Financial Services

Banking in 2050:
How big will the
emerging markets get?*

PRICEWATERHOUSE COOPERS

Overview

The future of Financial Services is a central theme being addressed by the global financial services practice at PricewaterhouseCoopers.[1] In recent years we have supported strategic thinking and thought leadership such as 'Piecing the jigsaw: The future of financial services' (published in 2005), which focused on the future of the industry over the next three years, considering the drivers, risks and opportunities, as well as the impact on and responses of existing and potential players in the industry. The report identified five principal drivers that would affect all financial institutions: demographics, the economic cycle, politics, regulation and reporting, and technology.

Continuing this future perspective, the Economics practice in the UK member firm of PricewaterhouseCoopers has developed a series of research and thought leadership papers focused on the possible future shape of the world economy in the long run. The core of this research was published in 2006 in a report entitled 'The World in 2050', which provided a comparison of projected levels of economic growth in the G7 and the E7 over this period. The overwhelming conclusion was that the economic world order will be very different for the next generation of business leaders (some of whom will come from the E7 nations) from what we see today.

As an extension of the above, the UK member firm of PricewaterhouseCoopers, with input from banking partners around our global network, has examined the possible changes in the scale of the banking sector between now and 2050; our proxy was the relative growth of domestic credit markets. The results are thought provoking; they highlight the pace of change and provide some scale to the size of the opportunity and challenge. This paper highlights some of these changes and we would encourage Chief Executives and corporate strategy teams to consider the possible implications for their business as well as the possible strategic responses.

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[1] PricewaterhouseCoopers refers to the network of member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity.

Executive Summary

In March 2006, we published a report highlighting the rapid growth and increasing global significance of what we called the 'E7' emerging economies: China, India, Brazil, Russia, Mexico, Indonesia and Turkey. By 2050, we estimated that the E7 economies could be larger than the current G7 by between 25% and 75%, depending on the measure used.

In this new report, we show that the E7 economies are also likely to become increasingly significant in the world of banking. Specifically, our projections suggest that:

- Over time, the banking sector is going to grow significantly faster than GDP in these emerging economies as they develop;

- In our main scenario, total domestic credit in the E7 economies is likely to overtake total domestic credit in the G7 economies within the next 40 years;

- Total domestic credit in China is likely to overtake the UK and Germany by 2010, Japan by around 2020 and the US by 2045;

- India is likely to emerge as the third largest domestic banking market in the world by 2040 and could grow faster than China in the long run;

- Brazil, Indonesia, Mexico, Russia and Turkey all have the potential to develop banking sectors of comparable scale to major European economies such as France and Italy before 2050;

- Many E7 economies already have relatively profitable banking sectors, and our estimates suggest that total profits from domestic banking in the E7 will be around half those in the G7 by 2025 and larger than in the G7 before 2050;

- M&A activity in the emerging market banking sectors is likely to show correspondingly strong growth over the next few decades as domestic and international banks jockey for prime position;

- Restructuring of emerging market economies will give rise to many more opportunities for private equity firms; and

- Banks from emerging economies will start to make major acquisitions in developed markets to gain better access to capital markets and to acquire expertise and know-how.

In short, no bank can afford to ignore the E7 in its future strategy, but this also means that these markets will be highly competitive. Adopting the right strategy and maintaining a competitive edge in these emerging markets will pose a major challenge for North American and European banks seeking to make the most of these markets and identify the right local acquisition targets and strategic or joint venture partners.

Key questions arising

There are wide-ranging implications for banks from our analysis. Amongst the questions for chief executives and corporate strategy teams to consider are:

- Does our bank's near-term strategy encompass an adequate presence in emerging markets? If so, when do we wish to enter or how should we expand our existing presence?

- Can we afford to ignore emerging markets, or will a meaningful presence in selected emerging markets prove to be essential in the medium term to maintain corporate client and investor interest in our institution?

- In which market other than our own, if any, does, or could, our institution have a sustainable competitive advantage?

- Should we enter by organic means or seek acquisition targets or venture partners? How do we justify potentially costly investments in high-growth marketplaces? Which segments of the banking market provide the highest growth prospects in the major emerging markets?

- When entering an emerging market, or expanding operations there, what are the success factors that will make our institution successful when competing with fast-growing local competitors, who may have the advantage of a lower-cost operating model?

Introduction

In our March 2006 report[2] on the state of the world in 2050, we estimated that by that date the E7 economies could be larger than the current G7 by between 25% and 75% depending on the measure used. In September 2006, we published a follow-up report looking at the implications of this growth for global energy consumption, carbon emissions and climate change policy. Now, in this third report, we turn our attention to the implications for banking: will China, India and other E7 economies also come to dominate this sector of the world economy?

To explore this question further, we have extended our original GDP growth model to encompass banking assets and profits, as outlined in Figure 1 below (further technical details are provided in the Annex).

