GS SUSTAIN - Financials

Equity Research

Looking through the gloom

Storm clouds recede; look beyond the gloom

Although the financial services sector faces continued uncertainties, we believe there is increasing value in a longer-term view of industry trends and the companies best placed to thrive. Downside risks – at least for the strongest institutions – are becoming more limited given the industry's continued capital rebuilding. Consequently, it is timely to refocus on those companies best positioned to adapt to the structural trends that should shape the industry in the coming years: geographical realignment, intensifying regulation, unwinding capital imbalances and the sharp decline in society's trust in the industry.

Growth exposure alone may be insufficient

Returns on capital and equity market performance have correlated with market growth over the past decade. Going forward, greater selectivity will be needed as emerging and developed market returns converge. GS SUSTAIN applies consistent measures globally to identify leaders.

Future leaders look different from past ones

The structural shifts we highlight should benefit high return, well capitalised institutions exposed to growing, disciplined markets in stable product areas that are least likely to be affected by toughening regulation; strong customer relationships and funding models are also key. We expect the resulting leaders will typically be smaller and more focused on traditional services than many of the last decade's winners.

11 global leaders on GS SUSTAIN Focus List

We apply the GS SUSTAIN framework, integrating (1) returns on capital, (2) industry positioning and (3) management quality (ESG), to 212 banks and insurers globally. Eleven companies stand out as particularly well positioned to sustain industry-leading returns on capital over the long term: **HSBC, Standard Chartered, BBVA, Julius Baer, Commonwealth Bank, Hang Seng Bank, Itau Unibanco, Firstrand, Prudential plc, RSA and AMP.**

THE GS SUSTAIN FOCUS LIST

The GS SUSTAIN Focus List is aimed at long-term, long-only performance with a low turnover of ideas. It incorporates 69 identified leaders that we believe are well positioned to sustain industry leadership and superior return on capital.

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Estimates in this report are as of September 10, 2012.

GS SUSTAIN brings together analysis of structural industry trends and their impacts with objective analysis of performance to identify leaders

Long term, structural trends…	…create opportunities & challenges across global financials…
Continued (but slowing) growth in wealth and savings in emerging economies	Emerging markets will contribute 2/3 of incremental global growth to 2020E, but grow at a slower pace than the past decade (10% vs. 17% p.a.). Loan demand growth outpacing savings in emerging markets
Increased financial market depth and disintermediation as emerging economies mature	Growing proportion of emerging market growth will accrue outside traditional banking services as demand for insurance and wealth management products rises
Declining global capital imbalances, increased scarcity of wholesale funding	Asset growth will be more closely tied to companies' abilities to attract deposits
Elevated debt levels and increased need for government support have tightened credit link between sovereign and financial sector	An economy-wide view of leverage has become more important in assessing financial sector risks
Focus on minimizing likelihood of future financial crises and impacts on public sector and economy	More stringent regulation of capital standards, risk taking and internal controls; larger, universal and systemically important institutions will face the most stringent standards
Greater scepticism of financial service sector	Institutions best able to adapt to increased social mistrust of the financial system, particularly in developed economies will benefit from stronger brands and loyalty

…underpinning GS SUSTAIN analysis of the drivers of sustained competitive advantage & long term outperformance

Industry positioning

- Pace of financial services growth in end markets
- Industry structure and discipline
- Exposure to business areas well placed to grow and least threatened by higher capital standards
- Access to stable funding sources
- Indebtedness and political risk of countries to which exposed
- Well capitalised institutions with limited exposure to higher risk activities

Management quality (ESG)

- Board oversight of corporate controls and capital allocation
- Engagement with, and management of, changing social pressures

Return on capital

- Sustained high returns on capital (ROA/ROE) drive long term growth and outperformance
- Well positioned, well managed businesses will sustain high returns on capital for longer than peers

GS SUSTAIN analysis identifies 11 sustainable industry leaders

BBVA
Commonwealth Bank
Firstrand
Hang Seng Bank
HSBC
Itau Unibanco
Julius Baer
Standard Chartered

AMP Ltd
Prudential Plc
Royal Sun Alliance

Source: Goldman Sachs Research

Executive summary: Looking through the gloom

Since the global financial crisis began, the financial sector has been at the epicenter of economic and political uncertainty. In an environment of major capital and liquidity stresses, the equity market has understandably focused more on companies' survival prospects than longer-term business strengths. Although weaker institutions will struggle in an environment of continued deleveraging, sluggish economic growth and increased regulation, stronger institutions with the earnings power, capital strength and competitive position to expand profitably have a platform to deliver sound returns and growth in the coming years. As a result, despite the near-term uncertainties, we believe current conditions offer a compelling backdrop to assess the longer-term outlook for the global industry and companies best positioned to thrive.

Over longer investment horizons, returns on capital have correlated closely to both earnings growth and total shareholder returns; companies that have achieved above-median returns on capital over the past decade have outperformed those with below-median returns by c.8% annually on average. By focusing on long-term structural trends in the industry, identifying the characteristics of businesses most likely to thrive and applying objective measures to compare companies' strengths, the GS SUSTAIN framework seeks to identify future returns leaders across the global industry. We have applied the framework to 212 global financial institutions and identify 11 leaders well placed to deliver long-term outperformance.

Economic realignment continues to drive industry growth; composition of demand is changing…

Global economic realignment should drive continued strong financial services growth in emerging markets, but the composition of this growth is changing. Credit demand is beginning to rise, reducing the surplus of capital that has accumulated in many growth economies, which in turn coincides with both falling margins and rising credit costs in those markets. The structure of financial services demand is also changing as emerging market populations become wealthier; basic banking services increasingly will be replaced by alternative savings and credit products – such as consumer credit services, asset management and insurance – facilitated by disintermediation of the financial systems in those countries. As a result, a growing proportion of the industry's growth in those markets will accrue outside the banking sector.

In developed markets, where many institutions grew in the decade before 2008 by leveraging the funding that stemmed from emerging market capital surpluses, financials have had to adjust to greater capital scarcity.

…but exposure to growth alone may not be sufficient

While geographical exposure will likely remain a key driver of growth across the global industry, exposure to growth markets alone may be insufficient to support strong returns on capital. As they start to mature, the differences between individual growth markets will become increasingly important – the structures of financial service industries, the indebtedness of financial systems, and government ownership will prove key determinants of the returns generated in different countries.

Tougher regulation – returns likely to revert to historical trends but winners & losers may change

Toughening regulation – raising capital requirements and limiting the allowed scale and scope of activities for major institutions – will also prompt change in the structure of the industry and the activities of different groups within it. Notwithstanding concerns that regulation will undermine the industry's return potential, we note that over the past three decades, the industry's aggregate return on equity has consistently reverted to around 10.5% (the industry ROE has been within 2.5% of this average three-quarters of the time since 1980 and has not remained outside that range for more than three years). We expect the same reversion towards cost of equity in the future – the transition will likely present challenges to some business models and institutions, but opportunities for others. Regulators have also demonstrated a determination to impose tough penalties for control failures and rule-breaking, as evidenced by a string of recent costly fines for major players, including relating to money laundering, LIBOR and mis-selling. By focusing on those companies already well placed to thrive in such an industry environment, we believe investors can most successfully navigate the changes facing the financial sector.

GS SUSTAIN provides an objective framework to identify future leaders

The GS SUSTAIN framework is designed to identify the companies in the strongest position to maintain industry-leading returns on capital (ROA/ROE) over the long term. Doing so requires analysis of the major structural trends facing the industry and the characteristics of companies able to sustain a competitive advantage and superior returns against this backdrop of change (summarised in Exhibit 1). We have examined 151 banks and 61 insurance companies with a combined market capitalisation of US$5.5 tn under the GS SUSTAIN framework; this assessment integrates objective, quantitative analysis of companies' (1) returns on capital (ROA/ROE), (2) industry positioning (strategic strengths) and (3) management quality (management of the environmental, social and governance issues facing the industry). Through this analysis, we identify 11 global leaders. The same logic and analysis can be applied to institutions in individual regions, highlighting those companies in the strongest positions relative to local peers. Exhibit 45 on page 36 highlights leaders in each region.

Exhibit 1: GS SUSTAIN analysis highlights 11 global leaders

GS SUSTAIN leaders' ranking relative to respective peers in key dimensions of GS SUSTAIN framework (full details of analysis from page 52)

Institution	Return on capital		Industry positioning	Management quality (ESG)
	ROA (Banks)/ROE (Insurers)	Percentile ranking	Percentile ranking	Percentile ranking
HSBC	0.7%	58%	66%	96%
Standard Chartered	0.8%	65%	68%	92%
BBVA	0.8%	59%	76%	84%
Julius Baer	1.0%	73%	61%	60%
Commonwealth Bank	1.0%	74%	82%	96%
Hang Seng Bank	1.5%	92%	77%	88%
Itau Unibanco	1.8%	65%	79%	88%
Firstrand	1.7%	96%	70%	75%
Prudential Plc	18%	93%	82%	98%
RSA	11%	61%	75%	90%
AMP	14%	83%	87%	87%

Source: Goldman Sachs Research.

No industry has seen more structural change in recent years

The industry has undergone significant structural shifts since we first assessed global financial sectors within GS SUSTAIN in 2008. The implosion of businesses that had historically proven highly successful (Lehman Brothers and Bear Stearns outperformed the US financials sector by over 100% and 60% respectively between 2000 and 2008) marked the beginning of a reversal in many of the trends that had underpinned success over the previous decade.

A decade of deregulation, rising leverage and diversification prior to 2008 – starting around the time Citicorp and Travelers merged in 1998 (and the subsequent Gramm-Leach-Bliley Act that allowed the combination of commercial and investment banking) – has begun to reverse and has further to go in the coming years. The Basel III regulatory standards for the banking industry, agreed in 2010-11, may raise required capital levels by an estimated 50% across the industry; subsequent agreements outlined further increases for large, systemically important institutions. Increased capital requirements, along with the drying up of wholesale funding, will place greater value on deposit-led rather than lending-led growth.

Social and political views towards the industry have turned significantly more sceptical in recent years, primarily across developed markets, as a string of high-profile scandals and control failures has hit many major institutions, prompting a fall in trust that will likely take many years to re-establish.

On the other hand, whereas many legacy business models will be challenged, key major market trends remain intact. Economic realignment continues to drive faster growth in financial services across emerging economies than in developed markets, the structure and discipline of markets remains a key determinant of profitability, and more stable, traditional banking areas (e.g. retail banking) continue to offer greater returns stability and visibility.

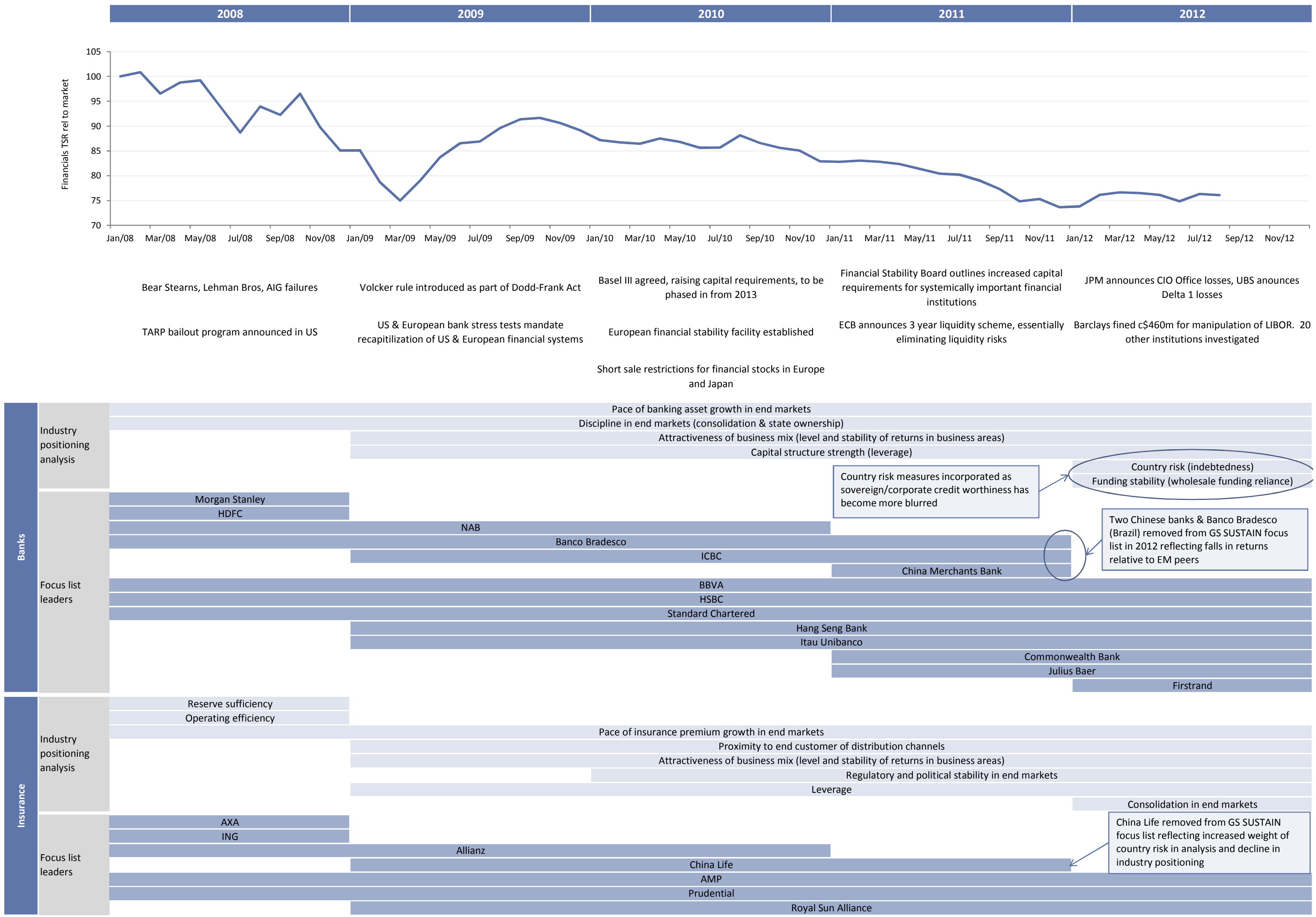
The analysis we apply has evolved to reflect the changes the industry is undergoing. In particular, this year we have incorporated country risk (national indebtedness, regulatory risk) and funding strength (reliance on wholesale funding for banks) into the measures of industry positioning we use.

Changes in the industry and consequently in the analysis we apply have resulted in changes to the GS SUSTAIN Focus List. In 2012, we removed all three Chinese financial institutions that had been included – ICBC, China Merchants Bank and China Life – as well as Banco Bradesco in Brazil. Those changes reflected a combination of (1) deteriorating forecast profitability relative to emerging market peers, and (2) declines in industry positioning scores, reflecting the incorporation of country risk measures into the framework.

Nevertheless, several leaders have been constant members of the GS SUSTAIN Focus List since 2008 – HSBC, BBVA, Standard Chartered, AMP and Prudential Plc have remained high return, well positioned and well managed leaders as the framework has evolved and the industry's profitability has deteriorated. Those leaders are well capitalised (and capital generating) businesses with relatively strong positions in a range of growth markets within effective governance structures and environmental and social risk management. While swings in sentiment towards their domestic markets have buffeted market performance in recent years, the fundamentals of their businesses remain intact. Four of those five leaders have outperformed the global financials benchmark since 2008 (BBVA being the underperformer).

In common with many large institutions, both HSBC and Standard Chartered have faced regulatory scrutiny for control failures during 2012, reflecting issues that began over a decade ago in both cases. The management quality (ESG) analysis we apply supports our view that both companies have taken steps to address the causes of those issues.

Exhibit 2: Ups and downs in global financials industry, framework and GS SUSTAIN leaders since 2008



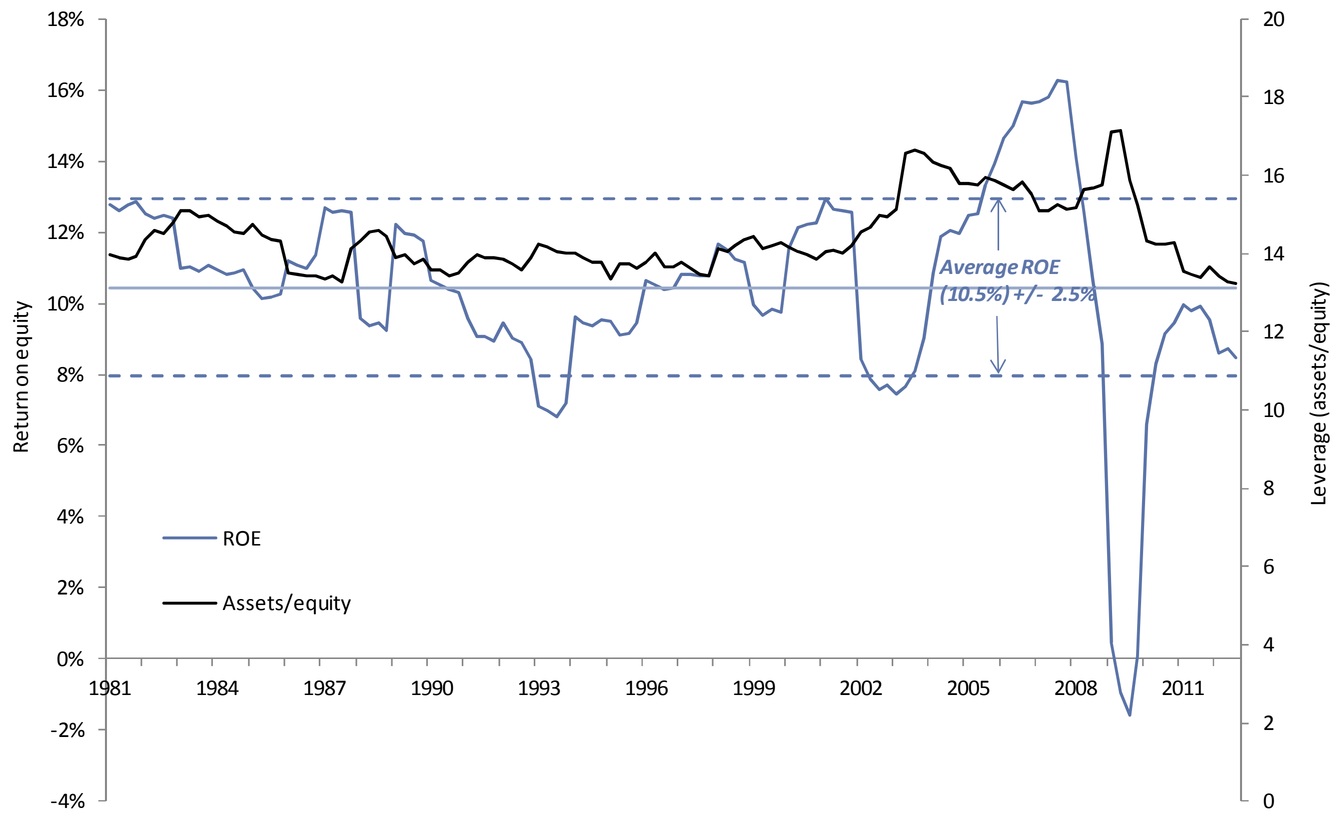
Source: Goldman Sachs Research.

While less emphasis has understandably been placed on longer-term industrial strengths and business model sustainability amid significant structural changes and concerns over companies' near-term viability, we believe a longer-term perspective is becoming increasingly valuable. Downside risks have not been eliminated, but the industry's recapitalisation and governments' support of the financial systems of developed economies appear to have reduced the risks for now, at least for stronger, better capitalised companies.

In 2008-09, returns cratered and leverage peaked across the industry, but both have now returned close to historical trend levels (Exhibit 3). This persistent tendency of industry returns on capital to revert to long-run levels – aggregate ROE has been within 2.5% of the industry's 10.5% average three-quarters of the time during the last three decades and has never remained outside that band for longer than three years – provides comfort that in the face of current uncertainties, the industry will adapt over time to similar profitability as in recent decades as capital exits low-return areas and pricing adjusts. The industry may have a different composition, but aggregate returns are likely to prove relatively robust.

Exhibit 3: Industry profitability and leverage have returned close to historical average levels

Global financials aggregate returns on assets, return on equity (%) and leverage (total assets/equity) (x)



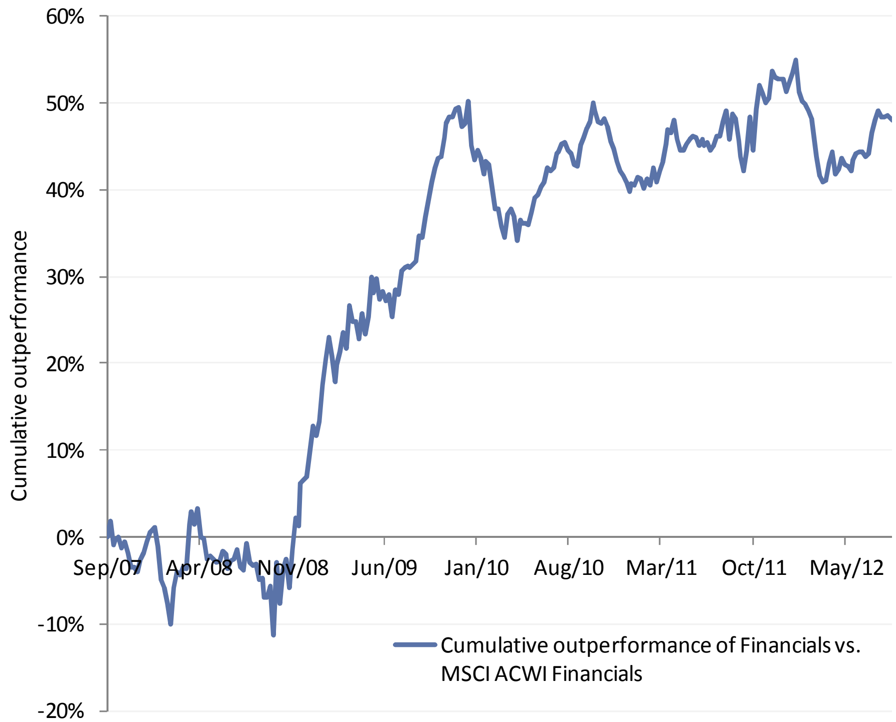
Source: Datastream, Goldman Sachs Research.

GS SUSTAIN is ultimately designed to deliver long-term outperformance. We first incorporated global financials into the GS SUSTAIN framework in September 2007, a period that spans the demise of Lehman Brothers and Bear Stearns, as well as recent financial crises in Europe. Over that period, the financials leaders identified through our analysis outperformed the global MSCI ACWI Financials benchmark by 47% (as of September 17, 2012; Exhibit 4).

While a significant proportion of this outperformance was achieved during the year following the collapse of Lehman Brothers, examining the underlying components of equity market returns highlights the durability of the strategy (Exhibit 5). Sustained high returns on capital over time have translated into superior earnings growth and revisions to the equity market's growth forecasts, which is ultimately the key to long-term equity market outperformance. The financials leaders included in the GS SUSTAIN Focus List have delivered consistently positive earnings momentum (relative to the trajectory of their global peers) over the past five years. Despite this stronger earnings momentum – which we expect the current leaders to maintain – financials leaders' valuation multiples have remained broadly in line with those of global peers and look to us relatively undemanding.

Exhibit 4: GS SUSTAIN financials leaders have outperformed their global benchmark…

Cumulative outperformance of GS SUSTAIN Financials leaders vs. MSCI ACWI

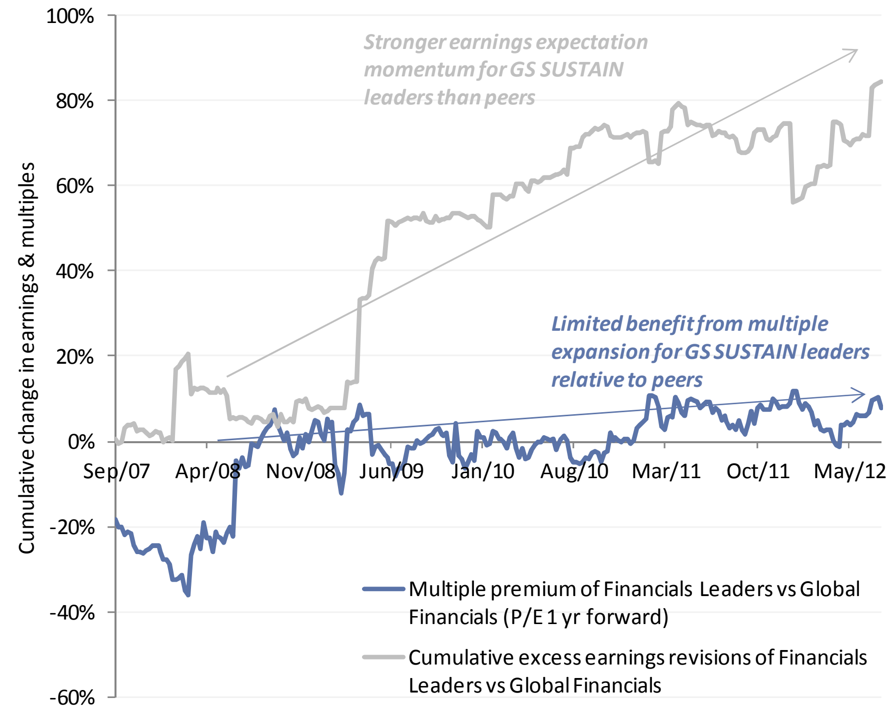


Note: Results presented should not and cannot be viewed as an indicator of future performance. Performance is calculated on an equally weighted basis relative to the MSCI All Country World index (market-cap-weighted total return series in US$). Full details of the performance of stocks in the GS SUSTAIN universe can be provided upon request.

Source: Datastream, Goldman Sachs Research estimates

Exhibit 5: …principally reflecting their stronger earnings growth

Cumulative revisions to earnings forecasts and to forward earnings multiples, both relative to 212 banks and insurance companies analysed in GS SUSTAIN



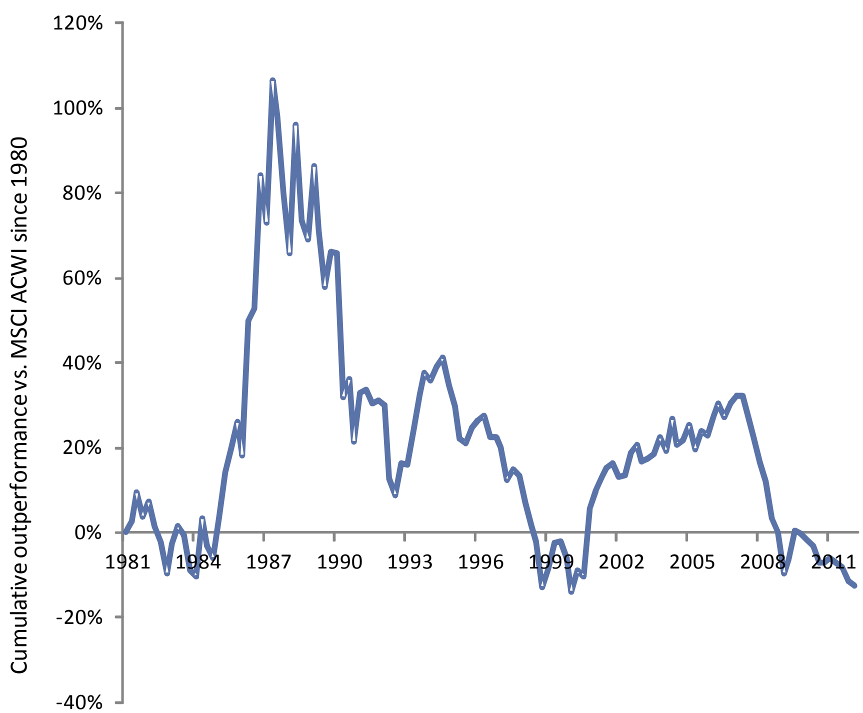
Source: Datastream, Goldman Sachs Research estimates

Growth exposure alone may no longer be enough for future outperformance

For most of the past five years, the equity market has mainly focused on the uncertainty over how financial institutions would cope with rapidly receding credit availability, where the burden of deleveraging would fall across the private and public sector, the effects of tougher regulation and whether – or in what form – major institutions would survive. The result of this focus on downside risk has been significant underperformance by the industry in aggregate.

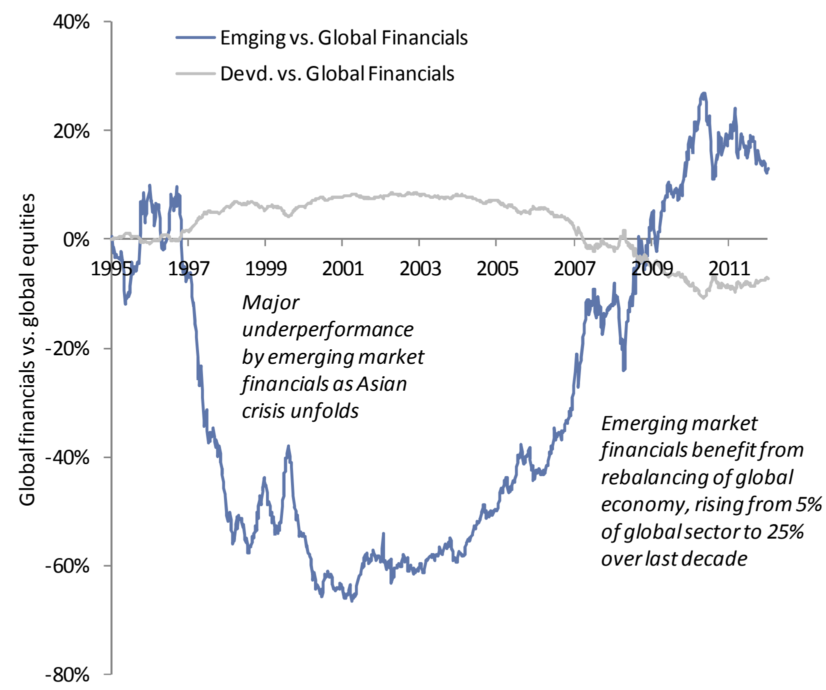
With those worries most acute in developed economies, emerging market financials have significantly outperformed over the past decade, reversing the fallout of the Asian crisis in the late 1990s (Exhibit 7). Over the same period, emerging market financials' share of the global sector benchmark (MSCI ACWI Financials) has quintupled from 5% to 25% of the total – a function of both their outperformance and the public listing of new institutions. Over the past year, however, emerging market financials have retreated relative to their developed market peers, and we believe generating future outperformance will require more discrimination than screening by country of domicile.

Exhibit 6: Global financials have provided a rollercoaster ride but no outperformance over 30 years
Global Financials cumulative outperformance relative to MSCI ACWI (quarterly)



Source: Datastream, Goldman Sachs Research.

Exhibit 7: Emerging market financials have significantly outperformed developed market financials over the last decade
Emerging and developed market financials relative to global sector

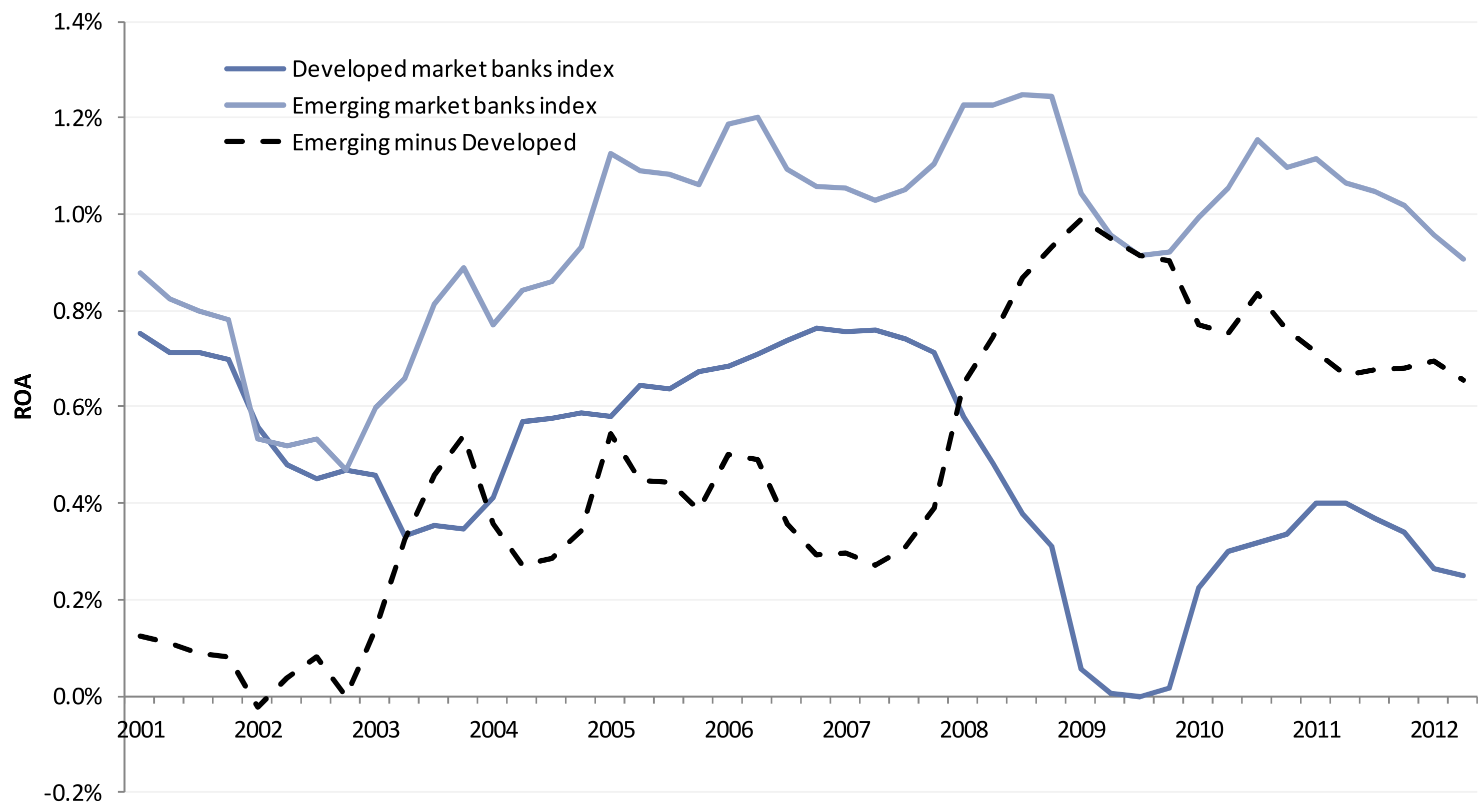


Source: Datastream, Goldman Sachs Research.

Over most of the past decade, exposure to emerging growth markets has been sufficient to drive strong returns and outperformance. Looking ahead, however, it will be increasingly important to discriminate between markets based on structural characteristics and between companies' business models.

Returns pressures in emerging markets are reflected in the convergence in developed and emerging market returns in recent years. This trend is most evident in the banks sector, given the limited representation of emerging market domiciled companies in the global insurance sector. Having generated materially stronger returns for the last decade, emerging market banks are moving closer to their developed market counterparts. This trend is already evident (Exhibit 8). Having begun to diverge around a decade ago (prior to which returns were higher in developed markets), returns on assets across both regions have begun to converge in recent years.

Exhibit 8: Developed and emerging market banks' returns have begun to converge
Average ROA of developed and emerging market listed banks



Source: Datastream, Goldman Sachs Research.

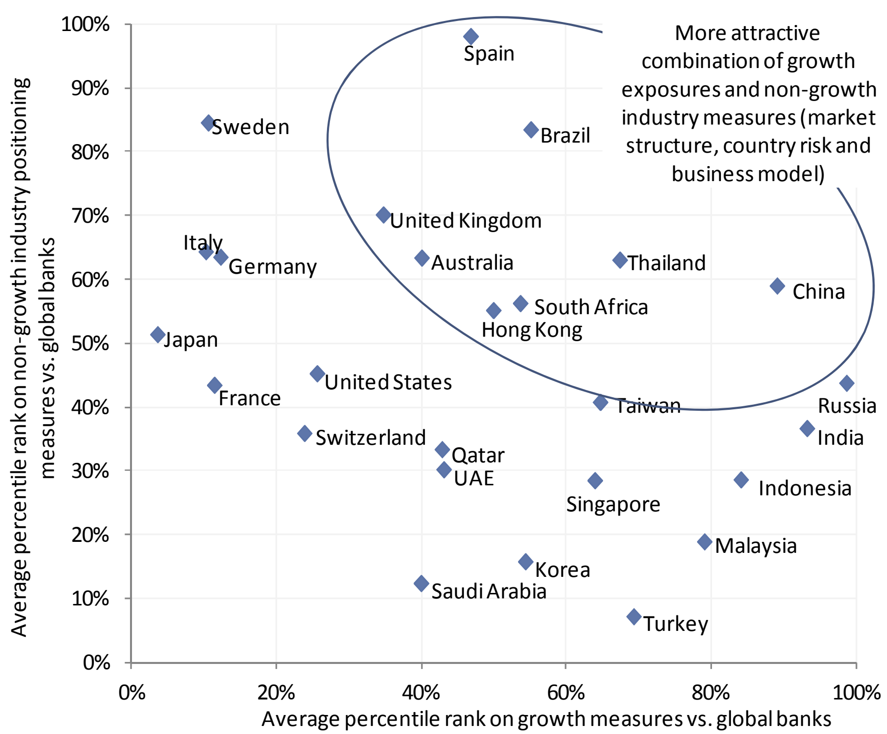
Given the declining importance of growth exposure in isolation as a driver of returns on capital, and the rising importance of non-growth aspects of business models, we believe the best positioned institutions will be those combining strong growth exposure with other dimensions of the analysis we apply.

Exhibits 9 and 10 compare the attractiveness of the banking and insurance sectors (for companies listed in major markets) on both growth and non-growth dimensions. Institutions in many of the fastest-growing countries are relatively poorly positioned on other dimensions of industry positioning. The industry positioning analysis applied to financial industries combines measures of growth exposure with industry structure and business model comparisons, reflecting the key trends detailed in the next section.

The financials leaders included in the global GS SUSTAIN Focus List typically combine strengths on both dimensions; many of these leaders are domiciled in the 'more attractive' markets highlighted in the exhibits below.

