

# The state of global banking – in search of a sustainable model

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# Executive summary

This paper presents the findings of a comprehensive research initiative on global banking undertaken by McKinsey & Company, based on data spanning 79 countries and the world's 300 largest banks. The paper's purpose is to analyze the state of the industry and to consider how banks can best strengthen their performance over the medium term; it does not explicitly address near-term issues arising from the recent sovereign risk crisis or delve deeply into business line-specific implications.<sup>1</sup>

The paper highlights some sobering facts about banking's recent performance and future prospects. It points out that while global banking recovered strongly in 2010 and the first half of 2011, the overall outcome masked stark differences between emerging markets and the developed world. Indeed, even before the market turbulence of summer 2011, the outlook for US and European banking was a cause for concern.

If banks in these regions are to secure a sustainable future, we argue, they will need to transform their business models in ways more radical than many have contemplated to date.

## **Global banking recovered sharply in 2010, but developed markets lagged behind**

The global banking industry staged a sharp recovery in 2010, sustained into the first half of 2011, with revenues reaching an all-time high and profits nearly double their 2009 level. Yet most, though not all, of the good news came from emerging markets. Even before the recent market turmoil, the performance of developed market banks continued to lag pre-2008 levels.

Global banking revenues reached a new record at \$3.8 trillion, supported by robust growth in the global stock of debt and equity. Global banking profits after tax grew to \$712 billion in 2010, up from \$400 billion in 2009 and back above the 2008 level (Exhibit i). However, 90% of this profit increase was attributable to a decline in provisions for loan losses, which fell from \$1.1 trillion in 2009 to \$783 billion in 2010.<sup>2</sup>

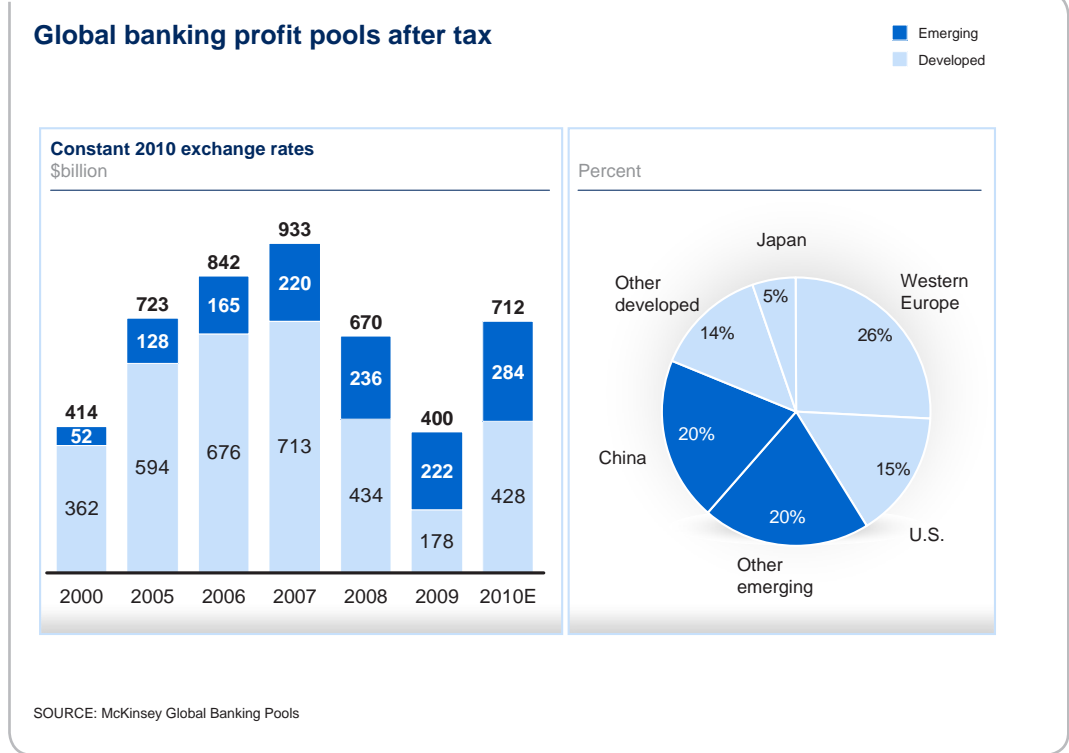
Moreover, 2010 banking revenues in many developed countries remained far below pre-crisis levels despite the global recovery. In the US, for example, banking revenues after provision for loan losses were 11.8% lower in 2010 than in 2007. Developing world banks grew strongly over the same period – revenues up by 19.8% in India, 17.6% in Brazil, and 13.7% in China.<sup>3</sup>

<sup>1</sup> For a more detailed view on investment banking see *"Day of Reckoning? New regulations and its impact on capital markets businesses"*, McKinsey, September 2011.

<sup>2</sup> All US dollar figures used in this report are calculated based on 2010 fixed exchange rates.

<sup>3</sup> These and all other growth rates in this paper are nominal.

**Exhibit i**



**Even before the recent turmoil, confidence in the future of developed market banking remained low**

Banks’ profitability recovered significantly in 2010. But even before the market turmoil of the summer of 2011, the share prices of US and European banks were lagging behind the profitability figures. At the end of 2010, a number of forward-looking indicators highlighted limited confidence in the long-term health of the industry.

One such indicator is the level of cross-border capital flows, reflecting banks’ appetite to lend cross border. These declined sharply at the start of the 2008 crisis, as national banking systems retreated inside their home borders. And while they recovered significantly last year, they had still only reached \$3.7 trillion (a third of their record 2007 level) in Q3 2010. At the same time, bank Credit Default Swap (CDS) spreads in Q3 2010 were 36 basis points higher than in 2009, and 131 basis points higher than the 2001-07 average. Funding spreads in Q3 2010 were up by 33% in 2009, and were nearly 80% higher than the 2001-07 average.

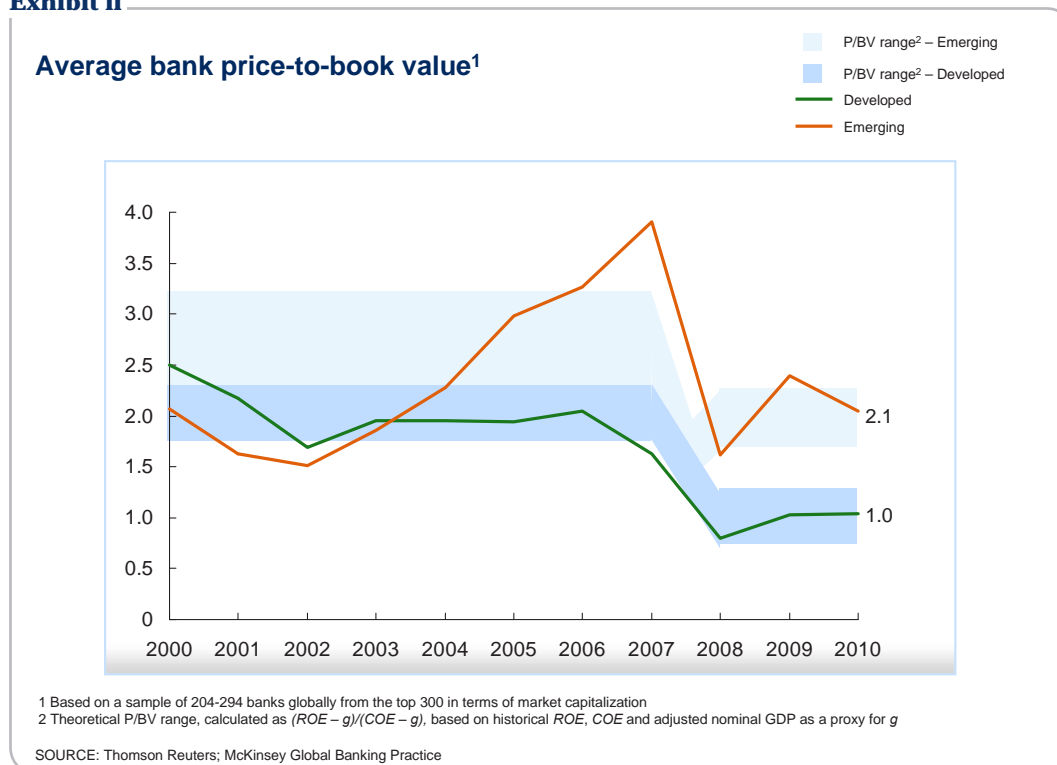
In both developed and developing markets, banks’ price-to-book ratios fell sharply in 2008 and showed no signs of recovery in 2010. (Exhibit ii).

The sovereign risk crisis will intensify these challenges, presenting many banks with higher funding costs and hindering access to wholesale funding markets. Banks domiciled in countries with low credit ratings may struggle to compete across borders and will be more vulnerable to attack from foreign competitors with lower funding costs.

### US and European banking face a large “return gap” in the coming years

In 2010, the US and European banking industries delivered Returns On Equity (ROE) of 7.0% and 7.9% respectively. Even when these returns are “normalized” by assuming loan losses equivalent to the 2000-07 average plus a “buffer”,<sup>4</sup> the 2010 figures would only increase to 9.3% in the US and 9.2% in Europe. At this level, banks’ ROE is still some 1.5 percentage points below their cost of equity, which averaged globally 12% last year. Even before the industry has digested the additional capital requirements from Basel III, Systemically Important Financial Institutions (SIFI) surcharges and other national “finishes”, developed country banking is facing a significant “return gap”.

**Exhibit ii**



We cannot predict the long-term cost of equity, but it is likely that many banks will have to step up their performance if they are to close that gap and create sustainable economic profits. Our analysis suggests that US banks will need to grow net profits from \$121 billion in 2010 to \$312 billion in 2015 if they are to achieve 12% ROE: implying annual profit growth of almost 20%, and profit levels almost double those likely under our forecasts for 2015. Likewise, European banks will need to double profits from \$166 billion in 2010 to \$328 billion in 2015.

<sup>4</sup> We have assumed normalized loan losses to be equal to the 2000-07 historical average, plus a 20% “buffer”. The 20% buffer is a rough estimate we believe is appropriate given 2000-07’s buoyant economic climate, in which continuously increasing housing prices reduced the rate of loss given defaults (LGD) and generally lowered default rates. Under these assumptions, 2010 loan losses move from 112 bps actuals in the US to 52 bps “normalized”, and from 39 bps actuals in Europe to 22 bps “normalized”.

### **Closing the return gap will require banks to address multiple long-term trends**

If US and European banks are to achieve a sustained recovery in performance and confidence, they will need to address the implications of four major trends.

The first is increasing **regulation**, which is the single largest driver of post-crisis bank profitability in the US and Europe, and could have a significant impact on profitability in other markets too. In addition to the Basel III capital requirements, equity “surcharges” for SIFIs could require significant additional capital for the affected banks.

The second trend is a **squeeze on capital and funding**, driven by burgeoning investment and credit demand in the developing world. The sovereign credit crisis could exacerbate this challenge in Europe by fragmenting Eurozone capital markets, thus increasing funding costs, particularly for banks from weaker countries. The funding squeeze could lead to consolidation among smaller banks, and pressure on deposit margins.

The third trend is that the **gap between growing markets and markets where growth will remain sluggish** stands to widen over the coming decade. Asian banks in particular are likely to achieve annual revenue growth of around 10% over the next decade – double the rate of developed markets. Those banks that can tap into emerging market growth will be at a significant advantage.

Finally, banks will have to contend with **shifts in consumer behavior** – none more significant than the rise of the digital consumer, accelerated by the mobile and tablet revolution. We expect branch density to fall, and average branch sizes to shrink. Banks will have to deliver superior customer experience to a generation that has much greater choice and is likely to be more price-sensitive.

### **US and European banks need to transform their businesses along a combination of three strategic “vectors”**

Achieving ROE of 12% by 2015 will require US and European banks to increase their profits dramatically. This is asking a lot given that, over the past decade, fewer than one in ten US and European banks succeeded in improving both their cost to income ratio and their revenue margin. But banks can transform their operating models and their performance if they follow a combination of three strategic “vectors”.

**Vector 1: A less capital-intensive model.** On this vector European banks, in particular, could increase their ROE by both shifting a substantial portion of their lending to capital markets and greatly increasing their capital efficiency. This could mean capital markets providing between 60% and 70% of the credit needs of European banks, against just 20% today, a level of intermediation currently seen only in the US. A shift of this magnitude would require an expansion of traditional debt capital markets; innovative low-cost alternative debt capital markets, built on internet-based platforms and simple rating systems; and the creation of a new and safer asset-and-

mortgage-backed securitization market. It would also require continued efforts to reduce the capital and funding intensity of individual banks' business models.

**Vector 2: Total cost rebase.** On this vector, banks would be taking out cost on a substantial scale. To achieve 12% ROE from their 2010 starting point, and taking into account estimated additional capital requirements, US and European banks would have to reduce costs annually by 6% on average between now and 2015. Very few have achieved cuts on this scale to date. How could they do it? Regulators permitting, they could pursue large-scale M&A in markets where banking remains fragmented. They could remove branch network costs through greater use of remote channels. And they could substantially improve productivity in the areas of product delivery and front-office sales and service.

**Vector 3: Capture new opportunities.** Moving along this vector would require banks to encourage much greater innovation in pursuit of growth opportunities. One source of these top-line revenues might be smarter pricing, based on a better understanding of product economics. Another could be customer-centric innovation, which would involve banks better tailoring their value propositions to the individual needs of their customers. A third could be selective new risk taking backed by improved risk management – more sophisticated risk assessments, for example, could reduce risk costs and allow banks to take on business that they might previously have shunned.

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Banking is not the first industry to grapple with a profoundly changed operating environment. Telecommunications players, for example, experienced an upheaval in the late 1990s when regulators helped usher in new competitors and technologies by removing monopolies. In response, incumbent companies undertook far-reaching transformations, reducing cost and staff numbers by 30-50%, and improving productivity by a similar quantum.

Many banks will need to be just as bold. Those that successfully rethink and rebuild their business models over the next 3-5 years are likely to emerge as the industry's new leaders, reaping disproportionate rewards. If, on the other hand, the banking industry in the developed world cannot achieve this dramatic performance improvement, then it will not earn a sufficient ROE to attract the required level of equity and long-term debt capital needed to support lending to the real economy. In this scenario, economic growth will be constrained by credit shortages that will particularly hit households and small businesses without access to capital markets. Raising bank ROE back up to, or above, the cost of equity is therefore an essential condition not only for the banking industry's health but also for long-term economic recovery.

# Introduction

The 2008-09 financial crisis destroyed huge value in the banking industry in a short space of time. Between 2007 and 2009, global banking revenues stalled at \$3.5 trillion while after-tax profits plunged from \$933 billion in 2007 to \$400 billion<sup>5</sup> in 2009. The storm also dramatically changed the relative strength of banks in developed and developing markets. In 2007, 76% of global banking revenue came from developed markets; banks' price-to-book ratio in these markets was 1.6. By the trough of the crisis in 2009, developed market banks accounted for 44% of global revenues, while their price-to-book had fallen to 1.0.

By mid-2011, most of the numbers depicted an industry that had emerged from the storm. Revenue and profitability growth had returned at a global level. And action was being taken to address the major balance sheet weaknesses that precipitated the crisis, with the industry's global tangible common equity ratio increasing from 7.5% in 2007 to 10.2% by 2010.<sup>6</sup> But behind this more buoyant global picture, the banking industry remained fundamentally altered by the effects of the crisis – and its future remained uncertain.

Despite the recovery, the performance gap between banks in developed and developing markets persisted, with forward-looking indicators such as market capitalizations diverging even more dramatically. Far from stabilizing towards pre-crisis levels, CDS spreads for developed market banks increased. In the US and Europe in particular, a cloud hangs over banking in the form of greater capital requirements, reduced profitability, and uncertain growth prospects. The sovereign risk crisis unfolding in Europe only adds to the pressure – as does the threat of an economic slowdown in many developed economies.

Against such a backdrop, this paper offers two contributions to banks staking out a path of sustained long-term growth. First, it presents our analysis of the challenges facing global banking today. This is built off data assembled by McKinsey's Global Banking Practice, spanning the top 300 banks globally and 79 individual banking markets (with high-level estimates for the rest of the world). Second, it presents our views on ways in which banks can reshape their business models to address these challenges and achieve sustained performance over the long term.

The paper is structured into three chapters:

**Chapter 1, "The state of banking"**, reviews global banking's historical performance and future outlook, using a range of indicators.

**Chapter 2, "Banking's future terrain"**, explores the new set of challenges that banks will have to tackle if they are to restore profitability and confidence, particularly in the US and Europe. These include increased regulation, a squeeze on capital and funding; a widening gap between growing and non-growing markets; and changing consumer behavior.

**Chapter 3, "Shaping a sustainable model"**, presents a set of strategic "vectors" that could move banking in the US and Europe onto a sustainable growth path – and enable a few truly successful players to reap disproportionate revenues and benefits.