GDP growth projections

The starting point for our analysis was a baseline projection for GDP growth to 2050. As explained in the Annex, and in more detail in our original report, these projections reflect the combined effect of projected working age population growth (from UN projections), investment rates, education levels and trends, and the scope for emerging economies to catch up with the global technological frontier. We also allow for likely real exchange rate increases over time in the emerging economies by distinguishing between real GDP growth in domestic currency terms and in dollar terms. As illustrated in Figure 2 opposite, our baseline GDP projections see growth being significantly higher in the E7 than the established developed economies, particularly when growth is measured in dollar terms to allow for rising real exchange rates in the E7 (reflecting stronger productivity growth in these economies).

Interestingly, this analysis suggests that India is likely to be the fastest growing of the E7 economies in the long run. Our model suggests that China will continue to grow somewhat faster than India over the next 5-10 years but, after that, Chinese growth will be held back by its rapidly ageing population (due in large part to its one child policy) and diminishing returns to its investment-led strategy. In contrast, India and other emerging economies like Brazil, Mexico, Indonesia and Turkey have much younger populations with faster-growing labour forces.

We can also combine our GDP projections with UN population projections to derive GDP per capita projections in purchasing power parity (PPP) terms. The latter provide a convenient summary measure of the state of development of each of the economies, which in turn we find to be a key driver of the size, relative to GDP, of their banking sectors, as discussed further below.

Figure 1 – Global banking projections model structure
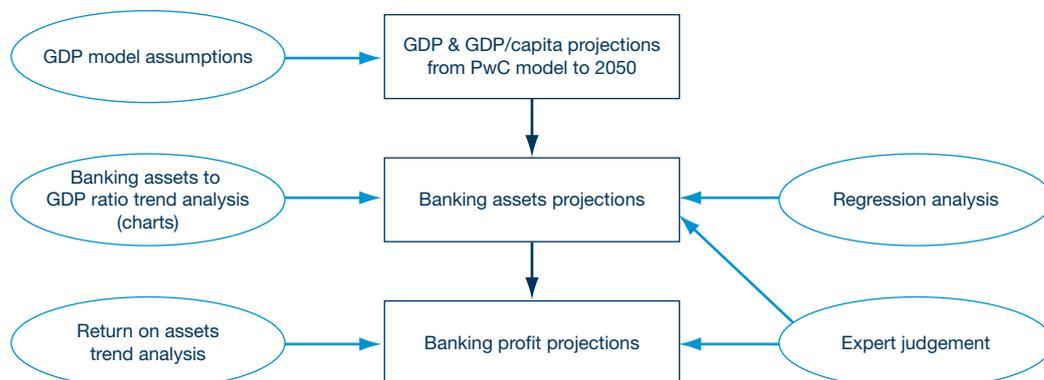
Note: all projections done by country then aggregated to global level

Source: PricewaterhouseCoopers model using data from IMF on banking assets and Fitch on profits

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[2] Available from our website at http://www.pwc.com/world2050

Figure 2 – Projected average real GDP growth 2005-50

*% real GDP growth p.a.

- Domestic currency
- US $ terms*

*Includes projected real exchange rate appreciation (shown in light blue bars)

Source: PricewaterhouseCoopers baseline scenario projections
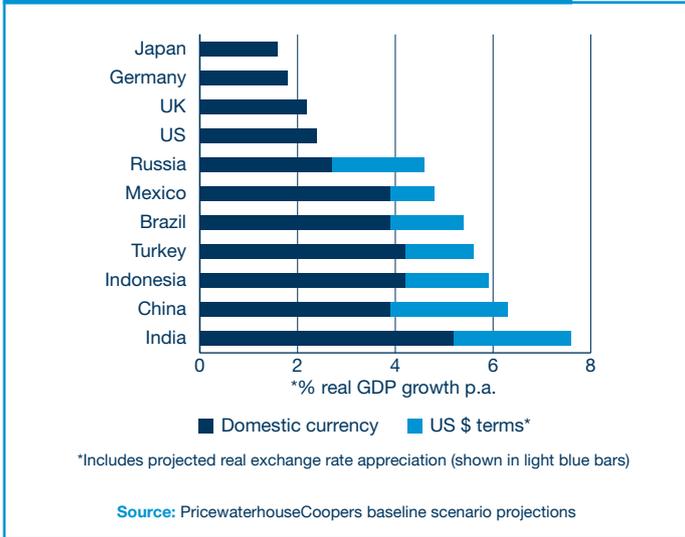
Figure 3 – Development of domestic credit to GDP ratio

% of GDP

— G7 average   — E7 average

Source: IMF/PricewaterhouseCoopers calculations
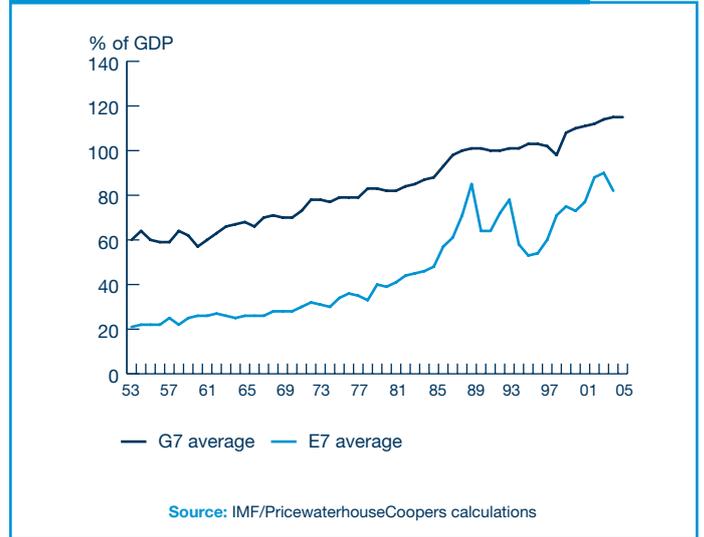
Relationship between banking sector size and economic development