Exhibit 9: Industry positioning percentiles for growth vs. non-growth metrics, country averages (banks)

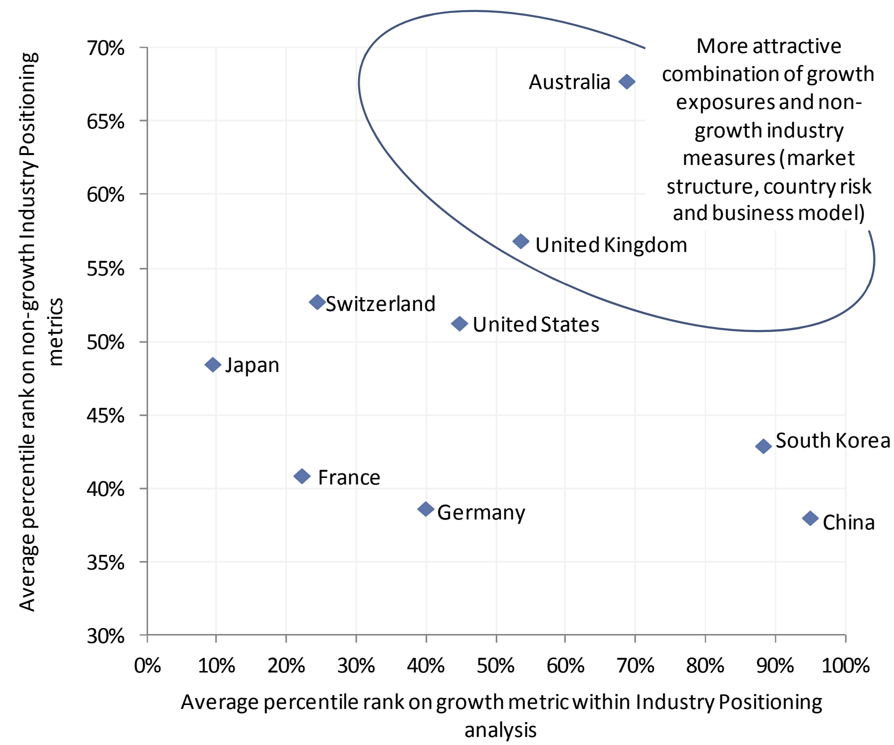
Growth vs. non-growth industry positioning measures, average by listing country



Source: Company data, Goldman Sachs Research.

Exhibit 10: Industry positioning percentiles for growth vs. non-growth metrics, country averages (insurance)

Growth vs. non-growth industry positioning measures, average by listing country



Source: Company data, Goldman Sachs Research.

Key trends in global financial markets intact, but business models challenged

The crises of the past five years have caused a series of acute dislocations across financial sectors. The market appears to have focused on these as discrete events, but we view the crises as symptomatic of an ongoing reversal in underlying industry drivers, which we expect to persist through the next five to ten years. Rather than estimating the direction of sovereign borrowing costs, pinpointing the detail of regulatory change or identifying the next institution to face liquidity or regulatory concerns, we believe there is value in focusing on the trends underlying these events, and their longer-term implications. The GS SUSTAIN analysis we apply has accordingly evolved to reflect the industry's shifting competitive drivers (Exhibit 11).

Recent years have marked a reversal from less to more regulation, from growing to narrowing global capital imbalances, and from abundance to scarcity of capital. The credit crisis of 2008 and more recent concerns over Europe's financial and sovereign indebtedness and liquidity are symptoms of the stresses of excessive leverage that have accumulated in many developed markets.

While those shifts will have a significant impact on business models across the global industry, other long-term trends in demand – in particular the rising importance of emerging economies – continue unabated. As they grow wealthier, emerging market populations are likely to borrow more and save less of their income, reducing the capital surplus that has built over the last decade, much of which funded the growth in developed market credit over the last decade.

While their contribution to global growth is rising, as emerging financial markets mature, margins are declining, leading to a convergence in developed and emerging market returns on capital. As a result, it will prove increasingly important to identify institutions able to sustain strong returns, through the structure of their markets, business models or cost efficiencies, rather than through growth exposure alone.

In contrast, in mature economies, reduced access to wholesale funding and deleveraging are prompting a return to more traditional business models. Central bank liquidity windows notwithstanding, deposit funding is becoming increasingly valuable, raising the relative value of traditional deposit-taking banking.

Customer relationships have become more critical as competition for funding has intensified – strong capital bases and access to secure funding are key sources of competitive advantage. Similarly, in the insurance sector, companies' ability to maintain strong customer relationships in the face of disintermediation through aggregator channels has made these relationships more important to sustainable business models.

Across the world, we expect regulators and governments to play an increasingly active role in the industry. Recent years have underscored the importance of the financial system to national and global economies, and the failure of the regulatory controls previously in place to avert the crises that occurred. The precise path of regulatory change is unclear, but focusing on regulators' ultimate goals – to reduce the likelihood of future financial crises and to limit their impact if they do occur – provides a clear outline of the likely direction of change: greater capital requirements and limitations on major institutions' risk-taking.

Critically, the industry faces an unprecedented level of social mistrust; blame for the causes of recent crises and the subsequent economic slowdown has been laid at the sector's door. In an environment in which less than a quarter of developed nations' populations have trust in financial service companies (according to a survey by Edelman), the ability to restore faith in the industry and individual institutions will be a critical source of advantage, albeit one that is hard to measure.

Linked to this deterioration in trust in the industry, regulators are becoming increasingly stringent in the penalties they apply to institutions found guilty of rule-breaking and internal risk management and control failures.

The structural trends on which our analysis focus inform the drivers of competitive advantage that we expect to separate well- from poorly-positioned companies across the industry. In turn, these inform the analysis we apply within GS SUSTAIN to identify future leaders across the global industry.

Exhibit 11 outlines the key trends on which our analysis focuses across the global financials industry, the implications of those trends for future profitability and the resulting industry positioning and management quality analysis we apply to identify the companies best placed to sustain industry-leading returns on capital.

Exhibit 11: Key trends and implications

Structural trends, implications for return on capital drivers and resulting industry positioning and management quality (ESG) analysis

Global Financials faces changing structural industry trends…	…which will impact future return on capital drivers…	…and underpin the industry positioning and management quality (ESG) analysis we apply	
Emerging economies continue to drive growth…	We believe economic growth and deepening financial markets in emerging economies will underpin financial services growth 2-3x faster than in developed markets	Industry positioning	Pace of financial services growth in end markets
…but converging profitabilities across developed and emerging market financials	Falling net interest margins in emerging economies, relative to developed, underpin a convergence in developed and emerging market returns		Industry structure and discipline
Reversal of capital imbalances, lower capital availability in developed markets	Rising borrowing in emerging economies is reducing the capital surplus that has funded the credit expansion in many developed economies, reversing which will require a prolonged deleveraging process		Access to secure funding
Increased sophistication of emerging economy financial services and deepening of financial markets	As wealth levels rise, borrowing is rising relative to deposits and demand for wealth management and insurance products is increasing		Exposure to business areas well placed to grow and least threatened by higher capital standards
Blurring of sovereign/financial sector boundaries	Governments' interventions to support financial sectors in many regions have created a linkage between sovereign and financial credit		Indebtedness and political risk of countries to which exposed
Increased regulation; higher capital requirements, reduced risk taking	Regulators are increasingly focused on minimising the risks posed by the financial sector via increased capital requirements and curtailing or increasing costs of higher risk activities		Well capitalised institutions with limited exposure to higher risk activities
Under a social spotlight; increased mistrust, social pressures	Companies able to restore consumers' trust will be at a significant advantage as developed economies' populations have lost confidence in the industry	Management quality (ESG)	Engagement with, and management of, changing social pressures
Higher penalties for control failures and rule-breaking	Penalties for rule-breaking or control failures will rise as regulators are provided a mandate to deter illegal activity		Board oversight of corporate controls and capital allocation

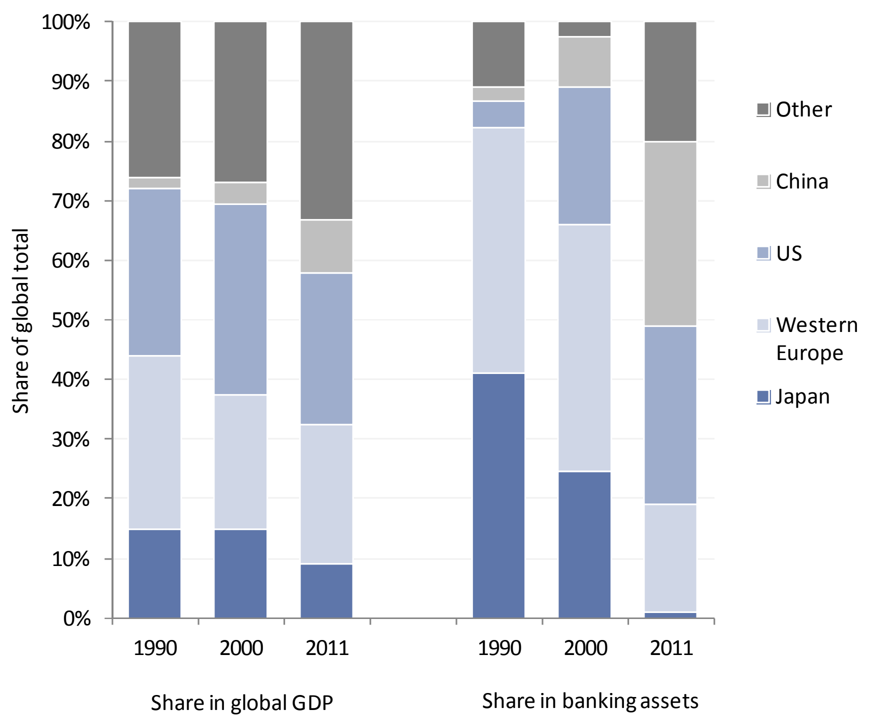
Source: Goldman Sachs Research.

Emerging economies continue to drive growth…

Over the last decade, the global industry has diverged along geographic lines. As their economic power has risen, emerging markets' demand for financial services has become a larger share of the global total, mirrored by a rise in their importance in the global sector's market value. Since 2000, over 90% of the growth in market capitalisation of global financials has come from emerging markets, contrasting with the dominance of developed G7 markets to growth in the prior decade (Exhibit 13).

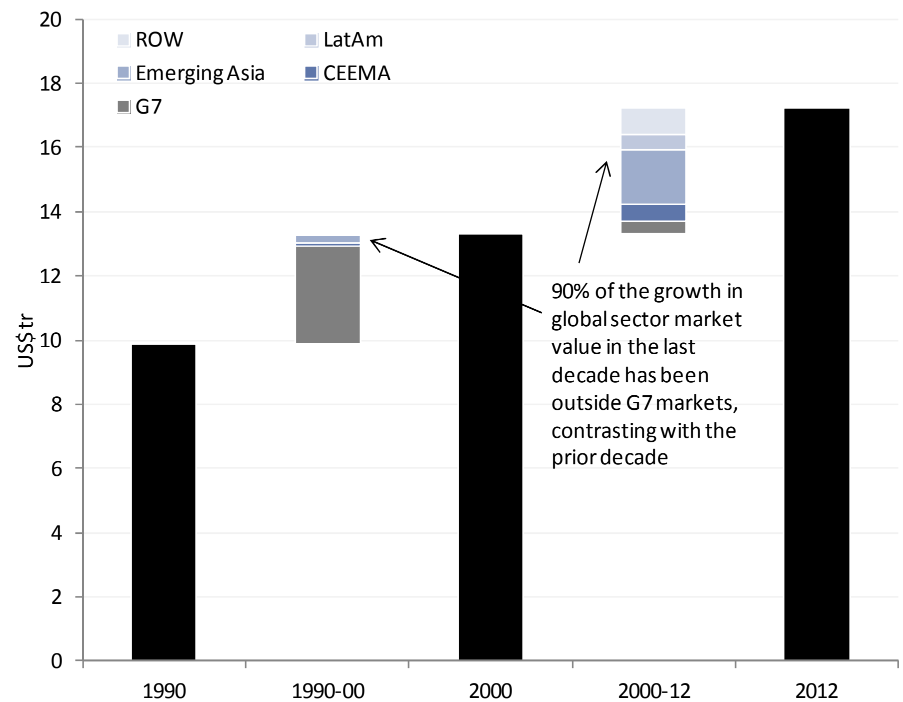
The migration of industry assets and market capitalisation towards emerging economies will likely continue. As wealth rises in those economies, the penetration of financial services typically continues to grow, compounding the effects of rising economic output (Exhibit 14). Developed economies, in contrast, face the prospect of subdued economic growth and already-mature demand for traditional financial services.

Exhibit 12: Geographical shift in financial services has mirrored economic realignment…
Regional share of GDP and share of banking assets of top 20 banks by assets, 1990-2011



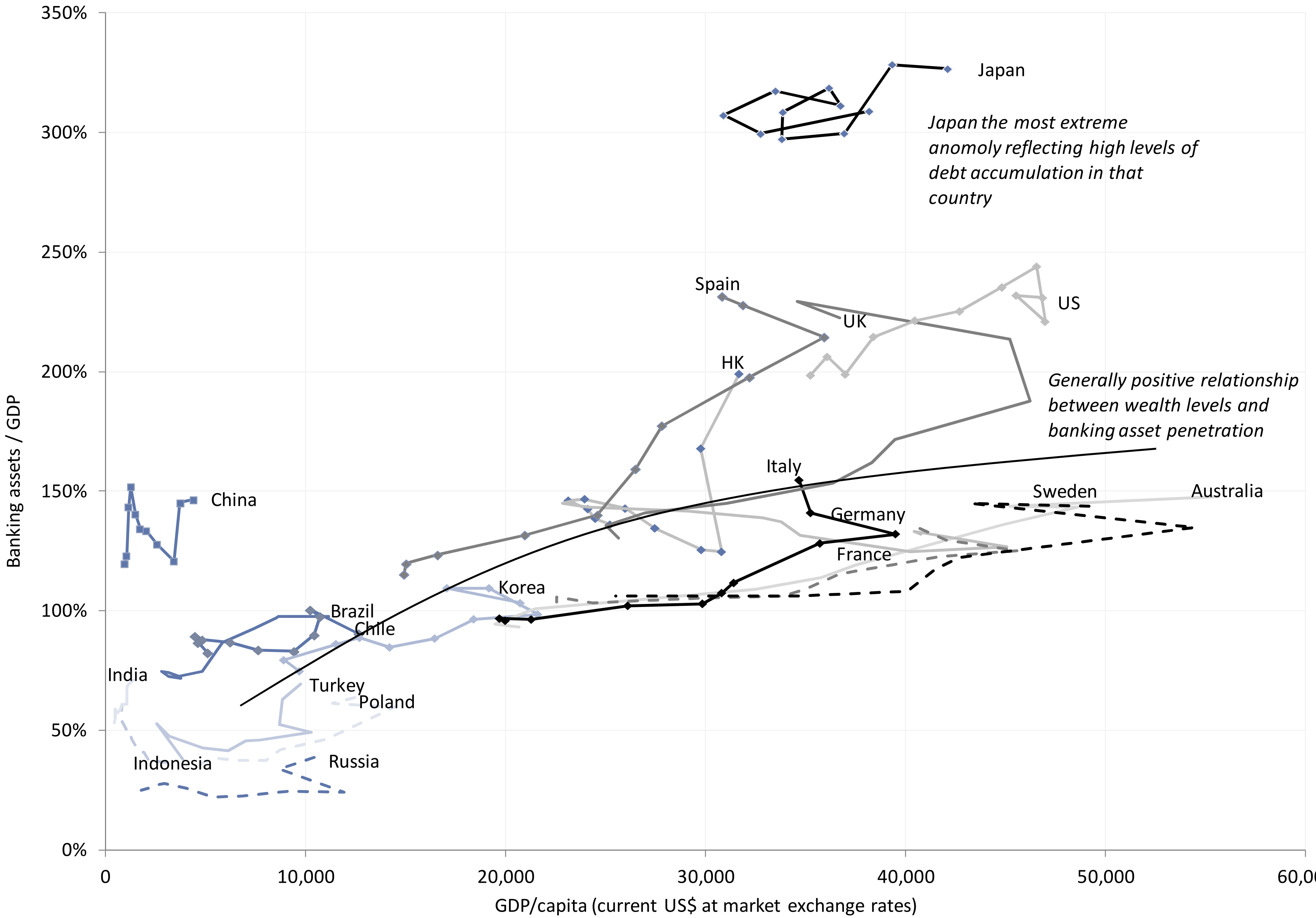
Source: The Economist, Datastream, Goldman Sachs Research.

Exhibit 13: …almost all of the industry's growth in the last decade has come from emerging economies
Contribution to global financials' market capitalisation growth by region, 1990 to 2012 (current)



Source: Datastream, Goldman Sachs Research estimates

Exhibit 14: Continued financial penetration as emerging economies grow wealthier
Banking assets/GDP vs. GDP/capita (2000-10 series for major countries)

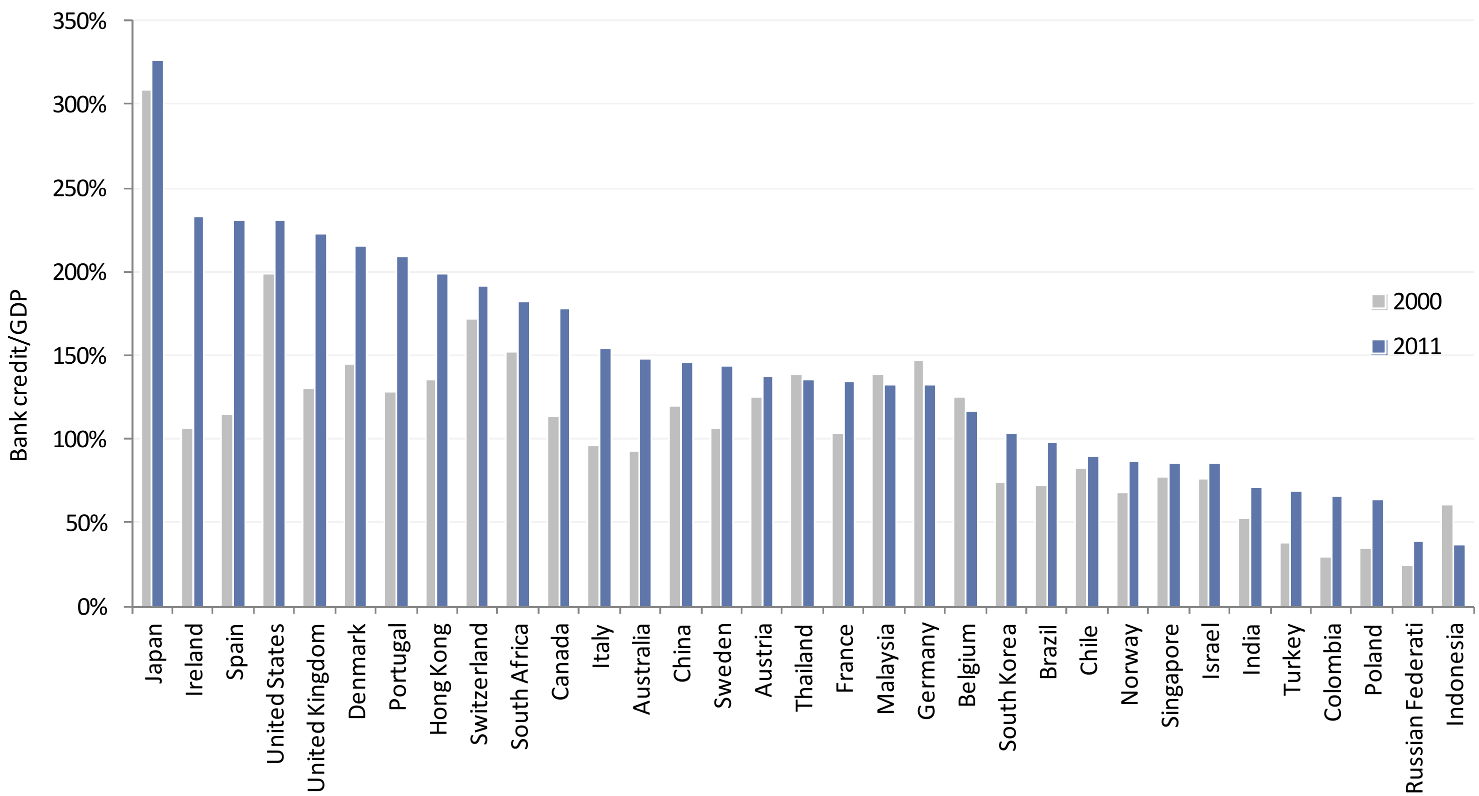


Source: World Bank, IMF, Goldman Sachs Research.

While rising wealth will support financial services growth in emerging economies, the banking sectors of many developed markets have reached a scale from which further growth will be limited. The headwinds are greatest in countries where credit and financial service industries are large relative to national economies, of which there are an increasing number. Since 2000, the number of countries among the world's 30 largest banking markets where bank credit outstanding is higher than 150% of GDP has quadrupled (Exhibit 15).

We expect that many developed market governments will seek to mitigate the risks posed by financial institutions by encouraging or mandating a reduction in the scale of their financial sectors and reducing the concentration of that risk by fragmenting currently consolidated industries or systemically important (large) institutions. These concerns are likely to present a headwind to further growth for large financial institutions in many developed markets, even in Europe where the industry is currently more fragmented than in the US.

Exhibit 15: Banking credit has reached a significant proportion of GDP in many developed countries
Domestic banking credit as % of GDP

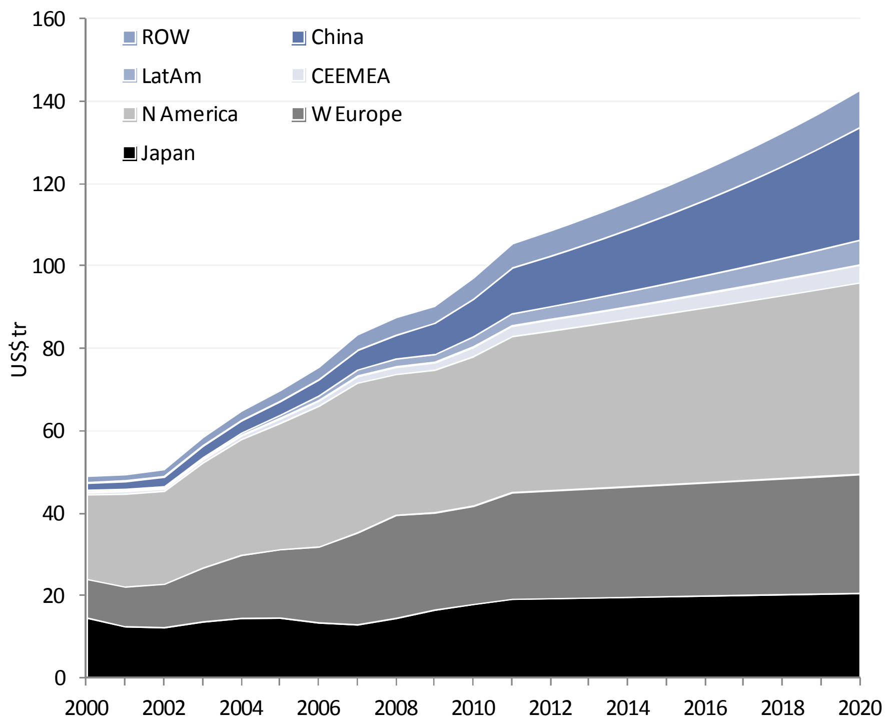


Source: World Bank, IMF, Goldman Sachs Research

As a result, emerging economies will likely continue to drive industry growth. Exhibit 16 outlines the historical growth in banking assets and implied future growth derived by combining our economists' GDP forecasts with the relationship between wealth levels and banking asset penetration in each country demonstrated in Exhibit 14.

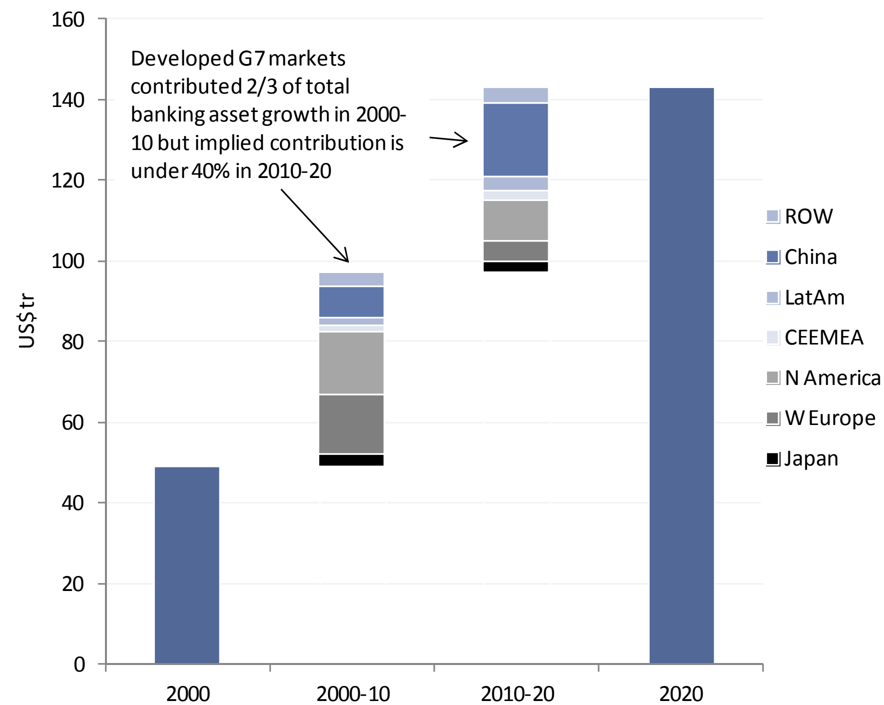
This analysis implies that approximately two-thirds of the total growth in banking assets will come from emerging economies over the next five years, almost twice as large a contribution as that of the past decade. While their contribution to the global total is rising, the pace of growth in emerging economies has been slowing and is likely to continue to do so in the coming years as they begin to mature – from 17% pa since 2000 to 10% pa over the next decade, based on the projections outlined below.

Exhibit 16: Emerging economies are driving banking asset growth
Banking assets by region, projections based on forecast GDP/capita and observed relationship between banking penetration and wealth



Source: World Bank, Goldman Sachs ECS Research, Goldman Sachs Research estimates

Exhibit 17: The majority of growth in the next decade will come from emerging economies
Contribution of developed and emerging economies to banking asset growth



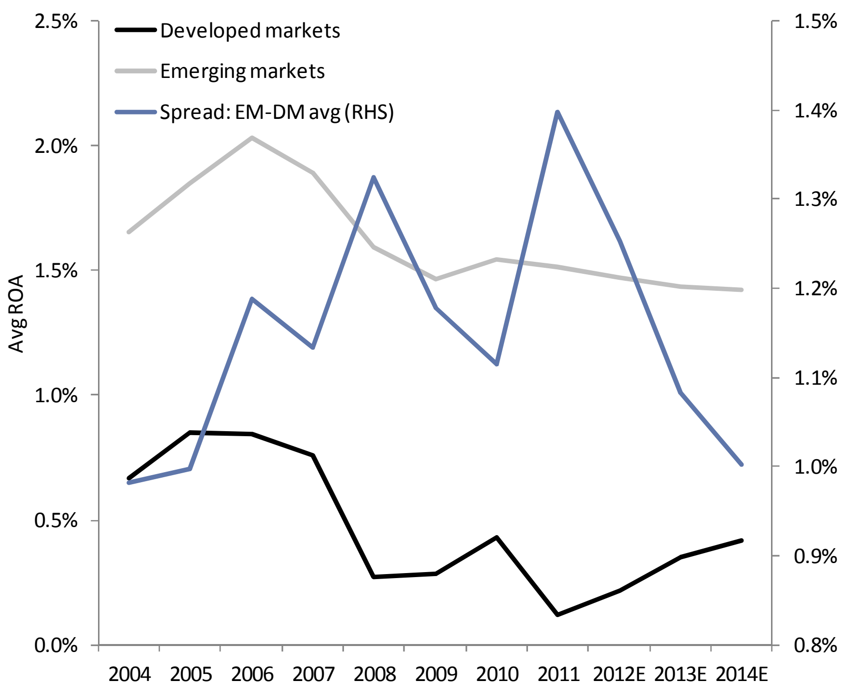
Source: World Bank, Goldman Sachs ECS Research, Goldman Sachs Research estimates

…but the returns of emerging market financials are converging towards developed market peers

While emerging markets continue to drive growth, profitability in many of those markets is coming under pressure. Exhibit 18 plots average historical and forecast ROAs of developed and emerging market-listed banks. Emerging market banks continue to generate higher returns than developed peers, but the extent of this advantage is shrinking.

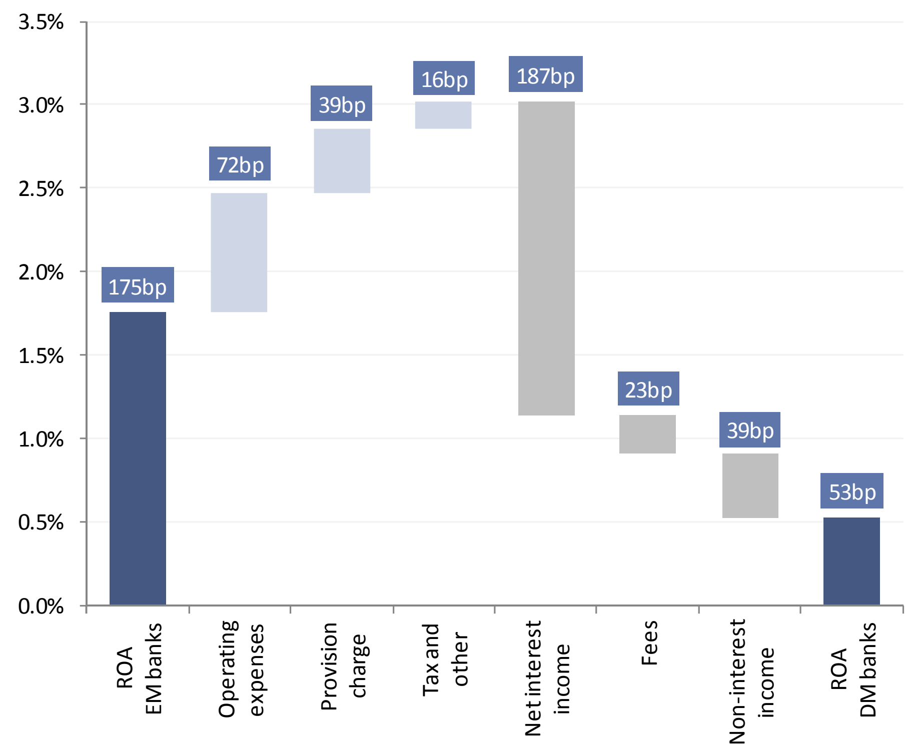
Exhibit 19 dissects differences in the components of banks' average returns on assets in emerging and developed markets; the stronger returns of emerging market-listed banks today mainly reflect stronger net interest margins (higher lending rates more than offset higher deposit rates). At the same time, emerging market institutions are typically less efficient and bear higher credit costs, though insufficient to offset their stronger margins. However, examining trends in these income and cost components (Exhibit 20) highlights the declining margins emerging market banks face, and resulting downward pressures on their excess ROA relative to developed market peers.

Exhibit 18: Emerging and developed market ROAs are converging
Average ROA of developed and emerging market banks



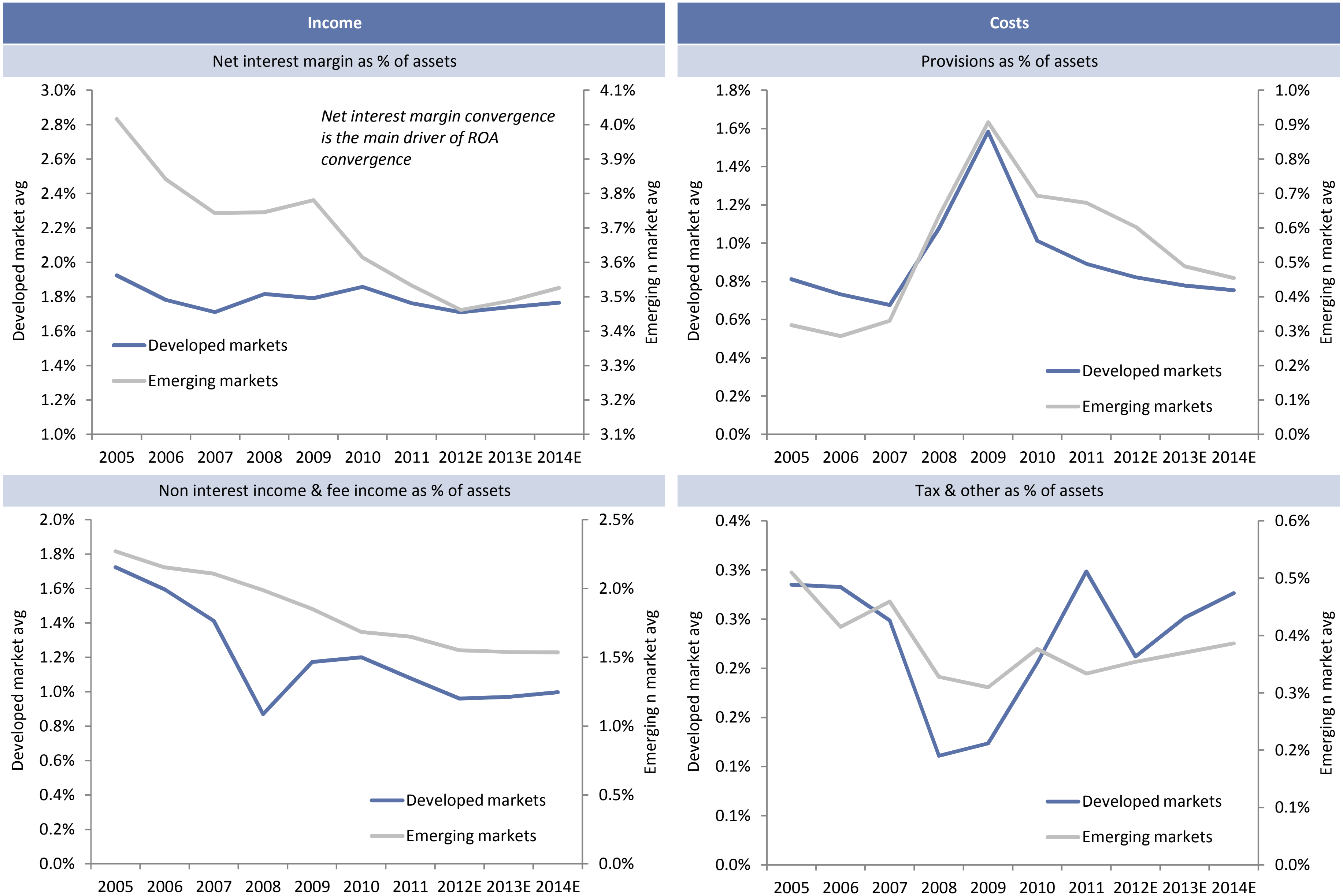
Source: Quantum database, Goldman Sachs Research estimates.

Exhibit 19: Net interest margins explain most of the ROA difference
Decomposition of differences between average developed and emerging market banking sector ROAs (avg 2004-11 ROA)



Source: Quantum database, Goldman Sachs Research.

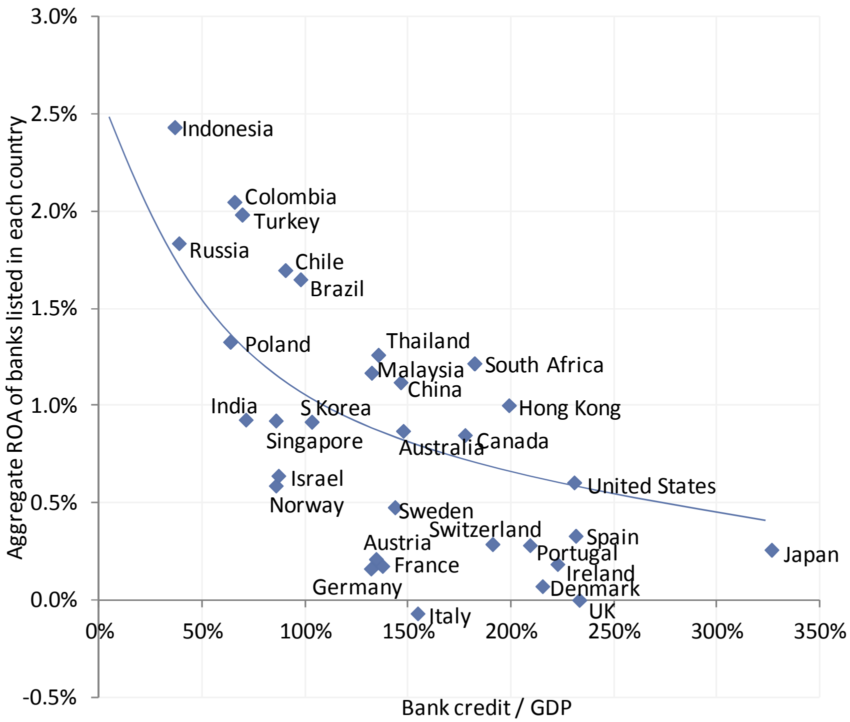
Exhibit 20: Trends in ROA drivers in developed and emerging markets highlight NIM convergence
Average income statement components as % of assets across developed and emerging market banks



Source: Quantum database, Goldman Sachs Research estimates.

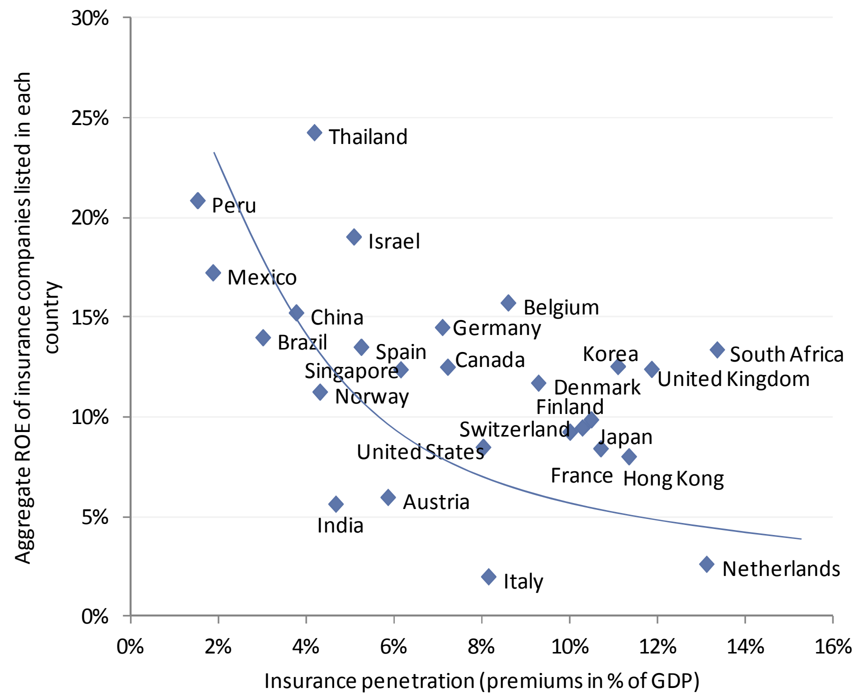
The prospect of convergence in returns is evident across the insurance sector, as well as in banks. While the listed emerging market insurance industry is a much smaller proportion of the global total than the more established banking sector, similar relationships between market maturity and returns generated by domestic companies are evident. As wealth levels and financial services penetration rise in today's emerging economies, we expect returns to move closer to those achieved in developed economies.

Exhibit 21: As financial systems mature, banks become less profitable ...
Banking penetration (banking assets/GDP) vs. average ROA by country (2011)



Source: Datastream, Goldman Sachs Research.