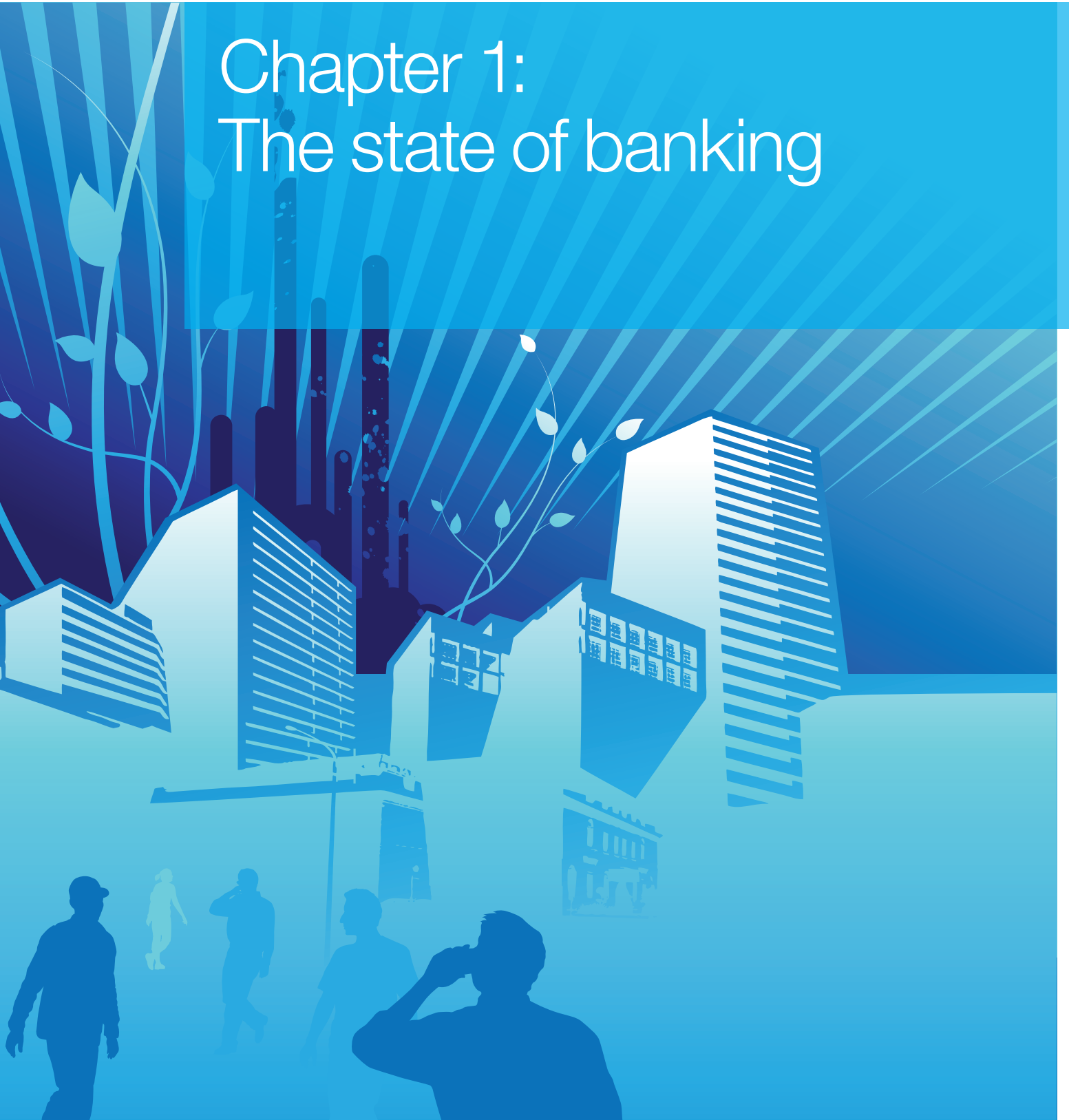
The **Technical Appendix** sets out the indicators and databases underpinning the report's findings, while detailed **Data Tables** provide the key statistics for each banking market and the world's top 100 banks.

<sup>5</sup> All US dollar figures used in this report are calculated based on 2010 fixed exchange rates.

<sup>6</sup> These figures are based on Basel II definitions of equity.



# Chapter 1: The state of banking



# The state of banking

As a contribution to future banking strategy discussion, McKinsey & Company has undertaken a detailed analysis of banks' performance up to mid-2011 and of the market's expectations of their future prospects. This chapter sets out the findings of that analysis. (The methodology and findings are set out in greater detail in the Appendix).

In total, global banking saw a sharp recovery in 2010, sustained into the first half of 2011. Global financial stock grew by 9%<sup>7</sup> over 2009 supporting the recovery of banking intermediation, revenues increased by 6%, and net interest and fee margins<sup>8</sup> increased by 30 basis points overall. At the same time, cost-to-income ratios improved by 2 percentage points and bank capital ratios<sup>9</sup> improved by 1.5 percentage points.

On the other hand, forward-looking indicators reinforced concerns about banking's long-term sustainability, especially in the developed world: even before the sovereign risk crisis in Europe and the threat of a "double dip" recession cast a new shadow over banking. Bank CDS spreads in 2010 were 36 basis points higher than in 2009, and 131 basis points above the 2001-07 average. Funding spreads were up by 33% in 2009, and were nearly 80% higher than the 2001-07 average. At the same time, developed world banks' price-to-book multiples remained below 1x in 2010. Although banks' global market capitalization recovered sharply in

2009, it remained roughly unchanged between January 2010 and June 2011 before dropping dramatically during July and August as concerns about sovereign debt and economic growth increased.

The sovereign risk crisis intensifies these challenges, presenting many banks with higher funding costs and difficulties in accessing wholesale funding markets. Banks domiciled in countries with low credit ratings may struggle to compete across borders and will be vulnerable to attack from foreign competitors with lower funding costs.

## A sharp recovery for global banking in 2010

What, then, drove banking's recovery in 2010?

To begin with, the industry benefited from robust growth in the global financial stock of outstanding debt and equity which at \$212 trillion exceeded its \$202 trillion pre-crisis peak (Exhibit 1). A major share of this increase is attributable to higher leverage, itself the consequence not only of growing public debt but also of the rapid expansion of private credit in China. Outstanding private sector debt in China grew by more than \$4 trillion between 2007 and 2010. There is every indication that developing markets' continued growth, along with the deepening of their financial systems, will boost global financial stocks further; these markets' share of global financial stocks is still significantly below their share of GDP.

<sup>7</sup> This growth rate is nominal, as are all growth rates cited in this paper.

<sup>8</sup> Defined as net interests and fees divided by loans and deposits.

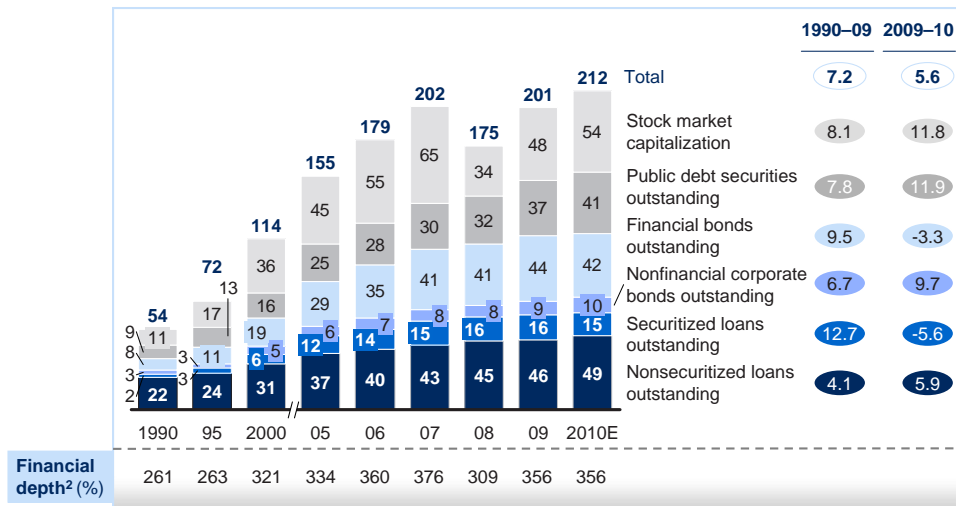
<sup>9</sup> Measured as tangible common equity/risk-weighted assets.

**Exhibit 1**

**Global stock of debt and equity outstanding, YE 2000–10**

Percent, \$trillion, constant 2010 exchange rates

○ CAGR (%)



1 Based on a sample of 79 countries

2 Calculated as global debt and equity outstanding divided by global GDP

SOURCE: Bank for International Settlements; Dealogic; SIFMA; Standard & Poor's; McKinsey Global Banking Pools; McKinsey Global Institute

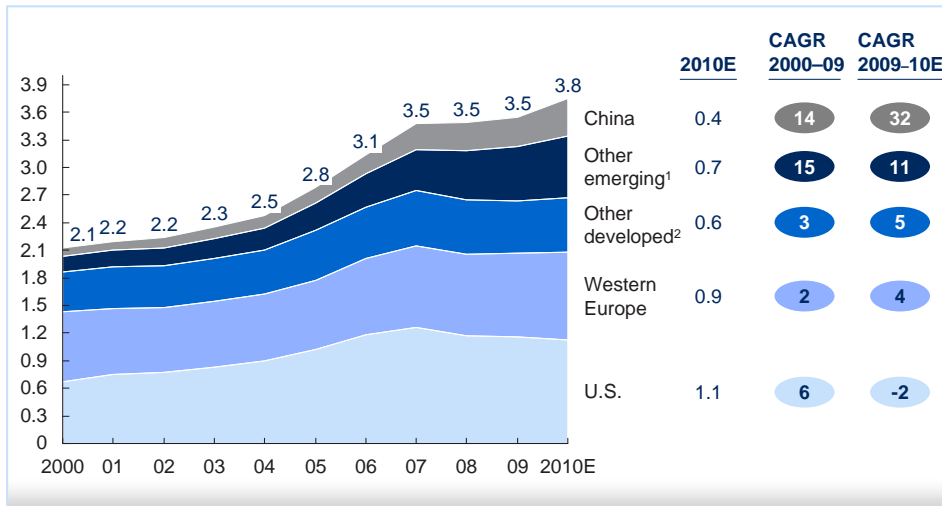
On this foundation, global banking revenues reached a record \$3.8 trillion in 2010, up from \$3.5 trillion in 2009 (Exhibit 2). Banking revenues after annual provisions for loan losses recovered even more sharply, moving from \$2.4 trillion in

2009 to \$3 trillion in 2010 and reflecting healthy growth in most regions (Exhibit 3). Notably, developed market banking returned to growth, and by the end of 2010 still represented some two thirds of global banking revenues.

**Exhibit 2**

**Global banking revenue pools**

Percent, \$trillion, constant 2010 exchange rates, YE 2000–10E



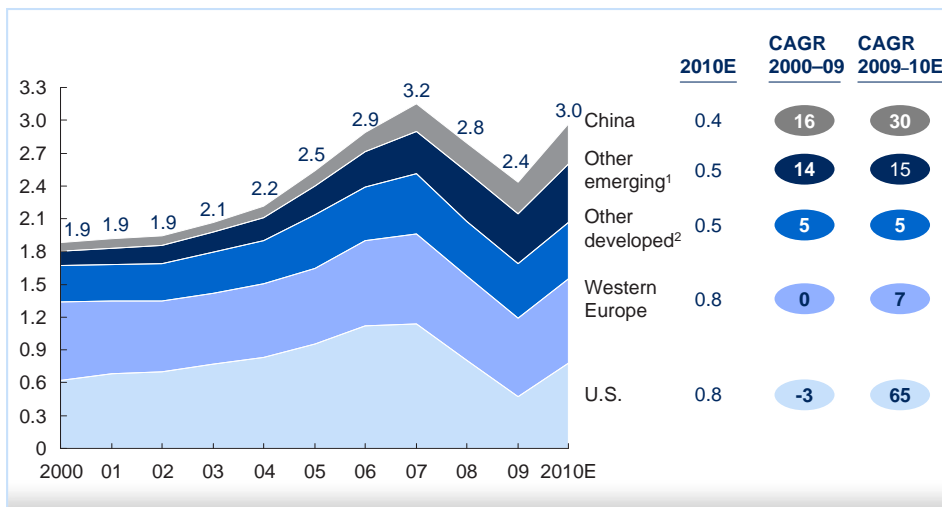
<sup>1</sup> Includes CEE, CIS, India, South East Asia, South Asia, Northern Africa, Sub-Saharan Africa, Latin America and Middle East  
<sup>2</sup> Includes Australia, Canada, Hong Kong, Korea, New Zealand, Singapore, Taiwan, Japan

SOURCE: McKinsey Global Banking Pools

**Exhibit 3**

**Global banking revenue pools after annual provisions for loan losses**

Percent, \$trillion, constant 2010 exchange rates, YE 2000–10E



<sup>1</sup> Includes CEE, CIS, India, South East Asia, South Asia, Northern Africa, Sub-Saharan Africa, Latin America and Middle East  
<sup>2</sup> Includes Australia, Canada, Hong Kong, Korea, New Zealand, Singapore, Taiwan, Japan

SOURCE: McKinsey Global Banking Pools

Banking profits also staged a significant recovery in 2010, sustained into the first half of 2011. Global banking profits after tax grew to \$712 billion in 2010, up from \$400 billion in 2009 still well below the 2007 peak (Exhibit 4). Although China surpassed the US in banking profits, developed markets still contributed 60% of the global total.

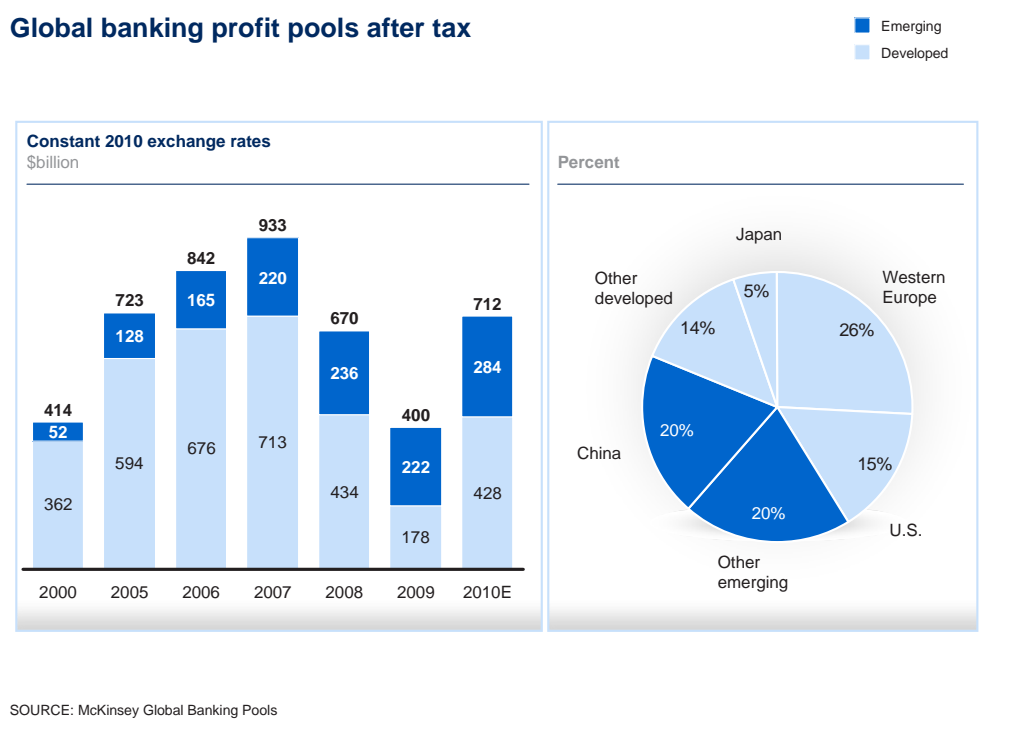
Provisions for loan losses have had a major impact on recent banking performance, reaching a high of \$1.1 trillion in 2009 before declining to \$783 billion in 2010 (still more than twice the average of 2001-07 levels). Between 2008 and 2010, provisions wiped out \$592 billion of annual global banking profits – more than the entire profits of many other industries. The 2010 profit recovery must

be seen in this context: 90% of the increase in profits is attributable to a decline in provisions.

In some countries, among them Brazil, the US, Japan and Italy, the recovery in profits in 2010 was almost entirely due to the decline in annual provisions. The impact of falling provisions will decrease sharply in the coming years, emphasizing how important it is that banks find ways to improve their revenues and underlying profitability.

In aggregate, banks' cost-to-asset and cost-to-income ratios were relatively stable between 2009 and 2010, particularly in developed countries. However, by the end of 2010, only two out of five banks could claim cost-to-income

**Exhibit 4**



ratios below their pre-crisis level. In Italy and Japan, only one in five banks succeeded in doing so.

Finally, the loan-to-deposit ratio<sup>10</sup> declined in most countries and regions between 2007 and 2010. Worldwide, the ratio fell six percentage points to 90%. However, in emerging markets including China and India loans grew relative to deposits, as these countries' leverage levels converged with developed markets.