It is a well-established fact that, as an economy develops, it moves first from specialising in agriculture to specialising in manufacturing, and then from manufacturing to services, including banking and other financial services. All of the G7 economies have been in this third stage of post-industrial development for at least the last 20-30 years, during which time there has been an underlying upward trend in their ratio of banking assets[3] to GDP. The E7 economies have also seen a clear upward trend in this ratio, albeit from a much lower base and often with considerable short-term variations around this underlying trend (see Figure 3).

Despite this upward trend, with the exception of China, the E7 banking sectors are still relatively small in global terms, as Figure 4 shows.

As their economic development continues, however, we would expect the E7 banking (and other services) sectors to grow more than proportionately with GDP. We can also see this from the cross-sectional analysis of 2004 data shown in Figure 5 overleaf, which illustrates a strong positive relationship between domestic credit to GDP ratios and GDP per capita levels.

Figure 4 – Current size of banking sectors (2004)

Domestic credit: (Net) claims on central government + claims on state and local governments + claims on non-financial public enterprises + claims on private sector + claims on non-bank financial institutions

$ billion

Source: PricewaterhouseCoopers

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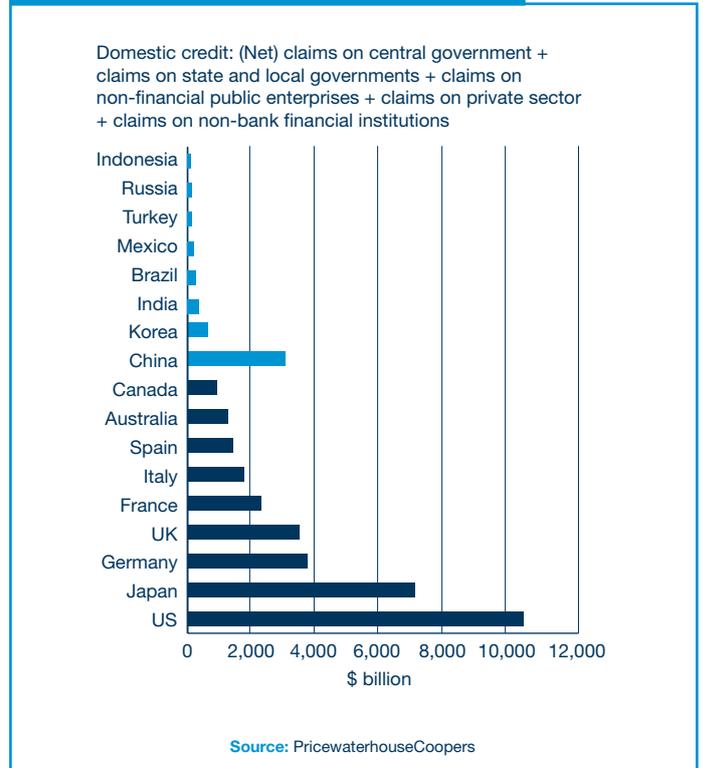
[3] Here and elsewhere in the report we use IMF data on total domestic credit as our measure of banking assets. This is to ensure a consistent approach across all countries, while we focus only on domestic credit since this is most likely to be related to GDP.

Figure 5 – Relationship between income and banking penetration (2004)


Source: IMF
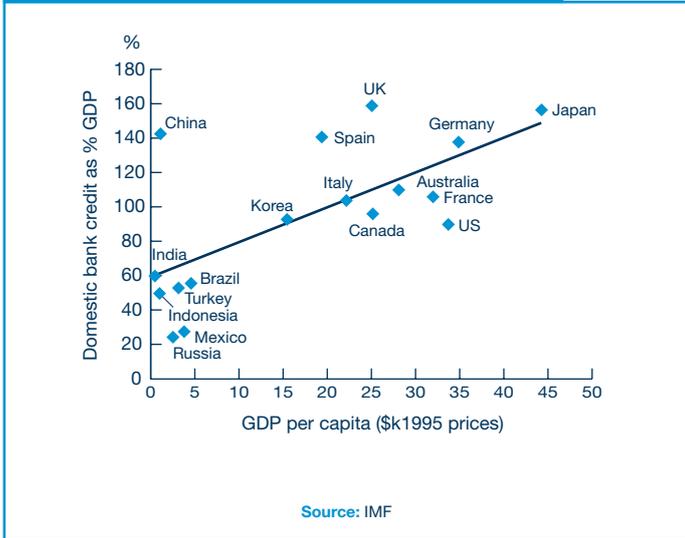
Figure 5 also shows, however, that there are some notable outliers, particular China, the UK and Spain, with much larger banking sectors than their state of economic development might suggest, and Russia, Mexico and the US, with relative low ratios.