Exhibit 22: ... and so do insurance companies
Insurance penetration (premia/GDP) vs. average ROE by country (2011)



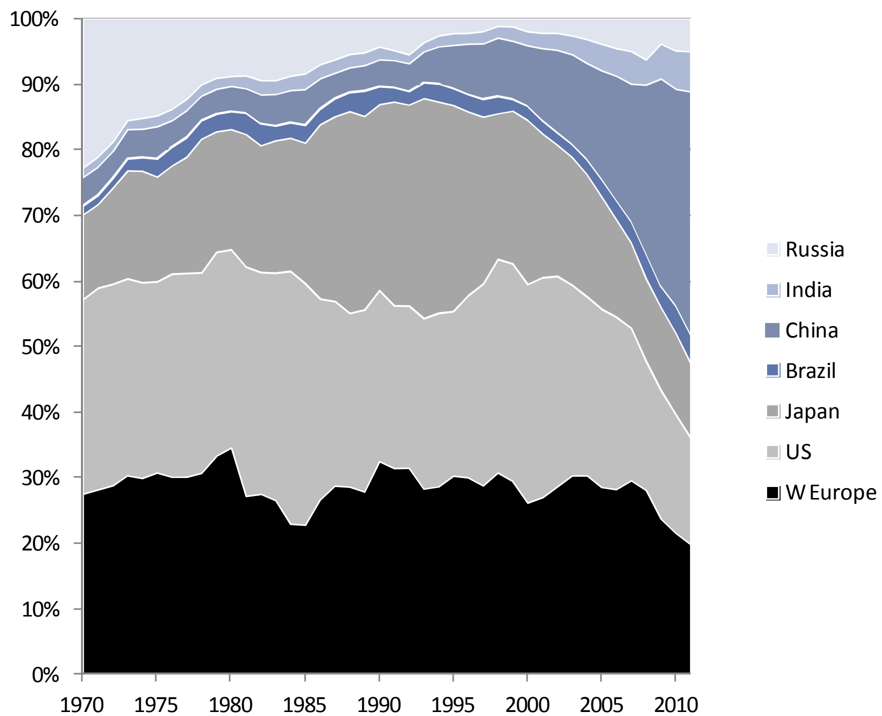
Source: Datastream, Goldman Sachs Research.

Capital imbalances are reversing; more domestic EM credit, less surplus capital in DMs

The global economy is passing from a period of excess capital, and growing global imbalances, to one of greater capital constraints and falling imbalances.

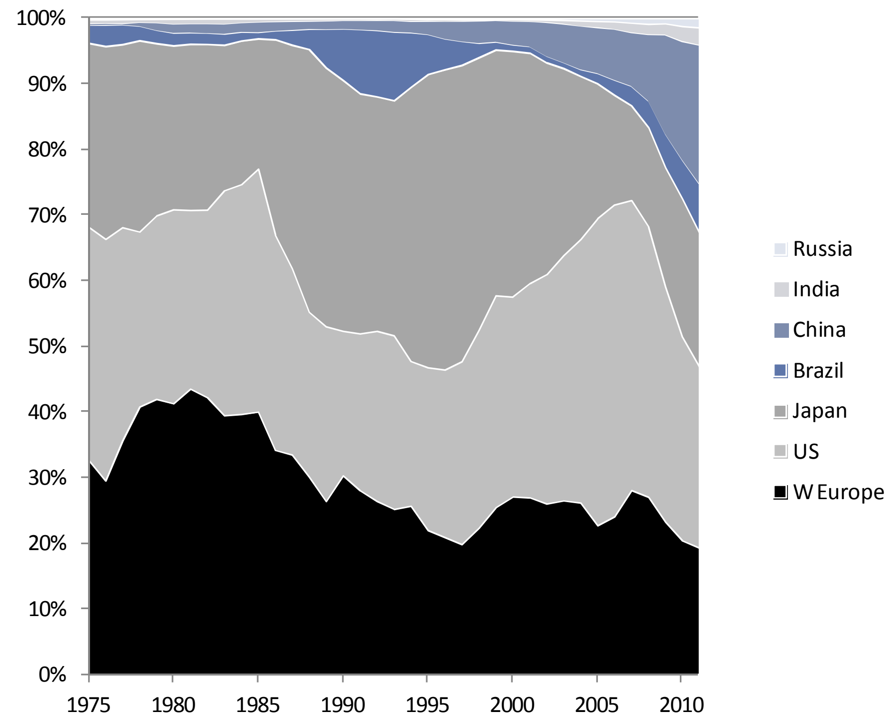
Rising wealth levels in emerging markets, and the tendency for savings growth to precede rising borrowing as these economies develop, have contributed to the imbalance between savings and debt in emerging markets and consequent global capital imbalances that have built in recent decades. Exhibits 23 and 24 plot the trends in global savings and credit growth over recent decades. While emerging markets' share of both has risen rapidly since the 1990s, growth in the supply of capital (savings) has outstripped demand (credit), resulting in a surplus of capital in those markets.

Exhibit 23: Emerging economies represent a growing share of capital accumulation…
Share of gross annual savings across major economies



Source: World Bank

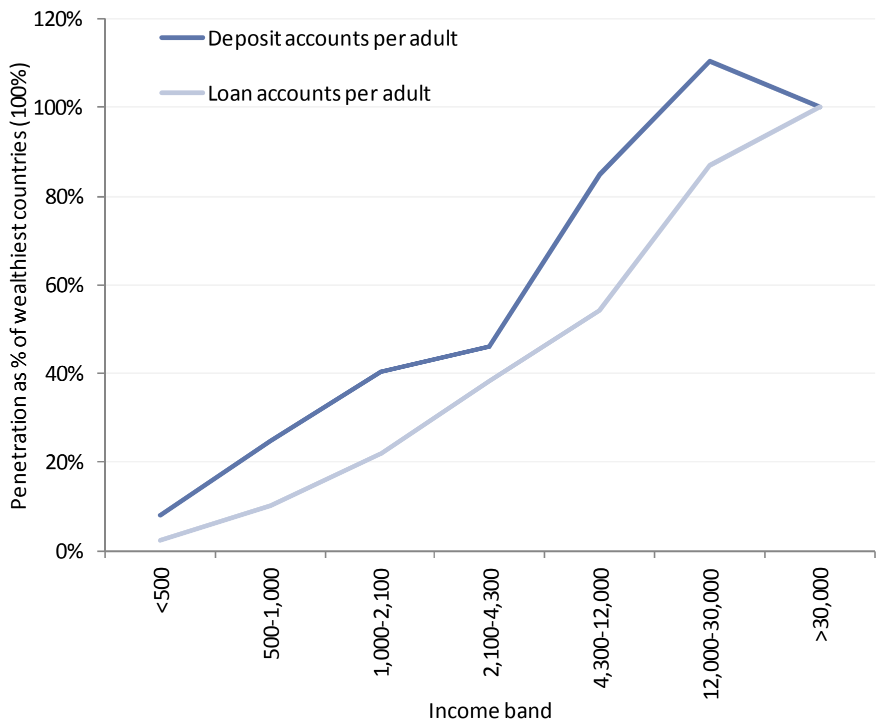
Exhibit 24: …and of credit use, although materially less significant globally
Annual credit use (increase in credit outstanding) (US$) by region, 5-year moving average



Source: World Bank

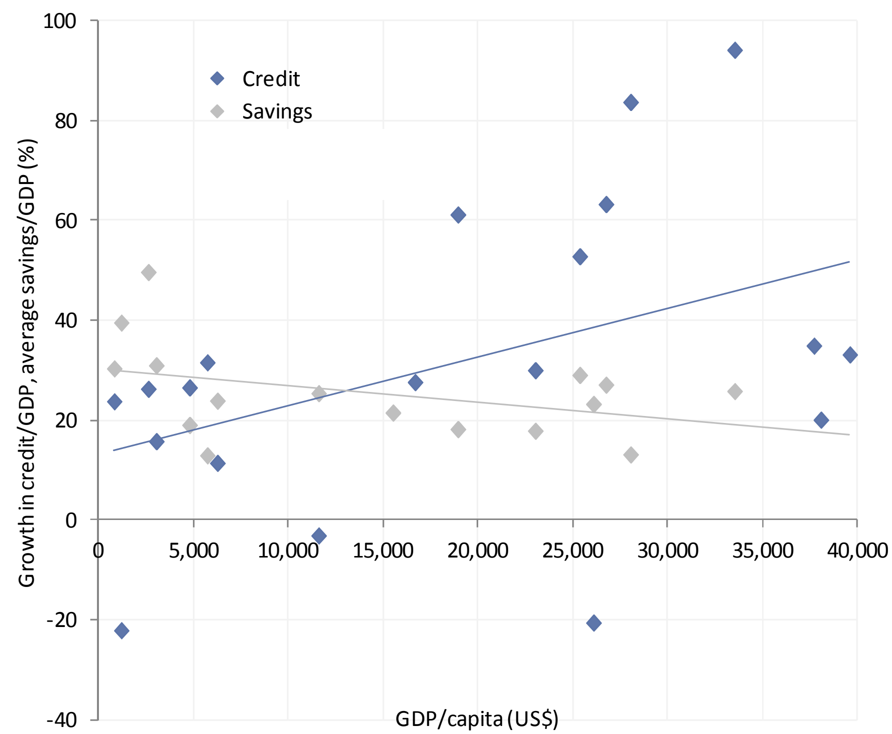
The divergence between savings growth and credit growth in emerging economies reflects the higher levels of income at which consumers start to borrow rather than save. More capital has accumulated in emerging economies than those markets have absorbed in investment domestically. As a result, emerging economies became 'exporters' of capital during the last decade, helping fund the credit expansion that supported economic growth in developed economies. As emerging economies grow wealthier, we expect their savings and borrowing rates to move further into line, resulting in greater credit and reducing the surplus of capital that has built up.

Exhibit 25: Wealthier countries have more borrowers
Annual average penetration of savings accounting and loans by income band (US$/capita) of countries, indexed to penetration levels in wealthiest countries



Source: World Bank, Goldman Sachs Research.

Exhibit 26: Borrowing tends to rise with higher wealth, whereas savings fall
Annual average savings/GDP (2000-11) and rise in credit/GDP (2000-11), by country



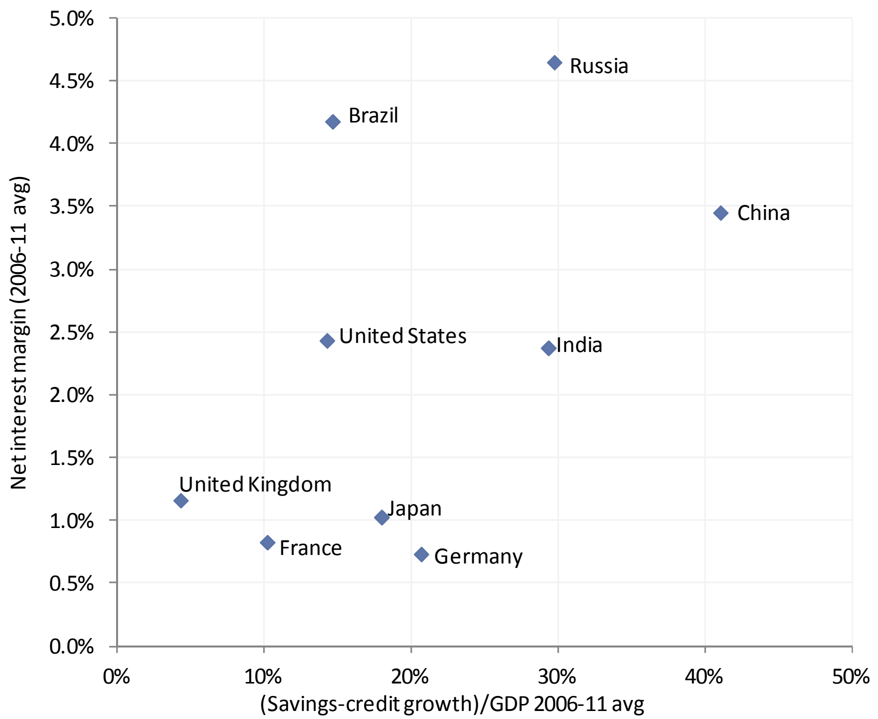
Source: World Bank, Goldman Sachs Research.

Surplus capital in emerging economies has helped underpin the relatively high returns companies in those markets have achieved. For instance, in the banking industry, high savings rates have typically allowed banks to provide relatively low deposit rates compared with the prevailing relatively high interest rates in many of those countries. As a result, in countries where savings rates are high relative to credit demand (principally emerging economies), net interest margins (lending minus deposit rates) tend to be materially higher than where borrowing exceeds savings (principally in developed economies; Exhibit 27).

However, as the excess of savings over demand for credit in emerging economies falls, net interest margins in those countries are coming under pressure (Exhibit 28). We believe the trend towards greater balance in savings and credit demand will drive continued convergence in net interest margins.

Exhibit 27: Net interest margins tend to be higher in countries with savings surpluses

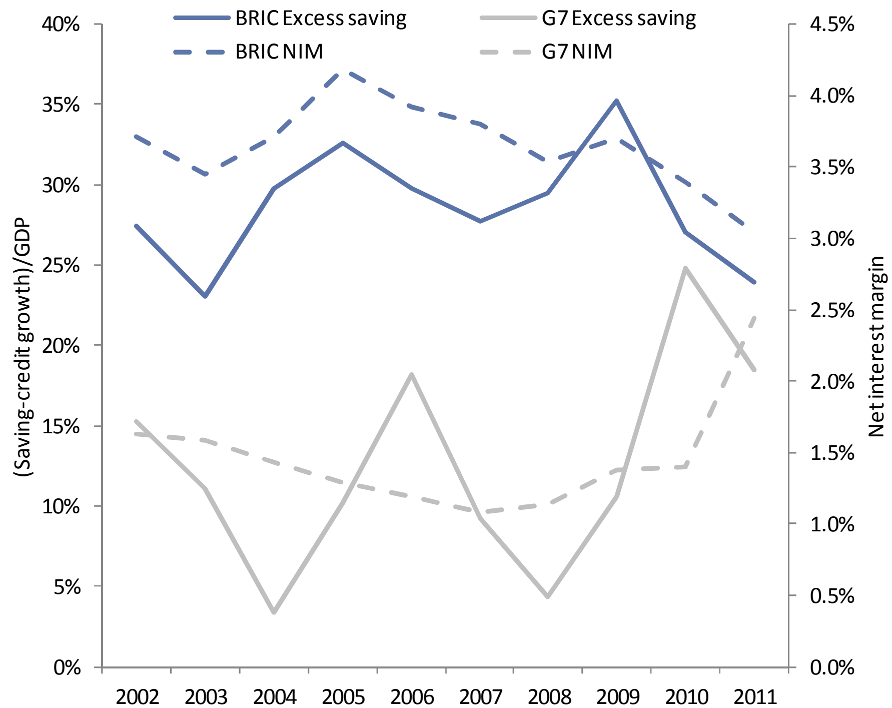
Excess of gross savings over credit growth (as % GDP) vs. net interest margins, 2011



Source: World Bank, Datastream, Goldman Sachs Research.

Exhibit 28: Convergence in savings is bringing NIM convergence

Excess of gross savings over credit growth (as % GDP) vs. net interest margins, average of BRICs vs. G7 countries



Source: World Bank, Datastream, Goldman Sachs Research.

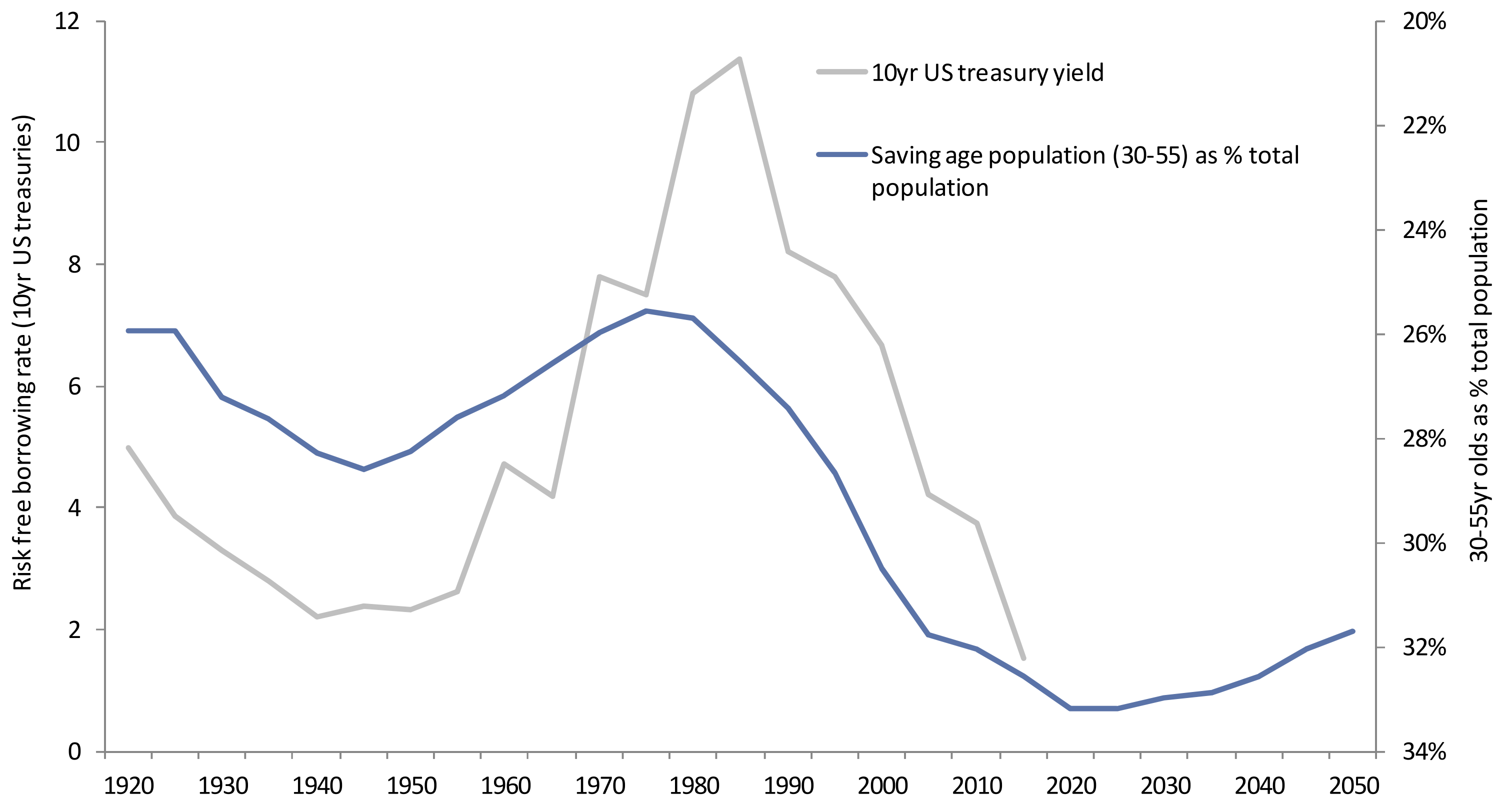
Compounding the challenges presented by realignment of global flows, demographic trends present headwinds to overall growth in the global capital stock. Savings tend to vary with age – people typically accumulate debt until around age 30, save more than they borrow between 30 and 55, and then deplete their savings thereafter.

As a result, the aging of the world's population presents a growing impediment to the accumulation of the capital that future investment will demand. Exhibit 29 plots the long-term relationship between the proportion of the world's population at peak savings age (30-55 years) and 10-year US treasuries (as a proxy of the risk-adjusted cost of capital).

As the world's saving population grew relative to borrowers over the last three decades, a period during which capital has been relatively abundant, the cost of capital has fallen. However, as the world's population enters a period of sustained shrinkage in its savings age population, without a shift in lifecycle savings patterns (of which there has so far been no evidence), capital is likely to become scarcer at an aggregate level, and more costly as a result.

Exhibit 29: Demographic trends imply capital will become more constrained

Global saving age (30-55) population as % of total population vs. benchmark borrowing rate (10-year US treasury yield, 5 year average)



Source: UN Population Division, Datastream, US Census Bureau, Goldman Sachs Research estimates.

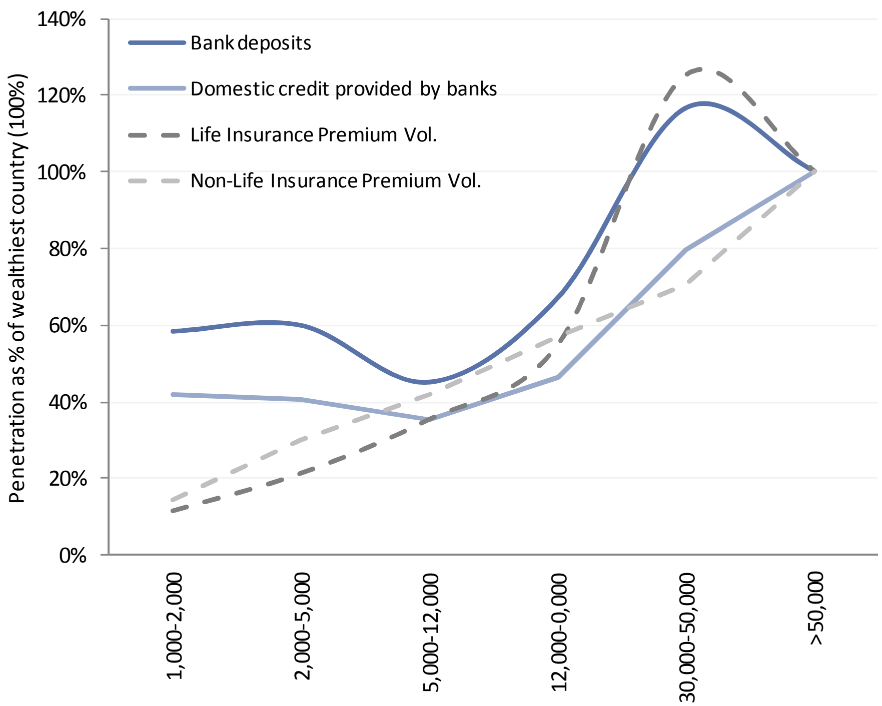
Emerging market financial services consumers are becoming more sophisticated

Rising wealth levels in the emerging economies that have driven growth over the last decade will likely underpin increasing sophistication in demand and a shift from traditional banking to more sophisticated financial services. Economies typically pass through an evolution from traditional banking services at lower levels of wealth (initially basic deposits to borrowing and more sophisticated banking services as economies become more mature) through to insurance and wealth management products at higher levels of income.

As a result, as demand for financial services continues to grow, a rising proportion of this growth will accrue outside the banking industry that currently dominates emerging market financial services. Currently, emerging market listed insurers represent less than 15% of the global industry's market capitalization, whereas emerging market banks contribute close to half of the total value of that sector.

Exhibit 30: As wealth increases, populations move first into banking products, then into insurance…

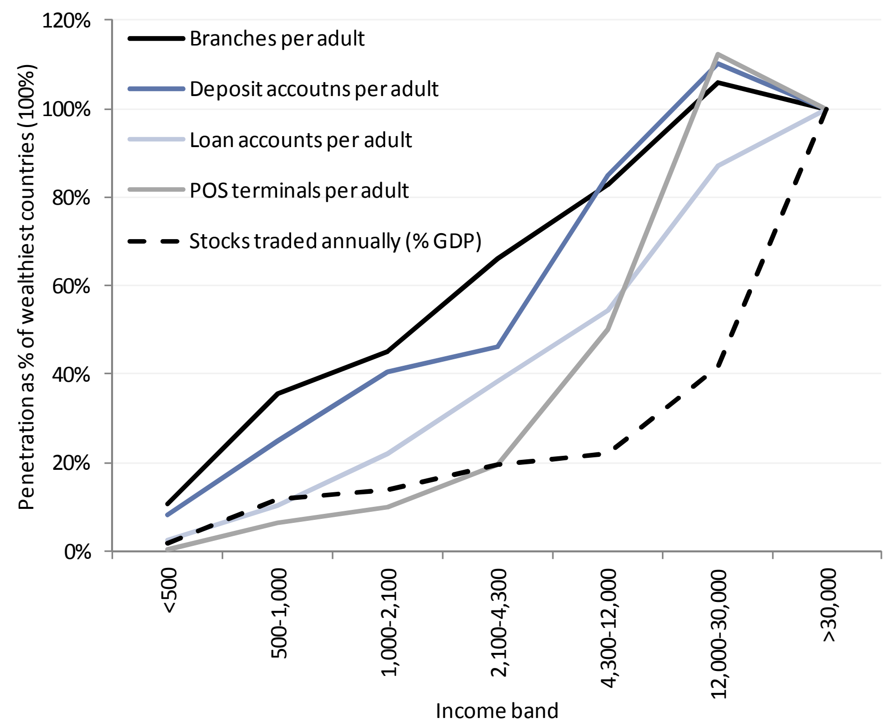
Avg penetration of financial services by average national wealth levels, indexed to wealthiest countries



Source: IMF, World Bank, Swiss Re Sigma, Goldman Sachs Research.

Exhibit 31: … and as GDP/capita rises further, increasingly sophisticated products are introduced

Avg penetration of financial products by average national wealth levels, indexed to wealthiest countries

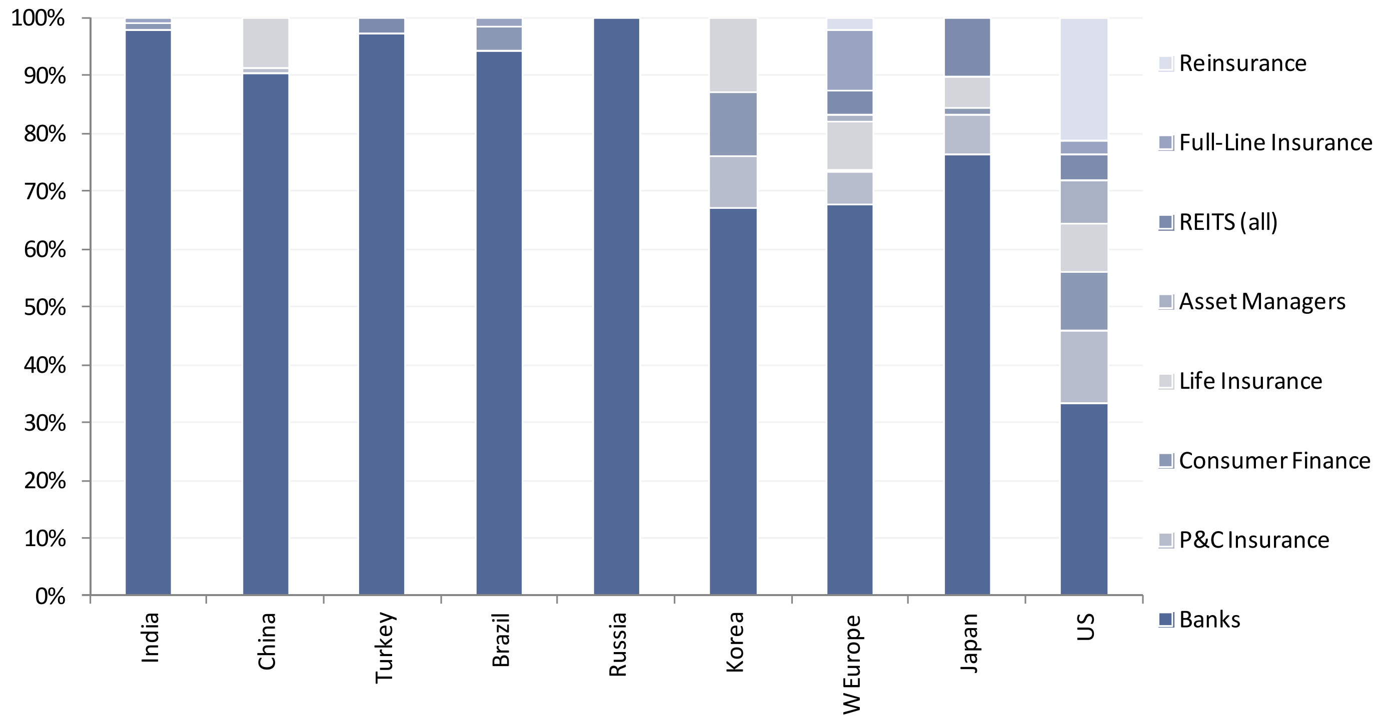


Source: IMF, World Bank, Swiss Re Sigma, Goldman Sachs Research.

Whereas growth in emerging economies has principally benefited the banking industry to date, going forward we expect the financial sectors of those markets to become more diverse. Rising wealth levels, deepening financial markets and greater consumer sophistication will likely underpin the growth of non-banking sectors in today's emerging economies, moving closer to the financial industry structures of wealthier countries.

Exhibit 32 plots the structures of financial service industries, based on the market value of each sector of major economies spanning a range of incomes. With the exception of Russia – in which banking continues to dominate – the transition from banking to non-banking sectors is evident. This transition will also present opportunities for international companies exposed to this growth. Whereas the banking sector of most countries is typically dominated by locally domiciled companies, insurance and other financial sectors are more international, providing opportunities to established multinationals.

Exhibit 32: Non-banking activities are typically a larger share of financial services income in more developed economies
2011 aggregate net income of listed companies in financial services subsectors, by country, ranked by GDP/capita (US$)



GDP per capita (2011)	**1,389**	**5,414**	**10,522**	**12,789**	**12,993**	**22,778**	**39,745**	**45,920**	**48,387**

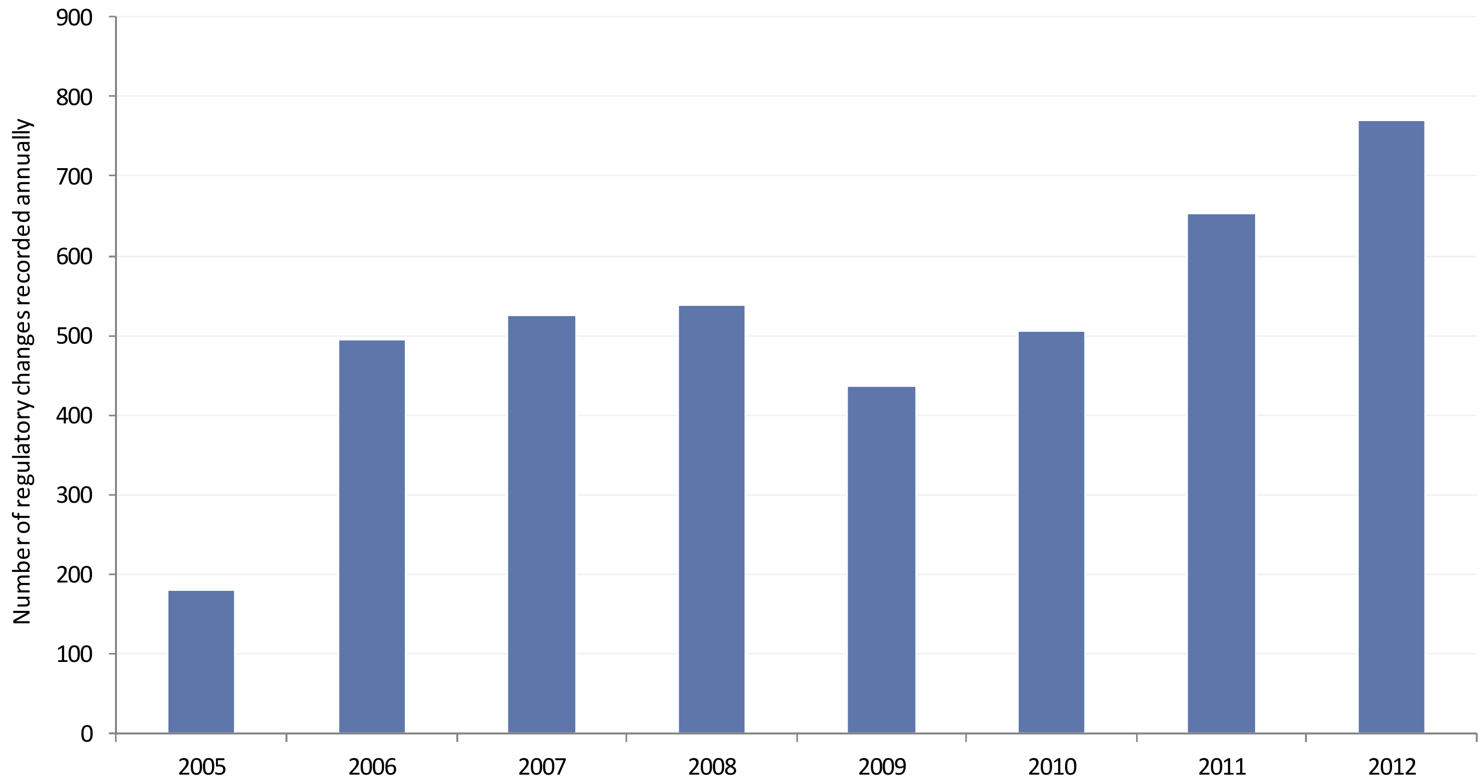
Source: Datastream, Goldman Sachs Research estimates, IMF WEO.

Increased regulation: Higher capital requirements, reduced risk-taking

The financial crisis of recent years has prompted a response from regulators seeking to reduce the risks of similar contagion from the financial sector to the broader economy and to limit the impact of failures where they do occur. The industry is seeing a reversal in the trend of several decades in which regulation provided institutions greater flexibility to determine the capital buffers they needed, to combine retail and wholesale banking activities and to diversify, with lower capital requirements as a result.

The shift from lighter to heavier touch regulation has become evident in recent years, reflected in a sharp increase in the number of regulations affecting the industry; Exhibit 33 plots the number of new regulations or amendments proposed by US Federal regulators in recent years, which have accelerated since 2008/09, with others currently under consideration.

Exhibit 33: Rapid growth in industry regulation
The number of proposed changes to US Federal Banking & Financial Services regulation recorded annually (2012 is annualised YTD figure)

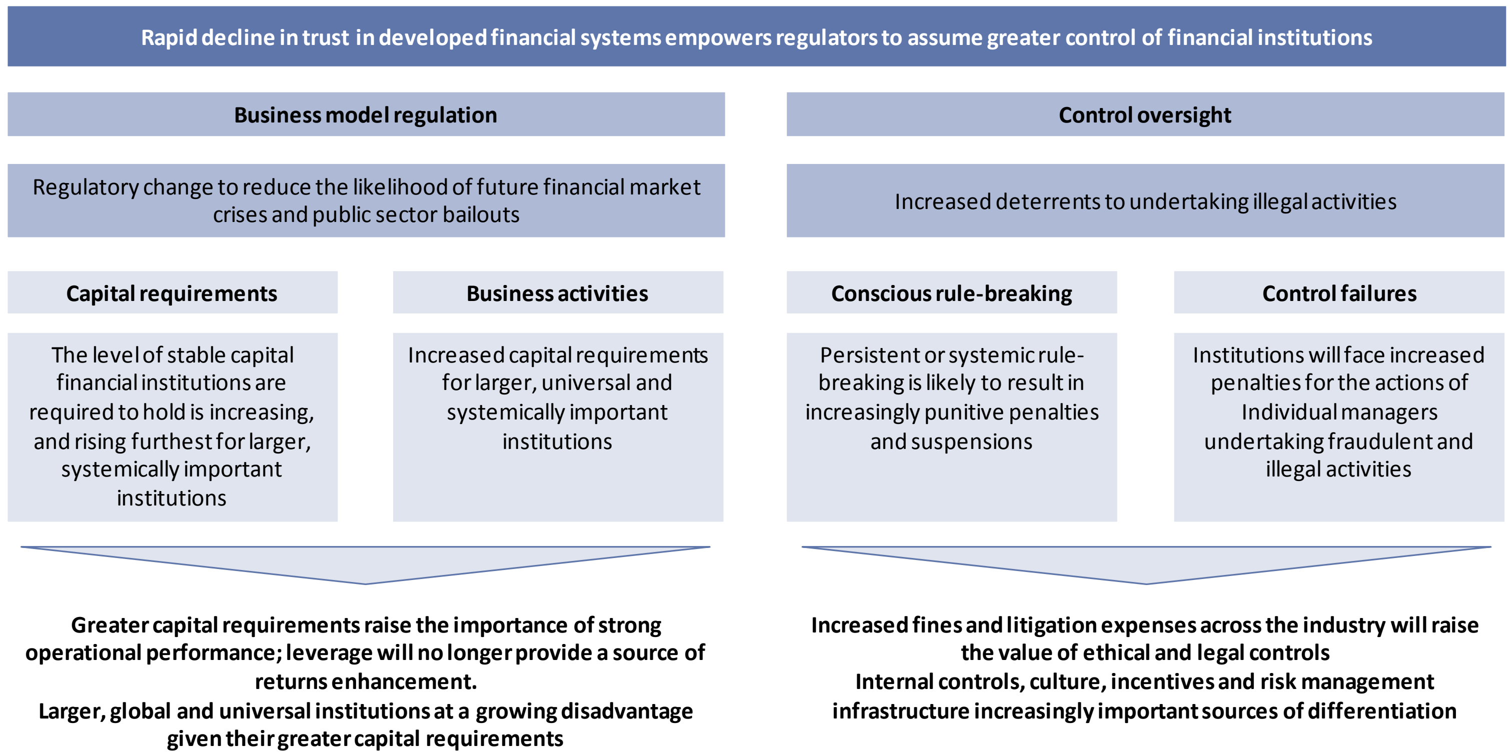


Source: Regulations.gov.

Forecasting the details of regulatory change is highly challenging, but focusing on regulators' ultimate goals is a relatively easier exercise. We believe these are mainly: (1) to reduce the risks that financial institution business models pose to the broader economy; and (2) to ensure that institutions maintain effective control over their employees' activities. As a result, regulation lies in two broad areas: (1) business model regulation; and (2) control oversight.

While a lot of attention has focused on the detrimental impact of proposed regulatory changes on the industry's returns, regulation is unlikely to result in sustained lower returns for the industry in aggregate – investors will withhold capital over time if returns are insufficient. We expect financial sector returns on equity to revert over time towards historical trend levels – pricing and competition should adjust to allow the industry to generate a return commensurate with its costs of capital. However, the relative winners from this transition will likely differ from those that benefited from the industry environment of the past decade.

Exhibit 34: Regulation is likely to focus on mitigating business model risk and on oversight of internal controls



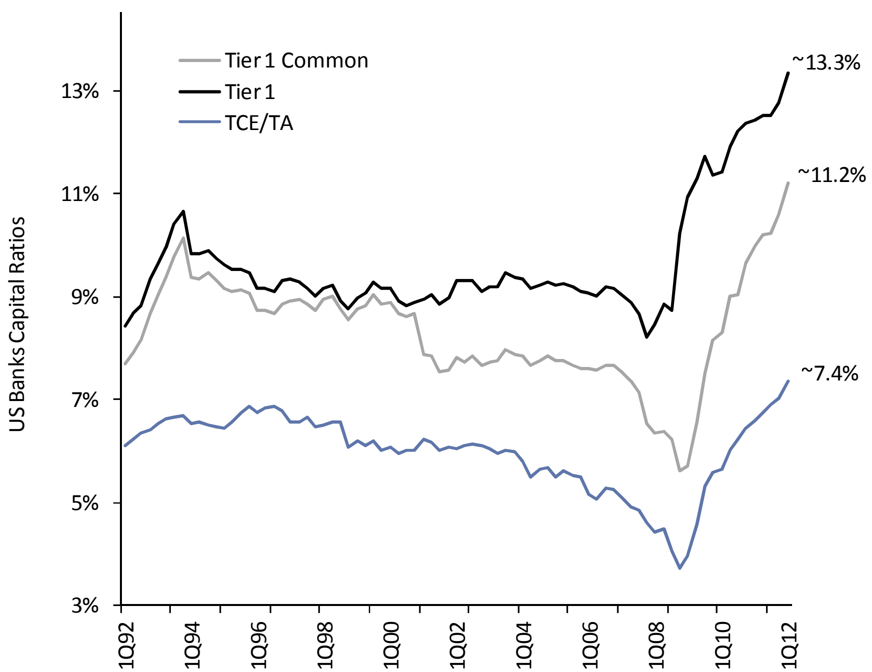
Source: Goldman Sachs Research.

