **Day of reckoning for European retail banking**
Dina Chumakova, Miklos Dietz, Tamas Giorgadse, Daniela Gius, Philipp Härle, and Erik Lüders
37. **First-mover matters: Building credit monitoring for competitive advantage**
Bernhard Babel, Georg Kaltenbrunner, Silja Kinnebrock, Luca Pancaldi, Konrad Richter, and Sebastian Schneider
38. **Capital management: Banking's new imperative**
Bernhard Babel, Daniela Gius, Alexander Gräwert, Erik Lüders, Alfonso Natale, Björn Nilsson, and Sebastian Schneider
39. **Commodity trading at a strategic crossroad**
Jan Ascher, Paul Laszlo, and Guillaume Quiviger
40. **Enterprise risk management: What's different in the corporate world and why**
Martin Pergler
41. **Between deluge and drought: The divided future of European bank-funding markets**
Arno Gerken, Frank Guse, Matthias Heuser, Davide Monguzzi, Olivier Plantefeve, and Thomas Poppensieker