Figure 6 below summarises possible explanations for this in the case of four of the key outliers (for Spain it is related to the recent housing and mortgage boom, while for Mexico it is related to the relative lack of development of the retail banking system, although this is now beginning to grow rapidly so the ratio should rise in future).

The reasons listed in Figure 6 are a combination of temporary factors (e.g. cyclical housing booms) that may be reversed within 5-10 years and deeper structural factors (e.g. the strength of US capital markets as an alternative to bank loans) that may persist for much longer. In our baseline scenario below, we assume that there is gradual convergence of these outliers with the average relationship between the size of the banking sector and economic development illustrated in Figure 5.[4]

Figure 6 – Explaining the outliers

| Why is China so high?	Why is the UK so high?	Why is the US relatively low?	Why is Russia relatively low?
• Relatively high degree of non-performing loans (which have been reduced in some but not all banks) • Underdeveloped equity markets (Hong Kong has historically attracted large share listings) • Historically, the state-owned banks were encouraged to lend (but are now being controlled) • Low interest rates (but now rising)	• High property ownership • High relative property prices, funded by mortgages • Relatively few restrictions on consumer credit • Major global financial centre in London has attracted inward investment in banking sector	• Fragmented banking sector • State regulation of banking sector • Highly developed bond and equity markets • Culture of equity finance • Mortgage securitisation	• Heavy economic reliance on energy and other natural resources, with lower borrowing requirement • Relatively low level of commercial banking sector development, with state banks still dominant

Source: PricewaterhouseCoopers

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[4] In practice, the analysis is somewhat more sophisticated than shown in Figure 5, as described further in the Annex, but the general idea is the same.

Figure 7 – Projections for domestic credit to GDP ratio: E7 vs G7 and global average

Source: PricewaterhouseCoopers baseline scenario projections
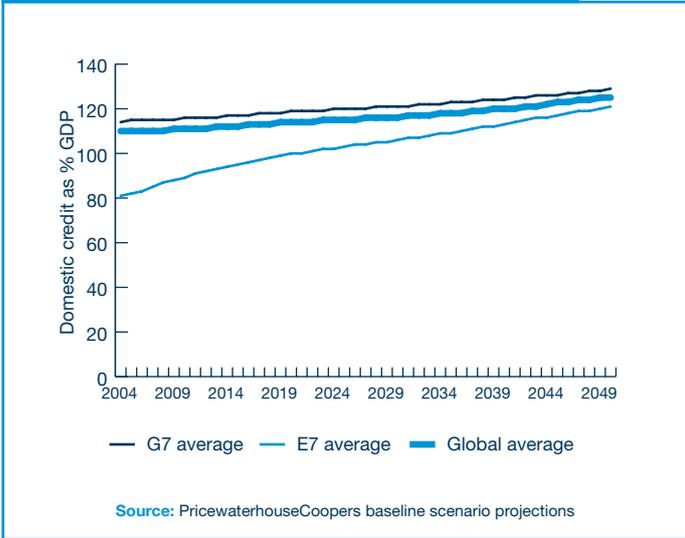
Figure 8 – E7 vs G7 total domestic credit

Source: PricewaterhouseCoopers baseline scenario projections
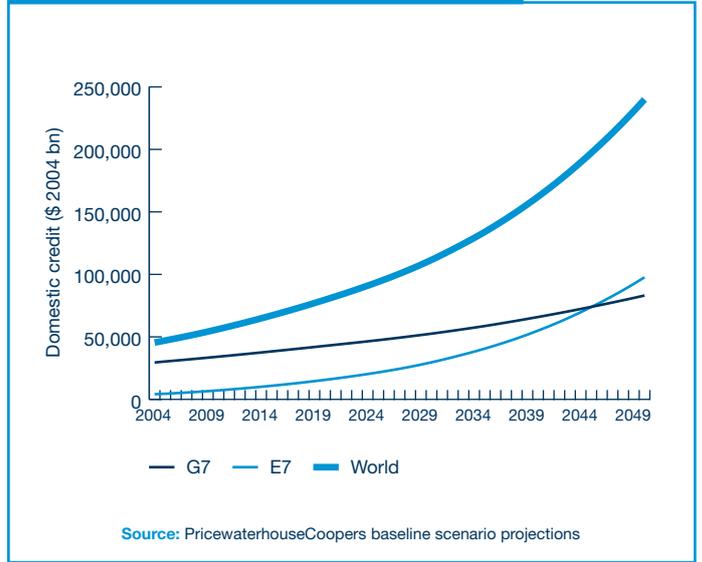
Projecting forward domestic credit levels

Our baseline projections are therefore derived by assuming an underlying upward trend in the domestic credit to GDP ratio (subject to a maximum limit of 200% of GDP, the basis for which is discussed further in the Annex), but then to allow for gradual convergence to the norm for outliers at a rate of 2% per annum (or 3% per annum for China, where the initial divergence is largest, as is evident from Figure 5 opposite). The resulting projected domestic credit to GDP ratios for the G7, the E7 and the world as a whole are shown in Figure 7.