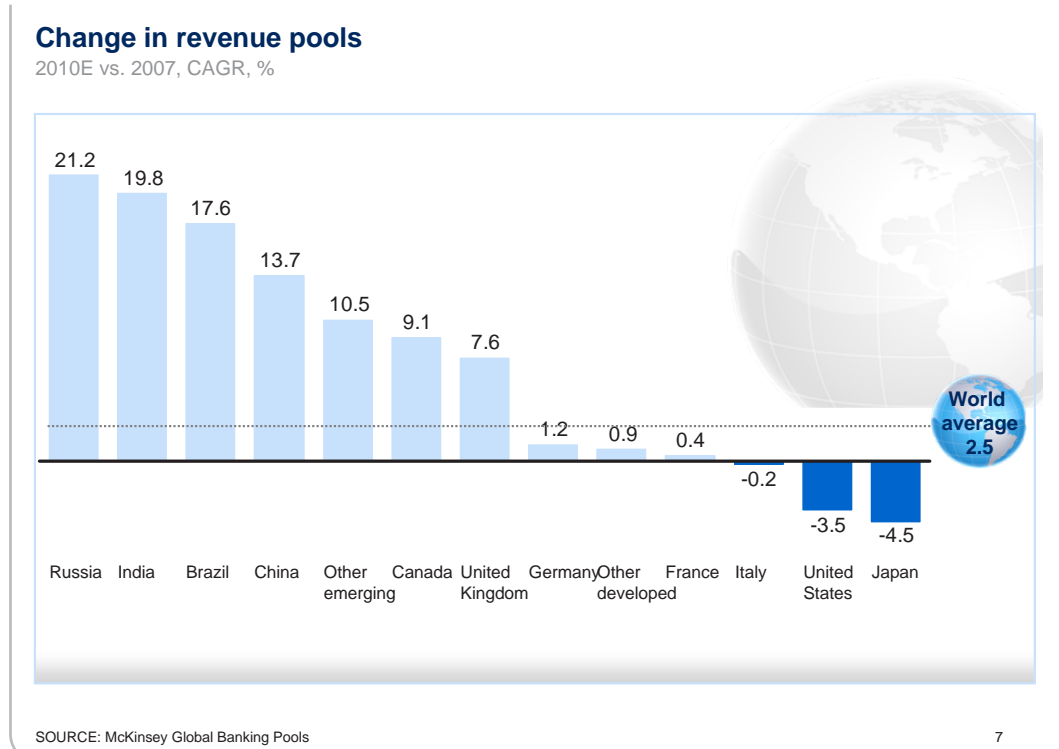
**Two different worlds**

Banking revenues in emerging markets grew significantly between 2007 and 2010, but in most developed markets they either dipped or at best marked time (Exhibit 5). Before annual provision for loan losses, Russia's banking revenue pools grew by 21.2% between 2007 and

2010, India's by 19.8%, and Brazil's by 17.6%. This expansion was supported by strong underlying economic growth – for example, outstanding private sector debt in China increased by \$4 trillion between 2007 and 2010. In contrast, banking revenues in the same period shrank by 3.5% in the US.

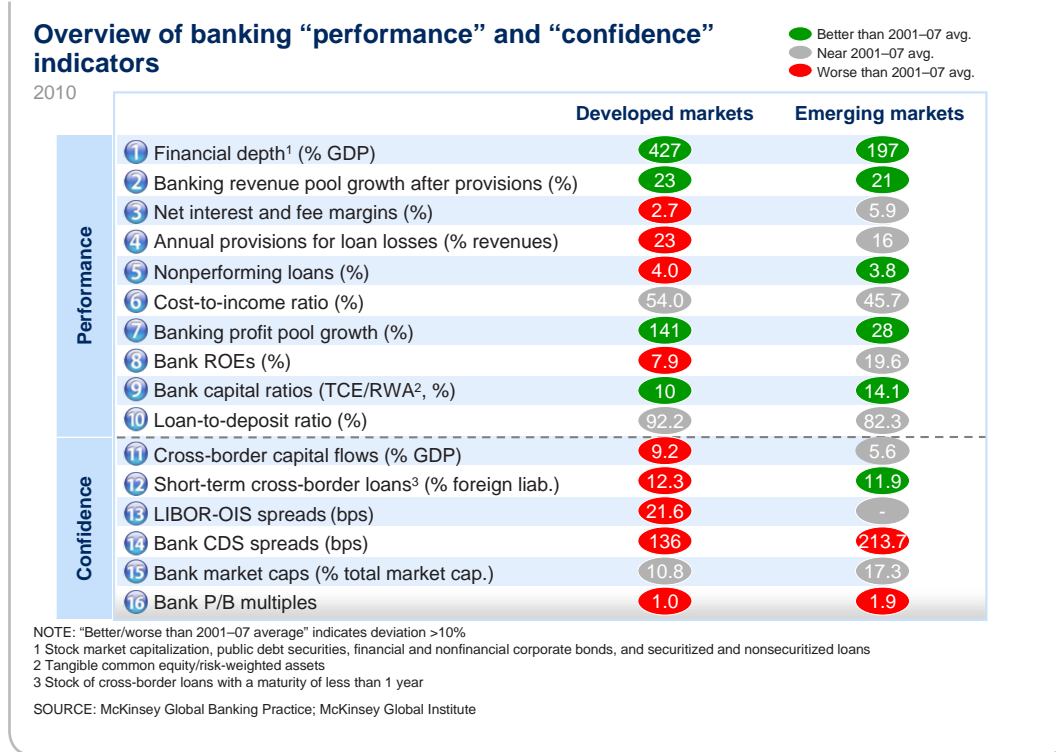
Exhibit 6 paints the same picture through a range of performance indicators: developing markets in 2010 exceeded their average 2001-07 performance in many respects, while developed markets lagged behind the 2001-07 average in several key areas. The exhibit also shows the relative performance of developed and developing markets on six forward-looking "confidence" indicators. Although confidence remained weak across the global banking industry at the end of 2010, it was markedly more fragile in the

**Exhibit 5**



<sup>10</sup> On-balance sheet customer loans over customer deposits. Securitized loans are excluded.

**Exhibit 6**



developed world – even before the recent market turbulence.

**Banking confidence under a cloud**

Let us examine these confidence indicators, which measure flows, liquidity, and capital costs and availability.

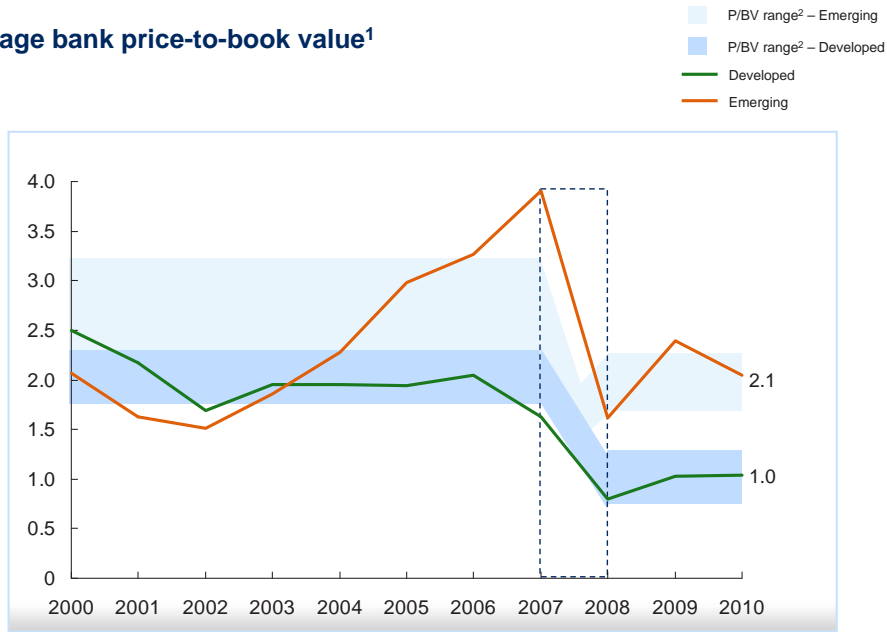
Cross-border capital flows grew strongly from 2009 to 2010, but at around \$3.7 trillion in Q3 2010 they were only a third of their record 2007 level, and still below the level in 2000. Flows of short-term cross-border loans (“hot money”) totaled \$564 billion in the first three quarters of 2010, with most of these outstanding in Western Europe. Yet they too remained significantly below 2007 levels.

Turning to liquidity, the return of bank CDS spreads in 2010 towards their 2008 level reflected continued and growing uncertainty in the market – even before the latest sovereign risk crisis.

Capital market indicators also underline the challenge. After a rebound in 2009, banks’ total market capitalization remained flat overall in 2010 and the first half of 2011, with gains in many developing markets offset by declines in the US, China, and Western Europe. In both developed and developing markets, banks’ price-to-book ratios fell sharply during 2008-09, failing to recover during 2010 or the first half of 2011. This reflected the market’s view not only that profits would remain depressed, but also that banks would struggle to remunerate their required capital (Exhibit 7). There was also continuing divergence between developed and developing market banks’ price-to-book ratios. By mid-2011, even before the recent turmoil, banks’ market prices were below their book values in several developed countries, including the US, UK, Japan, France, Italy, and Germany (Exhibit 8).

**Exhibit 7**

**Average bank price-to-book value<sup>1</sup>**

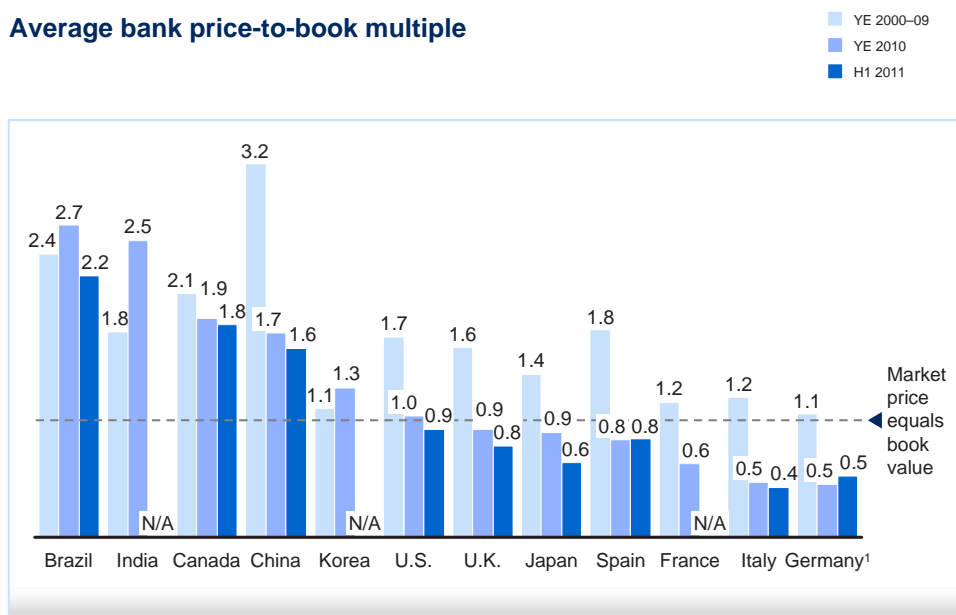


1 Based on a sample of 204–294 banks globally from the top 300 in terms of market capitalization  
 2 Theoretical P/BV range, calculated as  $(ROE - g) / (COE - g)$ , based on historical ROE, COE and adjusted nominal GDP as a proxy for g

SOURCE: Thomson Reuters; McKinsey Global Banking Practice

**Exhibit 8**

**Average bank price-to-book multiple**



1 Based on a sample of 2 banks only

SOURCE: Thomson Reuters; McKinsey Global Banking Practice



### **Impact of the sovereign risk crisis in Europe**

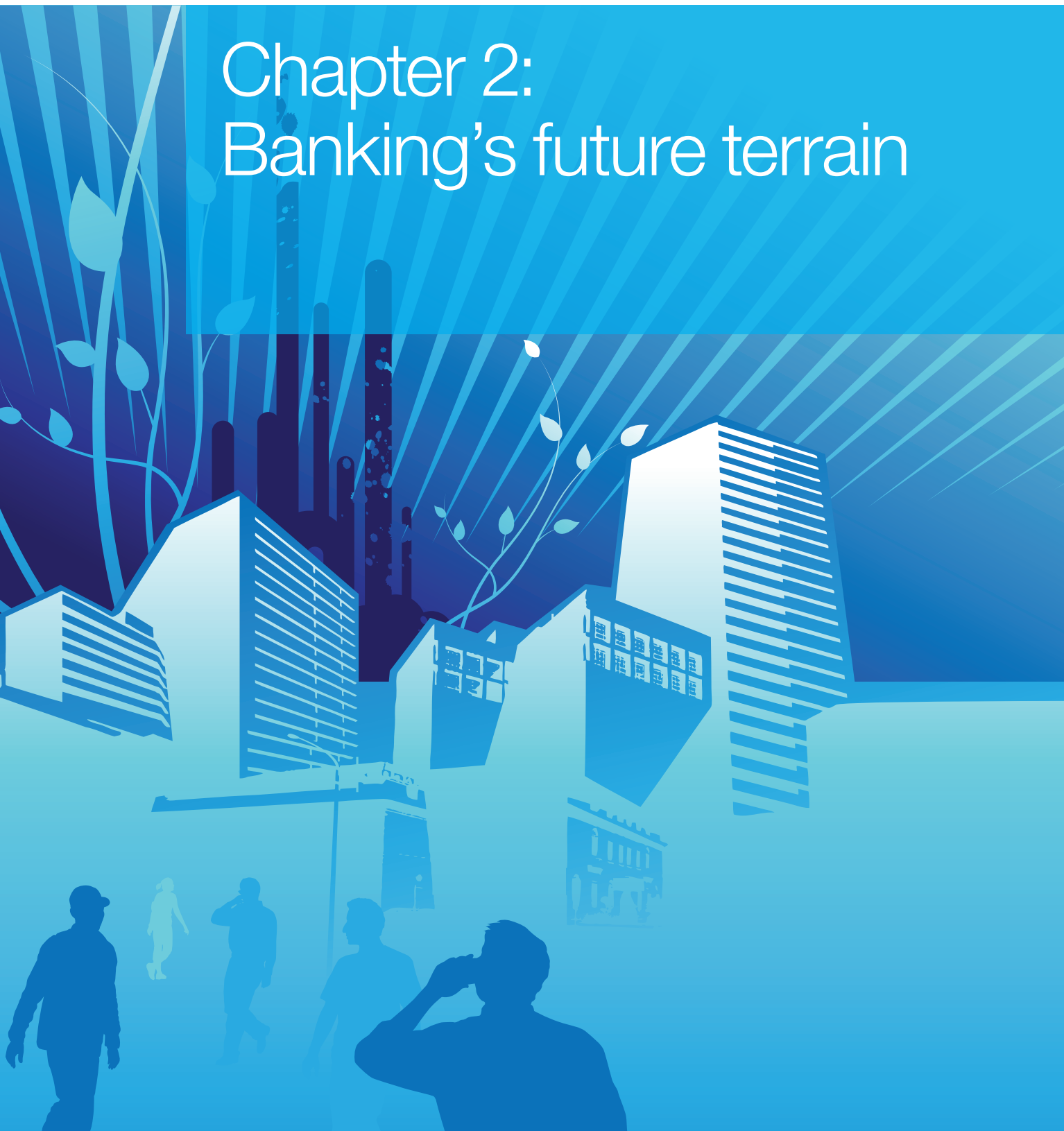
We write this report in the midst of major volatility in the financial markets, which is further depressing bank valuations and hampering their access to liquidity. Over the summer of 2011, concerns resurfaced about the solvency of some EU countries and the potential for economic slowdown in the US and Europe. As a result, the differential in credit spreads between Eurozone countries has reached levels that are unprecedented since the launch of the euro.

The sovereign risk crisis could create further short-term distress for many banks, presenting them with higher funding costs and restricting access to wholesale funding markets. The heightened risk of economic slowdown and a continued low interest rate environment likely persisting into 2012 put further potential stress on profitability. European banking could also experience a further credit squeeze, driven by both funding problems (with international investors potentially still unwilling to

purchase European bank long-term debt) and a challenging environment in which to raise the additional equity required to meet Basel III requirements. On a structural level, the current credit crisis could also have a fundamental long-term impact on the structure of the banking industry in the EU.

For one thing, banks domiciled in countries with low credit ratings could find it increasingly difficult to compete across borders, given their higher cost of funding. For example, Greek, Irish, and Portuguese banks have recently considered leaving the highly attractive Polish market because they lack the finance to support the growth of their local operations. This could be the start of a larger phenomenon. Moreover, banks in countries with low ratings may find it increasingly difficult to defend their best customer franchises from the attack of foreign banks that can offer better loan rates thanks to better funding costs. In Italy, for example, French banks are already offering some of the best mortgage rates to affluent customers.

# Chapter 2: Banking's future terrain



# Banking's future terrain

In mid-2011, banks were facing a quandary – their revenues and profits were recovering, yet the metrics that indicated their future health were not. Stakeholders were not convinced that banking, particularly in the US and Europe, would be able to cope with the challenges on the horizon. Since then, the sovereign crisis in Europe and the depressed economic outlook have significantly deepened these challenges and further damaged investor confidence. US and European banks are of course focused on responding to the immediate crisis. But if they are to chart a course to sustain high performance, they will need to grapple with a set of fundamental long-term trends that are increasingly shaping the operating environment. These trends include:

- **The impact of regulation on profitability.** The coming regulatory changes will be costly for banks, resulting in increases in bank equity, increased funding costs, and a tightening of consumer protection
- **A squeeze on capital and funding.** Growing demand for credit, together with increasing investment in infrastructure, will put a strain on the supply of capital and funding – and thereby increase its cost
- **A widening gap between growing and non growing markets.** Emerging markets represent a promising opportunity for banks that can access them – but the prospects for those

that cannot do so are more challenging. It is likely that the “growth gap” between the “haves” and “have nots” will increase

- **Changing consumer behavior.**

Banks face several concurrent changes in consumer behavior, including a shift from borrowing to saving, and an inexorable migration to online channels

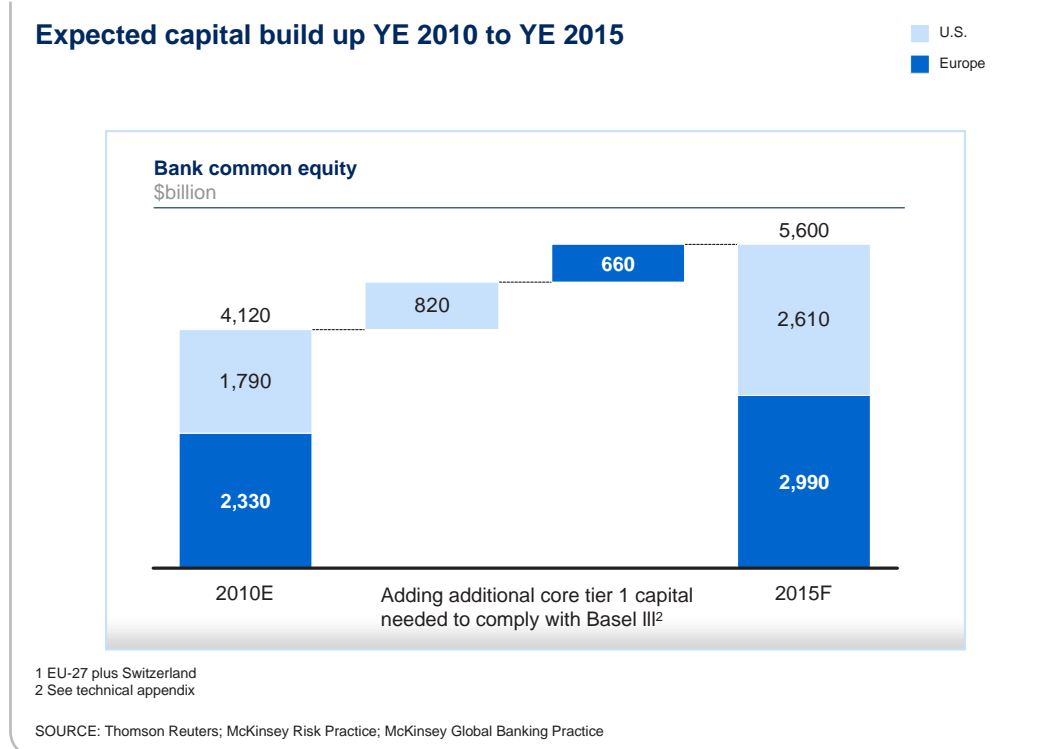
## **The impact of regulation on banks' profitability**

Few would disagree that a tighter regulatory environment is desirable if banking is to be sustainable in future. At the same time, regulation is the single largest driver of post crisis bank profitability in the US and Europe, and may have a significant impact on profitability in other markets too.