Although the extent of regulatory change is unclear – and in some countries may go further than those currently tabled – developed market institutions in particular have already responded to the need for greater capital through a combination of balance sheet rationalisation and capital raising.

Exhibit 35 plots the response of the US banking industry to the global financial crisis in recent years; capital ratios in that region are at two-decade highs. The industry's reliance on wholesale funding – growth in which underpinned the liquidity constraints the industry has faced in recent years – has similarly reversed in recent years (while emerging market banks in contrast have become more reliant on wholesale funds).

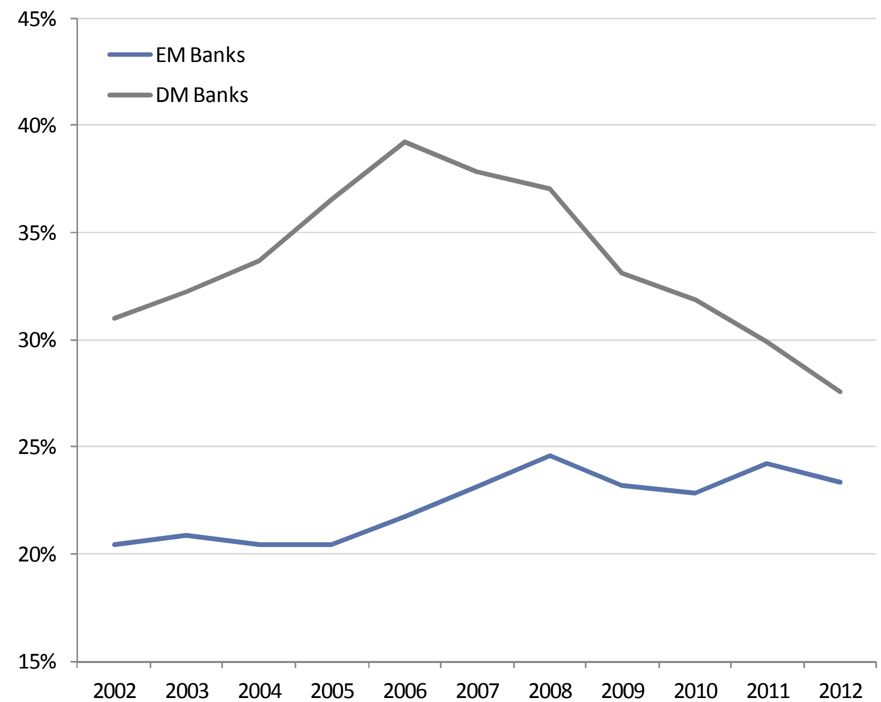
In addition to rebuilding balance sheets, the reorganisation of universal banks' business models away from risk-taking activities has similarly begun, at least in the US. Although the details of its implementation remain unclear, the US Volker Rule, which will prohibit banks from taking proprietary risk positions, has been enacted into US law and major institutions have begun to reorganise their businesses in response.

Exhibit 35: As a result, capital ratios are now at historical highs…
US banking system capital adequacy



Source: Company data, Goldman Sachs Research estimates.

Exhibit 36: … and developed market banks are reducing their reliance on wholesale funding
Wholesale funding (defined as all non-deposit funding) as % of total assets

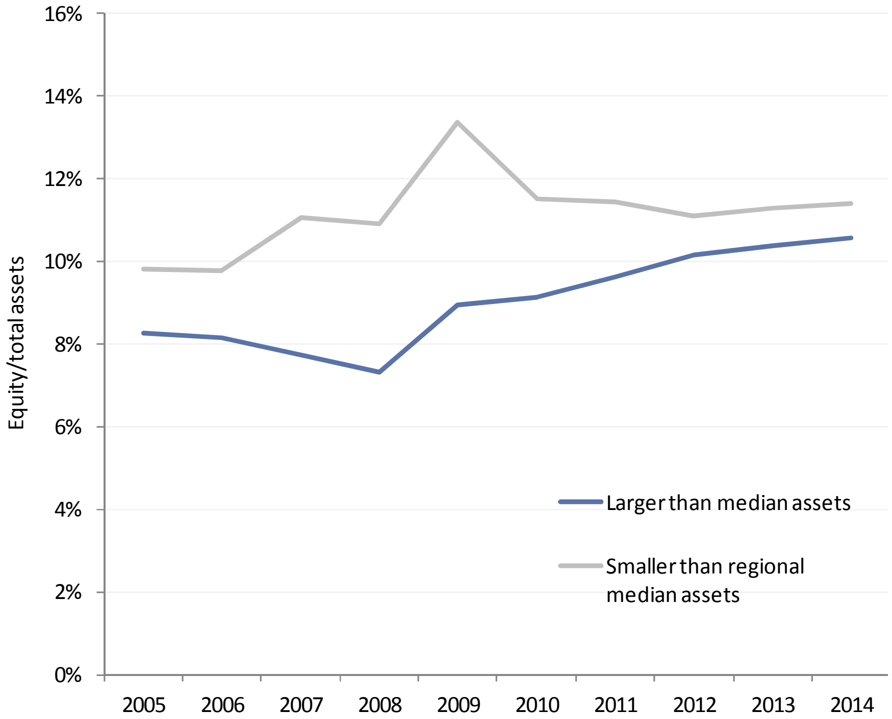


Source: Quantum database, Goldman Sachs Research estimates.

Regulatory pressure is likely to prove toughest for large, diversified companies. Historically, those universal banks have benefited from lower capital requirements under regulation that allowed them to hold capital commensurate with their own risk estimates (which benefited from scale, diversification and more sophisticated risk management), but they are likely to face higher capital requirements than smaller, less systemically important institutions in the future.

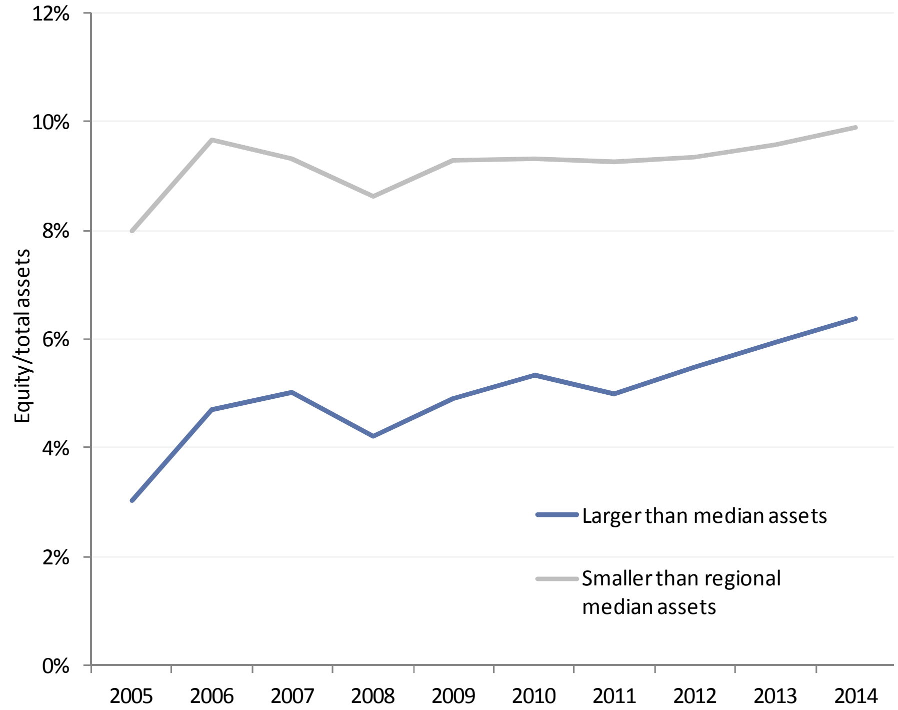
This shift is evident in the US in particular. Exhibit 37 plots the ratio of shareholder equity to total assets for banks with asset bases larger/smaller than that country's average asset size. Since the financial crisis, an increase in the capitalisation of large banks, towards the level of smaller peers, is evident. By contrast, in Europe, larger institutions have yet to make headway in raising capitalisation, relative to smaller peers in the region.

Exhibit 37: Large US banks have already reduced leverage, relative to smaller peers…
Average equity/assets of US listed banks with above-/below-median assets



Source: Quantum database, Goldman Sachs Research estimates.

Exhibit 38: … European banks show a similar trend but slower pace of change
Average equity/assets of European listed banks with above-/below-median assets



Source: Quantum database, Goldman Sachs Research estimates.

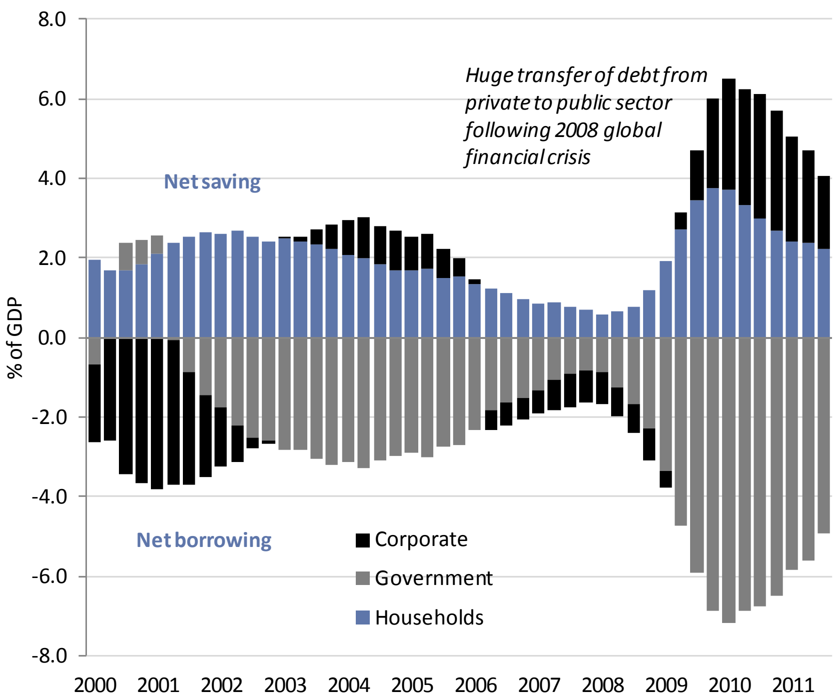
The boundaries of sovereign and financial sector creditworthiness are blurring

In the most stressed economies, governments have facilitated the rebuilding of balance sheets and injection of liquidity through capital injections and by opening their balance sheets to provide funding to the financial system.

Through their need to support the financial system, these governments have in effect transferred the debt burden from the private sector to their own balance sheets, blurring the distinction between the creditworthiness of the public and private financial sectors. This contagion is most evident in Europe; Exhibit 39 demonstrates the shift in Europe's debt burden in the years following the 2008 crisis (as well as the limited progress made to date to reduce the level of that debt in aggregate).

The result of assuming this increased debt burden has been a widespread deterioration in the creditworthiness of developed economy sovereigns in recent years (Exhibit 40). In the most indebted economies, the credit of governments and financial service companies has become so closely connected that further regulation seems likely to protect public sector creditworthiness and the capital that governments have extended.

Exhibit 39: Post the financial crisis, the debt burden has moved to the public sector, but remains unsustainably high…
European Union net borrowing/saving by sector



Source: Eurostat, Goldman Sachs Research.

Exhibit 40: … increasingly calling into question the creditworthiness of sovereigns
Historical overview of S&P debt ratings of selected OECD countries (current ratings as of September 2012)

	1975	1980	1985	1990	1995	2000	2005	2010	2011	current
Austria	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA+
Belgium				AA+	AA+	AA+	AA+	AA+	AA	AA
Canada	AAA	AAA	AAA	AAA	AA+	AA+	AAA	AAA	AAA	AAA
France	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA+
Germany	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
Greece				BBB-	BBB-	A-	a	BB+	CC	CCC
Iceland				A	A	A+	AA-	BBB-	BBB-	BBB-
ireland				AA-	AA	AA+	AAA	A	BBB+	BBB+
Italy				AA+	AA	AA	AA-	A+	A	BBB+
Japan	AAA	AAA	AAA	AAA	AAA	AAA	AA-	AA	AA-	AA-
Portugal				A	AA-	AA	AA-	A-	BBB-	BB
Spain				AA	AA	AA+	AAA	AA	AA-	BBB+
Sweden		AAA	AAA	AAA	AA+	AA+	AAA	AAA	AAA	AAA
Switzerland				AAA	AAA	AAA	AAA	AAA	AAA	AAA
United Kingdom		AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
United States	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA+	AA+

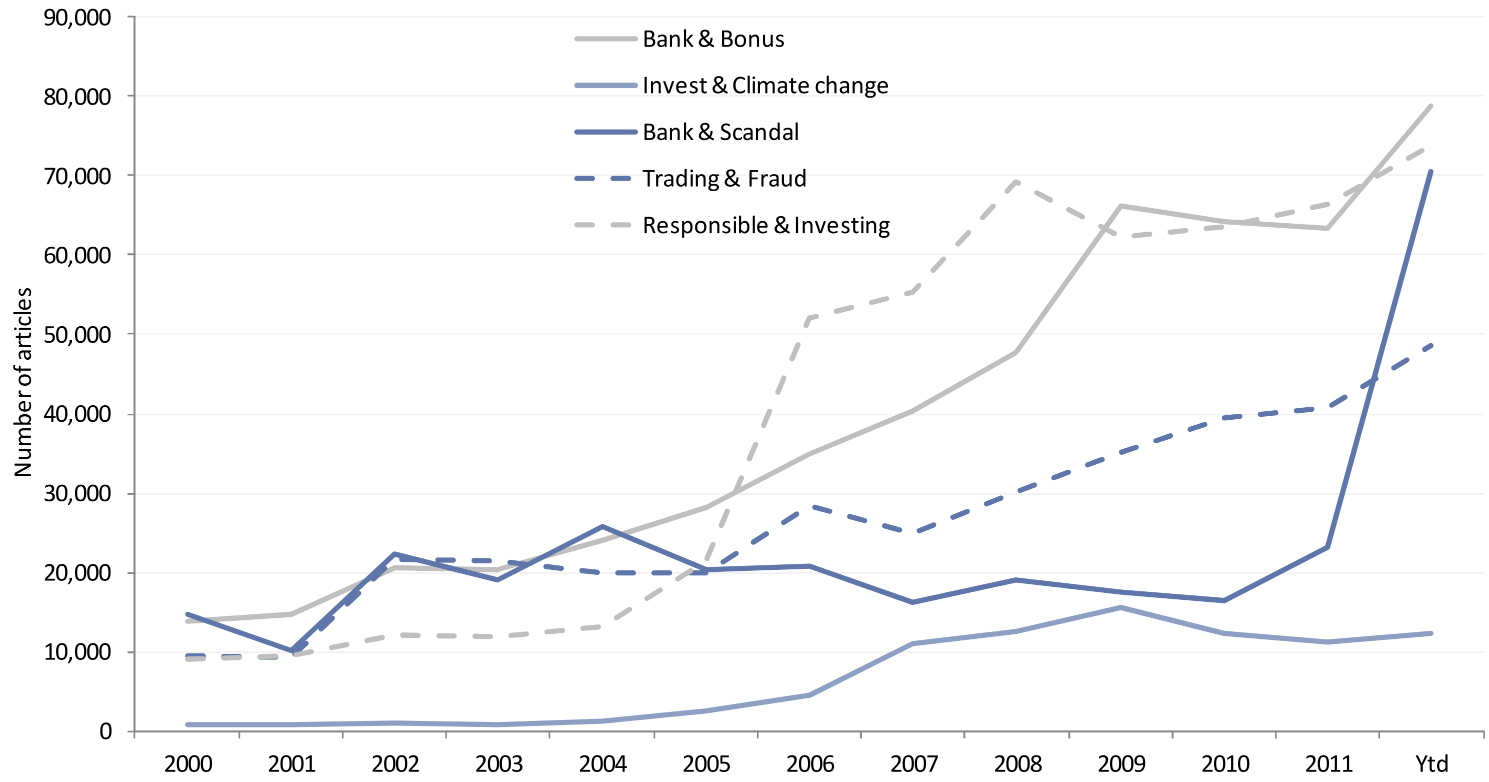
Source: IMF, Goldman Sachs Research.

Trust in financial services has sunk to historical lows in developed economies

The least easily quantified, but in our view among the most important, changes the industry has seen in recent years has been its thrust into the spotlight of public, media and political criticism, particularly in developed economies where the 2007/08 financial crisis has had the greatest impact.

The impact of financial system failures on the real economy was immediately evident, pushing the industry much further into public visibility and resulting in a significantly higher level of scrutiny. This shift in perceptions has shone an unfamiliar light onto the industry's inner workings, providing regulators with a platform of public support to introduce tougher regulation. It has also prompted more active ownership by institutional shareholders (for instance over pay levels) and led to greater media attention.

Exhibit 41: Press coverage of ESG challenges relevant to the financial industry has increased significantly over the last decade
Number of articles with below-stated keywords from Factiva news search

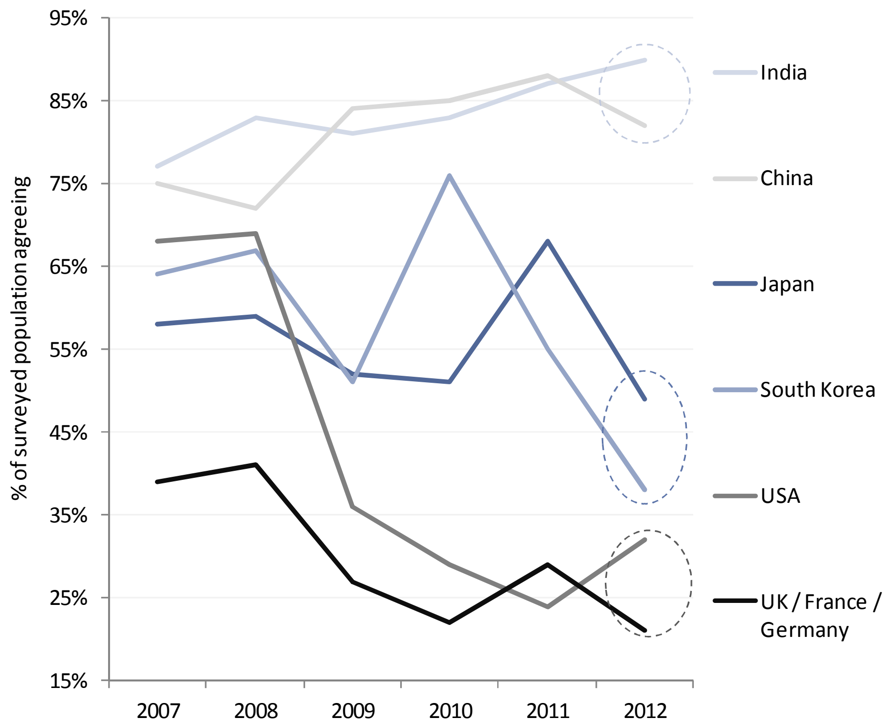


Source: Factiva.

The increased attention the industry has faced, and its perceived responsibility for the crisis, has impacted the public's trust in financial services. Exhibit 42 plots the collapse in trust in the financial services sector in developed economies over recent years, as measured through the media agency Edelman's trust barometer, an annual survey of social views towards different industries. Since 2007, trust in financial service companies among US respondents has dropped from over two-thirds of the population to around one-third, with trust among European societies at similarly low levels. Interestingly, emerging market societies demonstrate a very different trend: trust in the industry has risen in both India and China in recent years (although recently dipping in China). Globally, companies in financial sectors have become among the least trusted of any industry (Exhibit 43).

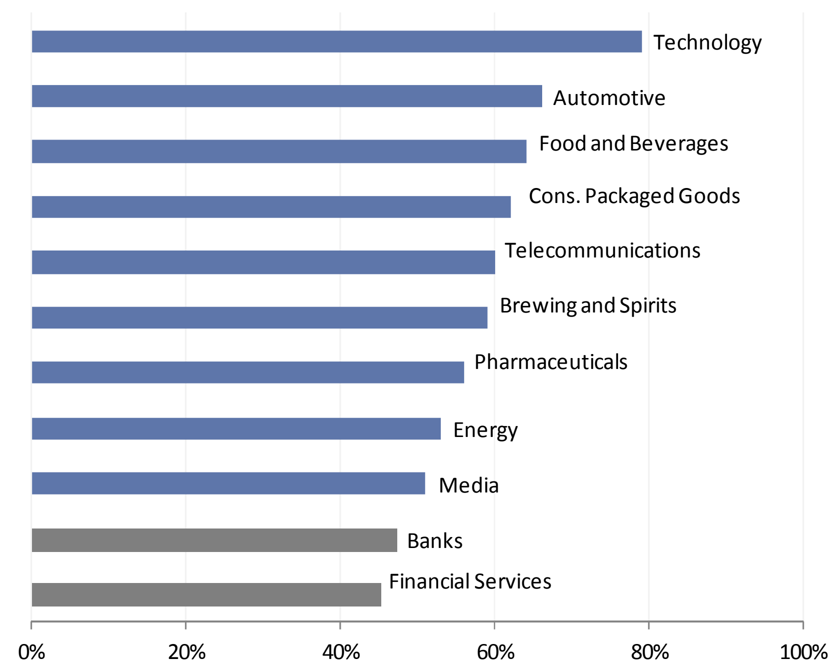
Trust is central to business models across financial services. The rapid reversal in public perceptions of the industry provides both a challenge and an opportunity. The industry as a whole faces a significant challenge in restoring public faith in the financial system – those companies that can differentiate themselves in doing so have an opportunity to generate a significant competitive advantage, if they are able to effectively adapt their organizations and marketing messages to more closely resonate with the changing demands of their customers.

Exhibit 42: Trust in developed market financials has collapsed…
% answering "I trust Financial Services companies to do what is right"



Source: Edelman, Goldman Sachs Research

Exhibit 43: ..leaving financials the least trusted of any industry
% answering "I trust companies in the following industries to do what is right"



Source: Edelman, Goldman Sachs Research

GS SUSTAIN identifies structural industry leaders

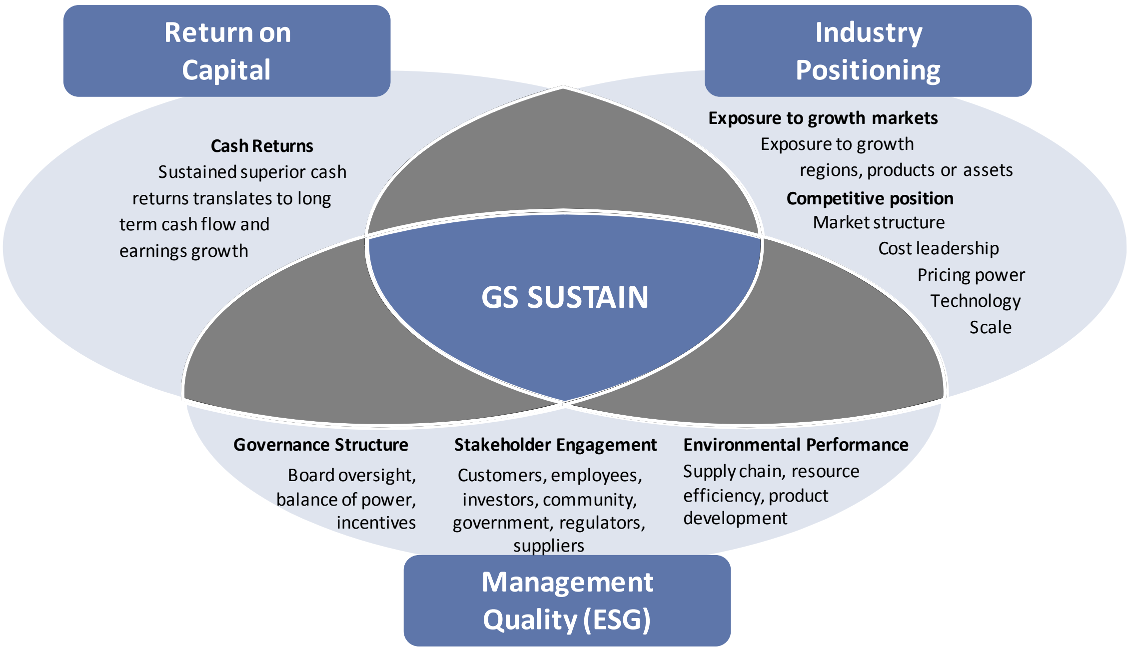
The GS SUSTAIN framework is designed to identify the companies in each global sector that are in the strongest position to maintain competitive advantage, industry-leading cash returns and ultimately deliver equity market outperformance. Integrating measures of financial performance with the underlying drivers of this performance provides greater visibility into future profitability than financial forecasts alone.

In every sector, we apply objective measures to three separate aspects of corporate performance:

- **Returns on capital:** We rank companies using our analysts' forecasts for average return on assets (banks) or return on equity (insurance) over the coming three years (2012-14E).
- **Industry positioning:** Overall industry positioning rankings provide a measure of the strength of companies' business models and strategic position.
- **Management quality (ESG):** Through analysis of the key environmental and social trends facing each sector, we identify c.20 indicators of ESG performance based on c.70 data points in each sector, on which we base our assessment of management quality.

Companies in each sector are ranked on each of those three dimensions of corporate performance. Overall leaders must stand out relative to global peers on all three dimensions (at a minimum, achieving above-median scores on each).

Exhibit 44: The GS SUSTAIN framework combines analysis of the key drivers of corporate performance



Source: Goldman Sachs Research.

11 leaders stand out globally – GS SUSTAIN framework also highlights regional leaders

11 institutions stand out as global leaders across each of the three dimensions of the GS SUSTAIN framework. The same analysis can also be applied to highlight relatively better placed companies in each region. Exhibit 45 shows regional leaders based on a combination of the three pillars of the GS SUSTAIN framework – returns on capital, industry positioning and management quality (ESG). The companies shown are those that achieve above-median scores on each of those three dimensions of the framework. Overall global leaders included in the GS SUSTAIN framework are highlighted in blue.

Exhibit 45: Best placed institutions across three dimensions of GS SUSTAIN framework in major regions
(Global GS SUSTAIN leaders highlighted)

	Banks							Insurance						
	Company	*%ile vs. global peers*			%ile vs. local peers			Company	*%ile vs. global peers*			%ile vs. local peers		
		ROA	*Ind Pos*	*ESG*	ROA	Ind Pos	ESG		*ROA*	*Ind Pos*	*ESG*	ROA	Ind Pos	ESG
US	Wells Fargo	*93%*	*27%*	*99%*	89%	67%	100%	Aflac	*98%*	*65%*	*52%*	100%	63%	50%
	J.P. Morgan	*66%*	*26%*	*95%*	51%	56%	89%	Marsh & McLennan	*95%*	*47%*	*57%*	88%	44%	56%
LatAm	**Itaú Unibanco**	***65%***	***79%***	***88%***	**78%**	**56%**	**100%**							
	Banco Santander Chile	*64%*	*76%*	*64%*	51%	33%	56%							
China	ICBC	*39%*	*58%*	*47%*	93%	80%	87%	Ping An	*90%*	*48%*	*20%*	67%	33%	67%
	China Minsheng	*38%*	*30%*	*37%*	87%	53%	67%							
	China Merchants Bank	*36%*	*68%*	*58%*	80%	93%	100%							
Japan	Shizuoka Bank	*41%*	*42%*	*51%*	88%	63%	75%	Tokio Marine Holdings	*5%*	*27%*	*43%*	80%	60%	100%
	Resona Holdings	*34%*	*46%*	*53%*	75%	88%	88%							
Other Asia	Kasikornbank	*79%*	*56%*	*56%*	93%	65%	85%	AIA Group	*56%*	*55%*	*28%*	100%	83%	50%
	Public Bank Berhad	*47%*	*82%*	*57%*	70%	88%	93%	Samsung Fire & Marine	*54%*	*53%*	*40%*	83%	67%	83%
	CIMB Group Holdings	*45%*	*36%*	*42%*	67%	58%	59%							
	Hang Seng Bank	***92%***	***77%***	***88%***	**65%**	**100%**	**100%**							
Australia	ANZ Banking Group	*78%*	*97%*	*99%*	100%	100%	75%	IAG	*80%*	*100%*	*90%*	100%	100%	100%
	Commonwealth Bank	***74%***	***82%***	***96%***	**52%**	**75%**	**25%**	**AMP**	***83%***	***87%***	***87%***	**67%**	**33%**	**67%**
W Europe	**Standard Chartered**	***65%***	***68%***	***92%***	**97%**	**81%**	**90%**	**Prudential Plc**	***93%***	***82%***	***98%***	**95%**	**86%**	**95%**
	BBVA	***59%***	***76%***	***84%***	**94%**	**90%**	**77%**	Legal & General	*88%*	*80%*	*98%*	91%	82%	95%
	HSBC	***58%***	***66%***	***96%***	**90%**	**77%**	**97%**	**RSA**	***61%***	***75%***	***90%***	**55%**	**77%**	**77%**
	Swedbank	*55%*	*72%*	*81%*	87%	84%	68%	Aviva Plc	*63%*	*65%*	*97%*	59%	64%	91%
	DnB ASA	*49%*	*58%*	*86%*	77%	71%	81%							
	Julius Baer Group	***na***	***61%***	***60%***	**na**	**74%**	**56%**							

Note: Firstrand is also included in the GS SUSTAIN Focus List, outside any of the regions shown above.

Source: Goldman Sachs Research estimates.

GS SUSTAIN's focus on long-term drivers highlights some leaders facing negative sentiment

The longer-term perspective offered by GS SUSTAIN looks through nearer-term noise and news flow to the underlying fundamentals of companies' business models. As a result, the analysis can highlight stocks facing media scrutiny and negative sentiment. We highlight below some of the leaders identified that have faced recent pressures.

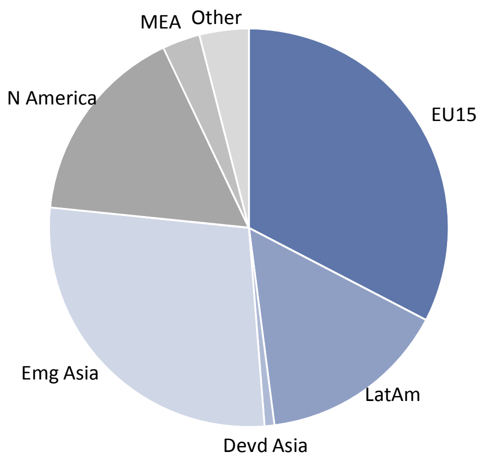
BBVA has underperformed the European banking sector by over 20% since 2008, pulled down in particular by its Spanish listing and concerns over that country's heavily indebted financial system. However, close to half the group's assets lie outside Spain and over half of its income is generated internationally. In particular, BBVA's subsidiary in Mexico is the leader in that market, in terms of assets. While we recognise the challenges facing the Spanish financial system, BBVA (along with Banco Santander) has moved to shore up its balance sheet; its leverage (assets/equity) is among the lowest quartile of the European companies examined in this report and its capital base comfortably higher than the levels we expect regulators will require. Through the GS SUSTAIN lens applied to the sector, BBVA stands out as particularly well positioned to maintain its current strong returns on assets through the relatively rapid pace of growth its relatively diversified exposure provides, the consolidation and limited state ownership in the markets in which it operates and the stability of its business model, which remains more biased to traditional retail and commercial lending than wholesale banking.

HSBC and **Standard Chartered** have both faced significant media attention in 2012 for failures of internal controls in prior years. HSBC was found to have handled laundered money in the US and Standard Chartered was fined $340 mn by the New York banking regulator for failure to maintain adequate records and controls in dealings with countries subject to US sanctions (in particular Iran). In both cases, the organisations have taken steps to improve internal controls and incentives. HSBC was one of the first major banks to invoke claw-back mechanisms on bonuses paid in prior years. While control failures and regulatory fines have been a feature of the industry in recent years (and we expect this to continue) – there are few large banks that have not faced negative media attention on some front – organisations' responses to those difficulties are more important, in our view. Both HSBC and Standard Chartered have made changes to incentive structures for senior and line managers in recent years, as well as strengthening their risk management reporting structures. Those changes are reflected in the top decile scores we calculate for the effectiveness of both companies' engagement with, and management of, environmental, social and governance issues.

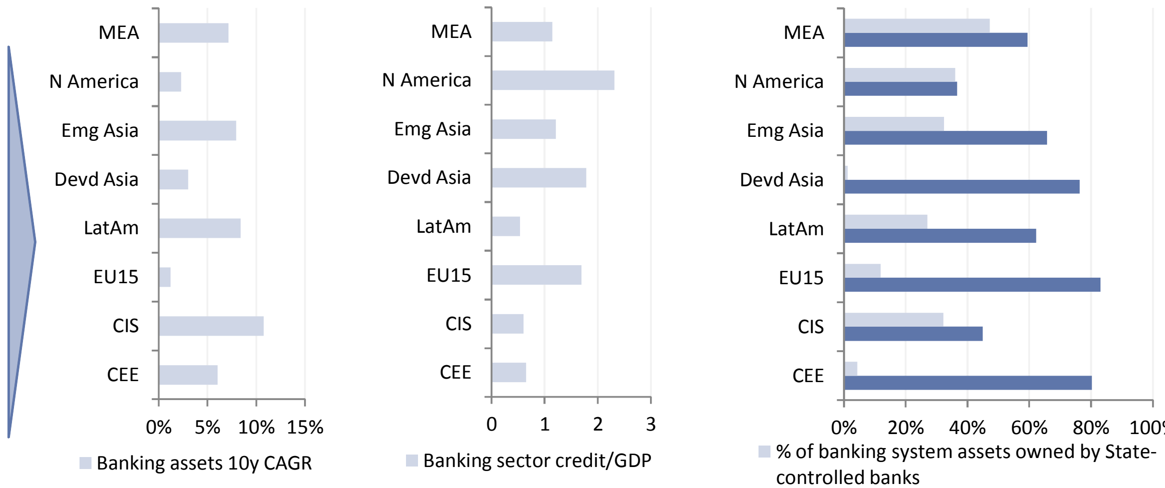
We have detailed the analysis applied to two GS SUSTAIN leaders – HSBC and BBVA – in Exhibits 46 and 47. These show the calculation of objective measures comparing the pace of growth, risk profile and structures of the markets in which the banks operate, along with the other measures used to compare industry positioning, forecast ROA and management quality (ESG) in the sector. The exposures are shown at an aggregate regional level, rather than the country level analysis applied in the final calculations, which are detailed from page 52.