We can see that, initially, the weight of the E7 in global banking assets is low (as shown in Figure 4 on page 3), so the global average is close to the G7 average. Over time, however, the E7 ratio rises much faster than the G7 ratio so that near convergence is achieved by 2050. In absolute terms, with total E7 GDP projected to be around 25% higher in 2050 than G7 GDP by 2050, this implies slightly higher total banking assets in the E7 than the G7 by 2050 (see Figure 8). Even by 2025, E7 banking assets would have reached just under half of the G7 total, compared with less than 15% now.

Figure 9 – The rise of the Asian giants

Source: PricewaterhouseCoopers baseline scenario projections
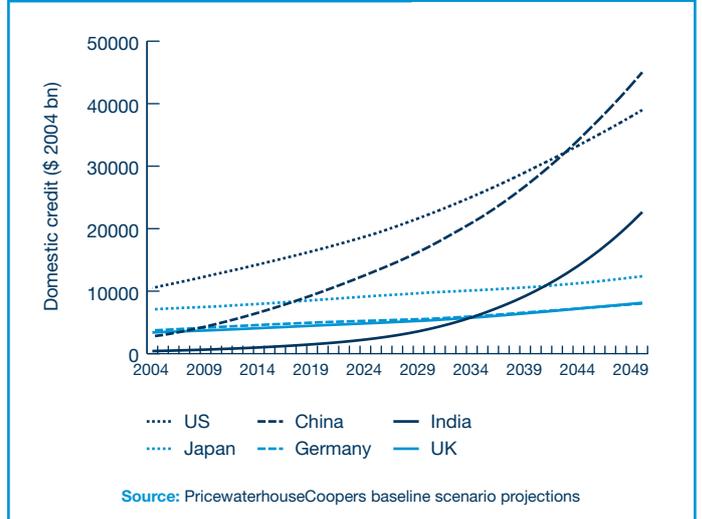
Looking at the largest economies, our baseline projections suggest that China could overtake the UK and Germany by 2010, Japan by 2025 and the US before 2050 (Figure 9). India could also rise from relatively low levels today to having the third largest banking sector in the world after around 2040.

Figure 10 – Shifts in shares of global banking assets

Turkey
Indonesia
Mexico
Korea
Australia
Canada
Spain
Italy
France
Germany
UK
Brazil
Russia
Japan
India
China
US

% of world total

■ 2050 shares ■ 2004 shares

Source: PricewaterhouseCoopers baseline scenario projections

Figure 11 – Alternative scenario for domestic credit: No convergence

Domestic credit ($ 2004 bn)

2004 2009 2014 2019 2024 2029 2034 2039 2044 2049

— G7   — E7   ▬ World

Source: PricewaterhouseCoopers baseline scenario projections

As illustrated in Figure 10, other E7 banking sectors are not going to rival those in China and India in terms of size, but they could come by 2050 to be of the same order of magnitude as the banking sectors in countries like France and Italy, from much lower levels today. Brazil, Indonesia, Mexico and Turkey all seem to be strong candidates for a rapid expansion of their banking sectors in the long run, driven by a rise in retail banking (mortgages, consumer credit and the like) that is already beginning to become apparent today but has much further to go as their economic development proceeds.

Of course, any such individual country projections are subject to many political, social and economic uncertainties that could yet throw this projected strong growth off track for prolonged periods. But, as a portfolio, the E7 banking markets appear to have strong potential, and we found this was robust to an alternative scenario in which we did not assume convergence to the norm for the major outliers from Figure 5 on page 4 (see Figure 11). In this case too, the E7 is projected to overtake the G7 before 2050.

Banking profits pool projections

Projections of banking assets are all very well, but for potential new entrants or acquirers in the emerging markets, it is the size of profits pools that matters most. To get some insight into how these might develop, we carried out an analysis of a large bank profits dataset from Fitch. Focusing on the period since 2000 (or, in some cases, just the latest data for 2005 where this seemed more reliable[5]), we found post-tax return on assets averaging around 1% globally but with considerable variations by country, as indicated in Figure 12.

It is interesting to note that, with the exception of China, where profitability has been held down by state bank lending policies in the past (though it is starting to rise now), the emerging market banks actually appear to have somewhat higher average profitability than the banks in most G7 countries (notably Germany and Japan, but also France and Italy to a lesser degree). Of course, inter-country comparisons are subject to some qualifications here due to differences in accounting standards and practices, so too much should not be made of the precise numbers in Figure 12. At a minimum, however, there is no particular sign from this analysis that emerging market banks are less profitable on average than those in the G7: rather the contrary seems to be true on the whole.

Looking forward, we again consider two scenarios (which can be paired with the convergence/no convergence scenarios for domestic credit to GDP ratios described above):

- **Baseline scenario** with gradual convergence (by 2030) of return on assets ratios in all countries to the global average of 1%, driven perhaps by cross-border capital flows tending to equalise returns across countries;

- **Alternative no convergence scenario** in which the return on asset ratios shown in Figure 12 persist.

Figure 13 shows our banking profits pool projections (for domestic credit assets only) in these two scenarios for the G7 and the E7. Again we can see that the E7 rises to close to half of G7 profit levels by 2025 and to more than G7 levels by 2050. The enormous increase in the relative significance of the E7 is again robust to the choice of convergence assumption, although individual country profits projections would be more sensitive to this assumption.