The amended Basel III definitions will have a triple impact on banks' capital ratios – the higher required (core) tier 1 ratio itself, stricter rules on (core) tier 1 capital definition, and more restrictive weights to calculate risk-weighted assets. Taken together, these changes will have the effect of requiring US and European banks to build up an additional \$1.5 trillion in equity<sup>11</sup> (Exhibit 9). Many banks have already begun the task, but achieving this unprecedented step change in capital levels will be a huge challenge. Remunerating this capital will be even more difficult, requiring banking profitability to grow more quickly than it did before the crisis.

<sup>11</sup> The methodology for this calculation is set out in the Technical Appendix. For a detailed analysis of the impact of Basel III on banks' capital levels and profitability, see “Basel III and European banking: Its impact, how banks might respond, and the challenges of implementation”, published by McKinsey in November 2010.

**Exhibit 9**



Additional equity surcharges, ranging from 1% to 2.5% of core equity, could require between \$150 billion and \$300 billion in new capital for SIFIs.

Beyond the new capital requirements, new regulations on the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR) aim to help banks build an additional buffer of liquid assets and to match maturities of funding to assets. The final impact is uncertain, as the new regulations are not yet finalized; however, the additional funding requirements for US and European banks could be significant, absent any mitigating actions.

It will be prudent to assume higher funding costs for banks for the

foreseeable future as stable funding becomes a key determinant of growth rates in developed economies. This is a major shift from the last decade.

Previously, banks actively pursued growth opportunities without giving much thought to capital and funding constraints; balance sheet structure was the result of a business-driven planning exercise. In future, however, balance sheet structure will be the key strategic constraint as banks evaluate and pursue market opportunities.

Finally, there is a renewed focus across the globe on consumer protection, ranging from the Dodd Frank Act in US and the European Commission's various Directives to the myriad of national regulations. The impact on

banks' profitability could be considerable:

- Based on our estimates, Dodd Frank will reduce the ROE of US banks by 0.5 percentage points by 2015
- The financial impact on European banks of European Commission Directives on consumer protection in five major product areas could be equivalent to approximately 1-1.5 percentage points of ROE over the same period
- In the UK, it has been estimated that a recent ruling of the Financial Services Authority on the misselling of creditor protection insurance would cost banks £3.2 billion, based on complaints received to October 2010

Regulators, academics, and industry participants all believe that higher capital requirements and a generally more stringent regulatory environment will make future crises less likely and less damaging. The additional capital, they say, will support overall economic growth, while reducing the volatility of banking profits and thereby lowering the cost of equity. In turn, this will attract new and different classes of investors willing to accept lower returns than has been the norm in recent years. We broadly agree with this perspective. However, there is a danger that while the cumulative impact of global and national regulation may reduce industry risk and industry cost of equity it could reduce the ROE in some markets even further. A well-regulated, but adequately profitable, banking system should

continue to be all participants' end objective.

To help ensure that this is the outcome in all markets, banks need to continue being engaged in proactive and constructive dialogues with regulators, policymakers, and consumer associations. They should also continue to strengthen their capacity to calculate the first- and second-order impacts of regulation – that is, both the direct costs of regulation, such as additional capital, and indirect effects such as reduced lending to different customer types. Finally, many banks will need to upgrade their regulatory management capabilities further, so as to put their institutions “on the front foot” as regulatory change is proposed.

### **A squeeze on capital and funding**

In late 2010, the McKinsey Global Institute published a report entitled “Farewell to cheap capital?”<sup>12</sup> which demonstrated how growing investment levels could lead to capital scarcity and rising interest rates. The study showed that as developing economies embark on one of the biggest building booms in history, global investment demand could increase from 20% of global GDP in 2010 to 25% of GDP by 2030 (Exhibit 10). This increased investment demand will come just as global savings growth is constrained by aging populations and China's efforts to boost domestic consumption.

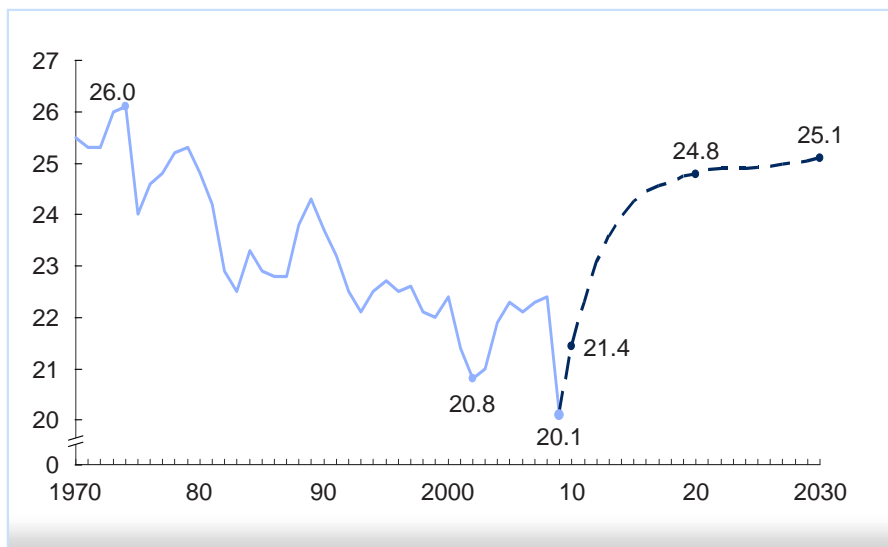
The demand for credit continues to grow in the wake of these trends, particularly in developing markets. “More Credit with Fewer Crises”, a report published by

<sup>12</sup> McKinsey Global Institute, “Farewell to cheap capital? The implications of long-term shifts in global investment and saving”, December 2010.

**Exhibit 10**

**Global investment rate, 1970–2030**

Percent of global GDP



SOURCE: Economist Intelligence Unit; Global Insight; McKinsey Global Economic Growth Database; Oxford Economics; World Development Indicators of the World Bank; MGI Capital Supply & Demand Model; McKinsey Global Institute

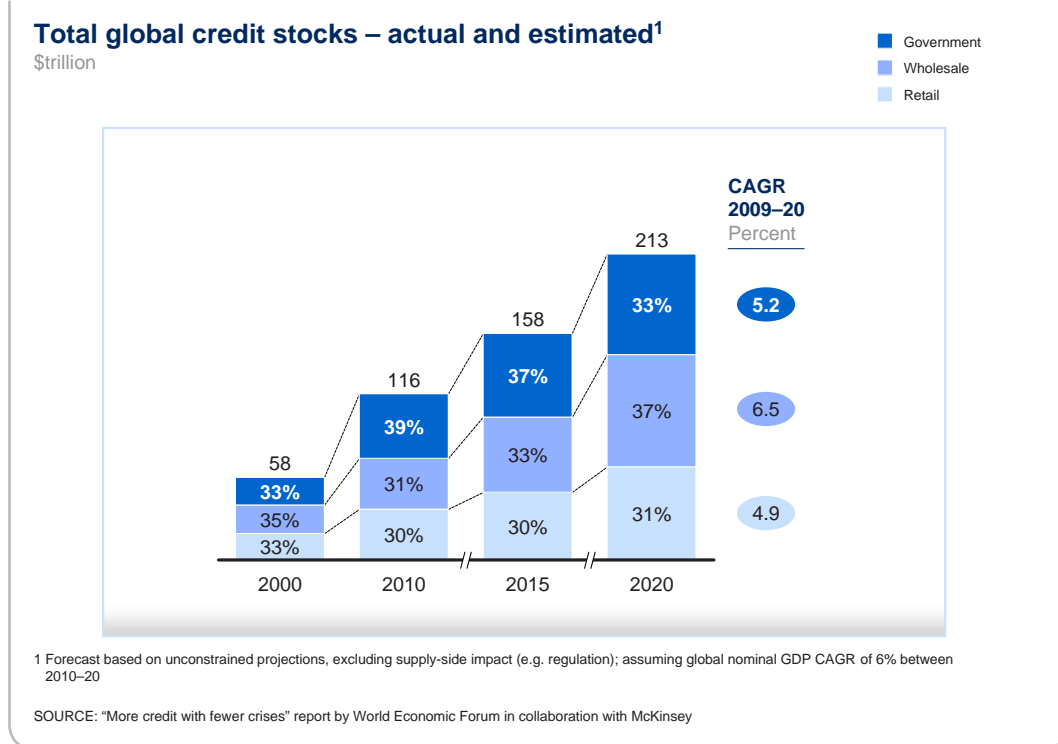
McKinsey and the World Economic Forum in January 2011, showed that total credit demand could double by 2020 if it moved in line with consensus forecasts of GDP growth. Credit growth of this magnitude, and the associated balance sheet growth required, will heighten the pressure on banks to raise additional capital<sup>13</sup> (Exhibit 11).

The result will be a long-term tug of war between the global banking system (which needs to replenish its capital base) and developing markets seeking new capital to finance growth. Capital and funding will remain tough issues for some banks, but a strategic opportunity for others. State-

funded and large banks, with cheaper access to funding, could be at a major advantage. On the other hand, smaller banks in peripheral economies could be in real trouble. Although funding costs were historically similar for all banks, the spread between the strongest and the weakest is now huge. The competitive landscape seems set to change, with consolidation among smaller banks. Some banks could seek to exploit potential geographic arbitrage opportunities – shifting booking locations or books of business to regulatory regimes with more favorable capital or funding treatment.

<sup>13</sup> World Economic Forum, “More Credit with Fewer Crises: Responsibly Meeting the World’s Growing Demand for Credit”, December 2010

**Exhibit 11**



The funding squeeze will also put pressure on deposit margins. In Spain, for example, “deposit wars” have prompted commercial and savings banks to offer customers rates above 4% a year, more than double that offered by Treasury bills – in the process, severely affecting Spanish banks’ profitability. Banks with stable long-term deposit bases face a different challenge – improving the returns on their deposit bases in a sustainable way, without putting those bases at risk.

**A widening gap between growing and non growing markets**

Our forecasts suggest that, by 2020, nearly half of global banking revenues could be in emerging markets, with these markets contributing 60% of banking revenue growth over the next decade

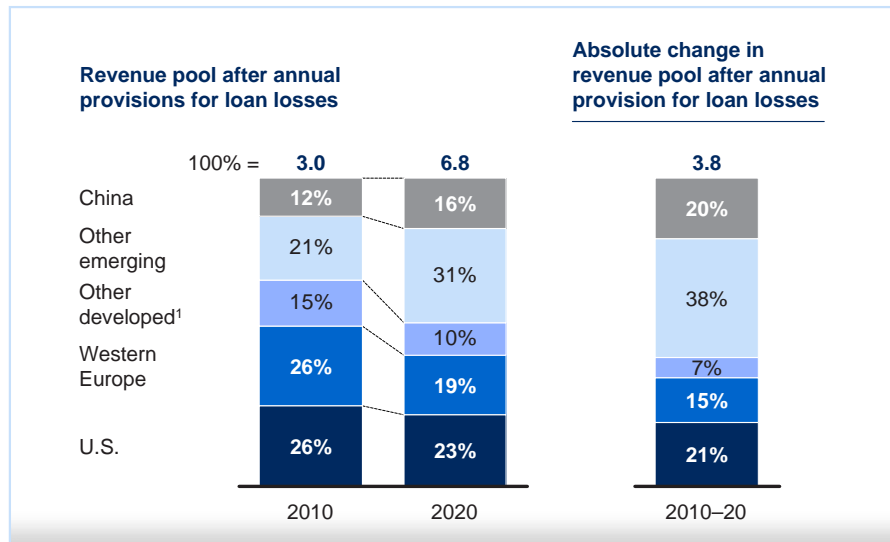
(Exhibit 12). This growth will be fueled in part by the integration of currently unbanked people into the financial system. Today, some 2.5 billion adults, mostly in the developing world, do not use formal or semiformal financial institutions. At the same time, a billion people in emerging markets have mobile phones, but no bank accounts; in the business arena, some 250-300 million microenterprises (60% of the worldwide total) lack access to loans from financial institutions.

Asian banks are thus likely to achieve annual revenue growth of around 10% over the next decade. However, banking revenues in developed markets are expected to grow at around 5% annually (Exhibit 13).

**Exhibit 12**

**Banking revenue growth, 2010–2020**

\$trillion, 2010–20, constant 2010 exchange rates



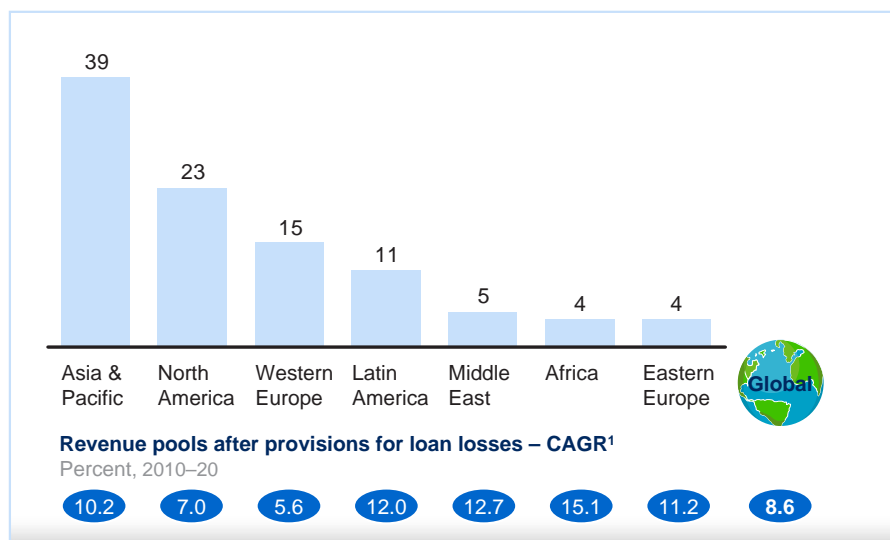
<sup>1</sup> Includes Australia, Canada, South Korea and Japan

SOURCE: McKinsey Global Banking Pools

**Exhibit 13**

**Share of estimated absolute revenue growth by geography**

Percent, 2010–20



<sup>1</sup> Based on 2010 fixed exchange rates

SOURCE: McKinsey Global Banking Pools



While these factors present significant challenges to many banks, the growth of emerging markets represents an immense opportunity for other institutions. As the unbanked join the financial system and international trade flows recover, those banks that can build emerging market growth into their strategies stand to gain significant competitive advantage. Banks based in developed countries may struggle to gain access to these growth markets due to regulatory barriers. At the same time, challenges in home markets will continue to absorb much of their attention.

### **Changing consumer behavior**

Finally, banks will have to contend with major shifts in consumer behavior in the decade ahead. One such shift, already well under way in the wake of the crisis, is the decline of household leverage in many developed markets, and with it, increased savings rates. If this shift turns out to be a long-term structural phenomenon, it could have significant implications for the growth of many banking products, including personal loans, mortgages, and credit cards. The banking industry on average will therefore be less profitable.

Beyond this post crisis response, longer-term trends in consumer behavior are even more significant – none more so than the inexorable rise of digital consumers, further accelerated by the mobile and tablet revolution.

In US retailing, more than 40% of total sales are either transacted online or influenced by the online channel; “pure online” sales already exceed \$170 billion annually. Similar trends are under way in online banking. In pioneering countries

such as Finland, the Netherlands, and Norway, as many as 80% of customers already use online banking – not just for transactions, but also for account opening. In major markets such as the US, UK, Germany, and Japan, the figure is approaching 50%. Moreover, there is an extremely close correlation between overall internet usage and online banking – this suggests that as internet penetration increases worldwide, customers will migrate out of bank branches and onto electronic channels.