Exhibit 46: Objective analysis of its exposures and business model, combined with forecast ROA and management quality (ESG) highlight's HSBC's strengths

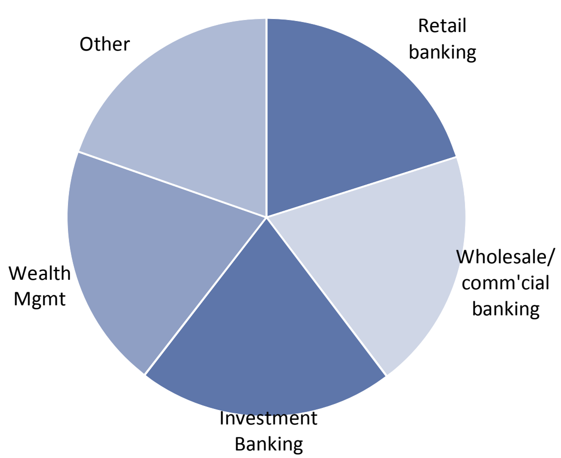
HSBC is globally diversified, with emerging Asia revenues almost as large as those of its domestic European market



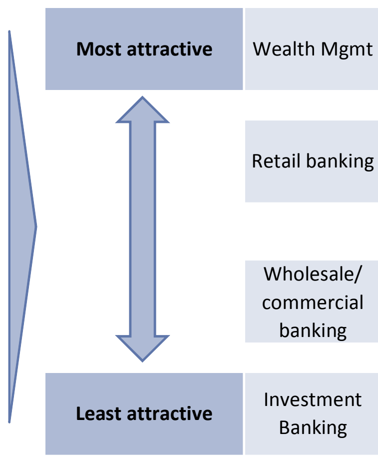
Combining that geographical exposure with projected asset growth, indebtedness and measures of market structure in each country yields objective measures of the attractiveness of its end markets



The group's business is similarly diverisified across business areas with none dominant



Combining business line exposure with ranking of attractiveness yields a comparable score



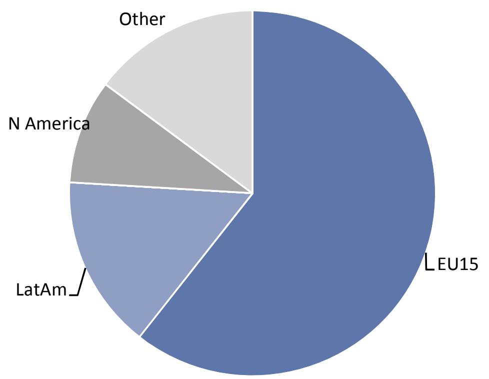
Bringing the calculated industry positioning measures together with forecast returns on assets and management quality (ESG) scores provides comparison across the global industry and highlights HSBC's strength across all three dimensions

Measure	Definition	Value	Percentile vs. peers
ROA	2012-14E	0.7%	61%
Country growth	Wtd avg 10y banking asset growth	4%	75%
Country risk	Wtd avg country debt/GDP	166%	55%
Market structure	Wtd avg consolidation	73%	37%
	Wtd avg state ownership	14%	
Business mix	Ranked business mix score	2.9	37%
Funding	Loans/ deposits (2012E)	77%	83%
	Wholesale funding %	20%	
Overall Ind Position			70%
ESG	% of maximum (2010/11)	84%	96%

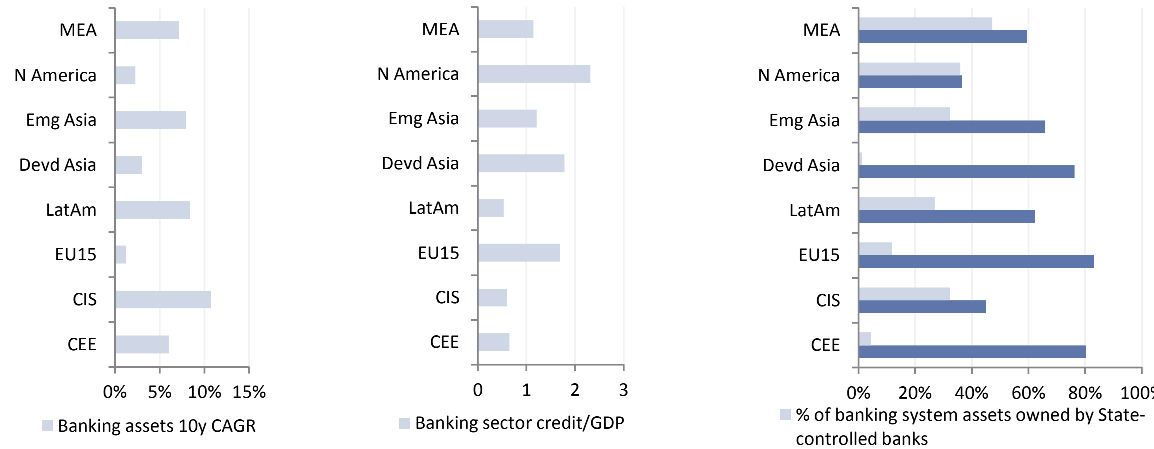
Source: Goldman Sachs Research estimates

Exhibit 47: Objective analysis of the group's business model similarly highlight's BBVA's strengths

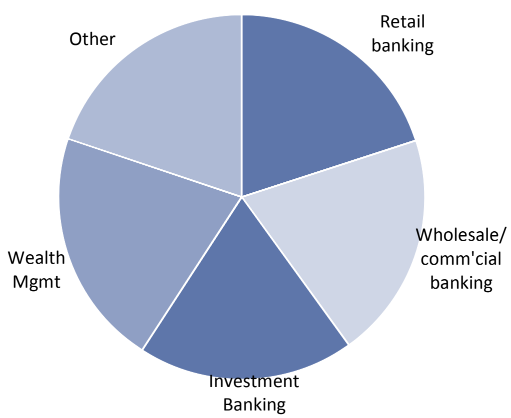
BBVA generates 40% of its revenues (and a higher proportion of earnings) outside Europe



Combining that geographical exposure with projected asset growth, indebtedness and measures of market structure in each country yields objective measures of the attactiveness of its end markets



The group's business is relatively diverisified across business areas



Combining business line exposure with ranking of attractiveness yields a comparable score

Most attractive	Wealth Mgmt
	Retail banking
	Wholesale/ commercial banking
Least attractive	Investment Banking

Bringing the industry positioning measures together with forecast returns on assets and management quality (ESG) scores provides comparison across the global industry and highlights the group's strength across all three dimensions

Measure	Definition	Value	Percentile vs. peers
ROA	2012-14E	0.8%	62%
Country growth	Wtd avg 10y banking asset growth	4%	72%
Country risk	Wtd avg country debt/GDP	190%	40%
Market structure	Wtd avg consolidation	86%	87%
	Wtd avg state ownership	10%	
Business mix	Ranked business mix score	3.8	97%
Funding	Loans/ deposits (2012E)	134%	23%
	Wholesale funding %	47%	
Overall Ind Position			82%
ESG	% of maximum (2010/11)	74%	84%

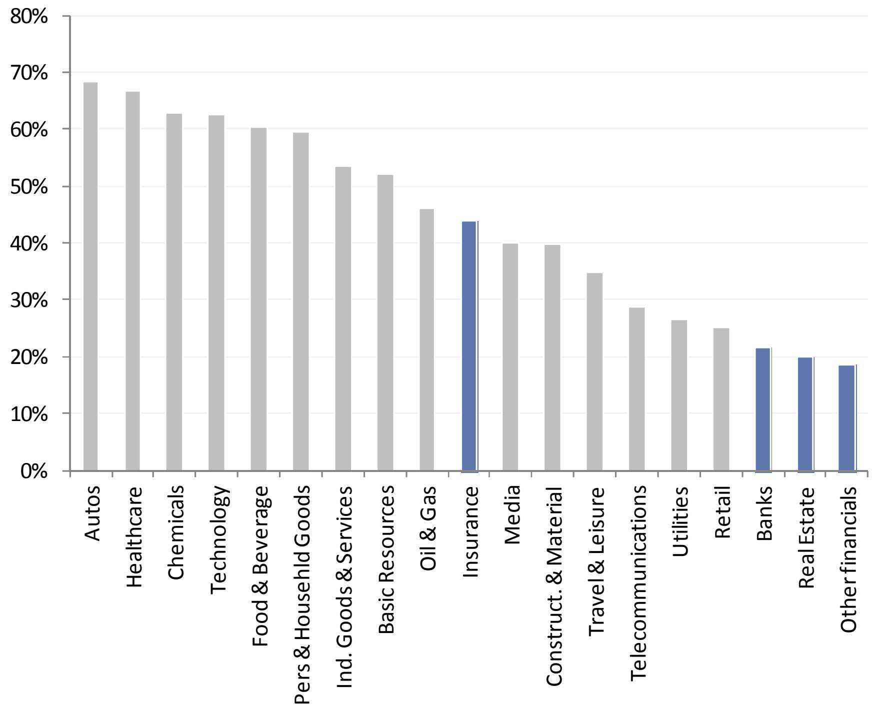
Source: Goldman Sachs Research estimates

Regional exposure is more important to financial sectors than other industries

Analysis of country exposure is more important in financial sectors than in most others. With the exception of insurance – in which companies are relatively internationally diversified – financial companies are the least reliant on international revenues of any major sector (Exhibit 48). Similarly, financials' shareholder returns are more closely correlated with their national benchmarks than with global sector indices; companies in every other sector (except Travel & Leisure) show a stronger correlation with their global sector peers than with their domestic markets (Exhibit 49).

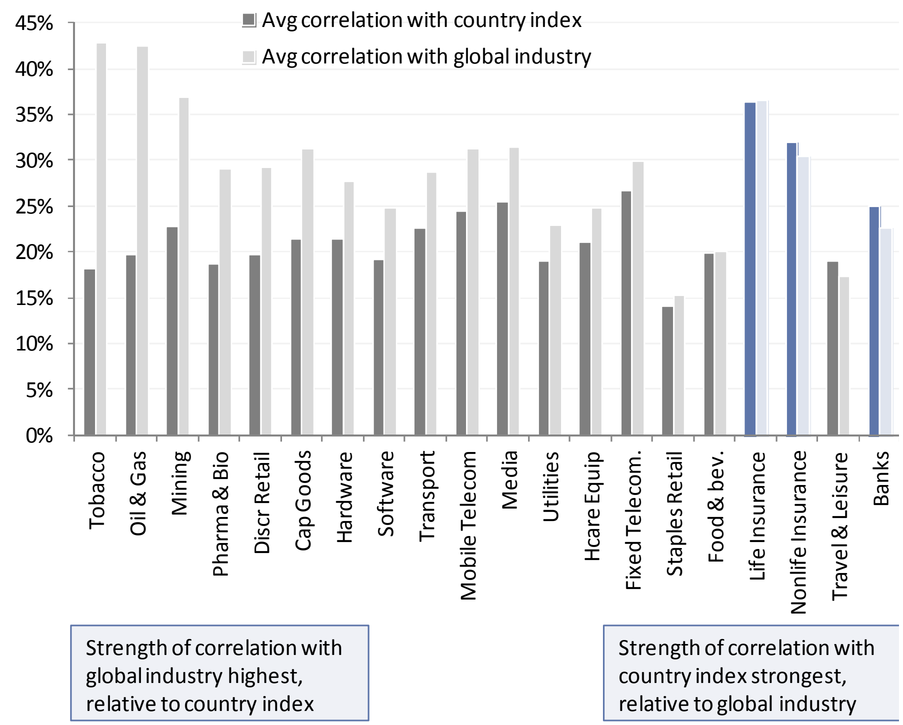
As a result, country attractiveness is a key element of the analysis we apply to the financials sector. We have separated the 151 global banks analysed in this report into emerging and developed market banks (those domiciled in markets in which banking assets are growing faster than the global average are categorised as emerging). Similarly, a large proportion of the measures we apply to assess industry positioning reflect the attractiveness of the countries to which companies are exposed, in order to capture the importance of differentiating market exposures across the industry.

Exhibit 48: Financials are among the most domestically focused sectors
Average % of sales generated outside home market, 2011



Source: Datastream, Goldman Sachs Research.

Exhibit 49: Financials performance more heavily influenced by country factors than other sectors
Strength of correlation (R-squared) between average stock performance and (1) country benchmark and (2) global sector index



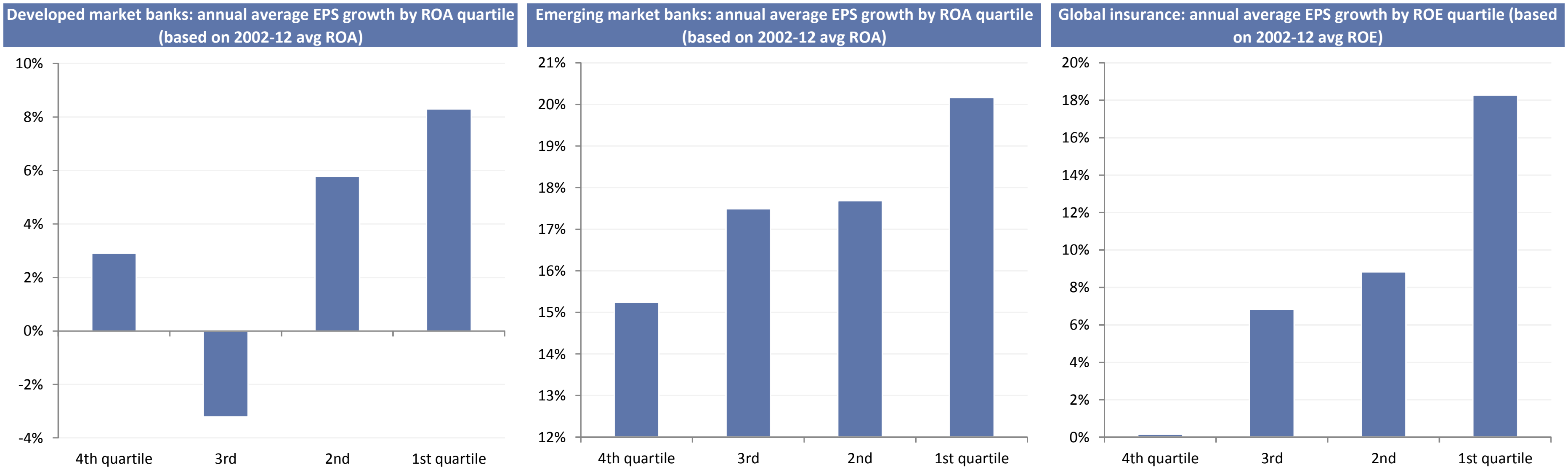
Source: Datastream, Goldman Sachs Research.

Sustained high returns drive earnings growth and equity market performance

GS SUSTAIN is designed to identify the companies in each industry that are best placed to sustain industry-leading returns on capital. This strategy aims to generate outperformance stemming from the superior growth that companies able to sustain industry-leading returns on capital can achieve (through a combination of strong earnings generation and reinvesting surplus earnings at high rates of return).

Across the financials sector, given the lack of meaningful cash flow statements, as well as accounting differences across regions and varying asset base structures for different companies, we have focused on more conventional return measures than the CROCI measures we use in industrial sectors. Across the banking sector, we compare companies' returns on assets (ROA) as a measure of profitability, whereas in insurance, we compare returns on equity (ROE) given the different asset base structures of companies in the industry. In line with their different returns profiles and competitive drivers, we assess emerging and developed market banks separately. In both cases, we find that companies with higher returns have delivered materially stronger earnings growth over the past decade.

Exhibit 50: High-return financials have grown more quickly than profitable peers
Annual average EPS growth (US$ terms) 2002-12E of companies in each quartile of sector-relative returns on capital

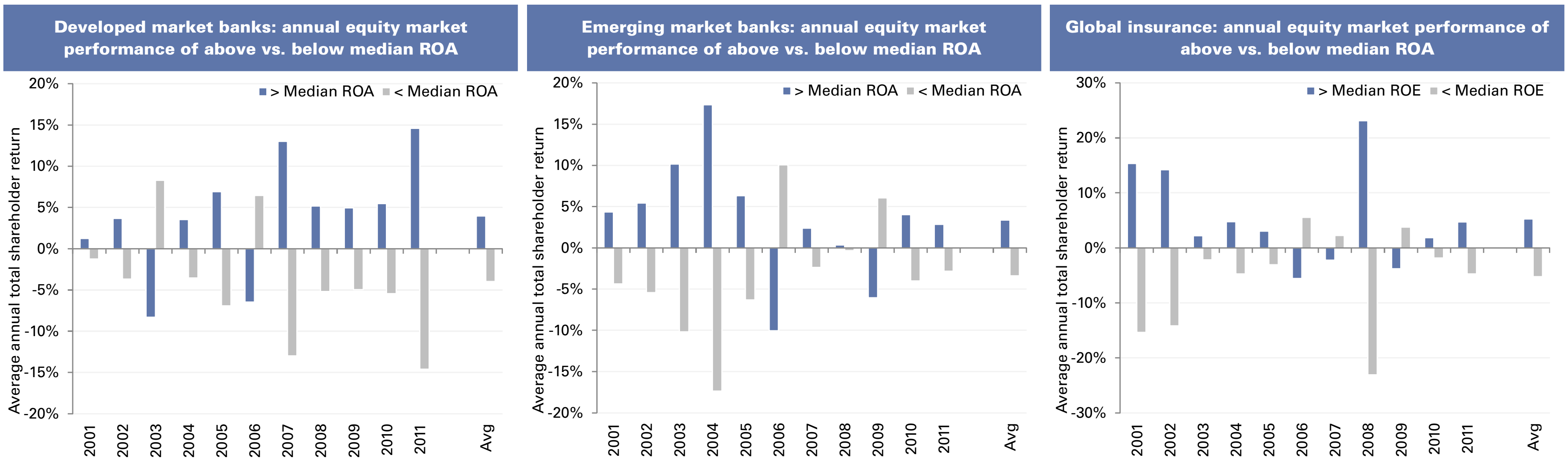


Source: Quantum database, Goldman Sachs Research.

Commensurate with the stronger growth they have delivered, we find that higher-return companies across both banks and insurance have outperformed their sector peers over the last decade. Exhibit 51 shows the annual average total returns of companies with above-/below-median returns on capital relative to their sectors. In each of the three groups analysed, companies with above-median returns outperformed those with below-median returns by an average of 7%-8% and did so in over 70% of years.

Exhibit 51: High return financials have outperformed less profitable peers

Annual average total shareholder return (US$ terms) relative to sector for companies with above/below median returns on capital in each of (1) developed banks, (2) emerging banks and (3) global insurance



Source: Quantum database, Datastream, Goldman Sachs Research.

Industry positioning quantifies the strength of companies' business models

We assess three aspects of industry positioning in the analysis we apply to each sector: (1) exposure to demand growth, (2) market structure and (3) company-specific competitive positioning.

The declining benefit of exposure to growth in isolation, reflected in the converging returns of emerging and developed market institutions, means other aspects of the structures of financial service markets are increasingly important differentiators. Across industries, particularly where products and services are relatively homogeneous, we find that the degree of consolidation and market discipline is closely correlated to the returns generated by the industry in aggregate. Given the risks of intensifying regulation and the blurring of creditworthiness of sovereigns and financial institutions, we have also incorporated measures of regulatory and financial risks at a national level.

Within attractive national markets, we assess the relative strength of companies' business models through the attractiveness of their product line exposures, access to secure funding (banks) and proximity to their customers (insurance).

Exhibit 52: GS SUSTAIN industry positioning analysis combines measures of exposure to growth, market structure and companies' competitive positions

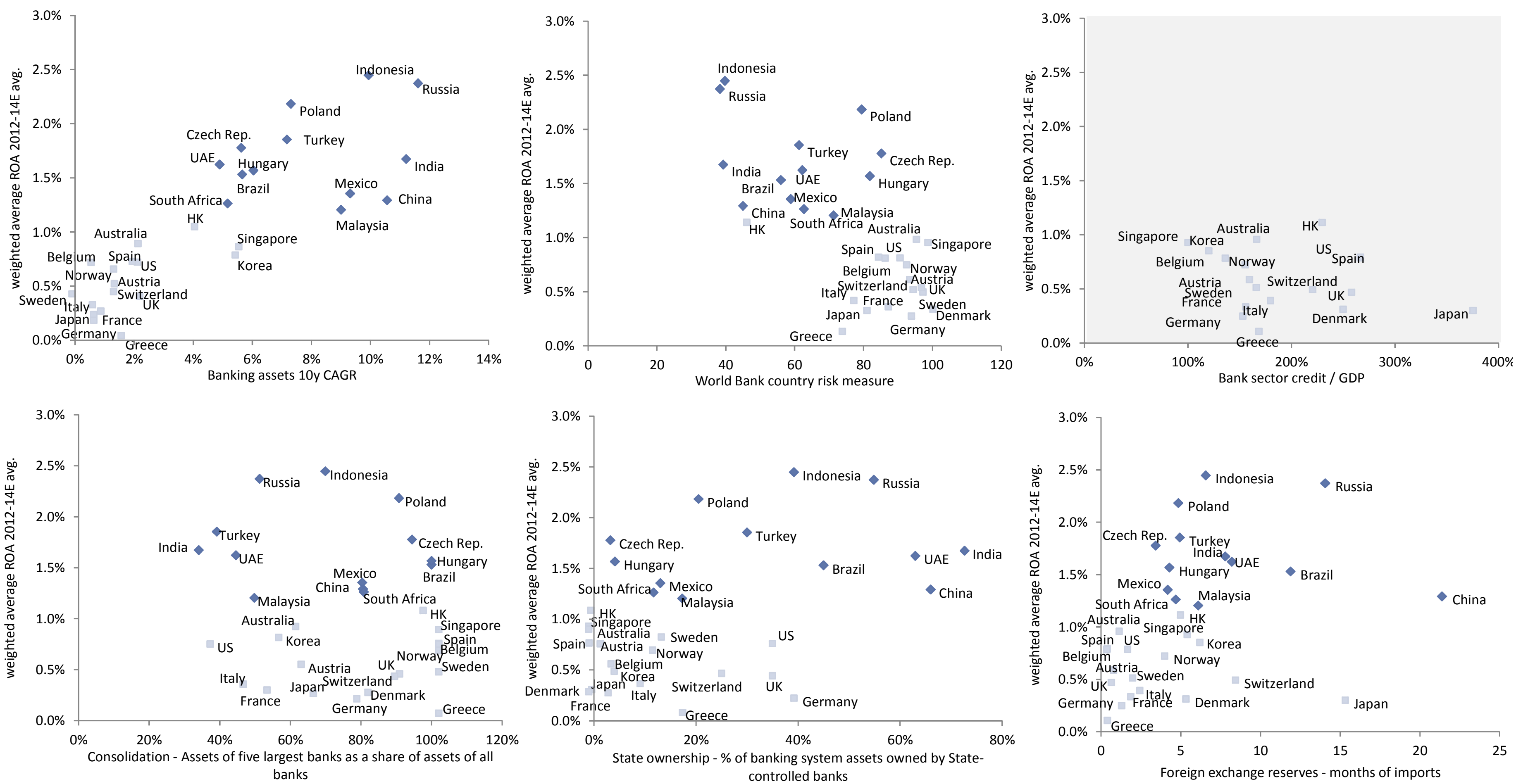
Advantaged industry positioning relies on a combination of access to growth markets, attractive market structure and strong busines models

	Exposure to growth	**Market structure**	**Competitive position**
Banks	Weighted average trend banking asset growth in end markets	Weighted average consolidation (share of top 5 commercial banks) in end markets	Attractiveness (ranking based on level and stability of returns) in business lines to which exposed
		Weighted average State ownership (% of commerical banking assets controlled by State) in end markets	Reliance on wholesale (vs. deposit) funding
		Weighted average national credit risk (debt/GDP) in end markets	
Insurance	Weighted average trend insurance premium growth in end markets	Weighted average consolidation (share of top 3 life/non-life insurers) in end markets	Attractiveness (ranking based on level and stability of returns) in business lines to which exposed
		Weighted average country and regulatory risk (AM Best and World Bank measures)	Strength of distribution platform (based on distribuition channel mix and ranking of channel proximity to consumer)

Source: Goldman Sachs Research.

The industry positioning measures we apply are designed to reflect companies' business models and exposures, rather than the output of their financial performance. They are also typically positively correlated to returns on capital, other than those designed to reflect the risks of different countries; these are typically negatively correlated to returns on capital, but are designed to assess the risk of companies' returns declining in the future.

Exhibit 53: Banks' industry positioning measures are typically positively correlated with returns on capital, except country risk measures
Key industry positioning measures

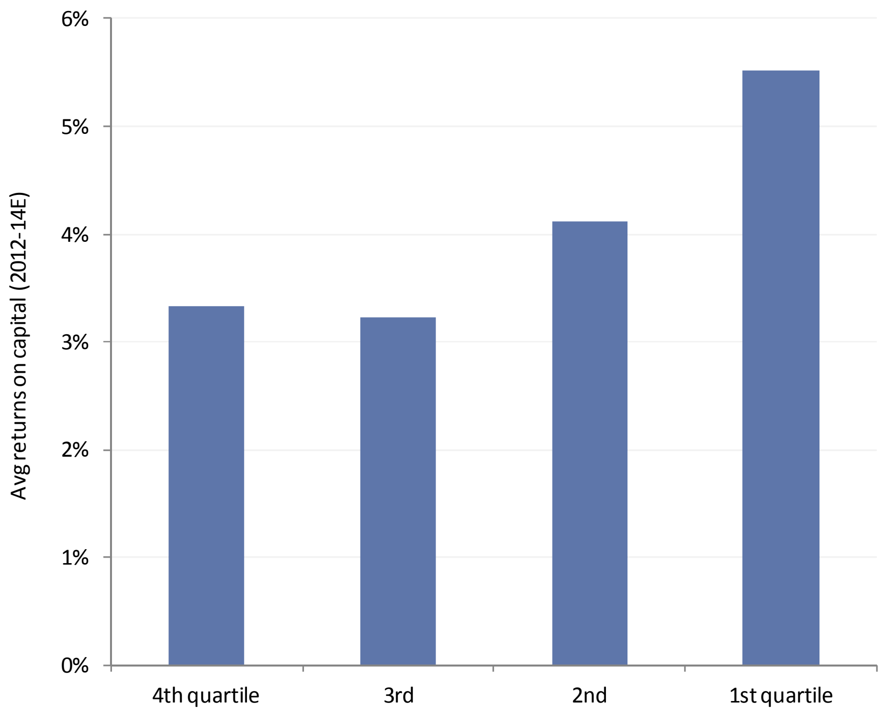


Source: World Bank, IMF, Quantum database, Goldman Sachs Research estimates.

The industry positioning analysis we apply is designed to improve visibility into the level and sustainability of future returns on capital, which is ultimately the goal of the GS SUSTAIN analysis – to identify companies able to sustain industry-leading returns on capital over the long term. We find that financial companies with stronger industry positioning typically generate higher returns on capital than peers and, more importantly, sustain high returns for longer than weaker peers (Exhibit 55).

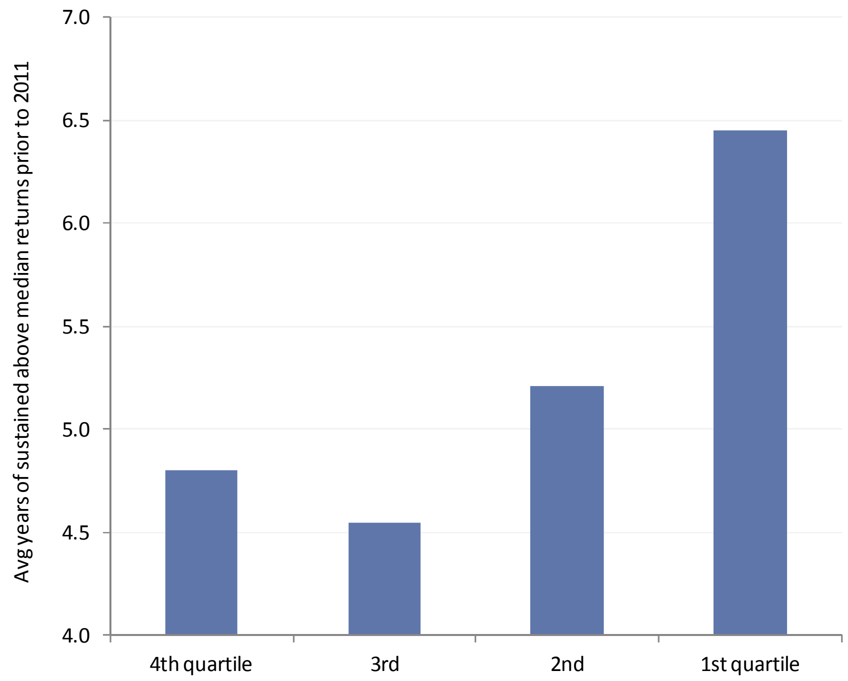
Sustainability of returns on capital is a measure of the returns that companies generate on new investment – more durable high returns imply that companies are able to reinvest capital into expanding their business at higher rates of return than companies for which returns on capital deteriorate rapidly.

Exhibit 54: Better positioned companies tend to be more profitable…
Avg. 2012-14E ROE/ROA for Banks/Insurers by industry positioning quartile



Source: Quantum database, Goldman Sachs Research estimates.

Exhibit 55: … and to sustain high returns for longer than weaker peers
Number of years sustained above-median returns , by industry positioning quartile



Source: Quantum database, Goldman Sachs Research estimates.

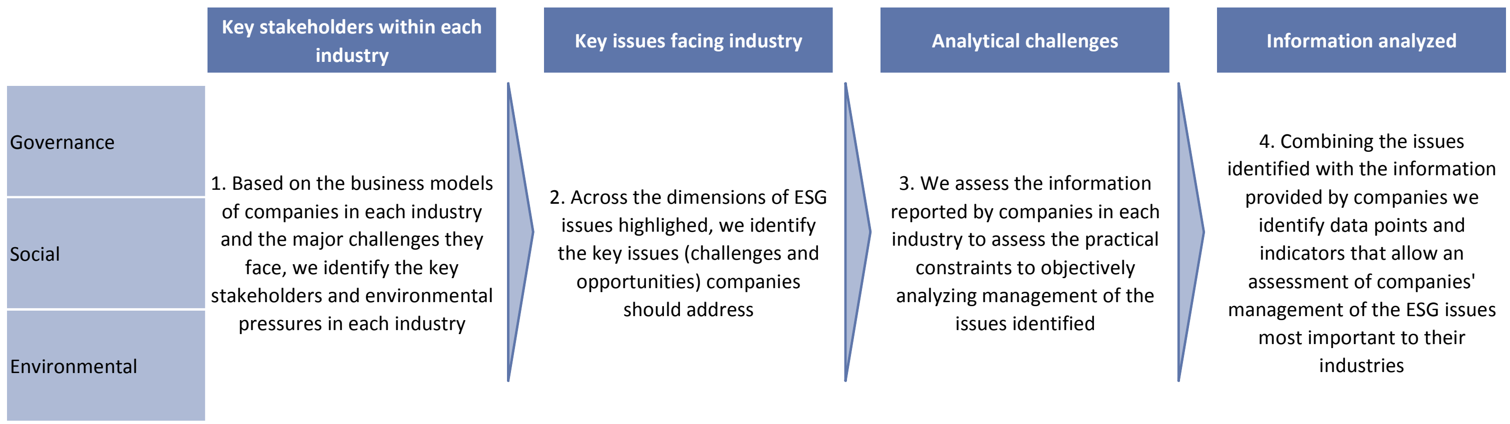
Management quality (ESG) analysis quantifies engagement with 21st century business risk

The management quality analysis in our GS SUSTAIN framework is designed to assess the effectiveness of companies' engagement with, and management of, the environmental, social and governance (ESG) issues facing each industry. In our view, changes in the social pressures financials companies face have, and will continue to, fundamentally alter the basis on which they compete.

Environmental, social and governance analysis encompasses three areas of performance with distinct drivers:

- Corporate governance reflects the growing need for an effective mechanism to ensure that owners' and managers' incentives are aligned and that effective capital allocation and strategic control mechanisms are in place.
- Social factors encompass companies' adaptation to the diverse and changing stakeholder groups with which they interact and on which they rely – ultimately, companies' success rests on the strength of their relationships with customers, employees, governments and other stakeholders.
- Environmental performance reflects companies' exposures to resource scarcity and physical environmental change and their ability to mitigate the negative effects of those changes on their businesses and take advantage of resulting demand for products and services.

Exhibit 56: Management quality (ESG) analysis is based on the key issues in each industry and the information available to assess corporate performance



Source: Goldman Sachs Research

Exhibits 57 and 58 outline the issues we have identified, the challenges we face in analysing those issues based on objective, quantitative information, and the data points on which our analysis focuses as a result. In most cases, constraints on data availability significantly hinder our ability to assess the specific issues we have identified, but in aggregate, we believe the analysis provides an objective and valuable measure of the effectiveness of companies' responses to the challenges they face.

Exhibit 57: Issues and analysis applied across Financials: Governance and Environmental

Category		Issues			Analytical challenges	Metrics analyzed		
Governance	Board oversight of financial risks	How engaged is the Board in monitoring and questioning risk exposures?	Is the Board provided sufficient information to assess risk positions?	Is the Board sufficiently independent to ensure balanced questioning of risk, capital and strategic decisions?	Limited insight into Board discussions - only really possible to measure organisational structure and policies	Separation of CEO and Chairman roles and appointment of independent Lead Director	Percentage of independent, non-executive directors and wholly independent compensation and nomination committees	Audit committee independence and ratio of non-audit to audit fees paid to the assigned auditor
	Management incentives	Is senior management incentivised to deliver long term performance that is aligned with shareholder interests?	Is compensation determined in a transparent and objective way?		Compensation methodology is frequently imprecisely defined in public reports; actual compensation levels can vary significantly from performance on stated goals	CEO compensation (including salary, bonus, stock grants and options) as a percentage of net income	Fair value of share-based compensation expense as percentage of equity	Key elements of compensation (equity market/growth/return based)
	Representation of shareholder interests	Is the ownership and voting structure sufficiently balanced to ensure ordinary shareholders are represented in strategic decisions?	Does the ownership/voting structure align economic interest (equity holding) with influence (voting rights)?	Are there impediments to shareholders voting on key issues?	Assessing motivations of major shareholders challenging but possible to assess ownership and control structure to identify potential risks	Block ownership greater than 5%, staggered Board, poison pill, unequal voting rights and other provisions		
	Importance of ESG factors to management responsibility / incentives	Is senior management responsible for and incentivized by environmental and social performance?			Details of seniority of ESG managers frequently unclear, compensation structures often imprecisely defined	Compensation link and responsibility of Board, senior executives to environmental and social performance		
Environmental	Environmental risk analysis in lending decisions	Is there a standardised approach to measuring environmental risks and incorporating them into lending and advisory decisions?			Very few institutions provide sufficient detail on risk management approach to assess details	Specialized environmental training, environmental checks on project finance and responsible lending, Equator Principles		
	Employee engagement on environmental strategy	Is there an employee engagement program on environmental or social issues of importance to its workforce?			Specific initiatives may be mentioned - consistent group wide disclosure is limited			
	Environmental impact of offices & travel	Management of energy consumption, relationship to building design?	Is travel actively monitored & reduced where possible?		Limited consistent disclosure			
	Environmental / socially responsible investment products	Has the company developed consumer products with environmental or social criteria e.g. climate change/SRI funds or "green" consumer finance products?			Increasingly disclosed, though generally difficult to assess the contribution of those products to the business or importance attached to them internally	Product and business innovation related to environmental and social issues		

Source: Goldman Sachs Research.

Exhibit 58: Issues and analysis applied across Financials: Stakeholders

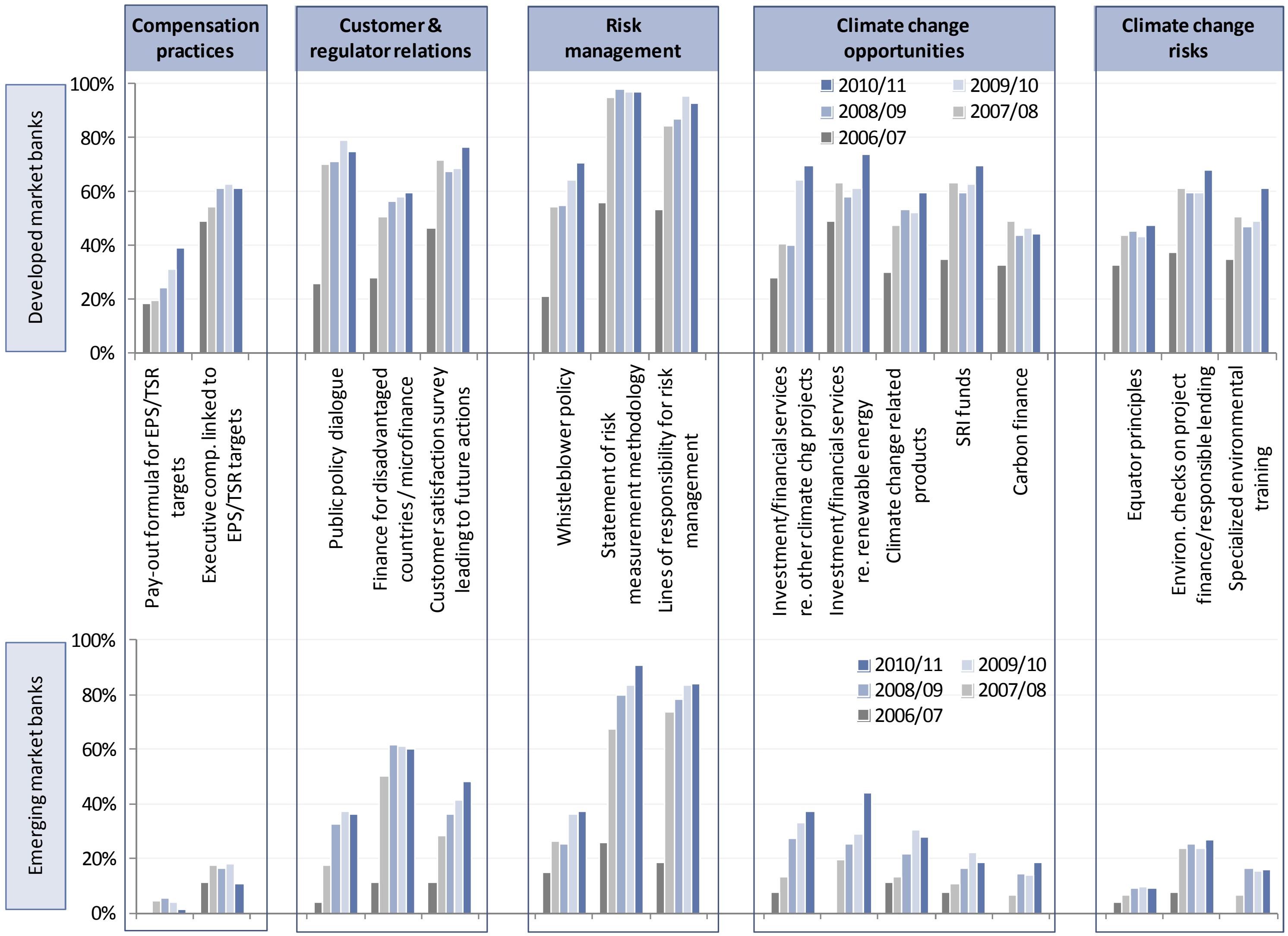
Category			Issues			Analytical challenges	Metrics analyzed	
Stakeholders	Investors	Transparency	Are investors provided with sufficient information to assess financial and non-financial performance?			Challenging to assess "quality of reporting" - adherence to GRI or other standards helpful but insufficient	Number of years of reporting on environmental and social ("ES") issues and external assurance of data	
	Investors	Capital risks	Does the company manage risk in its assets sufficiently, and maintain sufficient capital, to mitigate shareholder risks?			Assessing HOW companies measure risk rarely possible - can only measure RESULTS of risk management in financial statements	Return on pre-provision operating profit, ratio of tangible equity to tangible assets	
	Employees	Compensation	Is compensation competitive with other firms in the industry?	Is compensation in line with the productivity of the workforce?		Challenges in comparison across regions and different types of institution	Total payroll costs divided by average number of employees	Net income per employee
	Employees	Incentive structure	Are firmwide incentive structures aligned with longer term shareholder interests?	Are there mechanisms in place to claw back compensation where problems are found subsequently?		Details of compensation structures rarely sufficient to allow meaningful comparison	Performance-based executive compensation linked to EPS or TSR targets	
	Employees	Training	Are employees provided with sufficient training to identify risks and understand importance of escalating concerns - is this treated as a cultural goal or a compliance requirement?			Companies typically state they provide training but unclear the importance banks attach to going beyond compliance requirements	Institutionalized training programme, amount of resources used for training, hours or spend	
	Employees	Employee retention	How does staff turnover compare with competitor companies in the industry?			Very limited information provided on employee turnover		
	Employees	Levels of management / ease of escalation of concerns	How many levels of management exist between line businesses and senior management?	Have mechanisms been created to allow concerns to be quickly escalated outside of business units?	How easily is information / concerns relayed upward through the organisation?	Organisational structure v difficult to compare across businesses	Reporting on lines of responsibility for risk management, reporting on risk measurement methodology, reporting on whistleblowing and escalation process	
	Employees	Workforce diversity	Is the workforce sufficiently diverse to provide a diversity of opinion?	Does the company recruit from diverse backgrounds, increasing the potential recruitment pool?		Only gender diversity is widely reported - would be preferable to assess other aspects of diversity and diversity of incoming recruits	Gender diversity of total workforce, senior executives, and Board directors	
	Employees	Employee engagement	Does the firm have a strong corporate culture and individual responsibility?	Is there a strong culture of employee engagement?		Organisational culture impossible to measure		
	Customers	Consumer brand	Is the company's brand and reputation strong relative to competitors, providing an advantage in deposit growth and funding costs?	Do consumers have a greater level of trust in that organisation than in competitors?		Company specific brand/reputational measures exist but typically do not provide adequate comparability across companies given normal size bias to news coverage and limited comparability across regions		
	Customers	Customer satisfaction	Is there a mechanism for monitoring and responding to customer dis-satisfaction?			Many institutions have customer surveys in place - can only compare whether banks actively engage - cannot compare the results across organisations	Customer surveys leading to company actions, increase in M&A deals completed, microfinance, public policy dialogue	
	Customers	Products	Does the company innovate in product development to meet demands for environmental / responsible investment products and consumer finance?			Increasingly disclosed, though generally difficult to assess the contribution of those products to the business or importance attached to them internally	Product and business innovation related to environmental and social issues	
	Regulators	Engagement in policy discussions	Is the firm actively contributing to policy discussions, directly or through trade organisations?	What policy stance has the company adopted - constructive engagement or obstructive?		Cannot measure objectively - difficult to assess degree of engagement and stance - many institutions prefer not to discuss their discussions with regulators		
	Regulators	Fines & penalties	Has the company experienced higher than average fines?	Does the company face significant litigation (and potential future fines)?		Individual fines are typically disclosed but aggregate fines incurred are usually not separately disclosed		
	Communities	Investment in local communities	Does the company actively and visibly invest in local community initiatives - are these through national level or local programs?				Community investment as a percentage of equity	
	Communities	Funding for social ventures	Is funding available for social initiatives?					
	Communities	Provision of financial services to under-banked	Is there an active effort to provide financial services to consumer excluded from traditional financial services?			Some institutions discuss specific initiatives but limited disclosure of group wide efforts		
	Communities	Microfinance investments	Does the company invest in microfinance initiatives or other innovative methods to provide financing to smaller scale grass roots businesses and borrowers?					
	Suppliers	Reputational risks of using controversial suppliers	Does the company have supplier standards relating to environmental & social performance?	Does the company monitor/audit the environmental/social performance of its suppliers?		Can assess whether companies actively seek to manage supplier issues, but insufficient detail to assess effectiveness of that process	Guidelines for suppliers on environmental and social issues, reporting on quantification of environmentally assessed and minority-owned suppliers	

Source: Goldman Sachs Research.