This is not to say that profits in the G7 stand still. On the contrary, as Figure 13 shows, they are projected to rise by around 300-400% in real terms by 2050, broadly in line with projected G7 GDP growth over this period. But compared to the growth rate of the E7 this is relatively modest.

Figure 12 – Banking return on assets ratios

Note: global average = c.1%

Post-tax return on assets (average for 2000-5*)

*Except for Russia, China, Germany and Japan, where 2005 data used

Source: Fitch
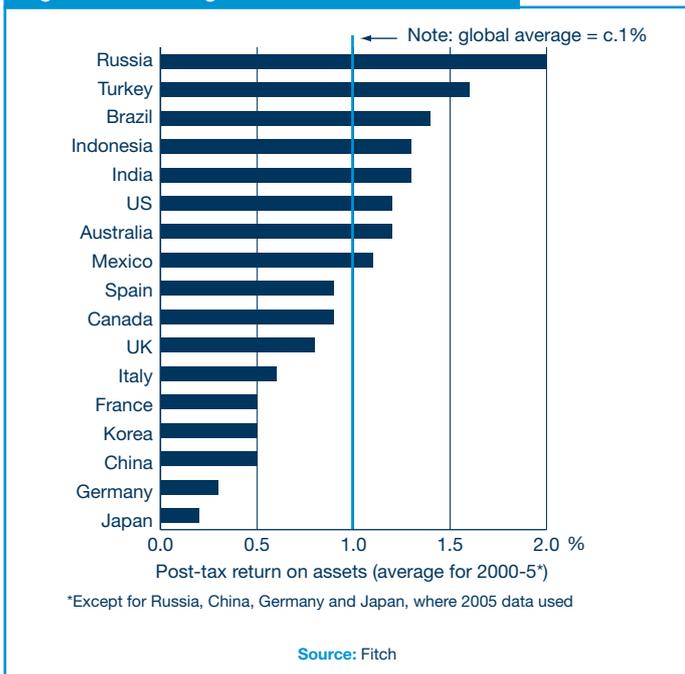
Figure 13 – Illustrative banking profits pool projections

Baseline scenario with convergence

No convergence scenario*

Profits on domestic credit (constant 2004 $bn)

■ 2005 ■ 2025 ■ 2050

*Note that, without RoA convergence, E7 RoA remains higher than G7

Source: PricewaterhouseCoopers projections
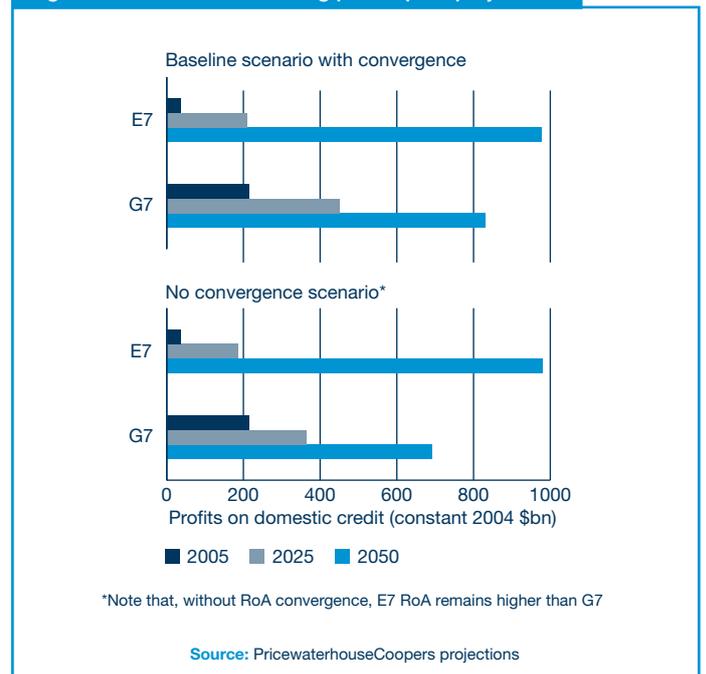
[5] In the light, for example, of banks in many emerging markets only moving relatively recently towards International Financial Reporting Standards, although this process remains incomplete, so the comparison of returns in Figure 11 needs to be interpreted with appropriate caution.

Possible strategic implications of the rise of the E7 banking markets

The analysis above reinforces the significance of China, India and the other E7 markets as by far the greatest potential growth areas in global banking in coming decades. This growth potential is illustrated by the numbers in Figure 14 opposite, which also summarises recent trends and key market drivers for each of the E7 banking markets, ranked in order of current size.

Retail banking sectors seem likely to see particularly rapid growth, since mortgage and consumer credit lending is generally not well developed yet in these markets compared with corporate and government lending (although both these areas also offer considerable opportunities as well).

The rise of the E7 is likely to be associated both with rapid organic growth of the key players in these banking markets, and with **rapid increases in M&A activity,** both within the E7 countries (due to consolidation of often fragmented banking sectors at present), and across borders.

Restructuring of the E7 economies should also create **major opportunities for private equity firms.** It is anticipated in the short and medium term that private equity finance will be able to participate through investment in the evolution of banking markets in the E7 countries, ahead of and alongside domestic and international banks.