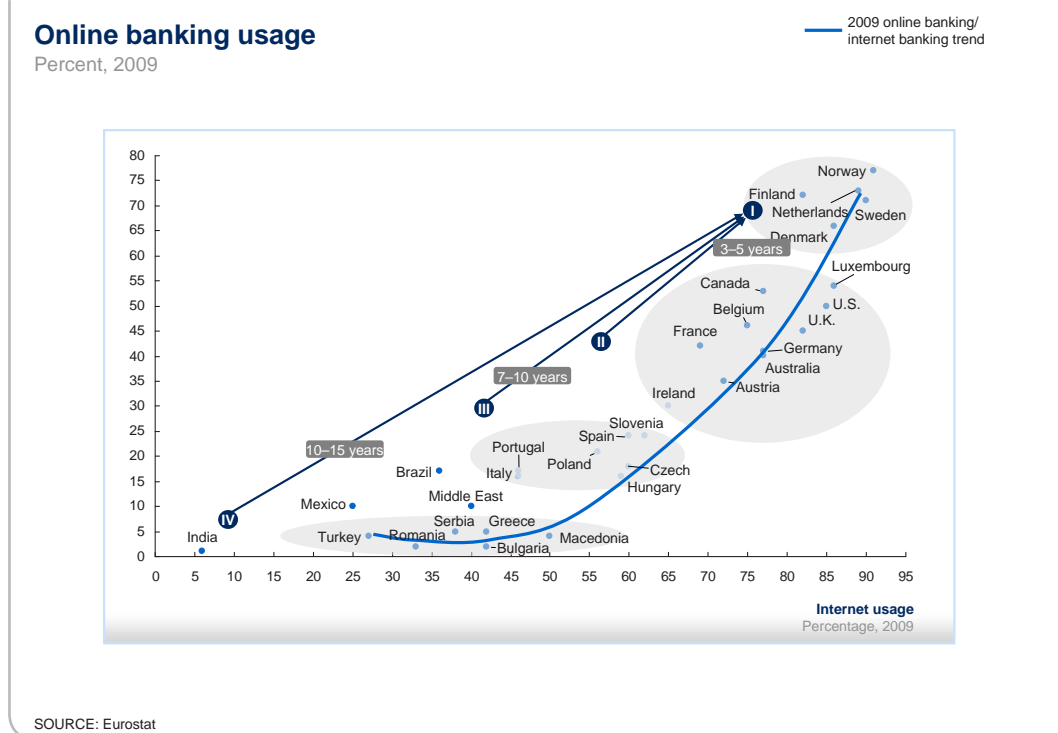
We expect almost all countries to follow this pattern, but with different time horizons. Today’s “multi channel” banking markets, such as the US, are likely to reach the online banking penetration levels of Scandinavia within 3-5 years. Even markets where bricks and mortar still dominate, such as Russia and China, could see online and mobile banking become the leading channel within 10-15 years (Exhibit 14).

While every market is different and will migrate online at a different pace, the next banking generation everywhere is likely to be more comfortable using the internet, more demanding in terms of their ability to satisfy their banking needs via a mobile device, and far more price sensitive.

Consider the findings of a recent joint McKinsey-EFMA study<sup>14</sup>, which highlighted how consumers are increasingly adopting a multichannel path in buying banking products. They may search for information online, then move to a call center to receive advice and compare options, before finally visiting a branch to close the contract. Alternatively, they may do the reverse depending on age, education,

<sup>14</sup> Face-to-face: a €15–20bn multichannel opportunity, April 2011

**Exhibit 14**

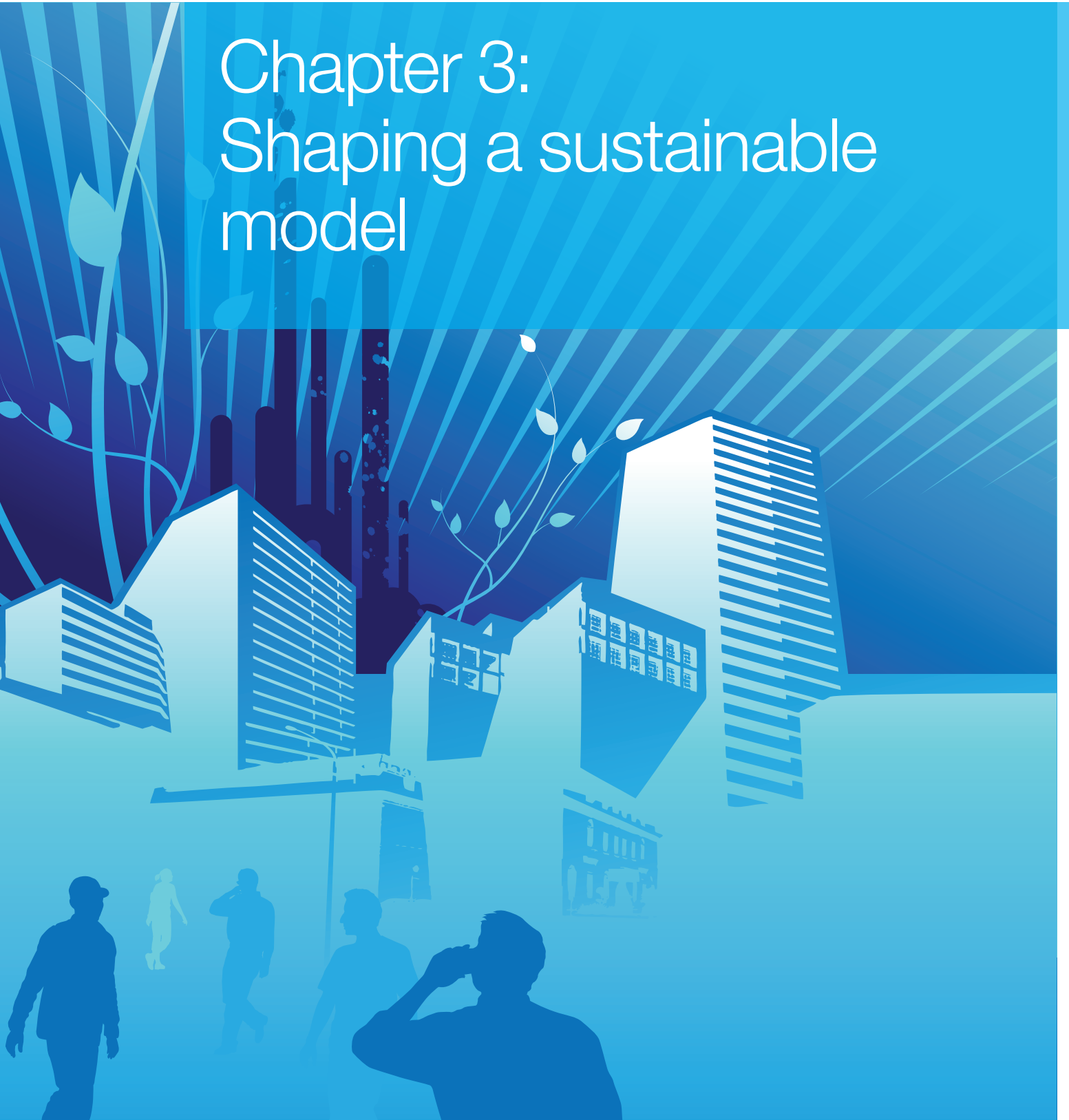


attitude, and the specific products they are interested in. There are profound implications for the utility of the branch network, its share of overall bank costs, and the extent to which it still represents a barrier to new entrants. Overall, we expect branch density to fall, especially in over-branched countries; even more importantly, we expect the average size of branches to decrease as many advice-related and post-sales support activities migrate to different channels. McKinsey interviews covering over 150 banks globally showed that banks expect to reduce the average branch size from six to four staff members. These smaller branches will require different skill sets, particularly the ability to deliver a superior customer experience.

These shifts will also require banks to integrate their channels seamlessly and efficiently. New marketing activity will be necessary – banks on average spend less on marketing than other consumer-facing industries. We would expect particularly strong growth in digital marketing.

Finally, banks will have to monitor innovations closely, particularly in the mobile arena, to avoid being leapfrogged by other industries. In the US, for example, financial institutions currently own only about 70 of the around 3,000 financial applications running on the iPad, iPhone, and Android devices.

# Chapter 3: Shaping a sustainable model



## Shaping a sustainable model

The previous chapters make it clear that, in the US and Europe in particular, banks are squeezed for capital, profits are under pressure, and growth opportunities are in short supply. The challenge is enormous, and is compounded by the immediate market turbulence. Yet this chapter suggests that such banks can secure a sustainable long-term future, provided they embrace some radical changes in their operating models.

### **The scale of the challenge calls for bold strategic shifts**

In 2010, the US and European banking industries delivered ROE of 7.0% and 7.9% respectively. Even when these returns are “normalized” by assuming loan losses nearer to the 2000-2007<sup>15</sup> average, banking ROE for 2010 would stand at 9.3% in the US and 9.2% in Europe – some 1.5 percentage points below banks’ cost of equity, which averaged 12% in 2010. Even before the industry has digested the additional capital requirements from Basel III, SIFI surcharges, and other national “finishes”, developed market banking is facing a significant “return gap”.

We cannot predict the long-term cost of equity after the system is de-risked by post crisis regulatory change, but it is likely that many banks will require a step change in performance if they are to close the return gap and create sustainable economic profits. Our analysis suggests that US banks will need to grow net profits from \$121 billion in 2010 to \$312 billion in 2015 if they are to achieve 12% ROE on new capital levels,

implying annual profit growth of almost 20% and profit levels almost double our forecasts for 2015. Likewise, European banks will need to increase profits from \$166 billion in 2010 to \$328 billion in 2015 (Exhibit 15). This will be a significant stretch – if profit growth tracks nominal GDP, the ROE of the US and European banking industries will actually fall between now and 2015 (Exhibit 16). (The analytical basis for our ROE calculations is detailed in the Technical Appendix.)

Given the scale of the challenge, banks and policymakers need to consider some radical and unconventional approaches. However, some of these approaches could have negative consequences for institutions or for the system as a whole, for example, attempts by banks to outsmart and arbitrage regulators, expansion of the less-regulated “shadow banking” sector, or more direct government intervention to address sluggish economic growth caused by insufficiently low levels of lending.

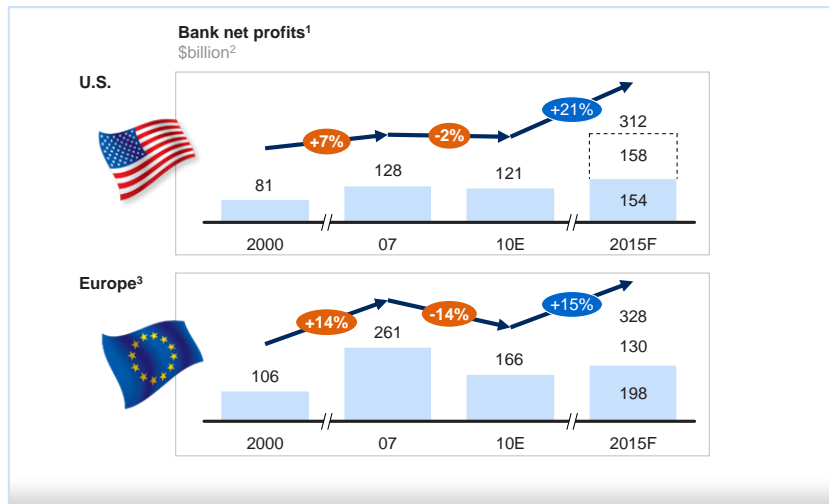
The alternative for US and European banks, and the subject of the remainder of this paper, will be to focus on transforming their business models. This is a process that is already well under way at many institutions; yet in many cases, it will have to be intensified to deliver the level of improvement required for sustainable long-term returns. In our view, such a transformation will need to proceed along a combination of three key “vectors” – a word that reflects both the importance of a clear direction and the magnitude of the changes required to

<sup>15</sup> We have assumed normalized loan losses to be equal to the 2000-2007 historical average, plus a 20% “buffer”. The 20% buffer is a rough estimate we believe is appropriate given 2000-2007’s buoyant economic climate, in which continuously increasing housing prices kept losses given default down and generally lowered default rates. Under these assumptions 2010 loan losses move from 112 bps actuals in the US to 52 bps “normalized”, and from 39 bps actuals in Europe to 22 bps “normalized”.

**Exhibit 15**

**Profitability gap in the U.S. and Europe**

Estimated additional net profit of banks in 2015 to reach a 12% RoE on top of baseline growth  
 Net profit CAGR, percent

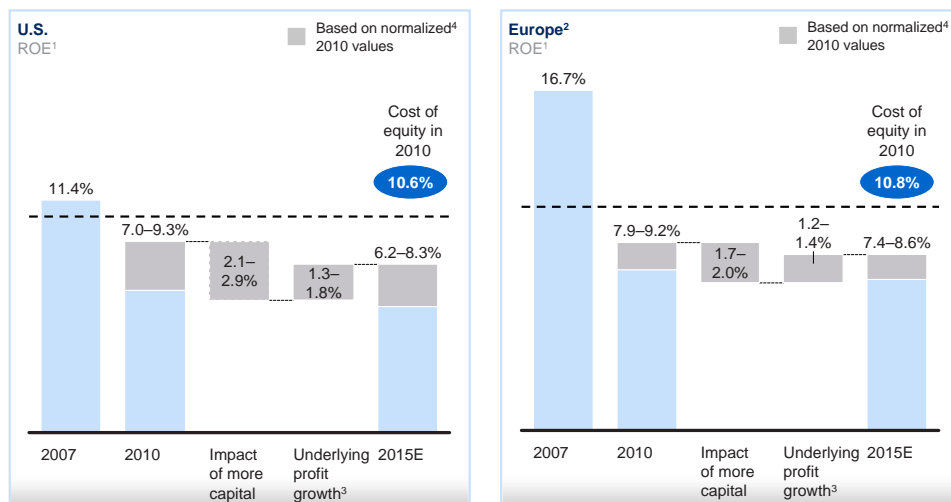


1 Profits of banks domiciled in the U.S. and Europe respectively; assumed to grow at the rate of nominal GDP growth under the baseline projection  
 2 EU-27 plus Switzerland  
 3 Based on nominal exchange rates

SOURCE: Thomson Reuters; McKinsey Risk Practice (2010); McKinsey Global Banking Pools

**Exhibit 16**

**Status quo ROE forecasts for U.S. and European banking**



1 Total accounting net income after taxes/average common equity based on sample of banks domiciled in the U.S. and Europe respectively  
 2 EU-27 plus Switzerland  
 3 Assuming profits grow at the same rate as nominal GDP (approximately 5.0% and 3.5% for the U.S. and Europe respectively)  
 4 For explanation see footnote 12 of main text on p20

SOURCE: Thomson Reuters; McKinsey Global Banking Pools

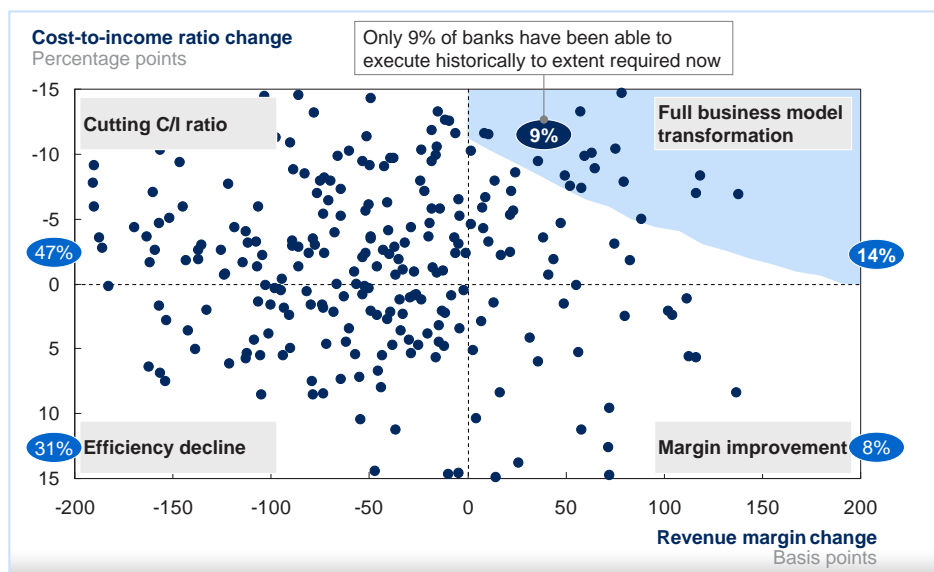
achieve the necessary long-term profitability.

- **Vector 1** is about improved capital efficiency – a particular priority in Europe. Here, banks would focus on making their businesses less capital intensive and moving the risks they can no longer afford elsewhere
- **Vector 2** is about completely restructuring their costs. Banks would recover their profitability through reinventing their cost base
- **Vector 3** is about capturing new revenue opportunities within their existing areas of operations. Banks would tap into new pockets of demand and revenue via smarter pricing, customer centricity, and selective new risk taking

Delivering large-scale improvements along these vectors will not be easy – over the past decade, fewer than one in ten US and European banks managed to improve both their cost to income ratio and their revenue margin (Exhibit 17). The vectors nevertheless represent an opportunity for individual banks to gain substantial competitive advantage. We are already beginning to see a widening performance gap between the top and bottom performers, in contrast with what happened in the period before the crisis, when performance was more uniform among players than in many other industries. This should be of no surprise. In a market without rising leverage, or the sort of rapidly growing GDP that can float all ships, banks will outperform their rivals if they drive improvements in their cost structures and tap into the available pools of new growth.

**Exhibit 17**

**Combination of cost-to-income and revenue change for leading U.S. and European banks over 10 years, 2000–10**



SOURCE: Thomson Reuters; McKinsey Global Banking Practice

Here, we discuss each vector in turn before laying out a set of tests that banks can use to gauge their own readiness to apply the vectors to their own businesses. The Technical Appendix details the hypotheses and data sources upon which the vectors are based.