While disclosure levels are rising quickly, allowing us to incorporate additional information, many aspects of performance remain too infrequently disclosed to allow meaningful analysis.

Exhibit 59: Developed market banks increasingly recognise the need to address environmental, social and governance issues that are particularly pertinent to the banking industry

Proportion of banks disclosing ESG factors particularly relevant to their industry



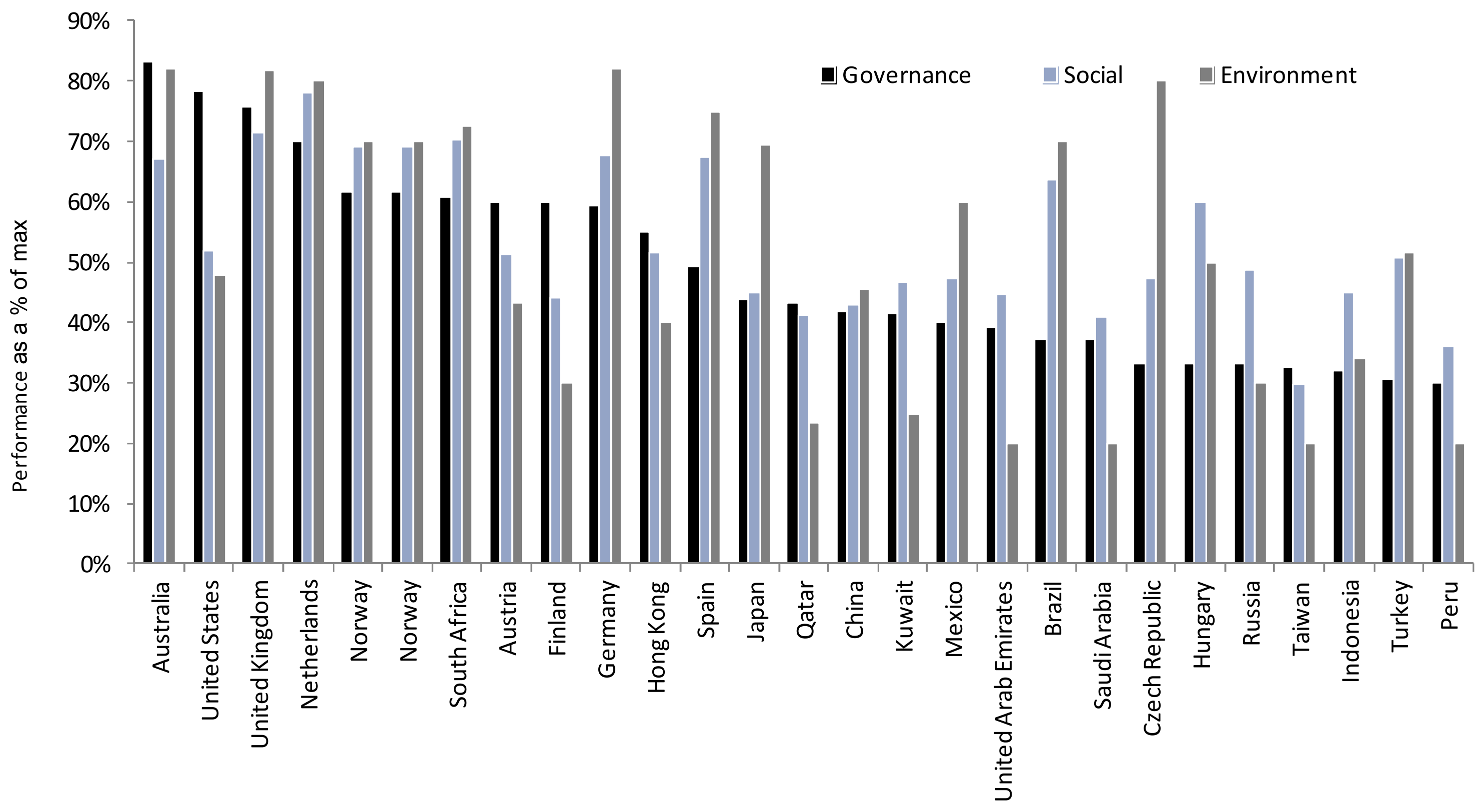
Source: Company data, Goldman Sachs Research.

Differences in disclosure levels between developed and emerging markets explain a large proportion of the differences in ESG scores that we calculate across global financials. Our ESG framework typically assigns the lowest score where information is not disclosed for individual indicators. As a result, the lowest scores are typically achieved by companies with the lowest levels of disclosure.

Exhibit 60 ranks the average ESG scores of companies listed in each country from highest to lowest across the global financials sector, highlighting the regional disparities. The risks of investing in emerging markets are frequently greater than those of developed markets, yet investors are provided with less information by companies listed in those markets than in developed economies. As a result, in many cases, we have found emerging market exposure through globally diversified, developed market businesses more attractive.

Exhibit 60: Within the financial industry, performance varies by country on environmental, social and governance factors, with Anglo-Saxon outperformance on corporate governance

Average country performance (banks and insurance) on environmental, social and governance measures, as a percentage of maximum



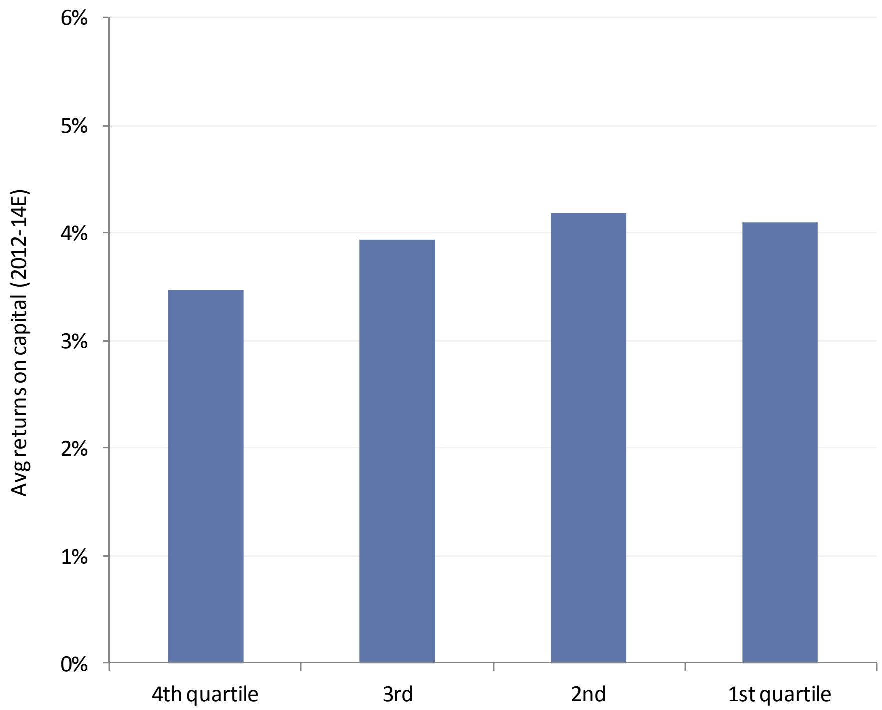
Source: Company data, Goldman Sachs Research.

While disclosure constraints reduce our ability to measure every aspect of companies' performance, we nonetheless find a positive link between the management quality (ESG) scores we calculate and both the level and sustainability of returns on capital.

Exhibit 61 shows the average return on capital (ROA for Banks, ROE for Insurance) for companies in each quartile of management quality, highlighting a modest positive relationship between ESG scores and returns on capital across the industry.

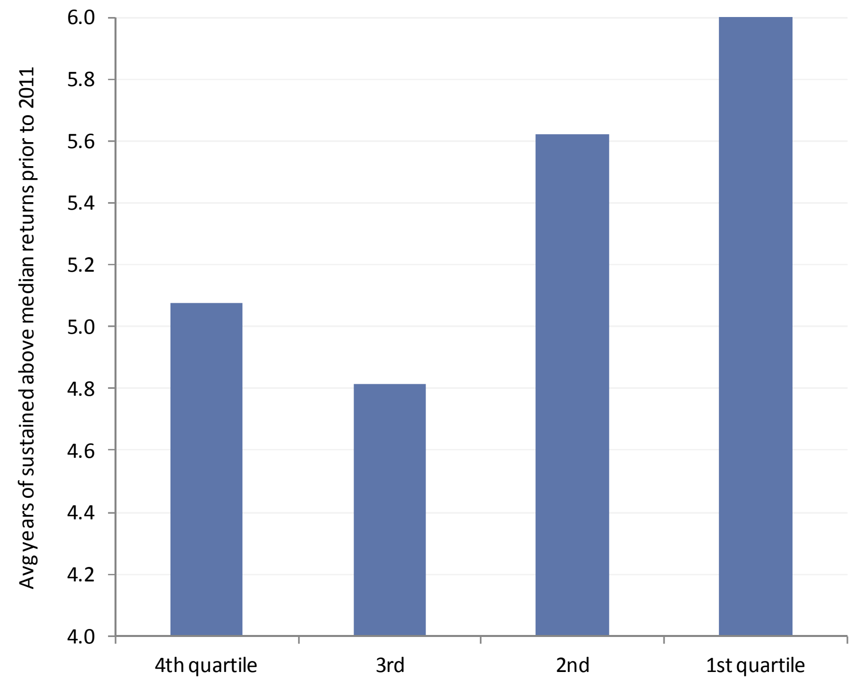
More importantly for our analysis, Exhibit 62 shows the average number of consecutive years for which companies in each quartile of management quality (ESG) had sustained above-median returns on capital, prior to 2011. Companies with above-median ESG scores sustained better-than-median returns on capital for c.20% longer than companies with below-median ESG scores.

Exhibit 61: Better managed companies tend to be slightly more profitable…
Avg. 2012-14E ROE/ROA for Banks/Insurance companies by mgmt quality (ESG) quartile



Source: Company data, Quantum database, Goldman Sachs Research estimates.

Exhibit 62: … and more importantly tend to sustain high returns for longer than weaker peers
Number of years sustained above-median returns, by mgmt quality (ESG) quartile

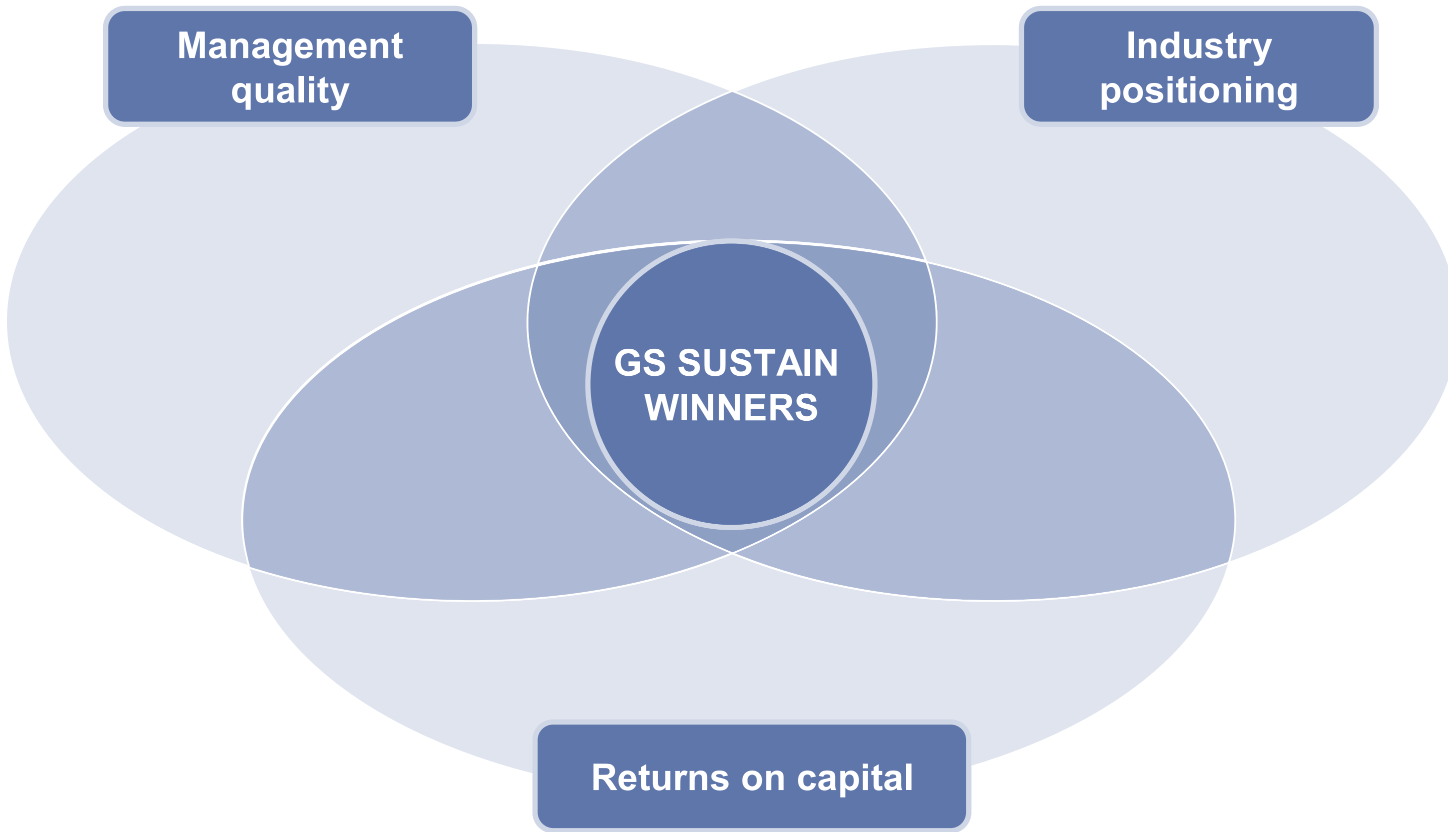


Source: Company data, Quantum database, Goldman Sachs Research estimates.

GS SUSTAIN framework extended to 151 banks and 61 insurance companies; 11 winners

The GS SUSTAIN framework is designed to identify the companies in each global industry that we believe are best positioned to sustain a competitive advantage and superior returns on capital over the long term (three to five years and beyond) relative to sector peers. The framework integrates our analysis of companies': (1) management quality with respect to environmental, social and governance (ESG) issues, (2) industry positioning and (3) return on capital, using objective, quantifiable and transparent measures of performance on each dimension. Overall leaders stand out across all three of these dimensions.

Exhibit 63: The GS SUSTAIN framework



Source: Goldman Sachs Research

With this report, we extend the universe of large, mature financials companies to which we have applied the GS SUSTAIN framework to 212 financial institutions assessed in three distinct groups: Emerging Market Banks, Developed Market Banks and Global Insurance. Emerging and developed market banks are defined based on the trend pace of banking asset growth in each company's domestic market – those based in countries in which banking assets are growing more slowly than the global average are treated as developed market and vice versa.

The details of the analysis applied are laid out in the following pages, highlighting 11 leaders that stand out as well placed to sustain industry-leading cash returns relative to peers, shown in Exhibit 64.

Exhibit 64: 11 global leaders stand out across emerging & developed banks and global insurance

Institution	Return on capital		Industry positioning	Management quality (ESG)
	ROA (Banks)/ROE (Insurers)	Percentile ranking	Percentile ranking	Percentile ranking
HSBC	0.7%	58%	66%	96%
Standard Chartered	0.8%	65%	68%	92%
BBVA	0.8%	59%	76%	84%
Julius Baer	1.0%	73%	61%	60%
Commonwealth Bank	1.0%	74%	82%	96%
Hang Seng Bank	1.5%	92%	77%	88%
Itau Unibanco	1.8%	65%	79%	88%
Firstrand	1.7%	96%	70%	75%
Prudential Plc	18%	93%	82%	98%
RSA	11%	61%	75%	90%
AMP	14%	83%	87%	87%

Source: Goldman Sachs Research.

GS SUSTAIN analysis of global financial sectors

This section summarises the key elements of the analysis that we have applied to each mature industry examined within the GS SUSTAIN framework. The structure of this presentation is consistent across all global industries analysed within GS SUSTAIN. As shown in Exhibit 65, for each of the three industry groups we detail:

1. Industry roadmaps describing structural industry trends and measures used to identify long-term industry winners in three categories; return on capital (ROE/ROA), industry positioning, and management of environmental, social and governance (ESG).

2. Winners circles summarising the overall categorisation of companies analysed in each sector as Venn diagrams. Companies are shown in categories in which they demonstrate leadership relative to global peers. The companies listed in the intersection of the three circles stand out on all three dimensions and are included in the GS SUSTAIN Focus List.

3. Winners tables showing details of the analysis applied in each of the three dimensions of the GS SUSTAIN framework, with companies percentile-ranked relative to peers on each aspect of performance. Global leaders are shaded grey.

4. Average return on capital of companies in each quartile of profitability and the cumulative total shareholder return of companies in each quartile over the last decade.

5. Return on capital (ROE/ROA for insurance/banks) plotted against asset multiples (P/Book), demonstrating the extent of the relationship between returns on capital and asset multiples. Across the industries we have examined, we consistently find that returns-based measures of performance provide a stronger relationship to valuation than other, growth-based measures.

7. Return on capital progression over time for each company in the sector – colour coding highlights the quartile of sector-relative cash returns to which each company belongs.

8. A comparison of each company's industry positioning percentile and its return on capital percentile. The former is intended to provide greater visibility into the sustainability of future returns, and, as a result, we typically find a positive relationship between the two measures.

9. Comparison of prior and current year industry positioning rankings, highlighting material improvements or deteriorations over the last year. In addition to changes in companies' like-for-like performances, movements reflect changes in the methodology used to assess industry positioning and changes to the universe of companies against which individual companies are compared.

10. Summary of the measures applied to assess industry positioning, explaining the measures, rationale and calculations, reflecting the trends and measures outlined in the industry roadmaps for each sector. Subsequent pages also provide further detail on the underlying assumptions used in those calculations.

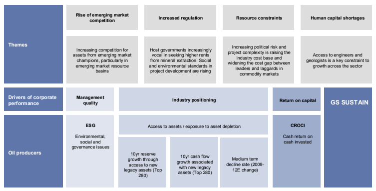
11. The environmental, social and governance indicators used to assess management quality. We believe effective management of ESG issues is a key element of sustained competitive advantage. Indicators are based on our assessment of the key issues facing each industry and the extent of data reporting to allow comparison on those dimensions.

12. Management quality (ESG) rankings by category. Each company is scored on a 1 (low) to 5 (high) scale relative to global peers. Thos scores are aggregated to provide an overall ESG score and ranking relative to peers.

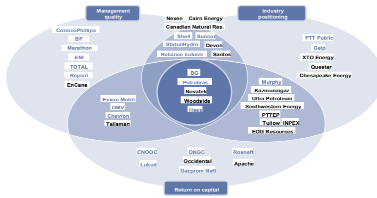
13. Comparison of prior and current year management quality (ESG) rankings, highlighting material improvements or deteriorations over the last year.

Exhibit 65: The analysis in each sector is summarised in 13 pages

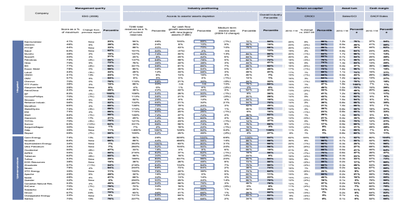
1. Industry roadmap: describes structural industry trends and measures used to identify the companies best positioned to sustain competitive advantage



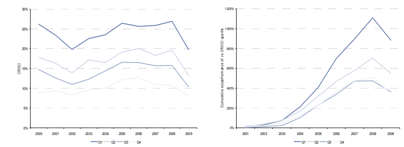
2. Winners circle: leaders on each dimension of analysis are shown in each circle. Companies in middle excel on all three dimensions and are included in the GS SUSTAIN Focus List



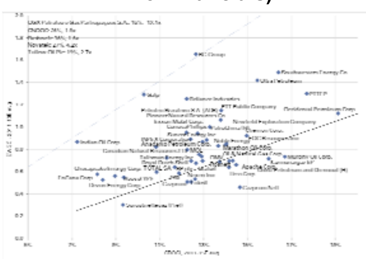
3. Winners table: detailed summary of companies' performance on each of 1) environmental, social and governance performance, 2) industry positioning and 3) returns on capital



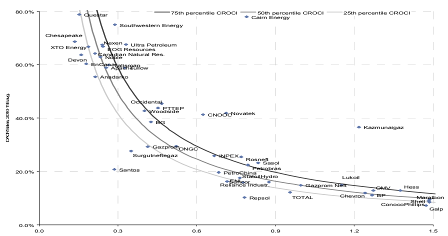
4. Average returns on capital of companies in each quartile of CROCI and cumulative shareholder returns of companies in each quartile over time



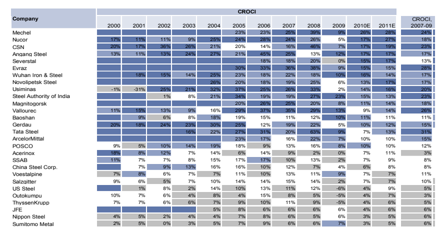
5. Return on capital (CROCI, or ROE for financials) vs. asset multiples (EV/GCI, or P/B for financials)



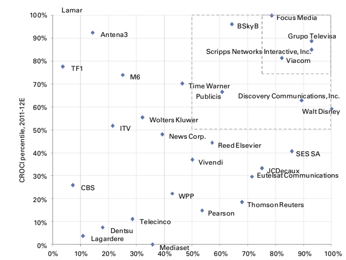
6. Returns on capital decomposition: decomposition of cash returns into its constituent drivers (sales/GCI vs. DACF/sales)



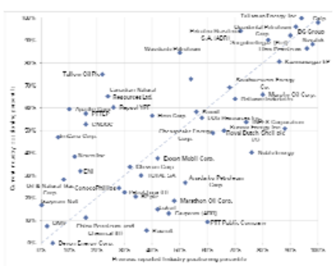
7. Returns on capital progression over time



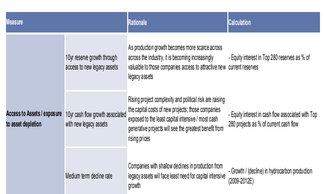
8. CROCI percentile vs. industry positioning percentile



9. Changes in Industry Positioning

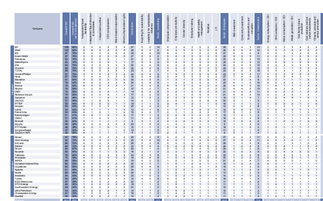


10. Industry positioning summary: key drivers, rationale and calculation of their measurement



11. Environmental, social and governance measures (ESG indicators): objective, quantifiable indicators to assess management quality

12. Management quality rankings by ESG category: scores of companies based on publically disclosed data



13. Changes in management quality

Source: Goldman Sachs Research.

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Emerging Market Banks

Industry roadmap: Key trends and drivers of performance

Exhibit 66 summarises the key structural shifts we have identified for the global banks industry, and the measures that we use to identify those companies we believe are best placed to sustain industry leadership against this backdrop of change.

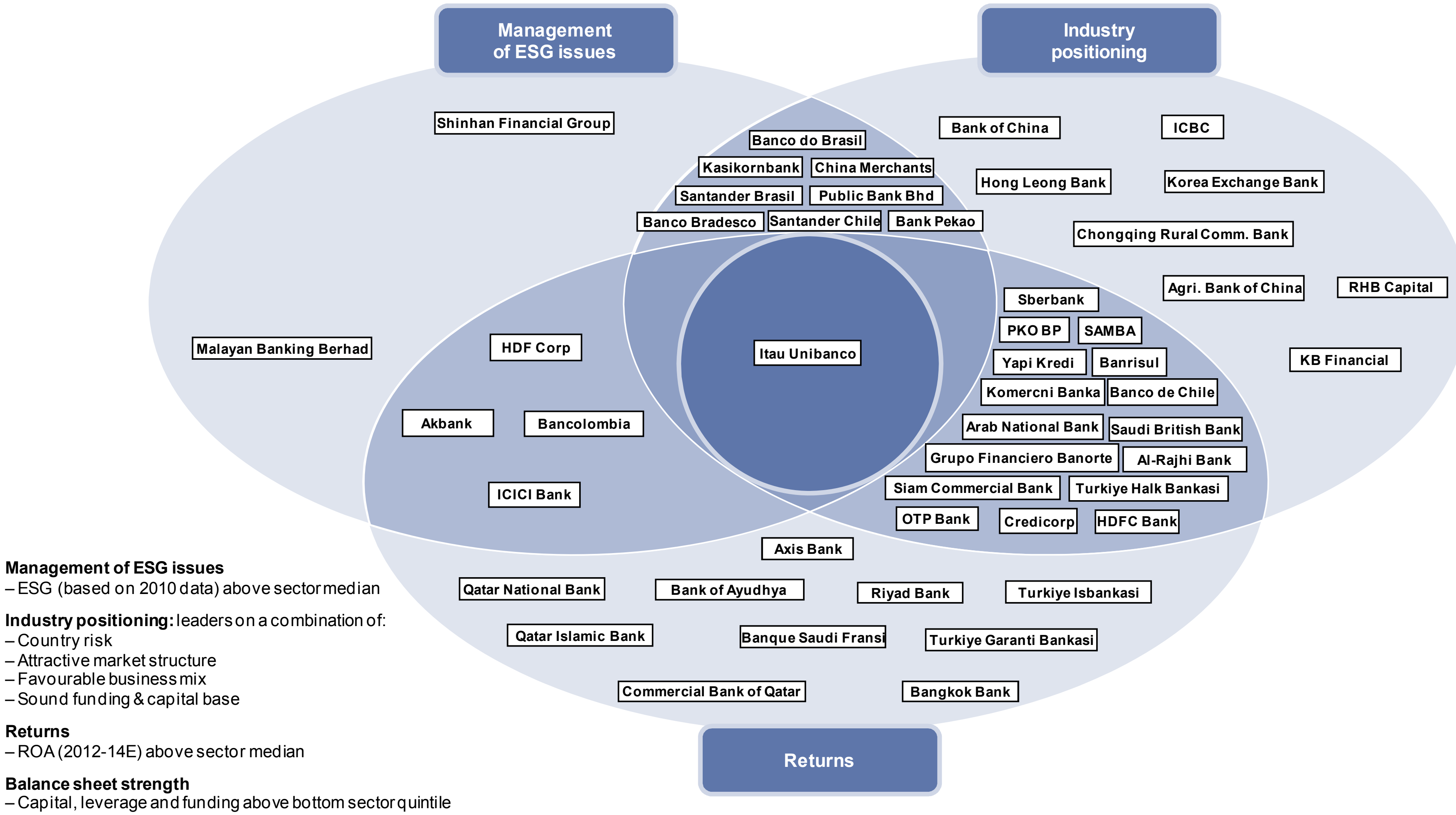
Exhibit 66: Industry roadmap – Emerging market banks

Themes	**Emerging market consumption growth**		**Increased regulation**		**Debt/capital imbalances across developed & emerging economies**	**Consolidation**
	Emerging markets offer sustainable growth due to rising wealth and financial intermediation	Developed markets need to rebuild depleted wealth	Governments have increased their ownership in financial institutions	Regulators may become more proactive and could influence future returns	Costs of capital becoming increasingly divergent between developed and developing banks and across funding models	Industry consolidation is likely to continue opportunistically
Drivers of corporate performance	**Management quality**	**Industry positioning**			**Return on capital**	**Balance sheet strength**
Banks	**ESG** Environmental, social and governance issues	Regional growth: High potential growth markets -Trend in banking asset growth in end markets	Regional market structure: Attractive market structure - State ownership and market concentration of end markets	Regulatory exposure: Attractive business mix - Exposure to low volatility, low capital intensity businesses	**ROA** Return on assets	Capital, leverage and funding mix
GS SUSTAIN						

Source: Goldman Sachs Research.

We identify Itau Unibanco as an industry leader on each of: (1) return on capital (ROA), (2) industry positioning and (3) management quality (as measured by environmental, social and governance (ESG) performance above the sector median).

Exhibit 67: Winners circle – Emerging market banks



Note: CIMB, China Construction Bank, Turkiye Vakiflar Bankasi, China Minsheng Banking, JSC VTB, China CITIC Bank, Krung Thai Bank, Bank of Ningbo, Bank Of Nanjing, Industrial Bank, Bank of Communications, Shanghai Pudong, Bank of Beijing, Ping An Bank, Hua Xia Bank, Industrial Bank of Korea, Hana Financial, Woori Finance scored below median on all three metrics.

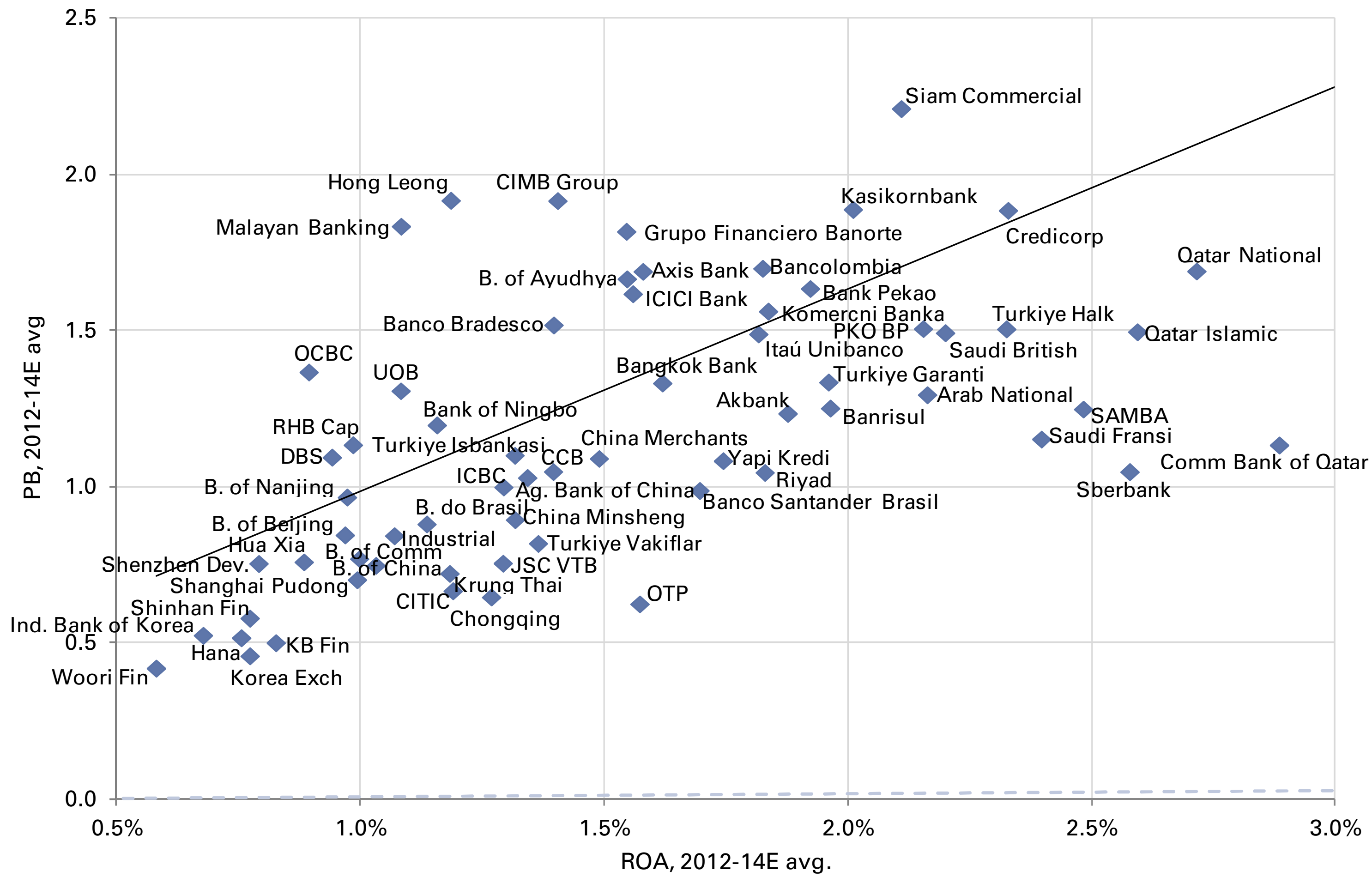
Source: Company data, Goldman Sachs Research estimates.