For North American and European banks the analysis also emphasises **the importance not just of being active in the E7 markets but also of having the right strategy** in terms of:

- choosing the right local targets for acquisitions, joint ventures and strategic alliances;

- understanding the preferences of local banking customers and the local competitive environment, so as to offer the right kind of product mix and pricing strategy; and

- understanding the local legal and regulatory environment and other relevant aspects of local custom and practice in the banking sector.

At the same time, some of the major banks in China and other E7 countries are likely over the next 10-20 years to become significant regional or global players through **outward expansion by E7 banks, both organically and through M&A.** This will be driven by a number of factors, including:

- the desire to access large developed markets;

- the need for local branches to provide banking services to other E7 companies expanding into overseas markets;

- the need to access capital; and

- the need, at least in the short term, to access expertise and know-how through acquisitions (e.g. in areas such as wealth management, mortgages and credit cards).

E7 banks will also become major competitors in the global 'war for talent'. In fact, we are already seeing signs of this, with Russian banks hiring investment bankers from London, some Chinese banks importing US or European executives, and Indian banks seeking to attract back staff with experience of working for major G7 institutions. As the E7 banks internalise the knowledge of these staff, so their competitiveness in both domestic and global markets will increase.

However, some major E7 banks may also come under foreign ownership, subject to domestic government policy towards such acquisitions.

In short, the banking world in 2050 will look radically different from the one we see today, with the E7 economies becoming at least as important as the G7.

Figure 14 – Key trends and prospects for E7 banking markets

Country	Domestic credit in 2004 ($trillion)	Projected domestic credit in 2050 ($trillion: at constant 2004 prices)	Recent trends and key market drivers
China	2.8	45	• Sale of major state banks with progress on reducing non-performing loans • Profitability starting to rise from low base • Large increase in foreign bank investment • Rapid growth in retail banking from low base, with huge potential in mortgage and consumer credit markets as incomes rise
India	0.4	23	• Major financial sector reforms since 1991 • Public sector banks still dominant but private/foreign banks gaining market share • Entry barriers being eased gradually but still significant for foreign banks • Middle class growing strongly in cities
Brazil	0.3	8	• More stable economy in recent years • High profitability and automation in banking • Foreign banks entering via acquisition • Relatively underleveraged corporate sector
Mexico	0.2	6	• Economy has stabilised recently after financial and banking crises of 1990s • Improved bank regulation and accounting standards, helped by significant entry of foreign banks • Low share of banking sector in GDP gives scope for strong future growth if economic and political stability can be maintained
Russia	0.2	5	• Largest two state banks still dominant; rest of banking sector quite fragmented • Regulatory regime has been weak with only gradual progress on banking reforms • Heavy bank focus on major cities • Buoyant energy sector, but economy needs to become more diversified in long run, including stronger banking sector
Turkey	0.2	4	• Macroeconomic environment much improved since late 1990s (lower inflation) • European banks increasing active in Turkey • New Banking Law strengthened banking supervision/regulation • Strong consumer lending growth potential
Indonesia	0.1	7	• Still a relatively low income country but with good long-term scope for growth if political situation remains relatively stable • Crisis of late-1990s stimulated banking reform and restructuring • Growing foreign investment in domestic commercial banks and shift from corporate to consumer lending since late 1990s
E7 total	**4.2**	**98**	• **High growth, with potential to mitigate high individual risks through portfolio approach**
G7 total	30	83	• Moderate growth but lower risk

Source: PwC, IMF data on domestic credit in 2004

Annex: Methodology and data

Long-term economic growth model

The model used to project long-term economic growth in this paper is described in detail in our March 2006 paper, 'The World in 2050'.[6] The model is a standard one in the academic research literature in which economic growth is driven by four main factors:

- Technological progress, including 'catch-up' effects for emerging economies that vary according to their state of institutional development and stability;

- Demographic change, in particular the growth rate of working age population;

- Investment in plant, machinery, buildings and other physical assets, which contribute to the long-term development of the capital stock in the economy; and

- Trends in education levels, which are critical to the quality of the labour force and their ability to make the most of new technologies.

The assumptions used in this model reflect a broad range of research by bodies such as the IMF and the World Bank, as well as leading academic economists. While any such assumptions are subject to many uncertainties, we believe that the baseline economic growth scenario used in this paper, with average global economic growth of around 3.2% per annum in 2005-50, is plausible.

Exchange rate projections

Purchasing power parity (PPP) exchange rates[7] are assumed to remain constant over time in real terms, while market exchange rates converge gradually over time to these levels in the very long term (due to faster productivity growth in the E7). This means that the relative value of E7 banking markets in dollar terms tends to rise in the long run due both to faster economic growth in these countries and to real exchange rate appreciation.

Banking assets data and projections

For banking assets, we used data on total domestic credit (to households, companies and government) since this seemed most likely to be related to GDP. For consistency, data were taken from the latest online version of the IMF's International Financial Statistics database.