### **Vector 1: A less capital-intensive model**

The first potential improvement “vector” would require European banks in particular to shift a substantial portion of their lending off their balance sheets, or greatly increase the efficiency with which they use their capital<sup>16</sup>. It would require them to move to US levels of intermediation, whereby capital markets provide between 60% and 70% of credit needs against just 20% in Europe today. (Of course, some \$5 trillion in US securitized loans are supported by government sponsored enterprises, Fannie Mae and Freddie Mac).

Such a large-scale transfer of balance sheet lending to the capital markets would relieve the pressure on European banks whose wholesale financing costs have been rising in response to new rules, for example, those that oblige the funding of mortgages with full or near maturity matches.

That said, it is difficult to imagine this vector fully solving the problem, given the required scale and pace of change in European capital markets. For this to happen, there would have to be:

- **An expansion of traditional debt capital markets.** Large and medium-sized companies would replace corporate loans by issuing new bonds

- **A significant expansion of the investor base.** Banks, other financial institutions, and regulators would need to address the fact that Solvency II currently discourages insurers from investing in bonds
- **The introduction of innovative low-cost alternative debt capital markets.** Banks could focus on pooling their credit exposure to medium-sized companies’ debt. Innovations might include standardized ratings, low-cost infrastructure, and internet-based platforms. These would probably have to be conditional on government support initially
- **The creation of a new and safer asset- and mortgage-backed securitization market.** A government-backed “securitization agency” could be established to buy loans originated by banks in Europe and issue bonds guaranteed by a well-diversified credit portfolio. A positive side effect of such a solution would be greater transparency and cross-border comparability of credit markets: banks would be forced to adopt consistent standards for credit underwriting and provisioning in order to make loans eligible for securitization via the agency

For risks that cannot be shifted to capital markets, banks can still make their business model less capital intensive. Balance sheets, for instance, are often not fully optimized. Technical optimization of the RWA calculation, credit line optimizations, and better collateral management could together yield capital relief of 15% to 20% at some banks without major changes in product mix. In the last few years, many banks have invested in such improvements, but more can be done.

<sup>16</sup> See also “Day of Reckoning? New regulations and its impact on capital markets businesses”, McKinsey, September 2011.

In some countries, government-sponsored credit guarantee programs, aimed at easing credit access for small companies and individuals, can provide additional capital relief. National banking associations, in collaboration with employers' associations, should engage with governments to expand such programs.

Another industry response, with potentially far-reaching unintended consequences, will be to seek ways to restructure the business to exploit potential regulatory arbitrage. As an example, through geographic arbitrage, banks in developed countries might focus on origination while shifting part of their loan books to banks in countries with less stringent regulations or better capital availability. Through taking advantage of more stringent regulatory and capital requirement for banks versus financial services firms, players such as private equity firms, hedge funds, and even insurance companies may take on a greater role in providing credit directly to certain segments of the market.

The scale of the change is such that many such solutions will need to be deployed at an industry level. Individual banks will nevertheless need to make capital and liquidity management a much more central long-term discipline, including:

- Taking a much more strategic approach to capital and liquidity management. After the crisis, many banks have used improved management information systems (MIS) and strategic planning to identify the most capital- and funding-

intensive businesses, and hence to exit or reduce their exposure to those businesses. Yet for many institutions, these disciplines remain blunt instruments. Given the long-term nature of the capital and funding squeeze, we expect to see banks developing a much more sophisticated and granular understanding of capital and funding usage that takes into account sectors and individual customers

- Adopting new disciplines in liquidity optimization. Since the crisis, many banks have strengthened their liquidity positions and built up much larger liquidity buffers. They will need to continue honing and optimizing these buffers, in the same way that many banks have fine-tuned their RWA models after the crisis
- Reducing complexity. The largest global banks remain extremely complex, with thousands of legal entities that push up costs and trap scarce capital. As banks streamline their activities in response to regulatory pressures, they should seek to reduce this complexity, potentially moving to a simpler and more integrated operating model

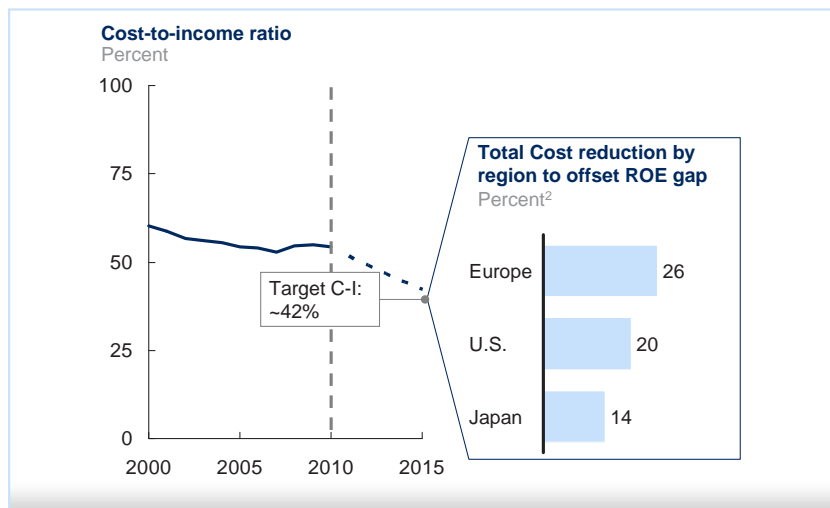
## **Vector 2: Total cost rebase**

The second potential improvement vector for banks is to take cost out on a large scale. To achieve the 12% ROE target from their 2010 starting point through this lever alone, for example, banks would have to find cost reductions of up to 6% per annum between now and 2015 (Exhibit 18).



**Exhibit 18**

**Estimated cost-income improvement required for US and European banking to reach 12% ROE<sup>1</sup> in 2015** ESTIMATES



<sup>1</sup> Based on the assumption of flat revenues and no inflation for the period of 2010–15  
<sup>2</sup> Percentage calculated as cost reduction over estimated total regional operating costs

SOURCE: McKinsey Global Banking Practice

This is a tall order given that only around 1 in 50 banks achieved annual cost reductions of 4% or more over the 2000–2010 period. However, there is much to be learnt from the experience of other sectors.

Telecoms is one such industry. In the late 1990s, regulators helped usher in new competitors and technologies by removing monopolies in several major markets. In response, these companies undertook far-reaching transformations, reducing cost and staff numbers by 30–50%, and improving productivity by a similar quantum. Around the same time, the automotive industry was going through its own transformation in response to the downturn in global demand. Leading auto companies were able to reduce costs by as much as 20%.

What, then, are the levers that banks could use to rebase their costs to a more appropriate level?

The first lever is **large-scale M&A**. Banking remains one of the most fragmented industries globally and depending on the stance of national regulators, some players could pursue large-scale M&A in fragmented markets. M&A can be a powerful cost reduction driver, particularly where the acquirer is a high-performing bank.

The second lever is to shift activity from **branch to direct** channels thereby reducing the number of physical branches. As sales and service move online, as much as half of all branch network costs can be removed. “Direct” banking markets such as Scandinavia already have less than half as many

branch staff as a typical developed market. The mobile banking revolution will only heighten this opportunity, accelerating the shift to online channels. While reducing branch numbers is politically unpalatable in many countries, the scale of the cost challenge suggests that branch network optimization, for example, moving to smaller, sales-oriented formats, will likely be a reality in many markets in the years ahead.

A third lever would involve a **true internal productivity leap**. Banks can redesign processes step by step, adopting an end-to-end lean approach for product delivery and front-office sales and service. We have seen examples of costs falling 20-30% in those areas targeted. Using “zero-based processes” to shake up cost structures, some banks have already achieved spectacular results, for examples reducing the time taken to process a mortgage from days to 60 minutes or streamlining the number of signatures a bank requires to approve a new corporate client from over 500 to 10. Other improvements of this magnitude are possible.

Finally, banks could **move non core operations into industry utilities** – a particular opportunity in mature markets. Some countries, such as Norway and Iceland, use shared industry utilities extensively, but others very little. Although requiring potentially complex collective action, the opportunity is there to share or outsource a large part of banks’ non core operations like cash and coin handling, payments, and ATM

network operations. Again, other industries provide useful lessons – telecom players aggressively outsource network operations, which represent 30% of their cost base.

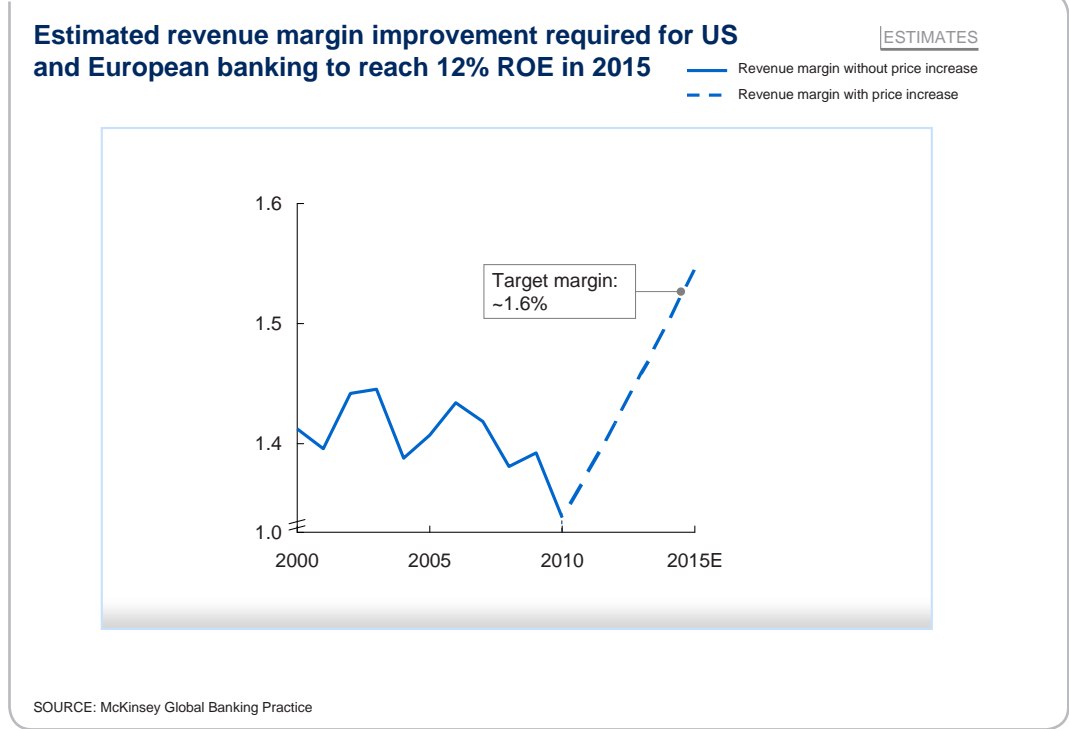
### **Vector 3 – Capture new opportunities**

Banking may not have a track record of delivering consistent, meaningful cost reductions at an industry level. However, the sector has overcome previous crises by finding new ways to grow the top line. Banking now faces a world of lower leverage, lower underlying economic growth in developed markets, and greater consumer protection regulation – yet, top-line growth can still provide the sort of returns that can close the ROE gap described earlier (Exhibit 19). In order to do so, the industry will have to innovate on a radical scale, and tap into new pools of demand, effectively rising above constraints and finding new ways to innovate.

Sources of this top-line growth might include:

- **Smarter pricing.** Relative to sectors such as the consumer goods industry, banks have not been especially adept at optimizing pricing. To support more sophisticated tactical campaigns and reduce price leakage, they therefore need to better understand product economics in addition to capital and funding costs. Stronger disciplines and enhanced capabilities will help develop the sort of segment-based strategic view that is rare in many banks today

**Exhibit 19**



- Customer-centric innovation.** In developed markets banks will no longer be able to ride on the back of underlying GDP increases, by leveraging their balance sheets or by otherwise increasing their risks. Growth will come from outperforming other banks in mature markets, capturing share from competitors, and deepening customer relationships. This will involve better tailoring of value propositions to the individual needs of customers. In doing so, they can become more relevant and fend off the attacks of sectors like telecoms that are currently encroaching into traditional banking payments territory
- Selective new risk taking backed by improved risk management.** The most common banking response to profitability challenges in the past

has been to take on more risk. Although new regulatory frameworks such as Basel III and Dodd Frank are intended to de-risk the banking system, innovation will continue to thrive and new pockets of risk will emerge. At the same time, banks will be able to take on new risks more safely as risk functions are bolstered, risk capabilities strengthened, and risk assessments and processes made more sophisticated in the wake of the crisis

**Applying the vectors – key tests**

Our analysis suggests it will be unrealistic to try to restore banking profitability through one vector; moreover, it would be historically unprecedented. Banks will therefore need to embrace the vectors in combination, the exact weighting varying according to geography, business, and

individual institution. The most effective approach will not only acknowledge each bank's starting position, but also its potential to apply particular levers; for example, a revival of securitization or an ability to execute M&A.

We have devised a series of tests against which individual banks can evaluate their strategies and gauge their preparedness to achieve industry-leading growth and returns. These tests can also help banks identify where they have advantages over their competitors, given their position in the market. The tests include the following:

#### **Vector 1: A less capital-intensive model**

- Do you have a capital optimization program in place (i.e., at the level required to reduce between 10% and 20% of risk-weighted assets on current business)?
- Are you engaging with industry bodies on the future of securitization and alternative debt capital market (DCM)-like platforms?
- Are you clear on how your DCM capabilities can help migrate customers from balance sheet to capital market solutions?

#### **Vector 2: Total cost rebase**

- Is there potential in your market for a large-scale acquisition to build a major cost advantage of 10 percentage points or more? For you or for your competitors?

- What is the strategy to radically reduce your branch network (say, by 50%) and migrate customers to direct channels?
- How ambitious are your lean initiatives to redesign major processes, and will they yield cost reductions on a significant scale?
- Are you exploring industry utilities for all your non core, less competitively sensitive activities?

#### **Vector 3: Capture new opportunities**

- Have you reviewed your pricing strategy and tactics in light of the changes affecting each of your major businesses? For example, have you focused on smarter, more differentiated and segmented pricing?
- Have you taken a step back to consider what a customer-centric model would look like in your markets? What changes have you made since the crisis to be more customer-centric?
- Have you sharpened your risk appetite and strengthened your risk culture after the crisis, and does your risk management enable you to capture attractive new revenue opportunities?
- Have you thought through specific ways to shape your business mix so as to position your bank to capture opportunities in developing markets?

In 2010, global financial stocks rebounded to \$212 trillion, above their 2007 levels with banks continuing to hold \$49 trillion of lending on their balance sheets and playing a pivotal role in pricing, intermediating, and distributing most of the rest. Banks remain of central importance to the global economy and the long-term health of the countries in which they operate. Yet, forward-looking indicators suggest that the prospects for the industry are far from rosy.

Developed market banking, in particular, remains under a cloud of uncertainty about long-term expectations, exacerbated by the current market turmoil. If the banking industry in the developed world cannot achieve this dramatic performance improvement, then it will not earn a sufficient ROE to attract the required level of equity and long-term debt capital needed to

support lending to the real economy. In this scenario, economic growth will be constrained by credit shortages which will particularly hit households and small businesses without access to capital markets. Raising bank ROE back up to or above the cost of equity is therefore an essential condition not only for the banking industry's health but also for long-term economic recovery.

Reduced loan losses drove the sharp recovery in developed market banking in 2010, but the impact of this on profitability has largely run its course. To close the gap to sustainable returns in the longer term, US and European banks, in particular, now need to make the next round of deep changes in their balance sheets, cost bases, and business models. However, not all will succeed. Those that do succeed stand to outperform their industry by a wide margin in the long term.

# Technical Appendix

# Calculating banking performance and confidence

To generate robust numbers and useful insight at the global, regional, and country levels, we developed a series of ten backward-looking “performance” indicators based on balance sheet and profit-and-loss logic, as well as six forward-looking “confidence” indicators measuring flows, liquidity, and capital.

The performance indicators cover the full set of drivers of banking industry profitability and include the following:

- 1. Financial depth.** The aggregation of all sources of financial wealth (stock market capitalization, public debt securities, financial and non financial corporate bonds, and securitized and non securitized loans) as a percentage of GDP
- 2. Banking revenue growth.** Percentage growth of total bank sector revenue pools, which includes all customer-driven revenues in a given country or region
- 3. Net interest and fee margins.** Total revenue pools/total customer-driven volumes
- 4. Annual provisions for loan losses.** As a percentage of revenue pools
- 5. Non performing loans.** As percentage of total outstanding lending volumes
- 6. Cost-to-income ratio.** Operating expenses/total revenue pools before annual provisions for loan losses
- 7. Banking profit growth.** Percentage growth of total profit pools after tax
- 8. Bank ROEs.** Total accounting net income after taxes/average common equity
- 9. Bank capital ratios.** Based on the tangible common equity (TCE) ratio: calculated as (Total equity - intangible assets - goodwill - preferred stock equity) / risk-weighted assets; commonly used as proxy for (core) tier 1 ratio
- 10. Loan-to-deposit ratio.** Total non securitized customer lending volumes / total customer deposit volumes

The confidence indicators summarize trend expectations for flows, liquidity, and capital, and include:

1. **Cross-border capital flows.** Cross-border capital inflows / GDP; “inflows” defined as the acquisition of domestic assets by non residents (including non resident banks); includes FDI, portfolio, and lending flows
2. **Short-term cross-border loans.** Stock of consolidated foreign loans outstanding with a maturity of less than one year, given as a percentage of total foreign liabilities (including FDI, portfolio, total consolidated foreign loans outstanding)
3. **LIBOR-OIS spreads.** The basis point difference between the 3-month LIBOR rate and the overnight indexed swap rate
4. **Bank Credit Default Swap (CDS) spreads.** Used as a measure of perceived risk of the banking sector (in basis points)
5. **Bank market capitalization.** Total market capitalization of all (listed) banks, measured as a percentage of total global market capitalization
6. **Bank price-to-book multiples.** Measured as the weighted average of individual banks’ price-to-book (P/B) ratios within a specified country or region

We used data from a range of sources<sup>15</sup> to populate these indicators across multiple years for individual countries, for each major region, and at a global level.