Exhibit 68: Winners table – Emerging market banks

Company	Return on capital – ROA: 2012-14E	ROA: 2009-11	ROA: change vs 2009-11 in ppts	ROA: Percentile	ROA: Total assets / total equity	ROA: Percentile	Industry positioning – Country risk: Weighted avg country indebtedness (Debt/GDP 2012E)	Country risk: Percentile	Market structure: Weighted avg. consolidation	Market structure: Weighted avg. state ownership	Market structure: Percentile	Business mix: Ranked business mix score (Rank 1-4)	Business mix: Percentile	Funding: Loans/ deposits (2012E)	Funding: Wholesale funding % ((liabilities - deposits) / liabilities)	Funding: Percentile	Overall Industry Positioning: Percentile	Management quality – ESG: Score as a % of maximum (2010/11)	ESG: Change vs last report	ESG: Percentile (2010/11)
Al-Rajhi Bank	3.7%	3.8%	-0.1%	100%	7	96%	92%	68%	45%	63%	6%	3.6	94%	85%	4%	94%	89%	36%	New	3%
Commercial Bank of Qatar	2.9%	2.9%	0.0%	98%	5	100%	92%	70%	44%	63%	6%	3.2	38%	107%	32%	15%	6%	44%	New	26%
Qatar National Bank	2.7%	2.8%	0.0%	97%	8	83%	101%	53%	50%	55%	24%	2.9	5%	91%	21%	45%	5%	45%	New	32%
Qatar Islamic Bank	2.6%	3.1%	-0.5%	95%	6	99%	103%	52%	48%	60%	20%	2.9	6%	119%	37%	5%	2%	35%	New	2%
Housing Development Finance Corpor	2.6%	2.6%	0.0%	94%	9	73%	71%	77%	34%	73%	0%	3.6	97%	442%	nm	0%	32%	55%	3%	57%
Sberbank	2.6%	2.0%	0.6%	92%	9	74%	42%	100%	52%	54%	27%	3.5	88%	107%	15%	42%	88%	44%	9%	26%
SAMBA	2.5%	2.4%	0.1%	91%	7	93%	92%	68%	45%	63%	6%	3.2	33%	67%	13%	95%	61%	43%	New	21%
Banque Saudi Fransi	2.4%	2.2%	0.2%	89%	7	91%	99%	56%	46%	62%	15%	3.2	32%	87%	5%	88%	48%	40%	New	10%
Credicorp	2.3%	2.3%	0.1%	88%	9	64%	52%	91%	65%	25%	68%	3.4	71%	121%	31%	8%	82%	35%	-1%	2%
Turkiye Halk Bankasi A.S.	2.3%	2.8%	-0.5%	86%	10	58%	46%	99%	40%	30%	14%	3.3	53%	87%	16%	56%	71%	39%	-2%	7%
Saudi British Bank	2.2%	1.8%	0.4%	85%	8	79%	92%	68%	45%	63%	6%	3.2	29%	82%	9%	91%	52%	45%	New	32%
Arab National Bank	2.2%	1.9%	0.3%	83%	7	86%	92%	68%	45%	63%	6%	3.3	64%	85%	11%	80%	68%	43%	New	21%
PKO BP	2.2%	1.9%	0.3%	82%	8	80%	64%	83%	90%	20%	97%	3.7	98%	107%	10%	52%	97%	42%	-4%	18%
Siam Commercial Bank (Foreign)	2.1%	1.7%	0.4%	80%	10	56%	138%	30%	72%	28%	59%	3.4	82%	102%	21%	38%	67%	41%	New	14%
Kasikornbank (Foreign)	2.0%	1.4%	0.6%	79%	10	55%	138%	30%	72%	28%	59%	3.2	39%	97%	9%	68%	56%	54%	New	56%
Banrisul	2.0%	2.3%	-0.3%	77%	9	67%	98%	62%	100%	45%	86%	3.4	73%	95%	28%	29%	86%	36%	New	3%
Turkiye Garanti Bankasi	2.0%	2.7%	-0.7%	76%	8	82%	56%	86%	44%	28%	26%	3.2	35%	101%	30%	21%	29%	48%	4%	37%
Bank Pekao	1.9%	1.9%	0.0%	74%	7	94%	64%	82%	89%	20%	95%	3.3	56%	96%	8%	76%	95%	57%	4%	58%
Akbank	1.9%	2.6%	-0.7%	73%	7	89%	49%	94%	41%	29%	23%	3.2	41%	92%	31%	26%	44%	60%	7%	61%
Komercni Banka	1.8%	1.6%	0.2%	71%	9	65%	64%	80%	94%	3%	100%	3.5	89%	82%	10%	89%	100%	48%	-7%	37%
Riyad bank	1.8%	1.7%	0.1%	70%	6	97%	103%	50%	46%	61%	15%	3.1	20%	84%	4%	92%	33%	39%	New	7%
Bancolombia	1.8%	2.1%	-0.3%	68%	9	71%	52%	91%	65%	25%	68%	2.9	3%	140%	31%	3%	26%	62%	8%	64%
Banco de Chile	1.8%	1.9%	-0.1%	67%	13	39%	90%	73%	52%	13%	76%	3.4	82%	121%	3%	53%	92%	45%	2%	32%
Itaú Unibanco Holding (ADR)	1.8%	1.8%	0.0%	65%	12	46%	101%	55%	98%	43%	86%	3.4	79%	149%	28%	12%	79%	76%	1%	88%
Banco Santander Chile	1.8%	2.0%	-0.3%	64%	12	44%	90%	73%	52%	13%	76%	3.3	67%	201%	27%	12%	76%	62%	New	64%
Yapi Kredi	1.7%	2.3%	-0.5%	62%	9	68%	50%	93%	41%	29%	21%	3.3	62%	109%	27%	20%	55%	49%	3%	42%
HDFC Bank	1.7%	1.5%	0.2%	61%	11	53%	71%	77%	34%	73%	0%	3.4	80%	86%	9%	85%	85%	41%	1%	14%
Banco Santander Brasil (ADR)	1.7%	1.7%	-0.1%	59%	8	77%	98%	62%	100%	45%	86%	3.3	70%	176%	28%	11%	77%	63%	New	69%
Bangkok Bank (Foreign)	1.6%	1.3%	0.4%	58%	9	70%	138%	30%	72%	28%	59%	3.1	18%	91%	12%	70%	33%	36%	New	3%
Axis Bank	1.6%	1.5%	0.1%	56%	12	43%	71%	77%	34%	73%	0%	3.0	8%	83%	14%	79%	20%	50%	6%	45%
OTP Bank Plc	1.6%	1.4%	0.1%	55%	7	88%	69%	79%	88%	7%	98%	3.7	100%	135%	22%	23%	94%	51%	-6%	47%
ICICI Bank	1.6%	1.1%	0.4%	53%	8	85%	111%	36%	43%	62%	5%	3.1	15%	109%	33%	6%	0%	53%	8%	53%
Bank of Ayudhya (Foreign)	1.5%	1.1%	0.5%	52%	9	62%	138%	30%	72%	28%	59%	3.5	86%	122%	30%	9%	45%	42%	New	18%
Grupo Financiero Banorte	1.5%	1.1%	0.4%	50%	11	52%	54%	88%	78%	14%	94%	3.6	95%	102%	3%	71%	98%	46%	13%	34%
Turkiye Isbankasi	1.5%	2.2%	-0.7%	48%	8	76%	56%	85%	44%	28%	30%	3.2	27%	92%	26%	36%	38%	44%	-2%	26%
Public Bank Berhad	1.5%	1.4%	0.1%	47%	16	17%	137%	32%	53%	16%	58%	3.4	74%	89%	13%	74%	82%	55%	New	57%
CIMB Group Holdings	1.4%	1.3%	0.1%	45%	11	49%	107%	41%	59%	23%	59%	3.0	14%	87%	15%	64%	36%	49%	New	42%
Banco Bradesco (ADR)	1.4%	1.7%	-0.3%	44%	14	30%	98%	62%	100%	45%	86%	3.2	42%	122%	29%	17%	65%	62%	-2%	64%
China Construction Bank (H)	1.4%	1.4%	0.0%	42%	15	23%	147%	2%	81%	65%	53%	3.0	11%	64%	11%	98%	21%	51%	0%	47%
Turkiye Vakiflar Bankasi	1.4%	1.8%	-0.4%	41%	9	61%	49%	96%	41%	29%	18%	3.2	30%	99%	20%	44%	47%	41%	1%	14%
Industrial and Commercial Bank of Chi	1.3%	1.3%	0.0%	39%	16	15%	146%	15%	81%	66%	36%	3.3	52%	62%	13%	97%	58%	51%	-2%	47%
China Minsheng Banking (H)	1.3%	1.2%	0.2%	38%	16	14%	146%	15%	81%	66%	36%	3.3	44%	73%	20%	73%	30%	48%	-1%	37%
China Merchants Bank (H)	1.3%	1.2%	0.1%	36%	17	11%	146%	20%	80%	66%	32%	3.4	85%	73%	14%	82%	68%	57%	-4%	58%
Agricultural Bank of China (H)	1.3%	1.0%	0.3%	35%	18	6%	146%	15%	81%	66%	36%	3.3	55%	57%	9%	100%	64%	39%	5%	7%
JSC VTB Bank	1.3%	0.5%	0.8%	33%	9	59%	47%	97%	52%	51%	29%	3.1	17%	144%	39%	2%	12%	46%	9%	34%
Chongqing Rural Commercial Bank	1.3%	1.2%	0.1%	32%	13	36%	146%	15%	81%	66%	36%	3.6	91%	58%	20%	83%	74%	43%	New	21%
China CITIC Bank (H)	1.2%	1.1%	0.1%	30%	15	21%	146%	18%	80%	65%	36%	3.0	12%	72%	23%	59%	3%	44%	-7%	26%
Hong Leong Bank	1.2%	1.1%	0.1%	29%	15	20%	131%	35%	51%	17%	55%	3.6	92%	71%	14%	86%	91%	40%	New	10%
Krung Thai Bank (Foreign)	1.2%	0.9%	0.3%	27%	15	26%	138%	30%	72%	28%	59%	3.3	47%	102%	28%	24%	15%	44%	New	26%
Bank of Ningbo	1.2%	1.1%	0.0%	26%	15	27%	146%	15%	81%	66%	36%	3.1	21%	68%	25%	62%	8%	44%	3%	26%
Bank Of Nanjing	1.1%	1.3%	-0.1%	24%	13	33%	146%	15%	81%	66%	36%	3.3	50%	61%	35%	47%	14%	43%	New	21%
Malayan Banking Berhad	1.1%	1.2%	-0.2%	23%	13	38%	111%	38%	62%	18%	73%	3.2	23%	91%	18%	50%	42%	52%	New	51%
Industrial Bank	1.1%	1.2%	-0.1%	21%	21	2%	146%	23%	80%	66%	33%	3.4	76%	74%	40%	33%	23%	44%	-3%	26%
Bank of China (H)	1.0%	1.1%	-0.1%	20%	16	18%	155%	0%	83%	54%	73%	3.3	45%	72%	18%	77%	53%	50%	-3%	45%
Bank of Communications(H)	1.0%	1.1%	-0.1%	18%	17	9%	146%	18%	80%	65%	36%	3.3	58%	77%	23%	55%	27%	47%	-7%	36%
Shanghai Pudong Development Bank	1.0%	1.0%	0.0%	17%	18	8%	146%	23%	80%	66%	33%	3.4	77%	70%	25%	58%	48%	48%	-6%	37%
RHB Capital	1.0%	1.1%	-0.1%	15%	13	35%	131%	33%	51%	17%	56%	3.3	68%	86%	16%	65%	73%	48%	New	37%
Banco do Brasil	1.0%	1.2%	-0.2%	14%	17	12%	98%	62%	100%	45%	86%	3.3	48%	101%	21%	39%	80%	60%	0%	61%
Bank of Beijing	1.0%	1.1%	-0.1%	12%	19	5%	146%	15%	81%	66%	36%	3.3	61%	64%	31%	48%	15%	44%	-8%	26%
Ping An Bank Co.	0.9%	1.0%	-0.1%	11%	19	3%	146%	15%	81%	66%	36%	3.2	24%	72%	22%	61%	9%	40%	5%	10%
KB Financial Group	0.8%	0.4%	0.5%	9%	13	41%	103%	49%	56%	14%	76%	3.2	36%	107%	19%	41%	59%	45%	-7%	32%
Hua Xia Bank	0.8%	0.6%	0.2%	8%	23	0%	146%	15%	81%	66%	36%	3.3	65%	69%	23%	67%	41%	41%	1%	14%
Shinhan Financial Group	0.8%	0.8%	0.0%	6%	11	50%	105%	46%	56%	15%	85%	2.6	0%	99%	27%	32%	18%	66%	9%	74%
Industrial Bank of Korea	0.8%	0.7%	0.1%	5%	15	29%	106%	44%	56%	15%	82%	3.2	26%	222%	16%	27%	39%	41%	0%	14%
Korea Exchange Bank	0.8%	1.2%	-0.5%	3%	11	47%	109%	39%	56%	16%	71%	3.3	59%	108%	20%	35%	62%	40%	-4%	10%
Hana Financial Group	0.7%	0.5%	0.2%	2%	13	32%	104%	47%	56%	16%	76%	2.8	2%	107%	30%	18%	11%	31%	New	1%
Woori Finance Holdings	0.6%	0.4%	0.2%	0%	15	24%	106%	44%	56%	15%	82%	3.0	9%	105%	25%	30%	23%	47%	0%	36%
Bank Central Asia		2.8%							70%	39%		3.1			3%			40%	1%	10%
Bank Rakyat Indonesia		3.1%							70%	39%		3.8			5%			36%	-4%	3%
Bank Danamon		2.2%							70%	39%		3.8			22%			40%	New	10%
Bank Mandiri		2.2%							70%	39%		3.4			8%			49%	-2%	42%
Bank Negara Indonesia		1.7%							70%	38%		3.0			8%			51%	New	47%

Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

Exhibit 69: Emerging market banks – P/B vs. ROA (2012-14E avg.)



Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

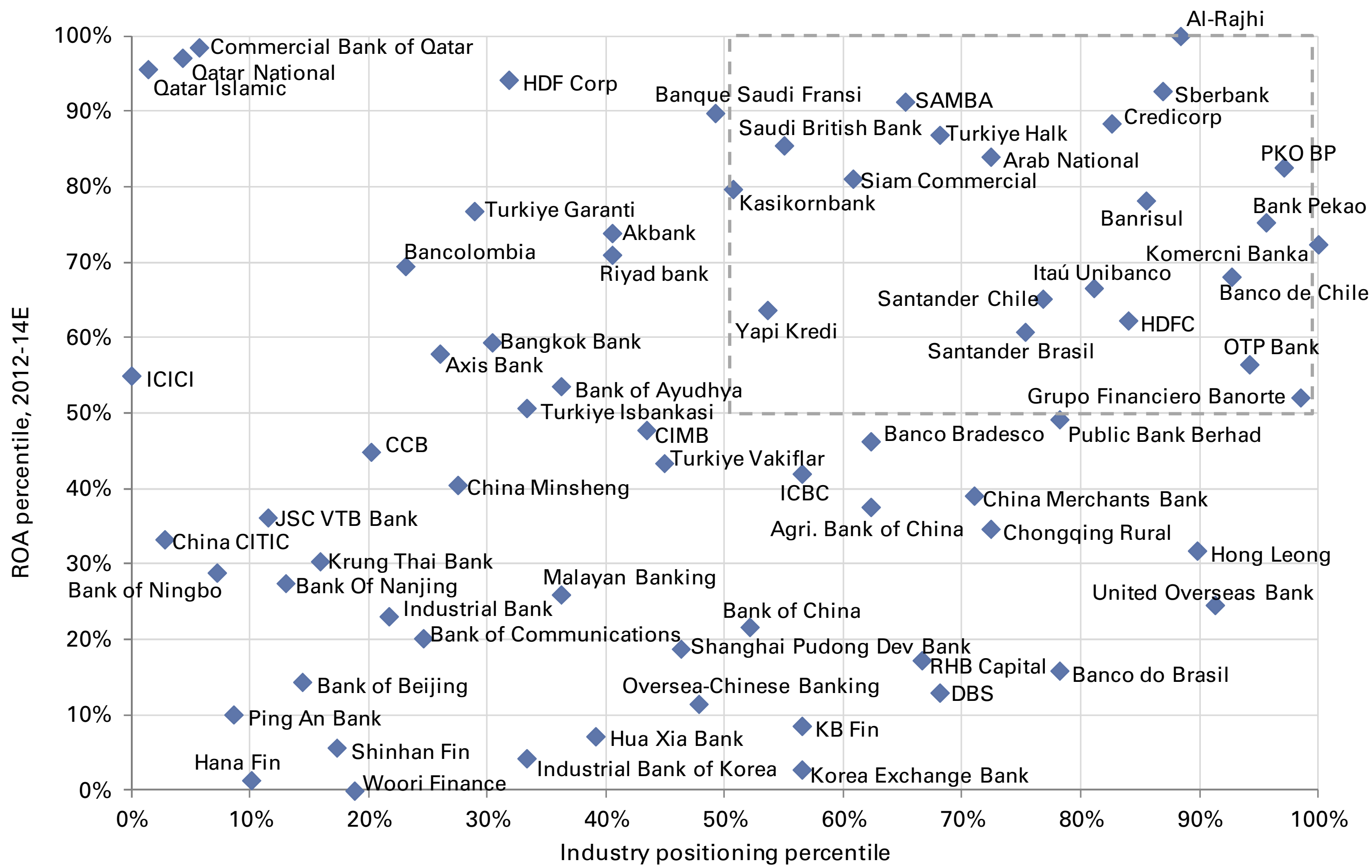
Exhibit 70: Return on assets (ROA) progression over time – Emerging market banks

Company	ROA														ROA, 2009-11	ROA, 2012-14E
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E		
Al-Rajhi Bank						7.3%	5.6%	4.5%	4.0%	3.8%	3.6%	3.7%	3.7%	3.8%	3.8%	3.7%
Qatar Islamic Bank							5.3%	6.0%	3.9%	2.7%	2.8%	2.6%	2.6%	2.6%	3.1%	2.6%
Commercial Bank of Qatar							3.9%	4.1%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Qatar National Bank							2.8%	2.8%	2.6%	2.9%	2.8%	2.7%	2.7%	2.7%	2.8%	2.7%
Sberbank					3.0%	2.8%	2.5%	1.7%	0.3%	2.3%	3.2%	2.9%	2.4%	2.4%	2.0%	2.6%
SAMBA						4.5%	3.5%	2.7%	2.5%	2.4%	2.3%	2.4%	2.5%	2.6%	2.4%	2.5%
Housing Development Finance Corporation	2.7%	2.8%	2.7%	2.8%	2.7%	2.6%	2.6%	3.2%	2.5%	2.6%	2.8%	2.7%	2.5%	2.5%	2.6%	2.6%
Credicorp			2.6%	1.5%	1.8%	1.9%	2.3%	1.8%	2.2%	2.3%	2.4%	2.2%	2.3%	2.4%	2.3%	2.3%
Banrisul					4.9%	2.4%	5.0%	1.7%	2.0%	2.4%	2.6%	2.0%	1.9%	2.0%	2.3%	2.0%
Arab National Bank						3.4%	2.9%	2.3%	2.0%	1.7%	1.9%	2.0%	2.1%	2.3%	1.9%	2.2%
Banque Saudi Fransi						4.1%	3.0%	2.5%	2.0%	2.3%	2.2%	2.2%	2.4%	2.6%	2.2%	2.4%
Saudi British Bank						4.2%	3.0%	2.5%	1.6%	1.5%	2.2%	2.2%	2.1%	2.2%	1.8%	2.2%
PKO BP					2.0%	2.2%	2.8%	2.6%	1.6%	2.0%	2.1%	2.0%	2.2%	2.3%	1.9%	2.2%
Turkiye Halk Bankasi A.S.					2.1%	2.8%	3.0%	2.2%	2.9%	3.0%	2.5%	2.4%	2.3%	2.4%	2.8%	2.3%
Turkiye Garanti Bankasi					2.3%	2.5%	3.9%	2.2%	3.0%	2.7%	2.3%	1.9%	1.9%	2.0%	2.7%	2.0%
Bank Pekao					2.5%	2.7%	2.2%	2.5%	1.8%	1.9%	2.0%	1.8%	1.9%	2.0%	1.9%	1.9%
Akbank					3.4%	2.9%	3.2%	2.2%	3.0%	2.7%	1.9%	1.8%	1.9%	1.9%	2.6%	1.9%
Siam Commercial Bank (Foreign)	0.1%	-1.8%	1.4%	2.0%	1.8%	1.1%	1.3%	1.6%	1.6%	1.7%	1.9%	2.0%	2.1%	2.1%	1.7%	2.1%
Riyad bank						3.3%	2.8%	1.9%	1.7%	1.6%	1.8%	1.7%	1.8%	2.0%	1.7%	1.8%
Bancolombia		2.9%	3.7%	3.8%	3.3%	2.5%	2.4%	2.3%	2.0%	2.2%	2.0%	1.6%	1.9%	2.0%	2.1%	1.8%
Kasikornbank (Foreign)	0.1%	0.9%	1.5%	1.9%	1.7%	1.5%	1.6%	1.3%	1.1%	1.4%	1.6%	1.9%	2.0%	2.1%	1.4%	2.0%
Yapi Kredi					-7.4%	1.2%	1.4%	1.8%	2.1%	2.8%	1.9%	1.7%	1.8%	1.8%	2.3%	1.7%
Banco de Chile		1.2%	1.5%	1.6%	1.7%	1.6%	1.9%	1.8%	1.5%	2.1%	2.1%	1.9%	1.8%	1.7%	1.9%	1.8%
Komercni Banka					1.8%	1.7%	1.8%	1.9%	1.6%	1.9%	1.3%	1.8%	1.8%	1.9%	1.6%	1.8%
Itaú Unibanco Holding (ADR)	2.4%	1.8%	2.2%	2.6%	3.3%	3.0%	2.8%	1.5%	1.7%	2.0%	1.8%	1.6%	1.8%	2.1%	1.8%	1.8%
Banco Santander Chile		0.0%	1.9%	1.7%	1.9%	2.0%	1.9%	2.2%	2.1%	2.2%	1.9%	1.8%	1.7%	1.7%	2.0%	1.8%
Banco Santander Brasil (ADR)				3.1%	2.3%	1.7%	2.0%	0.8%	1.5%	2.0%	1.7%	1.5%	1.7%	1.9%	1.7%	1.7%
JSC VTB Bank					1.8%	2.5%	2.1%	0.2%	-1.7%	1.5%	1.6%	1.1%	1.3%	1.5%	0.5%	1.3%
Bangkok Bank (Foreign)	0.5%	0.5%	0.9%	1.3%	1.4%	1.4%	1.3%	1.3%	1.2%	1.2%	1.3%	1.5%	1.6%	1.7%	1.3%	1.6%
HDFC Bank	1.5%	1.5%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.5%	1.6%	1.7%	1.7%	1.8%	1.5%	1.7%
OTP Bank Plc					3.4%	3.0%	2.7%	2.7%	1.6%	1.2%	1.5%	1.3%	1.5%	1.9%	1.4%	1.6%
China Construction Bank (H)			0.7%	1.3%	1.1%	0.9%	1.2%	1.3%	1.3%	1.3%	1.5%	1.4%	1.4%	1.4%	1.4%	1.4%
Bank of Ayudhya (Foreign)	-0.6%	0.5%	0.6%	0.9%	1.0%	0.3%	-0.6%	0.7%	0.9%	1.1%	1.3%	1.4%	1.6%	1.6%	1.1%	1.5%
Turkiye Isbankasi					1.9%	1.6%	2.2%	1.7%	2.3%	2.4%	1.8%	1.6%	1.4%	1.5%	2.2%	1.5%
ICICI Bank			1.1%	1.4%	1.4%	1.2%	1.0%	1.1%	1.0%	1.1%	1.3%	1.5%	1.6%	1.6%	1.1%	1.6%
Industrial and Commercial Bank of China (H)				0.6%	0.7%	0.7%	1.0%	1.2%	1.2%	1.3%	1.4%	1.4%	1.3%	1.3%	1.3%	1.3%
Public Bank Berhad	1.5%	1.3%	1.6%	1.6%	1.4%	1.3%	1.3%	1.3%	1.2%	1.4%	1.5%	1.5%	1.5%	1.5%	1.4%	1.5%
Axis Bank	1.0%	1.1%	1.1%	1.3%	1.1%	1.1%	1.1%	1.2%	1.4%	1.5%	1.6%	1.6%	1.6%	1.6%	1.5%	1.6%
Banco Bradesco (ADR)	2.0%	1.5%	1.4%	1.7%	2.9%	2.7%	2.5%	1.4%	1.7%	1.8%	1.5%	1.3%	1.4%	1.5%	1.7%	1.4%
China Merchants Bank (H)	0.6%	0.6%	0.5%	0.6%	0.6%	0.8%	1.4%	1.4%	1.0%	1.2%	1.4%	1.3%	1.3%	1.3%	1.2%	1.3%
Grupo Financiero Banorte	1.4%	1.3%	1.1%	1.3%	2.5%	2.8%	2.6%	1.5%	1.0%	1.2%	1.2%	1.3%	1.6%	1.8%	1.1%	1.5%
China CITIC Bank (H)					0.6%	0.6%	1.0%	1.1%	0.9%	1.1%	1.3%	1.2%	1.2%	1.2%	1.1%	1.2%
Turkiye Vakiflar Bankasi					1.9%	2.2%	2.6%	1.6%	2.1%	1.7%	1.5%	1.4%	1.3%	1.3%	1.8%	1.4%
China Minsheng Banking (H)					0.5%	0.6%	0.8%	0.8%	1.0%	1.1%	1.4%	1.3%	1.3%	1.3%	1.2%	1.3%
CIMB Group Holdings	0.5%	0.7%	0.8%	0.7%	0.7%	1.1%	1.6%	1.0%	1.2%	1.4%	1.3%	1.4%	1.4%	1.4%	1.3%	1.4%
Agricultural Bank of China (H)								0.8%	0.8%	1.0%	1.1%	1.2%	1.3%	1.4%	1.0%	1.3%
Chongqing Rural Commercial Bank								1.4%	1.0%	1.3%	1.3%	1.3%	1.3%	1.2%	1.2%	1.3%
Hong Leong Bank	1.1%	1.2%	1.3%	0.8%	1.0%	0.9%	0.9%	1.0%	1.2%	1.2%	1.0%	1.1%	1.2%	1.2%	1.1%	1.2%
Bank of Ningbo					1.2%	1.3%	1.4%	1.5%	1.1%	1.1%	1.2%	1.2%	1.1%	1.1%	1.1%	1.2%
Malayan Banking Berhad	0.6%	1.1%	1.3%	1.4%	1.3%	1.3%	1.3%	1.3%	0.8%	1.2%	1.8%	1.1%	1.1%	1.1%	1.2%	1.1%
Shinhan Financial Group			0.3%	0.7%	1.1%	1.0%	1.1%	0.7%	0.4%	0.8%	1.0%	0.8%	0.8%	0.7%	0.8%	0.8%
Krung Thai Bank (Foreign)	-0.4%	0.8%	0.8%	1.0%	1.1%	1.2%	0.5%	1.0%	0.8%	0.9%	0.9%	1.2%	1.2%	1.2%	0.9%	1.2%
Banco do Brasil			1.4%	1.2%	1.3%	1.3%	1.7%	1.5%	1.0%	1.3%	1.3%	0.9%	1.0%	1.0%	1.2%	1.0%
Bank of China (H)			1.6%	0.5%	0.6%	0.9%	1.0%	1.0%	1.0%	1.1%	1.1%	1.1%	1.0%	1.0%	1.1%	1.0%
Bank Of Nanjing					0.8%	1.1%	1.4%	1.7%	1.3%	1.2%	1.3%	1.2%	1.1%	1.1%	1.3%	1.1%
Industrial Bank					0.6%	0.7%	1.2%	1.2%	1.1%	1.2%	1.2%	1.1%	1.1%	1.0%	1.2%	1.1%
Bank of Communications(H)			0.5%	0.2%	0.7%	0.8%	1.1%	1.2%	1.0%	1.1%	1.2%	1.0%	1.0%	1.0%	1.1%	1.0%
United Overseas Bank	1.0%	1.0%	1.1%	1.2%	1.2%	1.6%	1.2%	1.0%	1.0%	1.3%	1.0%	1.1%	1.1%	1.1%	1.1%	1.1%
Shanghai Pudong Development Bank					0.5%	0.5%	0.7%	1.1%	0.9%	1.0%	1.1%	1.0%	1.0%	0.9%	1.0%	1.0%
Bank of Beijing					0.8%	0.8%	1.1%	1.4%	1.2%	1.1%	1.1%	1.0%	1.0%	0.9%	1.1%	1.0%
RHB Capital	0.5%	0.3%	0.4%	0.6%	0.4%	0.5%	0.7%	1.0%	1.1%	1.2%	1.1%	1.0%	1.0%	0.9%	1.1%	1.0%
KB Financial Group		0.8%	-0.5%	0.2%	1.3%	1.3%	1.3%	0.8%	0.2%	0.0%	0.9%	0.8%	0.8%	0.8%	0.4%	0.8%
Industrial Bank of Korea	0.8%	0.9%	0.3%	0.5%	0.9%	1.1%	1.0%	0.6%	0.5%	0.8%	0.8%	0.7%	0.8%	0.8%	0.7%	0.8%
DBS Group Holdings	0.7%	0.7%	0.7%	1.2%	0.5%	1.2%	1.0%	0.8%	0.8%	0.6%	1.0%	0.9%	0.9%	1.0%	0.8%	0.9%
Ping An Bank Co.				0.2%	0.1%	0.6%	0.9%	0.1%	0.9%	1.0%	1.0%	0.9%	0.9%	0.8%	1.0%	0.9%
Oversea-Chinese Banking Corp.	1.1%	0.8%	1.1%	1.1%	1.0%	1.4%	1.2%	0.9%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%	1.0%	0.9%
Hua Xia Bank				0.4%	0.4%	0.4%	0.4%	0.5%	0.5%	0.6%	0.8%	0.8%	0.8%	0.8%	0.6%	0.8%
Korea Exchange Bank	0.5%	0.2%	-0.4%	0.8%	3.1%	1.5%	1.3%	0.8%	0.9%	1.1%	1.7%	0.8%	0.7%	0.7%	1.2%	0.8%
Hana Financial Group	0.5%	0.7%	0.7%	1.6%	1.0%	1.0%	1.1%	0.3%	0.2%	0.6%	0.7%	0.9%	0.6%	0.6%	0.5%	0.7%
Woori Finance Holdings		1.0%	0.0%	1.0%	1.1%	1.1%	0.9%	0.8%	0.4%	0.4%			0.6%	0.6%	0.4%	0.6%
Bank Central Asia	3.1%	2.3%	1.9%	2.3%	2.4%	2.6%	2.3%	2.5%	2.6%	2.8%	3.1%				2.8%	
Bank Rakyat Indonesia				3.6%	3.3%	3.1%	2.7%	2.6%	2.6%	3.2%	3.5%				3.1%	
Bank Danamon		1.9%	3.1%	4.3%	3.2%	1.8%	2.5%	1.6%	1.5%	2.7%	2.6%				2.2%	
Bank Mandiri				2.1%	0.2%	0.9%	1.5%	1.6%	1.9%	2.2%	2.4%				2.2%	
Bank Negara Indonesia			0.6%	2.3%	1.0%	1.2%	0.5%	0.6%	1.2%	1.7%	2.1%				1.7%	

1st Quartile
2nd Quartile
3rd Quartile
4th Quartile

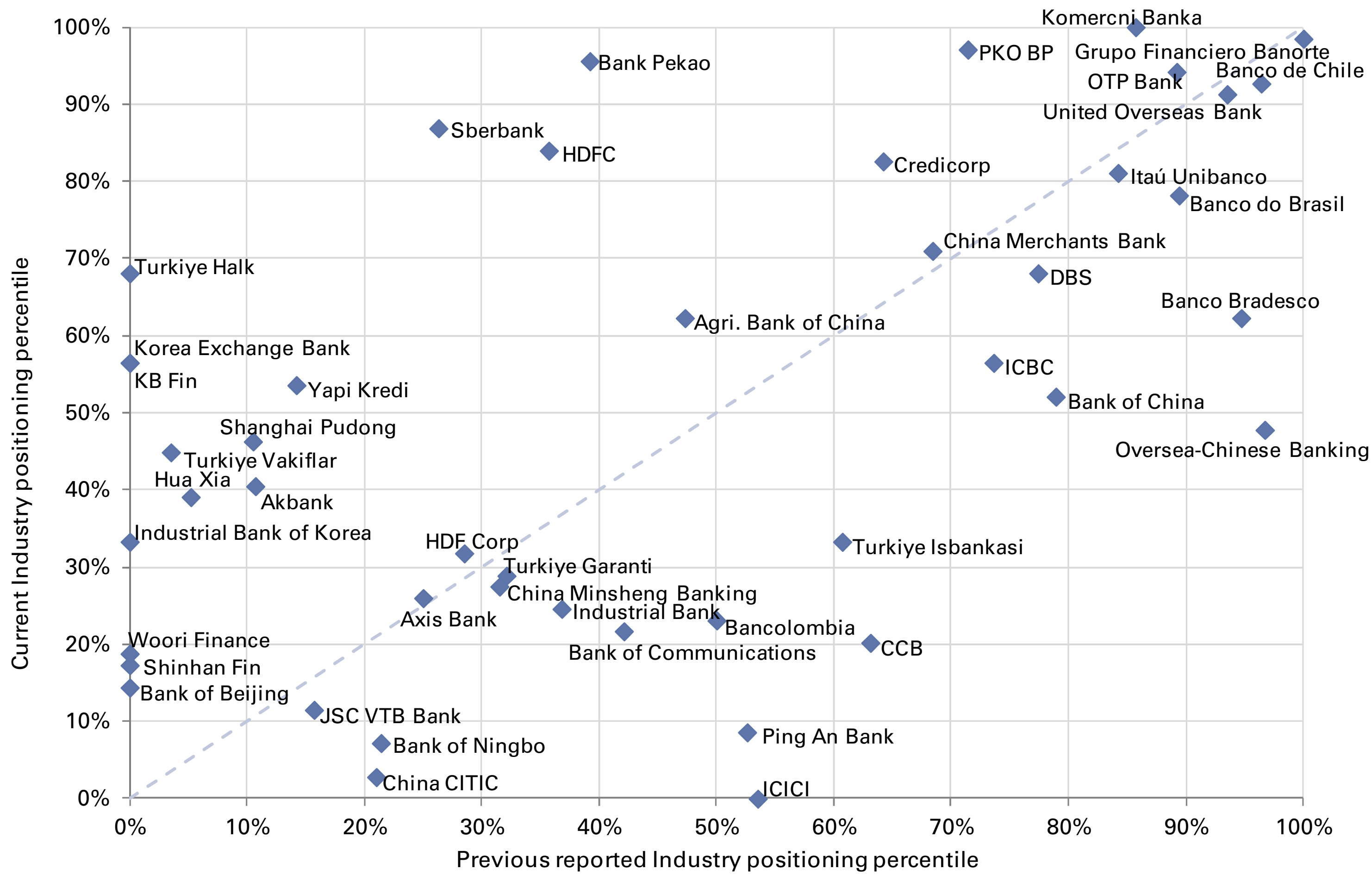
Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

Exhibit 71: Emerging market banks – ROA percentile vs. industry positioning percentile



Source: Company Data, Goldman Sachs Research estimates, Gao Hua Securities.

Exhibit 72: Changes in industry positioning – Emerging market banks
Change in industry positioning scores since previously published performance, by company, as percentile ranking relative to peers



Source: Company data, Goldman Sachs Research, Gao Hua Securities.

Reflecting our assessment of the main structural drivers for the industry, which we identify in conjunction with our sector analysts, we assess companies' performance on key elements of strategic positioning. This analysis enables us to differentiate between companies that are well and poorly competitively positioned over the long term.

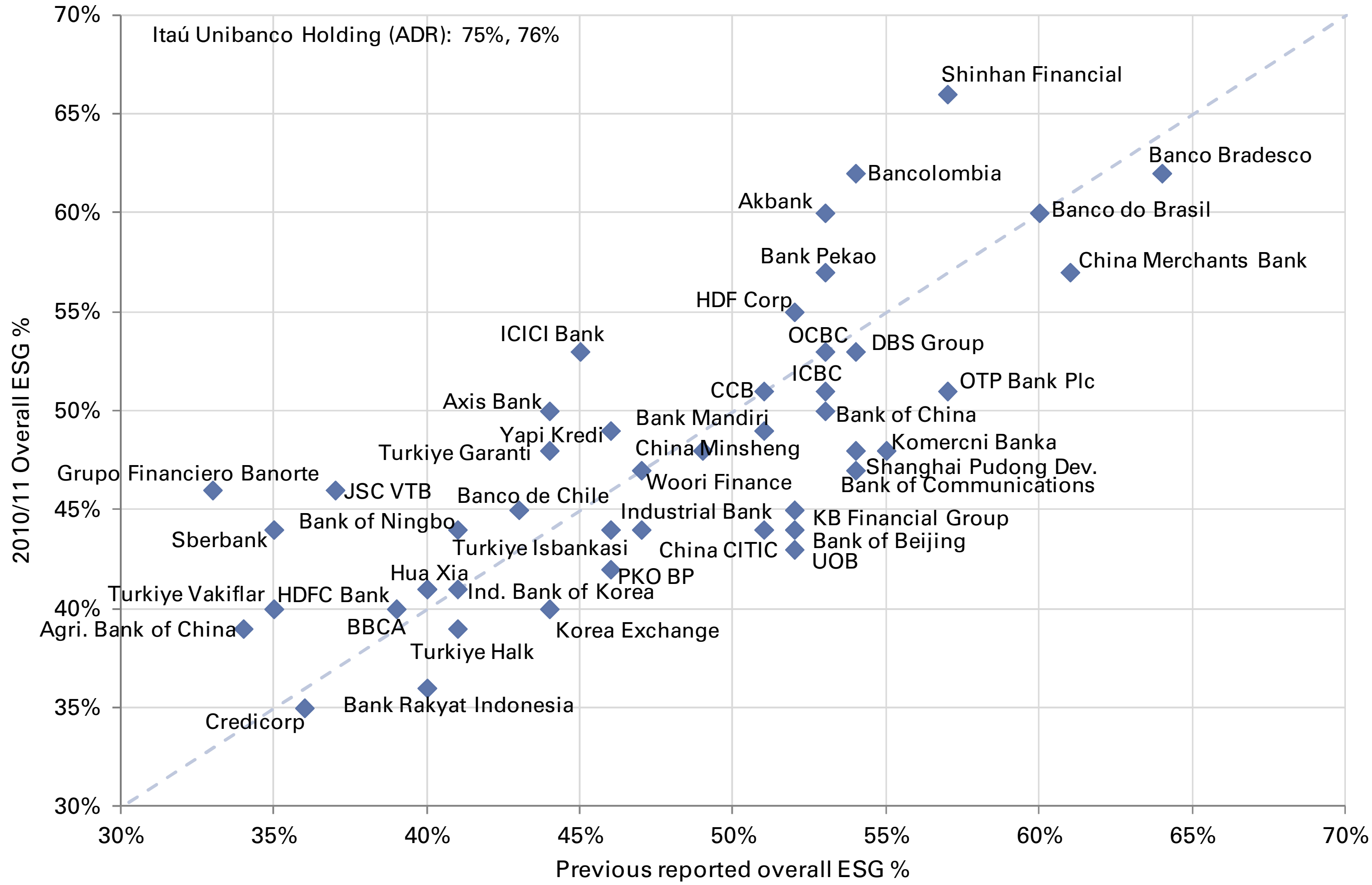
Exhibit 73: Industry positioning: Objective, quantifiable measures of strategic positioning – Emerging market banks

Measure		Rationale	Calculation
Country risk	Indebtedness of economies to which exposed	Blurring of sovereign and private sector balance sheets has heightened financial sector risks in heavily indebted countries	Weighted average country indebtedness (debt/GDP) (2012E)
Market structure	Degree of consolidation in end markets	Consolidated market typically provides greater price and return discipline	Weighted average share of five largest commercial banks across end country exposures (2011)
	State ownership of banking assets in end markets	State controlled lenders may have incentives to lend at rates at which private institutions cannot generate sufficient returns	Proportion of commercial banking assets controlled by State (2011)
Business mix	Exposure to high return, low volatility business areas	More volatile, higher-risk activities are likely to face the most stringent regulation	Weighted average exposure to attractive (ranked 1-5 on combination of level and standard deviation of global segment ROE) business lines
Funding	Proportion of loans backed by deposits	Access to stable, deposit-backed funding (and ability to attract additional deposits) will be key to funding growth as capital requirements rise and wholesale funding shrinks	Total loans/total assets (2012E)
	Reliance on wholesale funding		(Liabilities-deposits)/Liabilities (most recent reported)
Capital position	Strength of capital base	Better capitalised institutions embody less earnings leverage to credit cycle and reduce risk of shareholder dilution through capital raising	Total assets/total equity

Source: Goldman Sachs Research.

Exhibit 74: Changes in management quality – Emerging market banks

Change in ESG scores since previously published performance, by company, as % of maximum score possible for each company



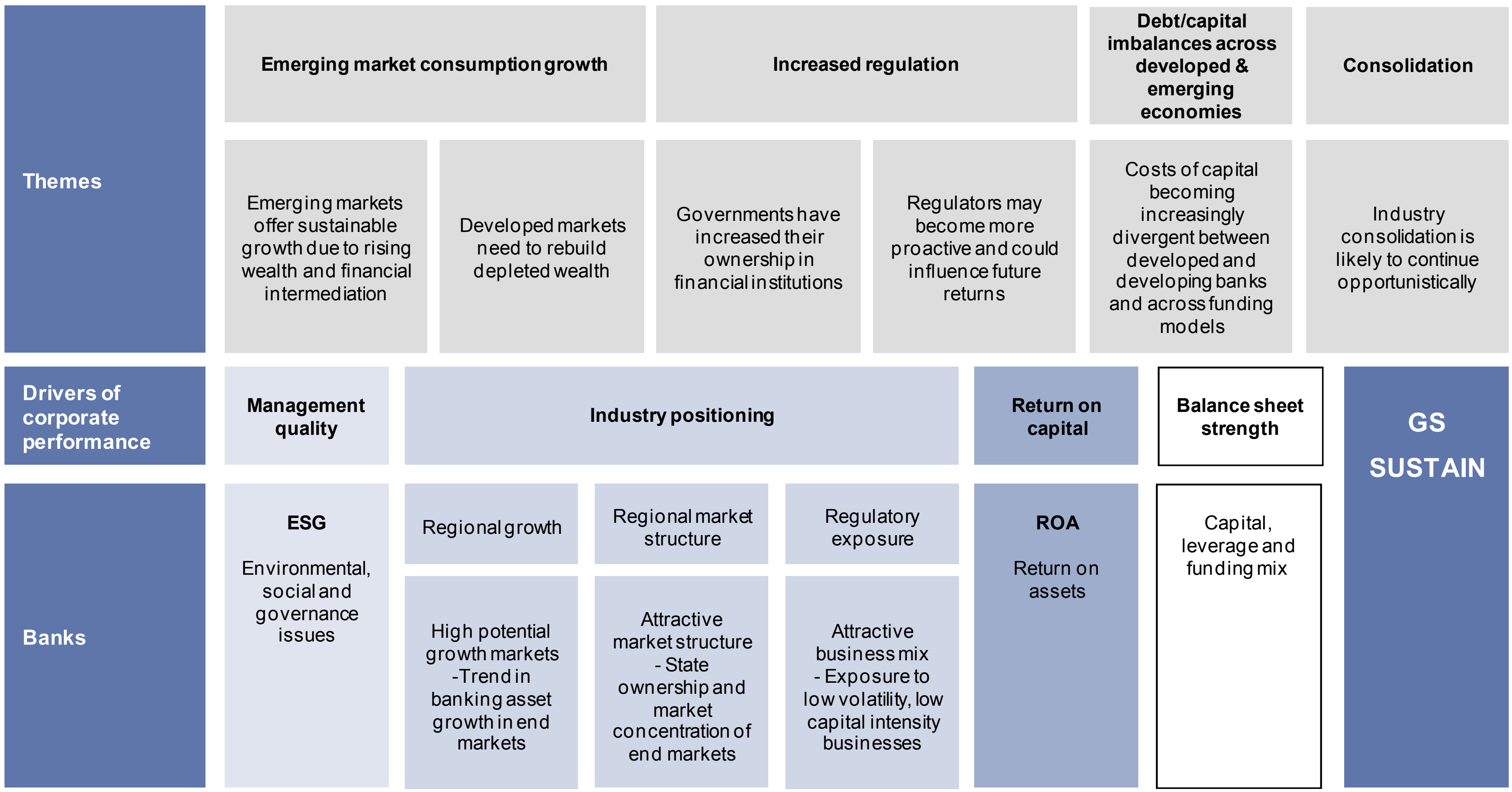
Source: Company data, Goldman Sachs Research.