As discussed in the main text and shown also in Figure 15 below, we see a clear and statistically significant positive relationship between GDP per capita growth and the average annual rise in the domestic credit to GDP ratio. In other words, the faster an economy develops, the faster its banking sector grows relative to the economy as a whole. This relationship is measured using IMF data over several decades in most cases, which gives some reassurance in projecting forward a broadly similar relationship in the long term. In practice, of course, this will not be a smooth process: there will be economic and credit cycles of varying length and severity in all countries that we cannot hope to predict with any accuracy. We can, however, look through these short-to-medium-term cycles to identify plausible scenarios for the long-term underlying trend in banking sector assets by country, and here we are more confident about making projections based on the underlying trends seen in the historic data. This is particularly true when looking at portfolios of countries such as the E7, within which individual country variations in the long-term health of the banking sector should tend to cancel out over time.

Figure 15 – GDP growth and the banking sector

Source: PricewaterhouseCoopers

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[6] Available from our website at http://www.pwc.com/world2050

[7] Initial estimates of GDP at PPPs in 2004 were taken from the World Bank (2005), updated in some cases for more recent estimates (notably in the case of China, where historic GDP estimates were revised up significantly in December 2005).
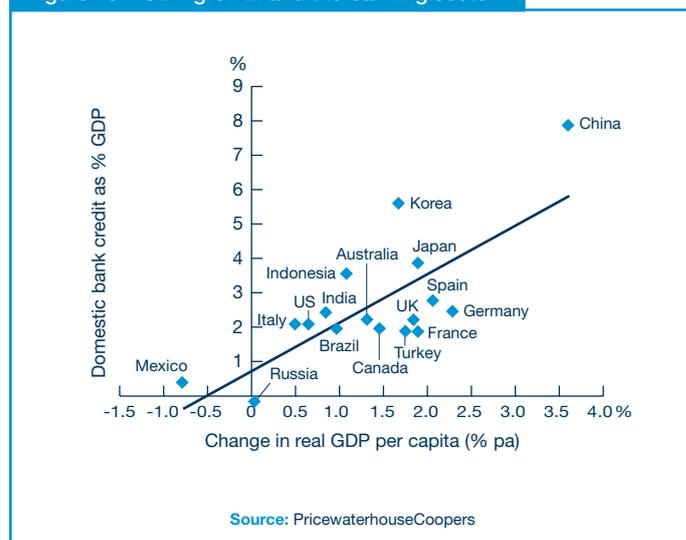
We carried out a variety of statistical analyses of trends in the banking assets to GDP ratio over time and across countries, using GDP per capita levels as the key explanatory variable. For the purposes of providing a basis for future projections, we found that simple cross-sectional relationships of the kind shown in Figure 5 on page 4 tended to produce more plausible results than more sophisticated panel data analysis, which suffered from some econometric problems due to autocorrelation of residuals.

After some experimentation, a log-linear relationship between domestic credit to GDP ratios in 2004 and GDP per capita levels in PPP terms provided the preferred basis for our projections model. This showed a highly statistically significant (at the 99% confidence level) positive relationship between domestic credit to GDP ratios and GDP per capita levels in PPP terms.

Given our projections for GDP per capita in PPP terms, we were therefore able to project forward a 'target' domestic credit to GDP ratio for each country, with the exception of the US, where we used a country-specific time series trend. For the other countries, we then assumed in our baseline scenario that their actual domestic credit to GDP ratios converged gradually to their target ratios, with 2% of the difference being eliminated each year on this convergence path. For China, we assumed a somewhat higher convergence ratio of 3%, since there is evidence from the past couple of years that the ratio is likely to decline more rapidly in the short term due to past problems with non-performing loans being corrected, although the ratio should then rise again in the longer term as the retail lending market in particular grows rapidly. We also considered a 'no convergence', scenario where there was still an underlying positive relationship between domestic credit to GDP ratios and GDP per capita, but no tendency for countries to converge to their target ratios in the long run. In other words, in this scenario, outliers in Figure 5 remain outliers.

A maximum limit of domestic credit of 200% of GDP was imposed in our model, based on experience in Switzerland (where the ratio appears to have topped out at around 180% over the past decade) and analysis of minimum plausible interest cover ratios based on US and UK data.

Banking profits data and projections

Our data on banking profits were sourced from Fitch and covered the leading banks in each of the 17 countries included in our model. We calculated weighted average return on assets ratios for each country, as summarised for recent years in Figure 11 in the main text above. We focused on recent years to reduce the impact of different accounting practices across countries, although inevitably these remain a factor to some degree, particularly in the emerging economies.

These estimates then provided the basis for two illustrative scenarios for return on assets in the period to 2050:

• Baseline scenario: linear convergence from the return on assets ratios shown in Figure 11 on page 6 to a global average return on assets of 1% from 2030 onwards; this might be taken to reflect the impact of cross-border competition and M&A in normalising profits across the banking sectors of the major world economies; and

• No convergence: return-on-assets ratios remain at the country-specific levels shown in Figure 11; this might reflect ongoing barriers to entry and structural differences across markets.

In practice, many other scenarios are possible, of course, but focusing on these two options defines a reasonably plausible range. These return-on-assets scenarios were then combined with our GDP growth and domestic credit to GDP ratio scenarios to produce two alternative scenarios for banking profits pools in the G7 and the E7 economies, as summarised in Figure 12 on page 7.

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