## Methodology to calculate impact of Basel III capital requirements

Our assessment is that, as a result of the Basel III capital requirements, banks in Europe and the US will need to build up an additional \$1.5 trillion in equity by 2015. The methodology and assumptions for this calculation are as follows:

- The impact of Basel III capital requirements were calculated for 23 US and 45 European banks based on YE 2010 filings; the results were scaled up to project impact for the regions overall
- Only the most restrictive (core) tier 1 impact was taken into account. No tier 1 and total capital rules were considered; neither were LCR, NSFR3, and leverage ratio requirements

<sup>15</sup> Including the IMF, the World Bank, BIS, the McKinsey Global Banking Pools, Thomson Reuters, and Bloomberg



- Starting from Basel II (core) tier 1 values, the additional required (core) tier 1 for Basel III was determined after considering a) all deductions, b) RWA increase, c) increased minimum capital levels and d) additional capital for securitizations (for US only)
- Required capital including industry historical cushion was assumed to increase to a core tier 1 ratio of 9% (including a 2% voluntary historical capital cushion)
- We assumed bank compliance with Basel III by 2015
- The calculation was based on a static view, not including any balance sheet growth or mitigating actions taken after 2010

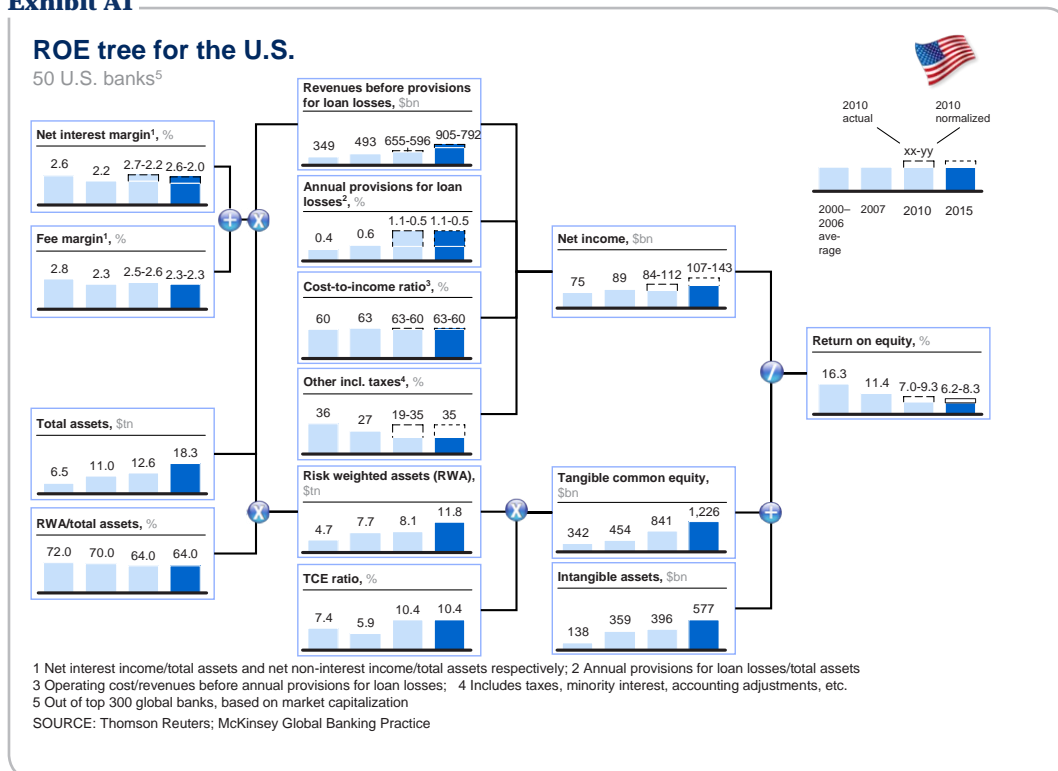
McKinsey's report, "Basel III and European banking: Its impact, how banks might respond, and the challenges of implementation" (November 2010), explains the methodology's underpinnings in further detail:

"The extent of the capital shortfall from higher capital ratios is highly sensitive to the assumed target ratios. We have used the regulatory ratios of 4.5 percent for core Tier 1 and 6 percent for all Tier 1, together with the required 2.5 percent core Tier 1 conservation buffer. In addition, we assumed a cushion on top of the regulatory minimum to reach industry target ratios of 9 percent core Tier 1 and 11 percent Tier 1. This cushion of 2 to 2.5 percentage points accounts for 55 percent of the estimated shortfall. We believe it is an appropriate estimate; historically, banks have on average held about 4 percentage points more than the regulatory minimum of 4 percent Tier 1 capital. This cushion will certainly decrease in light of the mandatory regulatory buffer, but in our view, each bank will hold at least 1 percentage point of cushion, while others may well hold up to 3 or 4 percentage points, especially if additional 'too big to fail' requirements are imposed on large banks."

# Basis for ROE projections

Exhibits A1 and B1 show the methodology used to calculate ROE for the US and Europe respectively – for 2000-2006, 2007, 2010 (both actual and normalized), and projected for 2015.

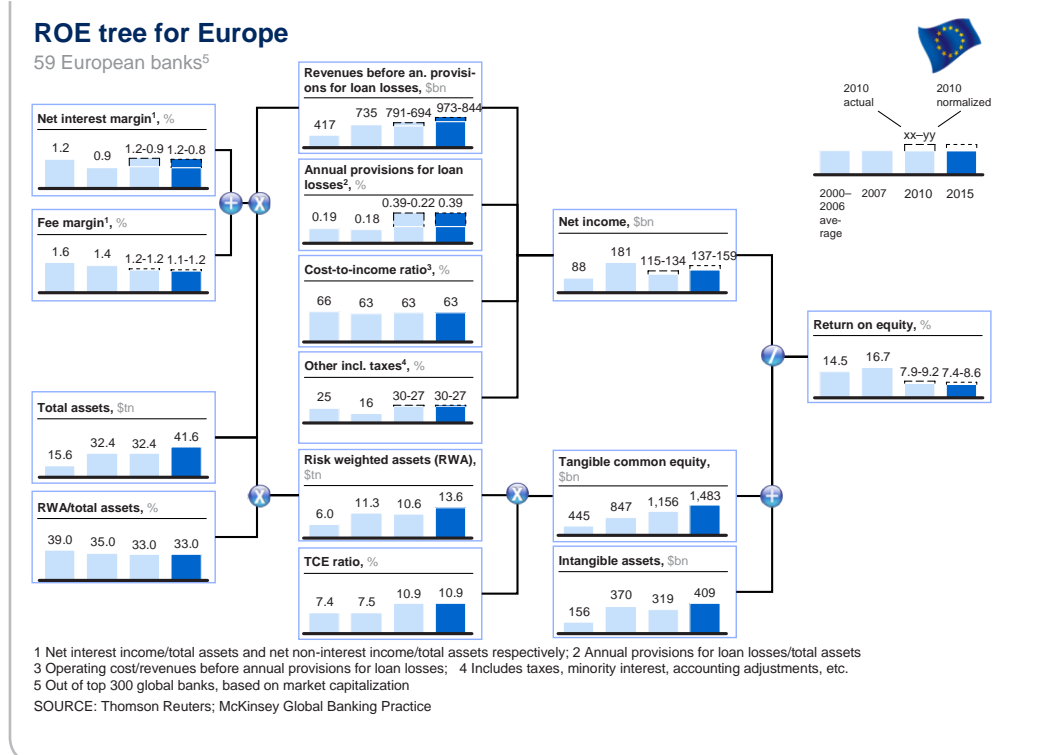
## Exhibit A1



The 2015 ROE projections are a central scenario calculation based on what we consider reasonable assumptions, which are based on calculations on equity needs along with a simple simulation of net income growth. The main assumptions for the 2015 ROE projections are as follows:

- Total assets are assumed to grow around 2-3 percentage points above nominal GDP on average between 2010 and 2015 in the US and Europe. These growth rates capture a significant slowdown compared to historical growth, where total assets grew by approximately 8 percentage points above nominal GDP between 2000 and 2007 in these regions, while incorporating expectations of a moderate recovery
- Equity growth is based on additional capital need calculated on the assumption that asset growth is in line with historical evolution and consensus GDP growth assumptions
- 2010 normalized data is calculated based on historical averages; no normalization of balance sheet items

**Exhibit A2**



- Net income growth is calculated based on GDP growth
- Slow revenue margin contraction is projected as a result of a mix of increased competition, tougher regulatory environment, and generally more expensive funding costs
- RWA to total assets remains stable, as does the TCE ratio and the ratio of TCE to intangibles. This is the result of conflicting factors – RWA to asset ratio will grow due to the new Basel III rule, particularly in market-based activities. On the other hand, a better credit cycle will counterbalance this effect, while banks are continually improving their asset to RWA conversion factors
- The range of the 2015 ROE estimate is calculated by applying net income growth on actual and normalized 2010 numbers respectively

# Hypotheses and sources for vector impact estimates

Exhibits A3, A4, and A5 detail the hypotheses and sources which form the basis for the impact estimates for the three vectors detailed in Chapter 3.

## Exhibit A3

### Assumptions and sources for Vector 1 impact estimate

Assumptions	Item	Sources
<ul style="list-style-type: none"> <li>Constant margins for banking system with a difference of 90–190 bps between on balance sheet and off balance sheet lending margins</li> <li>On and off balance sheet lending grow at the same rate except for the reallocation effort of banks</li> <li>Constant Net Profits to Revenues after risk cost ratio for both on and off balance sheet lending</li> <li>Constant equity to asset ratio for banking system and 90% of equity assumed related to bank lending</li> </ul>	Equity and Net Profits of Banking System	<ul style="list-style-type: none"> <li>Estimated using sample of top European banks within global top 300 banks</li> <li>Source: Thomson Reuters</li> </ul>
	Lending Volume	<ul style="list-style-type: none"> <li>Bank lending volumes</li> <li>Off balance sheet lending                             <ul style="list-style-type: none"> <li>Corporate bonds</li> <li>Securitized loans</li> </ul> </li> <li>Source: McKinsey Global Institute</li> </ul>
	Margins on lending	<ul style="list-style-type: none"> <li>Estimated from on and off balance sheet margin data for banking products</li> <li>Source: McKinsey Global Banking Pools</li> </ul>
	Net Profits to Revenues before risk cost ratio	<ul style="list-style-type: none"> <li>Estimated using sample of top European banks within global top 300 banks</li> <li>Source: Thomson Reuters, McKinsey Global Banking Practice</li> </ul>

SOURCE: McKinsey Global Banking Practice

**Exhibit A4**

**Assumptions and sources for Vector 2 impact estimate**

Assumptions	Item	Sources
<ul style="list-style-type: none"> <li>▪ Constant common equity in regional banking systems, constant revenues</li> <li>▪ Constant effective tax rate as Profits Before Taxes change, tax rate calculated from top regional banks within global top 300</li> <li>▪ Projected baseline regional operating costs estimated from constant cost-income ratios before cost adjustment</li> <li>▪ Cost reduction coming completely from operating costs</li> <li>▪ Change in developed world cost-income ratios calculated from required percent cut in operating costs of sample of banks</li> </ul>	<div style="background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;"><b>Equity and Net Profits of Banking System</b></div> <ul style="list-style-type: none"> <li>▪ Equity and net profits estimated from data on regional banks within global top 300                             <ul style="list-style-type: none"> <li>– U.S.: 50 banks</li> <li>– Europe: 71 banks</li> <li>– Japan: 19 banks</li> <li>– Other Developed countries: 44 banks</li> </ul> </li> <li>▪ Source: Thomson Reuters</li> </ul>	
	<div style="background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;"><b>Other income statement items (Profit before tax &amp; Operating costs)</b></div> <ul style="list-style-type: none"> <li>▪ PBT estimated by adding effective tax rate from share of regional banks within global top 300 to banking system regional Net Profits</li> <li>▪ Operating costs estimated by multiplying operating cost/PBT ratio from share of regional banks within global top 300 to banking system regional PBT</li> <li>▪ Source: Thomson Reuters, McKinsey Global Banking Practice</li> </ul>	

SOURCE: McKinsey Global Banking Practice

**Exhibit A5**

**Assumptions and sources for Vector 3 impact estimate**

Assumptions	Item	Sources
<ul style="list-style-type: none"> <li>▪ Constant common equity in regional banking systems</li> <li>▪ Revenues before risk cost estimated through                             <ul style="list-style-type: none"> <li>– Constant effective tax rate as Profits Before Taxes change, tax rate calculated as share of regional banks within global top 300</li> <li>– Constant regional operating expenses and loan loss provisions estimated using sample of regional banks within global top 300</li> </ul> </li> <li>▪ Constant volumes; revenue increase coming entirely from change in margins</li> </ul>	<div style="background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;"><b>Equity and Net Profits of Regional Banking System</b></div> <ul style="list-style-type: none"> <li>▪ Equity and net profits estimated from data on regional banks within global top 300                             <ul style="list-style-type: none"> <li>– U.S.: 50 banks</li> <li>– Europe: 71 banks</li> <li>– Japan: 19 banks</li> <li>– Other Developed countries: 44 banks</li> </ul> </li> <li>▪ Source: Thomson Reuters</li> </ul>	
	<div style="background-color: #e1f5fe; padding: 5px; margin-bottom: 10px;"><b>Other income statement items (Profit before tax &amp; Operating costs &amp; Loan loss provisions)</b></div> <ul style="list-style-type: none"> <li>▪ PBT estimated by adding effective tax rate from share of regional banks within global top 300 to banking system regional Net Profits</li> <li>▪ Operating costs estimated by multiplying operating cost/PBT ratio from share of regional banks within global top 300 to banking system regional PBT</li> <li>▪ Loan loss provisions (LLP) estimated by multiplying RACV/LLP ratio from share of regional banks within global top 300 to banking system regional PBT</li> <li>▪ Source: Thomson Reuters, McKinsey Global Banking Practice</li> </ul>	

SOURCE: McKinsey Global Banking Practice

## Databases used in this report

**Global Financial Stock Database:** A proprietary McKinsey asset, the Global Financial Stock (formerly Capital Markets) Database measures global stock of debt and equity outstanding in 79 countries from Albania to the US. The individual components are stock market capitalization, public debt securities outstanding, financial bonds outstanding, non financial corporate bonds outstanding, securitized loans outstanding, and non securitized loans outstanding. The underlying data is collected from Standard & Poors, the Bank for International Settlements, the International Monetary Fund, national sources, and other proprietary knowledge assets of McKinsey. The database takes a liability perspective (i.e., global stock is assigned to countries based on residency of security issuer or ultimate liability) and excludes interbank loans. The data covers 21 historical years (1990-2010).

**Global Banking Pools (GBP) Database:** A proprietary McKinsey asset, the Global Banking Pools is a global banking database, capturing the size of banking markets in 79 countries from Albania to the US across 56 banking products (with 5 additional regional models covering the rest of the world). The database includes all key items of a P&L, such as volumes, margins, revenues, credit losses, costs, and profits. It is developed and continuously updated by 50+ experts in McKinsey around the world, collecting and aggregating data bottom-up. The database covers client-driven business of banks, while some treasury activities such as ALM or proprietary trading are excluded. It captures an extended banking playground as opposed to simply summing existing bank revenues, including not only activities of traditional banks, but also those of specialist finance players (e.g., broker dealers, leasing companies, asset managers). Insurance companies, hedge funds, and private equity firms are excluded. The data covered for each country refer to banking businesses conducted within that region (e.g., revenues from all loans extended, deposits raised, trading conducted, or assets managed in the specific country). The data covers 11 historical years (2000-2010E) and 10 years of forecasts (2011-2020).

**Individual Bank Database:** A database of the key P&L, balance sheet, and other financial metrics of the top 300 banks by market capitalization, sourced from Thomson Reuters. All banks are clustered individually into countries (based on their domicile), regions, and specific bank types (based on a classification of 14 different bank types). The data covers 11 historical years (2000-2010E) with a varying number of banks available in different years.

# Acknowledgements

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# Data tables on banks and banking markets

## Country financial statistics

\$billions, 2010






Region	Country	Stock values and volumes					Cross-border capital flows	
		Financial depth/GDP	Market capitalization	Government debt	Private debt <sup>1</sup>	Non securitized loans	Inflows	Outflows
 Western Europe	Austria	300%	56	239	484	335	-36	-31
	Belgium	397%	265	437	828	299	4	9
	Denmark	574%	237	118	726	697	31	35
	Finland	252%	102	100	154	233	52	56
	France	380%	1,895	1,723	3,450	2,651	213	250
	Germany	304%	1,426	2,006	3,460	3,285	342	491
	Greece	333%	34	382	351	271	3	-26
	Ireland	523%	30	125	811	119	31	0
	Italy	331%	277	2,157	2,465	1,853	131	13
	Netherlands	558%	558	409	2,343	982	53	55
	Norway	273%	249	99	369	428	47	94
	Portugal	464%	83	178	443	311	27	7
	Spain	503%	1,048	795	2,863	2,276	-2	-51
	Sweden	454%	574	171	677	594	32	77
Switzerland	585%	1,198	126	653	1,027	6	111	
UK	489%	3,070	1,401	4,074	2,371	521	521	
 Americas	Argentina	62%	63	97	22	55	9	12
	Brazil	185%	1,399	881	687	821	158	107
	Canada	367%	2,096	1,139	1,447	1,058	144	94
	Colombia	141%	207	89	8	91	20	11
	Mexico	108%	440	292	281	88	67	52
	Peru	128%	106	36	11	44	N/A	4
	UK	462%	17,347	11,163	32,433	6,595	1,245	1,023
 Asia Pacific	Australia	373%	1,402	350	1,900	747	113	81
	China	280%	5,569	1,629	1,589	7,296	84	405
	Hong Kong	817%	1,360	32	122	340	49	215
	India	209%	1,401	660	180	901	67	27
	Indonesia	94%	275	100	31	244	32	36
	Japan	457%	3,895	11,635	3,049	6,300	308	493
	Korea	355%	1,108	482	772	1,162	37	62
	Malaysia	381%	356	131	155	236	N/A	34
	New Zealand	228%	98	44	13	162	7	3
	Philippines	163%	141	89	16	64	14	22
	Singapore	455%	391	103	93	351	N/A	45
	Taiwan	372%	854	157	115	515	25	12
	Thailand	231%	215	167	71	275	26	41
Vietnam	113%	22	3	0	93	N/A	-7	
 CEE and CIS	Croatia	206%	28	18	2	78	1	-1
	Czech Republic	137%	51	61	39	120	N/A	1
	Hungary	191%	26	91	22	110	-44	-39
	Poland	165%	195	251	14	301	50	24
	Russia	138%	1,078	98	138	734	53	114
	Slovakia	111%	5	33	5	55	N/A	6
	Slovenia	176%	9	17	9	48	0	0
	Turkey	131%	285	272	16	398	54	11
	Ukraine	124%	18	9	8	134	21	20
 Middle East and Africa	Angola	17%	N/A	N/A	N/A	15	N/A	-3
	Egypt	134%	100	83	3	86	N/A	5
	Kuwait	168%	108	N/A	4	91	N/A	11
	Morocco	250%	67	36	N/A	127	N/A	0
	Nigeria	49%	37	N/A	1	64	N/A	-10
	Saudi Arabia	138%	356	N/A	14	201	N/A	-12
	South Africa	386%	928	135	105	235	17	11
	Tunisia	103%	10	3	N/A	29	N/A	1
	United Arab Emirates	203%	123	10	75	261	11	14

<sup>1</sup> Includes all corporate and financial bonds, as well as securitized loans; excludes non securitized loans



## Banking markets

\$billions, 2010

Region	Country	Banking revenues and profitability				Non-performing loan ratio	Loan-to-deposit ratio
		Revenue margin <sup>1</sup>	Revenue pools <sup>2</sup>	Cost-to-income ratio	Profit pools <sup>3</sup>		
 Western Europe	Austria	1.4%	15.1	51%	4.2	2.5%	126%
	Belgium	1.2%	22.8	69%	4.0	2.9%	69%
	Denmark	1.1%	17.2	47%	6.2	0.8%	282%
	Finland	0.8%	8.9	55%	2.7	0.8%	161%
	France	1.0%	91.3	59%	18.0	3.5%	136%
	Germany	1.3%	149.5	62%	30.7	4.4%	99%
	Greece	2.1%	3.6	51%	-2.7	8.0%	90%
	Ireland	1.6%	6.9	54%	-0.4	8.0%	160%
	Italy	1.9%	107.4	51%	27.2	6.5%	96%
	Netherlands	0.8%	36.1	63%	7.9	3.6%	120%
	Norway	1.1%	11.4	55%	3.2	1.2%	176%
	Portugal	2.1%	15.4	43%	5.2	3.1%	123%
	Spain	1.8%	82.1	40%	25.2	5.5%	92%
	Sweden	1.2%	18.7	49%	6.3	2.0%	237%
Switzerland	0.9%	37.5	60%	10.3	1.1%	132%	
UK	1.2%	136.7	46%	34.4	3.4%	113%	
 Americas	Argentina	9.2%	13.3	59%	2.9	3.0%	61%
	Brazil	5.6%	137.9	53%	33.8	4.6%	125%
	Canada	1.6%	117.1	55%	32.2	1.2%	159%
	Colombia	4.6%	12.0	48%	3.5	4.7%	107%
	Mexico	5.8%	29.5	52%	9.1	2.9%	60%
	Peru	7.4%	7.6	54%	2.3	n/a	89%
	US	1.5%	780.7	54%	109.0	5.9%	74%
 Asia Pacific	Australia	1.3%	64.6	49%	20.5	1.2%	123%
	China	2.2%	370.2	39%	139.0	1.7%	73%
	Hong Kong	1.8%	35.5	40%	16.6	1.6%	49%
	India	2.7%	56.1	42%	20.3	2.5%	97%
	Indonesia	4.0%	18.4	44%	6.5	4.2%	84%
	Japan	0.8%	204.1	61%	38.1	2.2%	68%
	Korea	1.8%	54.4	50%	15.6	1.6%	105%
	Malaysia	1.5%	11.4	49%	3.7	4.2%	102%
	New Zealand	2.2%	8.2	39%	3.1	n/a	92%
	Philippines	2.9%	5.2	62%	1.0	4.8%	49%
	Singapore	1.4%	19.1	46%	7.1	2.4%	77%
	Taiwan	1.1%	17.0	62%	2.1	n/a	59%
	Thailand	2.8%	17.2	48%	5.5	4.3%	107%
Vietnam	2.8%	4.2	29%	1.9	n/a	112%	
 CEE and CIS	Croatia	2.4%	2.1	51%	0.6	6.6%	121%
	Czech Republic	2.3%	6.9	52%	2.1	6.0%	80%
	Hungary	2.8%	4.3	50%	-0.1	6.8%	121%
	Poland	3.3%	17.9	61%	3.5	9.6%	121%
	Russia	5.3%	37.3	46%	2.7	11.0%	91%
	Slovakia	2.4%	2.3	55%	0.5	5.1%	123%
	Slovenia	1.5%	0.7	56%	0.0	2.4%	177%
	Turkey	4.1%	24.8	55%	7.2	5.5%	87%
	Ukraine	7.2%	5.8	45%	0.5	38.2%	151%
	 Middle East and Africa	Angola	8.9%	2.7	45%	0.9	n/a
Egypt		2.3%	5.6	70%	1.0	13.6%	55%
Kuwait		1.7%	5.2	26%	3.5	7.7%	79%
Morocco		1.7%	3.9	69%	0.5	6.5%	117%
Nigeria		7.6%	9.2	57%	2.3	9.7%	67%
Saudi Arabia		1.8%	11.9	32%	7.1	1.4%	74%
South Africa		3.1%	18.6	52%	4.8	5.8%	154%
Tunisia		2.2%	0.9	67%	0.1	15.9%	80%
United Arab Emirates		2.9%	13.5	32%	7.6	4.8%	123%

<sup>1</sup> Calculated as total customer-driven revenue pools before provisions for loan losses/total customer-driven volumes (at average of period)

<sup>2</sup> Revenue pools after provisions for loan losses

<sup>3</sup> Profit pools after tax

## Ranking of top 100 banks (1/2)

\$billions, 2010

Rank <sup>1</sup>	Name	Country	Market cap as at 31 December, 2010		Total assets 2010	Price-to- book ratio	Cumulative RoE 2000-10 <sup>4</sup>	TCE ratio <sup>5</sup>
			Size (\$bns)	Growth 2009/10 <sup>2</sup>				
1 (1)	Industrial And Commercial Bank of China	China	219	-18%	2,042	1.9	17.8%	11.5%
2 (3)	HSBC	UK	178	-11%	2,455	1.3	11.4%	10.7%
3 (2)	China Construction Bank	China	168	-22%	1,640	1.8	19.5%	11.3%
4 (4)	JPMorgan Chase	US	167	1%	2,118	1.0	8.1%	8.7%
5 (6)	Wells Fargo	US	163	16%	1,258	1.3	12.2%	N/A
6 (11)	Citigroup	US	137	46%	1,914	0.8	8.8%	12.8%
7 (8)	Bank of America	US	134	3%	2,265	0.6	9.2%	7.7%
8 (-)	Agricultural Bank of China	China	132	N/A	1,569	1.7	16.7%	9.6%
9 (5)	Bank of China	China	129	-20%	1,587	1.5	14.8%	10.7%
10 (9)	Itau Unibanco	Brazil	108	10%	455	3.2	22.6%	N/A
11 (7)	Banco Santander	Spain	88	-37%	1,633	0.9	13.7%	7.7%
12 (12)	Goldman Sachs	US	86	-1%	911	N/A	15.0%	14.6%
13 (14)	Commonwealth Bank of Australia	Australia	80	6%	546	2.4	16.6%	8.4%
14 (22)	Mitsubishi UFJ	Japan	76	34%	2,184	0.7	5.4%	8.0%
15 (10)	BNP Paribas	France	76	-20%	2,681	N/A	11.9%	10.1%
16 (18)	Banco Bradesco	Brazil	75	19%	363	2.8	20.8%	12.3%
17 (13)	Royal Bank of Canada	Canada	75	-2%	714	2.0	15.8%	9.3%
18 (19)	Sberbank	Russia	74	24%	283	2.6	15.3%	N/A
19 (26)	Lloyds	UK	70	34%	1,552	0.9	15.0%	9.9%
20 (17)	Westpac Banking	Australia	67	1%	599	N/A	17.1%	9.5%
21 (25)	Toronto Dominion Bank	Canada	65	22%	609	1.6	12.4%	11.2%
22 (24)	UBS	Switzerland	62	14%	1,413	1.3	6.2%	18.6%
23 (28)	Australia and New Zealand Banking	Australia	61	18%	515	N/A	14.8%	10.0%
24 (34)	Bank of Nova Scotia	Canada	60	25%	518	2.4	16.7%	9.3%
25 (27)	Standard Chartered	UK	58	12%	517	2.0	13.2%	12.7%
26 (40)	Banco do Brasil	Brazil	54	31%	489	2.4	27.2%	N/A
27 (38)	U.S. Bancorp	US	52	20%	308	1.8	16.0%	6.2%
28 (33)	American Express	US	52	7%	147	3.2	23.4%	N/A
29 (32)	National Australia Bank	Australia	50	0%	664	N/A	12.8%	9.1%
30 (49)	Sumitomo Mitsui	Japan	50	73%	1,318	0.8	7.0%	7.6%
31 (29)	Barclays	UK	49	-3%	2,332	0.6	16.0%	10.6%
32 (20)	Credit Suisse	Switzerland	48	-18%	1,107	1.3	9.6%	11.1%
33 (16)	Bank of Communications	China	47	-31%	600	1.4	18.0%	N/A
34 (41)	Nordea	Sweden	44	7%	779	1.3	14.0%	9.9%
35 (31)	China Merchants Bank	China	42	-17%	365	2.1	19.6%	8.4%
36 (42)	Morgan Stanley	US	41	2%	808	0.7	12.4%	11.0%
37 (53)	Mizuho Financial Group	Japan	40	48%	1,672	0.9	11.9%	4.5%
38 (30)	Societe Generale	France	40	-21%	1,519	0.6	9.6%	11.2%
39 (45)	State Bank of India	India	40	29%	323	N/A	15.2%	N/A
40 (23)	UniCredit	Italy	40	-30%	1,247	0.4	7.8%	N/A
41 (15)	Banco Bilbao Vizcaya Argentaria	Spain	39	-43%	742	0.9	17.6%	8.9%
42 (44)	Bank of New York Mellon	US	37	11%	247	1.2	8.8%	7.6%
43 (43)	ING	Netherlands	37	-1%	1,673	0.6	15.2%	12.8%
44 (37)	BlackRock	US	36	-17%	178	1.4	6.5%	N/A
45 (60)	BOC Hong Kong	Hong Kong	36	50%	214	2.6	13.9%	16.7%
46 (54)	Royal Bank of Scotland	UK	35	33%	2,276	N/A	3.2%	N/A
47 (61)	Bank VTB	Russia	35	44%	141	N/A	-0.2%	11.9%
48 (21)	Intesa SanPaolo	Italy	34	-40%	884	0.5	8.3%	8.3%
49 (50)	Al Rajhi Bank	Saudi Arabia	33	17%	49	4.3	27.0%	19.6%
50 (48)	Bank of Montreal	Canada	33	12%	405	1.6	13.5%	10.5%

1 Rank based on 2010 market capitalization, 2009 rank shown in parentheses

2 Includes FX effects

3 Total market capitalization divided by common equity

4 Sum of net income after extraordinary items 2000-10 over sum of common equity 2000-10

5 Tangible common equity over risk-weighted assets

Source: Thomson Reuters

## Ranking of top 100 banks (2/2)

\$billions, 2010

Rank <sup>1</sup>	Name	Country	Market cap as at 31 December 2010		Total assets 2010	Price-to-book ratio	Cumulative RoE 2000-10 <sup>4</sup>	TCE ratio <sup>5</sup>
			Size (\$bns)	Growth 2009/10 <sup>2</sup>				
51 (36)	Deutsche Bank	Germany	32	-27%	2,556	0.6	9.9%	9.6%
52 (58)	PNC Financial Services	US	32	31%	264	1.1	10.9%	9.0%
53 (51)	Hang Seng Bank	Hong Kong	31	11%	118	3.8	24.8%	20.6%
54 (35)	China CITIC Bank	China	31	-34%	316	1.8	13.4%	8.6%
55 (57)	Canadian Imperial Bank of Commerce	Canada	31	24%	346	2.1	11.6%	9.5%
56 (39)	Crédit Agricole	France	30	-29%	2,138	0.5	7.2%	6.7%
57 (65)	ICICI Bank	India	29	36%	109	N/A	9.6%	17.4%
58 (56)	DBS	Singapore	26	3%	221	1.2	8.8%	11.8%
59 (66)	Oversea-Chinese Banking Corporation	Singapore	25	21%	179	1.6	10.9%	14.2%
60 (59)	Franklin Resources	US	25	4%	11	N/A	17.1%	N/A
61 (69)	Hong Kong Exchanges and Clearing	Hong Kong	24	26%	6	N/A	43.0%	N/A
62 (68)	Standard Bank	South Africa	24	20%	202	1.9	18.6%	12.4%
63 (78)	Housing Development Finance Corp	India	23	42%	32	6.0	20.3%	N/A
64 (63)	State Street Corp	US	23	8%	161	1.3	9.5%	15.9%
65 (67)	Nomura	Japan	23	11%	345	0.9	2.0%	N/A
66 (85)	DNB	Norway	23	57%	320	1.3	13.4%	10.1%
67 (70)	Akbank	Turkey	22	18%	78	2.1	18.4%	25.1%
68 (81)	Shinhan Financial Group	Korea	22	46%	234	N/A	11.9%	10.1%
69 (47)	Industrial Bank	China	22	-26%	281	1.6	21.2%	9.2%
70 (64)	United Overseas Bank	Singapore	22	3%	167	1.3	11.1%	14.1%
71 (52)	Shanghai Pudong Development Bank	China	22	-23%	333	1.8	20.2%	9.6%
72 (73)	Turkiye Garanti Bankasi	Turkey	21	21%	88	2.0	19.5%	17.6%
73 (71)	KB Financial Group	Korea	21	12%	231	N/A	2.3%	9.7%
74 (55)	China Minsheng Banking	China	20	-21%	277	1.4	14.5%	8.0%
75 (96)	Qatar National Bank	Qatar	20	62%	61	3.2	18.9%	21.6%
76 (72)	Svenska Handelsbanken	Sweden	20	12%	320	1.6	16.1%	15.3%
77 (91)	CIMB	Malaysia	20	50%	87	3.0	12.7%	12.5%
78 (87)	Malayan Banking	Malaysia	20	38%	104	2.2	13.5%	9.5%
79 (76)	Capital One	US	19	11%	198	0.7	8.3%	N/A
80 (46)	CITIC Securities	China	19	-38%	23	2.0	15.6%	N/A
81 (77)	Powszechna Kasa Oszczednosci Bank	Poland	18	10%	57	2.2	17.2%	N/A
82 (90)	Skandinaviska Enskilda Banken	Sweden	18	34%	324	1.2	11.3%	N/A
83 (75)	BB&T	US	18	4%	157	1.1	11.0%	7.7%
84 (79)	Criteria CaixaCorp	Spain	18	12%	N/A	0.9	10.4%	N/A
85 (99)	Erste Bank	Austria	18	49%	276	0.9	10.4%	8.5%
86 (80)	Danske Bank	Denmark	18	13%	579	0.9	9.8%	9.7%
87 (94)	Bank Central Asia	Indonesia	17	38%	36	4.8	23.7%	16.6%
88 (107)	National Bank of Kuwait	Kuwait	17	55%	46	2.4	17.8%	24.6%
89 (89)	T Rowe Price	US	17	20%	4	5.4	20.0%	N/A
90 (82)	Bank Polska Kasa Opieki	Poland	16	7%	45	2.4	15.8%	20.4%
91 (212)	Blackstone	US	16	278%	19	N/A	-16.7%	N/A
92 (92)	FirstRand	South Africa	16	19%	110	2.0	21.2%	N/A
93 (88)	Robeco	Netherlands	15	9%	14	N/A	20.1%	N/A
94 (95)	ABSA	South Africa	15	22%	108	2.1	19.0%	12.9%
95 (109)	Bank Mandiri	Indonesia	15	45%	50	3.5	16.9%	15.6%
96 (103)	Public Bank	Malaysia	15	30%	73	3.8	18.9%	8.6%
97 (111)	SunTrust	US	15	46%	173	N/A	7.0%	7.8%
98 (97)	Samba	Saudi Arabia	15	21%	50	2.2	23.8%	17.7%
99 (118)	Grupo Financiero Inbursa	Mexico	15	50%	21	2.8	9.6%	N/A
100 (112)	Bank Rakyat Indonesia	Indonesia	14	44%	45	3.9	26.9%	15.9%

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Source: Thomson Reuters