Developed Market Banks

Industry roadmap: Key trends and drivers of performance

Exhibit 75 summarises the key structural shifts we have identified for the global banks industry, and the measures that we use to identify those companies we believe are best placed to sustain industry leadership against this backdrop of change.

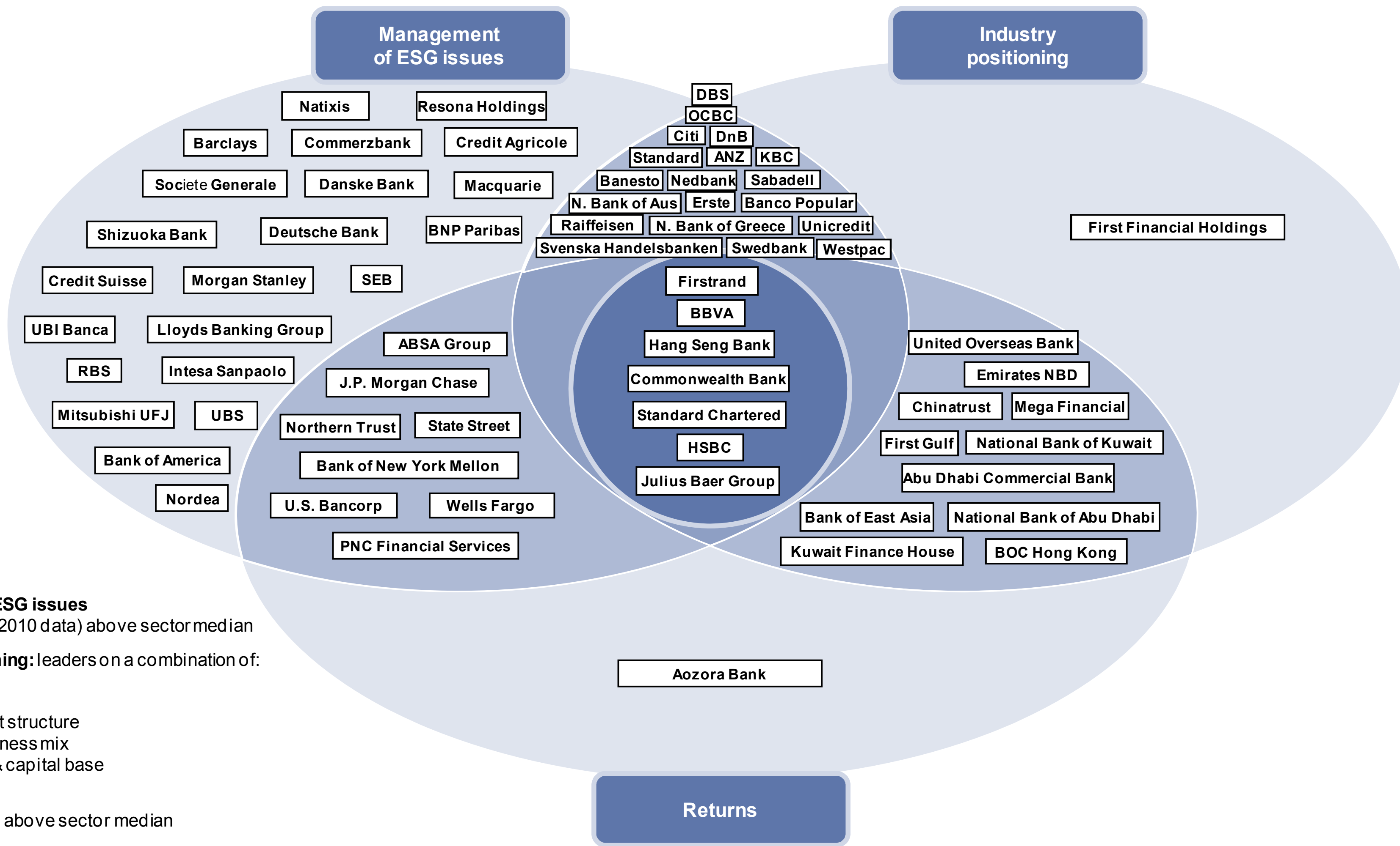
Exhibit 75: Industry roadmap – Developed market banks



Source: Goldman Sachs Research.

We identify Firstrand, BBVA, Hang Seng Bank, Commonwealth Bank, Standard Chartered, HSBC and Julius Baer Group as industry leaders on each of: (1) return on capital (ROA), (2) industry positioning and (3) management quality (as measured by environmental, social and governance (ESG) performance above the sector median).

Exhibit 76: Winners circle – Developed market banks



Management of ESG issues
– ESG (based on 2010 data) above sector median

Industry positioning: leaders on a combination of:
– Country growth
– Country risk
– Attractive market structure
– Favourable business mix
– Sound funding & capital base

Returns
– ROA (2012-14E) above sector median

Balance sheet strength
– Capital, leverage and funding above bottom sector quintile

Note: Bank of Yokohama, Chiba Bank, Sumitomo Mitsui Financial Group, Mizuho Financial Group, Sumitomo Mitsui Trust Holdings scored below median on all three metrics.

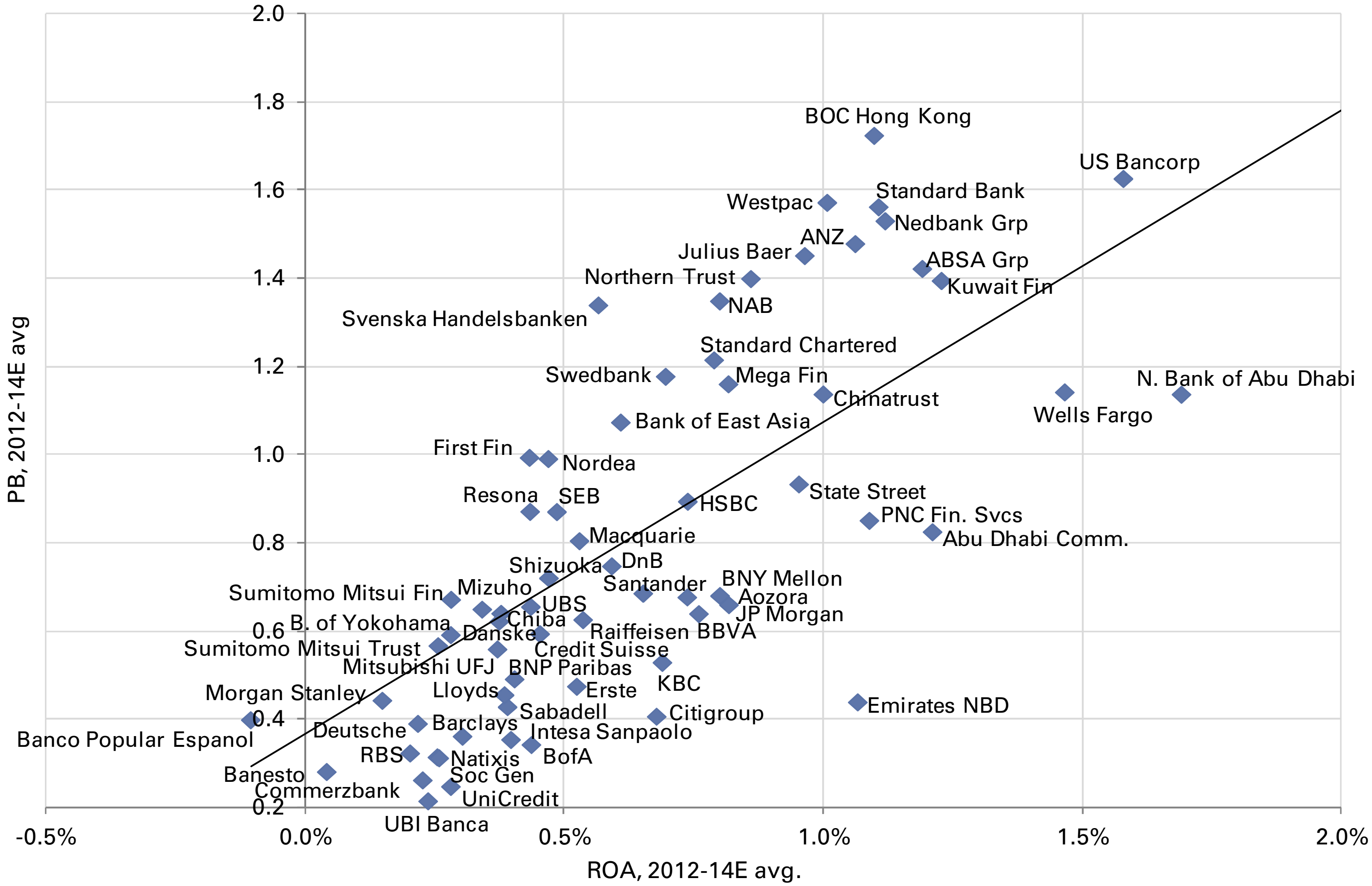
Source: Company data, Goldman Sachs Research estimates.

Exhibit 77: Winners table – Developed market banks

Company	Return on capital						Industry positioning											Management quality		
	ROA						Country risk		Market structure			Business mix		Funding			Overall Industry Positioning	ESG		
	2012-14E	2009-11	change vs 2009-11 in ppts	Percentile	Total assets / total equity	Percentile	Weighted avg country indebtedness (Debt/GDP 2012E)	Percentile	Weighted avg. consolidation	Weighted avg. state ownership	Percentile	Ranked business mix score (Rank 1-4)	Percentile	Loans/ deposits (2012E)	Wholesale funding % ((liabilities - deposits) / liabilities)	Percentile	Percentile	Score as a % of maximum (2010/11)	Change vs last report	Percentile (2010/11)
First Gulf Bank	2.5%	2.2%	0.3%	100%	7	99%	92%	97%	45%	63%	1%	3.4	76%	103%	21%	66%	80%	43%	New	21%
National Bank of Kuwait	2.4%	2.3%	0.2%	99%	6	100%	96%	95%	46%	62%	9%	3.1	55%	125%	39%	27%	54%	42%	New	18%
National Bank of Abu Dhabi	1.7%	1.6%	0.1%	97%	11	80%	98%	93%	48%	58%	11%	3.0	49%	109%	32%	49%	69%	51%	-3%	47%
Firstrand Ltd	1.7%	1.2%	0.4%	96%	13	68%	181%	47%	80%	12%	62%	3.0	47%	110%	38%	41%	70%	67%	-1%	75%
U.S. Bancorp	1.6%	1.2%	0.4%	95%	10	88%	231%	14%	37%	36%	3%	2.9	35%	123%	28%	43%	4%	67%	2%	75%
Wells Fargo & Company	1.5%	1.0%	0.5%	93%	9	91%	229%	16%	38%	36%	7%	3.4	77%	118%	24%	53%	27%	87%	10%	99%
Hang Seng Bank	1.5%	1.7%	-0.3%	92%	13	70%	197%	33%	90%	8%	88%	2.7	24%	69%	12%	95%	77%	76%	3%	88%
Kuwait Finance House	1.2%	0.9%	0.4%	91%	9	93%	114%	87%	56%	45%	16%	3.3	69%	92%	17%	77%	86%	49%	New	42%
Abu Dhabi Commercial Bank	1.2%	0.5%	0.7%	89%	10	83%	91%	99%	44%	63%	0%	3.0	46%	118%	27%	45%	62%	41%	New	14%
ABSA Group Limited	1.2%	1.2%	0.0%	88%	13	68%	181%	46%	80%	12%	61%	2.2	8%	123%	35%	39%	43%	61%	2%	63%
Nedbank Group Ltd	1.1%	0.9%	0.3%	86%	13	68%	181%	45%	80%	12%	62%	3.1	53%	103%	10%	76%	81%	75%	-1%	86%
Standard Bank Group	1.1%	0.9%	0.2%	85%	13	68%	182%	43%	81%	12%	69%	2.7	27%	88%	30%	69%	73%	73%	-4%	81%
BOC Hong Kong (Holdings)	1.1%	1.2%	-0.1%	84%	13	37%	188%	41%	93%	14%	85%	2.6	19%	61%	19%	91%	84%	48%	4%	37%
PNC Financial Services	1.1%	1.1%	0.0%	82%	8	97%	231%	14%	37%	36%	3%	3.3	62%	117%	21%	55%	15%	74%	13%	84%
United Overseas Bank	1.1%	1.1%	0.0%	81%	10	84%	100%	92%	86%	13%	68%	3.2	59%	84%	16%	84%	99%	43%	-9%	21%
Emirates NBD	1.1%	0.7%	0.4%	80%	9	92%	93%	96%	45%	62%	5%	2.9	39%	115%	26%	51%	59%	39%	-3%	7%
ANZ Banking Group Limited	1.1%	0.9%	0.2%	78%	15	31%	145%	66%	66%	4%	78%	3.5	86%	108%	18%	72%	97%	88%	7%	99%
Westpac Banking Corp.	1.0%	1.0%	0.1%	77%	15	33%	145%	68%	62%	0%	66%	3.4	80%	158%	37%	23%	65%	89%	8%	100%
Chinatrust Financial Holdings	1.0%	0.6%	0.4%	76%	13	72%	141%	72%	71%	28%	39%	3.0	42%	59%	16%	99%	89%	31%	New	1%
Commonwealth Bank of Australia	1.0%	0.9%	0.1%	74%	13	41%	140%	74%	62%	2%	65%	3.6	88%	121%	25%	47%	82%	84%	12%	96%
Julius Baer Group	1.0%	1.0%	-0.1%	73%	13	68%	141%	73%	74%	23%	49%	2.0	7%	48%	27%	85%	61%	59%	-7%	60%
State Street Corp.	1.0%	1.0%	0.0%	72%	10	85%	209%	27%	45%	33%	12%	2.4	18%	100%	nm	58%	16%	74%	-2%	84%
DBS Group Holdings	0.9%	0.8%	0.2%	70%	10	89%	118%	84%	94%	8%	91%	3.1	54%	84%	18%	80%	100%	53%	-1%	53%
Oversea-Chinese Banking Corp.	0.9%	1.0%	-0.1%	69%	10	81%	106%	88%	85%	11%	81%	2.9	32%	87%	19%	78%	92%	53%	0%	53%
Northern Trust Corp.	0.9%	0.8%	0.1%	68%	13	39%	209%	24%	48%	31%	19%	2.4	15%	100%	nm	58%	12%	76%	3%	88%
J.P. Morgan Chase & Co.	0.8%	0.7%	0.2%	66%	12	76%	209%	27%	45%	33%	12%	2.7	28%	67%	40%	68%	26%	83%	5%	95%
Standard Chartered	0.8%	0.8%	0.0%	65%	13	68%	136%	78%	71%	29%	31%	2.3	9%	79%	33%	70%	68%	77%	-2%	92%
Aozora Bank	0.8%	-0.9%	1.7%	64%	9	95%	326%	7%	65%	4%	70%	3.0	50%	95%	36%	54%	22%	50%	New	45%
National Australia Bank	0.8%	0.7%	0.1%	62%	18	22%	155%	57%	64%	5%	55%	3.6	91%	106%	26%	57%	74%	84%	11%	96%
Mega Financial Holdings	0.8%	0.6%	0.2%	61%	13	74%	140%	76%	72%	27%	42%	3.4	74%	89%	32%	65%	93%	36%	0%	3%
BBVA	0.8%	0.7%	0.0%	59%	15	35%	190%	38%	86%	10%	86%	3.8	97%	134%	47%	22%	76%	74%	-3%	84%
HSBC	0.7%	0.5%	0.2%	58%	13	68%	166%	53%	73%	30%	35%	2.9	36%	77%	20%	82%	66%	84%	2%	96%
Bank of New York Mellon Corp.	0.7%	1.1%	-0.3%	57%	8	96%	201%	31%	48%	32%	18%	2.4	12%	35%	nm	100%	39%	77%	3%	92%
Swedbank	0.7%	0.2%	0.5%	55%	18	20%	134%	80%	95%	6%	95%	3.5	81%	216%	65%	4%	72%	73%	13%	81%
KBC Group NV	0.7%	0.5%	0.2%	54%	26	4%	103%	91%	97%	4%	96%	3.3	68%	108%	40%	38%	85%	63%	2%	69%
Citigroup Inc.	0.7%	0.2%	0.5%	53%	11	78%	179%	49%	56%	29%	22%	2.4	16%	74%	8%	96%	51%	78%	1%	94%
Banco Santander	0.7%	0.8%	-0.2%	51%	15	34%	202%	30%	87%	20%	58%	3.8	96%	124%	44%	24%	55%	64%	-3%	72%
Bank of East Asia	0.6%	0.7%	-0.1%	50%	12	77%	179%	50%	88%	26%	57%	3.3	70%	69%	9%	97%	96%	43%	0%	21%
DNB	0.6%	0.6%	0.0%	49%	17	23%	136%	77%	91%	15%	80%	3.2	58%	185%	58%	7%	58%	75%	2%	86%
Svenska Handelsbanken	0.6%	0.5%	0.1%	47%	25	8%	146%	64%	97%	7%	93%	3.8	99%	247%	67%	1%	62%	52%	1%	51%
Raiffeisen Bank International	0.5%	0.5%	0.0%	46%	13	68%	49%	100%	69%	13%	50%	3.4	78%	128%	50%	20%	91%	62%	11%	64%
Macquarie Group Limited	0.5%	0.6%	-0.1%	45%	13	38%	188%	42%	63%	16%	27%	1.9	5%	100%	nm	58%	24%	69%	5%	79%
Erste Bank	0.5%	0.3%	0.2%	43%	13	68%	105%	89%	68%	4%	81%	3.7	93%	116%	38%	36%	95%	63%	6%	69%
SEB	0.5%	0.4%	0.1%	42%	21	14%	133%	81%	90%	14%	81%	2.4	14%	151%	55%	11%	35%	64%	3%	72%
Shizuoka Bank	0.5%	0.3%	0.2%	41%	13	69%	326%	7%	65%	4%	70%	3.3	72%	85%	16%	81%	42%	52%	New	51%
Nordea	0.5%	0.5%	0.0%	39%	25	7%	150%	62%	90%	6%	89%	2.9	38%	183%	68%	3%	31%	64%	-1%	72%
Credit Suisse	0.5%	0.4%	0.0%	38%	13	68%	193%	34%	56%	30%	20%	1.7	1%	75%	69%	42%	7%	76%	4%	88%
Bank of America Corporation	0.4%	0.1%	0.3%	36%	10	87%	216%	22%	42%	34%	8%	2.4	11%	132%	53%	14%	0%	76%	7%	88%
UBS	0.4%	0.3%	0.1%	35%	13	68%	191%	35%	66%	26%	30%	1.8	4%	78%	75%	34%	1%	84%	10%	96%
Resona Holdings	0.4%	0.3%	0.1%	34%	24	11%	326%	7%	65%	4%	70%	3.5	82%	73%	17%	89%	46%	53%	4%	53%
First Financial Holdings	0.4%	0.3%	0.1%	32%	17	24%	142%	70%	70%	28%	34%	2.9	31%	80%	14%	86%	78%	30%	New	0%
BNP Paribas	0.4%	0.3%	0.1%	31%	13	68%	158%	56%	56%	8%	45%	2.7	23%	128%	69%	8%	5%	73%	1%	81%
Intesa Sanpaolo	0.4%	0.3%	0.1%	30%	13	68%	146%	65%	47%	10%	28%	3.5	85%	144%	46%	15%	34%	73%	9%	81%
Morgan Stanley & Co.	0.4%	0.2%	0.2%	28%	13	73%	208%	28%	46%	33%	15%	1.4	0%	100%	nm	58%	8%	76%	11%	88%
Lloyds Banking Group Plc	0.4%	-0.4%	0.8%	27%	21	15%	216%	23%	83%	31%	42%	3.3	61%	143%	44%	18%	23%	73%	8%	81%
Bank of Yokohama	0.4%	0.2%	0.1%	26%	16	30%	326%	7%	65%	4%	70%	3.5	84%	78%	9%	92%	50%	40%	New	10%
Chiba Bank	0.4%	0.3%	0.1%	24%	17	27%	326%	7%	65%	4%	70%	3.4	73%	77%	8%	93%	45%	42%	New	18%
Mitsubishi UFJ Financial Group	0.4%	0.1%	0.3%	23%	19	19%	289%	11%	65%	11%	53%	3.3	66%	65%	36%	74%	38%	66%	5%	74%
Sumitomo Mitsui Financial Group	0.3%	0.1%	0.3%	22%	19	18%	304%	8%	65%	8%	53%	3.2	57%	72%	37%	73%	32%	48%	5%	37%
Barclays plc	0.3%	0.2%	0.1%	20%	24	12%	190%	37%	74%	31%	35%	2.6	20%	124%	58%	19%	18%	75%	3%	86%
Mizuho Financial Group	0.3%	0.0%	0.3%	19%	24	10%	301%	10%	65%	9%	51%	3.0	45%	78%	49%	46%	9%	51%	-1%	47%
UniCredit	0.3%	0.2%	0.1%	18%	13	68%	132%	83%	60%	18%	23%	3.3	65%	154%	25%	35%	49%	70%	2%	79%
Danske Bank	0.3%	0.1%	0.2%	16%	28	3%	190%	39%	85%	3%	92%	3.1	51%	225%	71%	0%	41%	58%	-5%	60%
Natixis	0.3%	0.1%	0.2%	15%	13	68%	164%	54%	57%	17%	24%	2.7	26%	178%	66%	5%	3%	60%	9%	61%
Sumitomo Mitsui Trust Holdings	0.3%	0.0%	0.2%	14%	63	0%	326%	7%	65%	4%	70%	2.9	41%	90%	34%	64%	20%	48%	14%	37%
Societe Generale	0.3%	0.2%	0.1%	12%	13	68%	144%	69%	56%	8%	45%	2.9	30%	122%	40%	28%	28%	63%	1%	69%
UBI Banca	0.2%	0.2%	0.1%	11%	13	68%	155%	58%	46%	10%	26%	3.3	64%	134%	32%	32%	19%	68%	10%	77%
Commerzbank AG	0.2%	0.0%	0.2%	9%	25	6%	155%	60%	74%	29%	41%	2.9	34%	126%	59%	12%	11%	62%	9%	64%
Deutsche Bank	0.2%	0.2%	0.0%	8%	38	1%	169%	51%	71%	18%	47%	1.7	3%	74%	nm	88%	36%	80%	10%	95%
Royal Bank of Scotland	0.2%	-0.1%	0.3%	7%	13	68%	218%	20%	75%	32%	31%	2.6	22%	95%	37%	50%	14%	70%	4%	79%
National Bank of Greece	0.2%	-0.1%	0.2%	5%	13	68%	118%	85%	88%	18%	59%	3.7	92%	119%	39%	31%	88%	68%	11%	77%
Banco Sabadell	0.1%	0.3%	-0.2%	4%	17	26%	227%	19%	98%	1%	97%	3.8	95%	141%	37%	26%	57%	62%	0%	64%
Credit Agricole SA	0.1%	0.1%	0.0%	3%	13	68%	154%	61%	64%	12%	38%	3.0	43%	100%	61%	30%	30%	68%	0%	77%
Banesto	0.0%	0.3%	-0.2%	1%	21	16%	227%	18%	99%	1%	100%	3.6	89%	134%	48%	16%	53%	62%	-2%	64%
Banco Popular Espanol	-0.1%	0.5%	-0.6%	0%	16	28%	230%	15%	99%	2%	99%	3.8	99%	160%	51%	9%	47%	62%	-5%	64%

Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

Exhibit 78: Developed market banks – P/B vs. ROA (2012-14E avg.)



Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

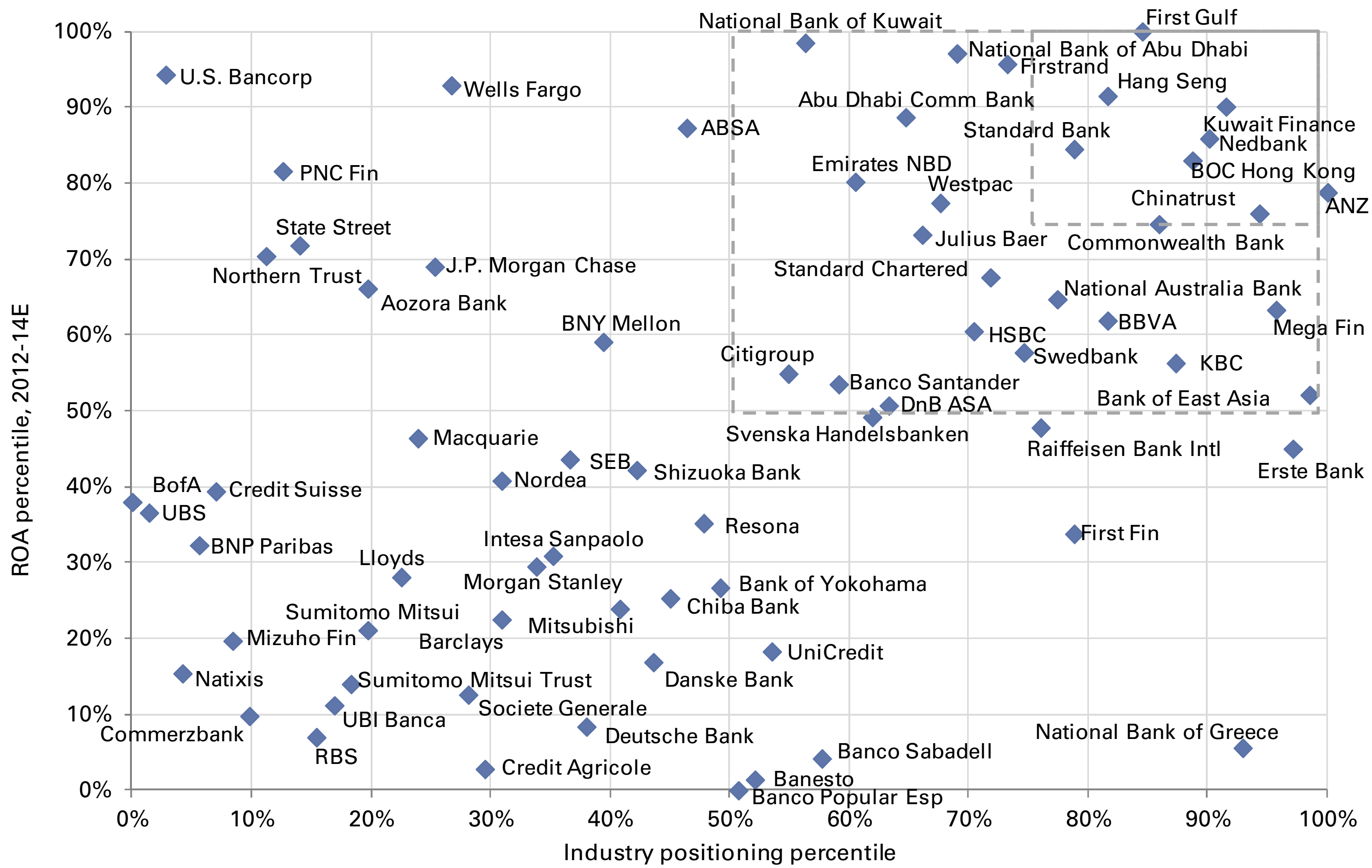
Exhibit 79: Return on assets (ROA) progression over time – Developed market banks

Company	ROA 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E	ROA, 2009-11	ROA, 2012-14E
First Gulf Bank			2.0%	2.4%	5.4%	3.0%	2.5%	2.2%	2.2%	2.1%	2.3%	2.4%	2.5%	2.5%	2.2%	2.5%
National Bank of Kuwait						3.6%	2.8%	2.2%	2.1%	2.3%	2.3%	2.3%	2.4%	2.5%	2.3%	2.4%
Firstrand Ltd							1.5%	1.2%	0.8%	1.5%	1.5%	1.6%	1.7%	1.7%	1.2%	1.7%
National Bank of Abu Dhabi			1.9%	2.3%	3.7%	2.3%	2.1%	1.9%	1.6%	1.7%	1.5%	1.6%	1.7%	1.8%	1.6%	1.7%
Hang Seng Bank	2.0%	2.0%	1.9%	2.1%	2.2%	2.0%	2.6%	1.9%	1.7%	1.7%	1.8%	1.6%	1.4%	1.4%	1.7%	1.5%
U.S. Bancorp	0.9%	1.9%	2.1%	2.2%	2.3%	2.3%	2.2%	1.2%	0.7%	1.2%	1.6%	1.6%	1.5%	1.6%	1.2%	1.6%
ABSA Group Limited							1.7%	1.4%	1.2%	1.1%	1.3%	1.1%	1.2%	1.2%	1.2%	1.2%
Emirates NBD				2.5%	2.8%	2.1%	1.7%	1.4%	1.2%	0.7%	0.2%	0.9%	1.1%	1.3%	0.7%	1.1%
Wells Fargo & Company	1.3%	1.8%	1.8%	1.8%	1.7%	1.8%	1.6%	0.5%	0.9%	0.9%	1.2%	1.4%	1.5%	1.5%	1.0%	1.5%
Abu Dhabi Commercial Bank				2.4%	4.0%	3.0%	2.4%	1.4%	0.1%	0.4%	1.0%	1.1%	1.2%	1.4%	0.5%	1.2%
Standard Bank Group	1.1%	1.3%	1.3%	1.2%	1.4%	1.2%	1.2%	1.0%	0.8%	0.9%	1.0%	1.0%	1.1%	1.2%	0.9%	1.1%
PNC Financial Services	0.5%	1.7%	1.6%	1.7%	1.6%	1.6%	1.6%	0.6%	1.0%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Julius Baer Group									1.1%	1.1%	0.9%	0.9%	1.0%	1.0%	1.0%	1.0%
Nedbank Group Ltd	2.0%	0.9%	0.1%	0.7%	0.9%	1.2%	1.4%	1.1%	0.8%	0.8%	1.0%	1.1%	1.1%	1.2%	0.9%	1.1%
Kuwait Finance House						2.9%	3.6%	1.6%	1.1%	0.9%	0.6%	1.0%	1.3%	1.4%	0.9%	1.2%
Commonwealth Bank of Australia							1.1%	1.0%	0.8%	1.0%	1.0%	1.0%	1.0%	1.0%	0.9%	1.0%
ANZ Banking Group Limited							1.1%	0.7%	0.7%	1.0%	1.0%	1.0%	1.1%	1.1%	0.9%	1.1%
State Street Corp.	0.9%	1.3%	0.9%	0.9%	1.0%	1.1%	1.3%	1.5%	0.9%	1.1%	1.0%	0.9%	0.9%	1.0%	1.0%	1.0%
BBVA							1.3%	1.0%	0.8%	0.8%	0.5%	0.3%	1.0%	1.0%	0.7%	0.8%
Westpac Banking Corp.							1.0%	0.9%	0.9%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Chinatrust Financial Holdings			0.7%	1.1%	1.0%	-0.7%	0.7%	0.8%	0.1%	0.7%	0.9%	0.9%	1.0%	1.1%	0.6%	1.0%
Bank of New York Mellon Corp.	1.7%	1.1%	1.4%	1.2%	1.7%	2.1%	1.7%	1.7%	1.1%	1.2%	0.9%	0.7%	0.8%	0.7%	1.1%	0.7%
National Australia Bank							0.8%	0.6%	0.6%	0.7%	0.8%	0.7%	0.8%	0.8%	0.7%	0.8%
KBC Group NV							0.9%	0.6%	0.5%	0.5%	0.4%	0.6%	0.7%	0.7%	0.5%	0.7%
Standard Chartered	0.7%	0.8%	0.9%	1.1%	1.1%	0.9%	1.0%	0.8%	0.8%	0.9%	0.9%	0.8%	0.8%	0.8%	0.8%	0.8%
Northern Trust Corp.	1.4%	1.2%	1.1%	1.2%	1.2%	1.1%	1.3%	0.8%	0.9%	0.8%	0.6%	0.7%	0.9%	1.0%	0.8%	0.9%
Banco Santander							1.0%	0.9%	0.9%	0.8%	0.8%	0.4%	0.7%	0.8%	0.8%	0.7%
Aozora Bank			0.8%	0.6%	1.8%	2.2%	1.3%	0.1%	-3.6%	0.1%	0.7%	0.9%	0.7%	0.8%	-0.9%	0.8%
J.P. Morgan Chase & Co.				0.5%	0.7%	1.1%	1.1%	0.3%	0.4%	0.8%	0.8%	0.8%	0.8%	0.8%	0.7%	0.8%
HSBC	1.0%	1.0%	1.1%	1.1%	1.1%	0.9%	0.8%	0.6%	0.4%	0.6%	0.6%	0.7%	0.7%	0.8%	0.5%	0.7%
BOC Hong Kong (Holdings)	0.3%	0.9%	1.1%	1.5%	1.7%	1.6%	1.5%	0.3%	1.2%	1.1%	1.2%	1.1%	1.1%	1.1%	1.2%	1.1%
DnB ASA							0.9%	0.6%	0.5%	0.7%	0.7%	0.5%	0.6%	0.7%	0.6%	0.6%
Mega Financial Holdings			1.1%	1.1%	1.0%	0.7%	0.8%	0.0%	0.6%	0.6%	0.7%	0.8%	0.8%	0.8%	0.6%	0.8%
Citigroup Inc.		-0.5%	-0.1%	-0.2%	1.6%	1.3%	0.2%	-1.4%	-0.5%	0.6%	0.6%	0.6%	0.7%	0.7%	0.2%	0.7%
Swedbank							0.8%	0.6%	-0.6%	0.4%	0.7%	0.7%	0.7%	0.8%	0.2%	0.7%
Macquarie Group Limited							1.2%	1.2%	0.6%	0.7%	0.6%	0.5%	0.5%	0.6%	0.6%	0.5%
Erste Bank					0.5%	0.6%	0.6%	0.4%	0.4%	0.4%	0.2%	0.3%	0.5%	0.7%	0.3%	0.5%
Morgan Stanley & Co.	0.8%	0.6%	0.7%	0.7%	0.6%	0.7%	0.3%	0.2%	-0.2%	0.5%	0.3%	0.2%	0.5%	0.6%	0.2%	0.4%
Banco Popular Espanol							1.2%	0.7%	0.6%	0.4%	0.4%	-0.5%	-0.4%	0.6%	0.5%	-0.1%
Svenska Handelsbanken							0.6%	0.6%	0.5%	0.5%	0.5%	0.5%	0.6%	0.6%	0.5%	0.6%
Bank of East Asia	0.9%	0.7%	1.0%	1.1%	1.2%	1.3%	1.2%	0.0%	0.6%	0.8%	0.7%	0.8%	0.5%	0.5%	0.7%	0.6%
Raiffeisen Bank International								1.2%	0.2%	0.9%	0.5%	0.5%	0.5%	0.6%	0.5%	0.5%
SEB							0.6%	0.4%	0.1%	0.4%	0.5%	0.5%	0.5%	0.5%	0.4%	0.5%
Lloyds Banking Group Plc	1.0%	0.7%	0.9%	0.9%	0.8%	0.8%	0.8%	-0.6%	-1.1%	-0.2%	0.0%	0.2%	0.4%	0.6%	-0.4%	0.4%
Intesa Sanpaolo	0.3%	0.1%	0.4%	0.7%	1.0%	0.8%	0.8%	0.6%	0.4%	0.4%	0.2%	0.3%	0.4%	0.5%	0.3%	0.4%
BNP Paribas	0.5%	0.4%	0.5%	0.5%	0.5%	0.5%	0.4%	0.1%	0.3%	0.4%	0.3%	0.4%	0.4%	0.4%	0.3%	0.4%
UBS	0.5%	0.5%	0.5%	0.5%	0.6%	0.5%	-0.3%	-0.9%	0.0%	0.6%	0.3%	0.4%	0.5%	0.5%	0.3%	0.4%
Nordea							0.8%	0.6%	0.5%	0.5%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%
Banco Sabadell							0.9%	0.4%	0.5%	0.3%	0.1%	-0.4%	0.3%	0.5%	0.3%	0.1%
Credit Suisse		-0.9%	0.2%	0.5%	0.5%	0.7%	0.7%	-0.7%	0.7%	0.5%	0.2%	0.4%	0.5%	0.5%	0.4%	0.5%
Shizuoka Bank			0.2%	0.3%	0.4%	0.4%	0.4%	0.4%	0.1%	0.4%	0.4%	0.4%	0.6%	0.4%	0.3%	0.5%
Bank of America Corporation	1.0%	1.4%	1.5%	1.6%	1.5%	1.6%	1.0%	0.1%	-0.1%	0.4%	0.1%	0.3%	0.4%	0.6%	0.1%	0.4%
Resona Holdings			-3.9%	-4.0%	0.9%	1.0%	1.7%	0.8%	0.3%	0.3%	0.4%	0.6%	0.4%	0.4%	0.3%	0.4%
Sumitomo Mitsui Trust Holdings			-1.2%	0.5%	0.7%	0.7%	0.6%	0.4%	-0.2%	0.3%	0.1%	0.1%	0.3%	0.3%	0.0%	0.3%
First Financial Holdings			-1.7%	0.7%	0.9%	0.7%	0.8%	0.4%	0.1%	0.4%	0.4%	0.4%	0.4%	0.4%	0.3%	0.4%
Chiba Bank			0.1%	0.3%	0.4%	0.5%	0.5%	0.5%	0.1%	0.4%	0.4%	0.4%	0.4%	0.4%	0.3%	0.4%
Societe Generale	0.4%	0.4%	0.5%	0.6%	0.6%	0.6%	0.7%	0.2%	0.0%	0.3%	0.2%	0.2%	0.3%	0.3%	0.2%	0.3%
Banesto							0.7%	0.7%	0.5%	0.3%	0.0%	-0.7%	0.4%	0.4%	0.3%	0.0%
Bank of Yokohama			0.2%	0.4%	0.5%	0.6%	0.6%	0.6%	0.1%	0.3%	0.4%	0.4%	0.4%	0.4%	0.2%	0.4%
Mitsubishi UFJ Financial Group			-0.4%	0.1%	-0.1%	0.6%	0.5%	0.3%	-0.1%	0.2%	0.3%	0.5%	0.3%	0.3%	0.1%	0.4%
Danske Bank							0.5%	0.0%	0.1%	0.1%	0.1%	0.1%	0.3%	0.4%	0.1%	0.3%
UniCredit		0.9%	0.9%	0.0%		1.2%	0.7%	0.6%	0.2%	0.3%	0.1%	0.2%	0.3%	0.4%	0.2%	0.3%
UBI Banca			0.3%	0.5%	1.0%	0.6%	0.7%	0.4%	0.2%	0.1%	0.1%	0.2%	0.2%	0.3%	0.2%	0.2%
Sumitomo Mitsui Financial Group			-0.4%	0.3%	-0.2%	0.7%	0.4%	0.4%	-0.3%	0.2%	0.4%	0.4%	0.3%	0.3%	0.1%	0.3%
Barclays plc	0.8%	0.7%	0.7%	0.6%	0.4%	0.4%	0.4%	0.0%	0.1%	0.2%	0.2%	0.3%	0.3%	0.3%	0.2%	0.3%
Natixis						0.5%	0.2%	-0.5%	-0.3%	0.3%	0.3%	0.2%	0.3%	0.3%	0.1%	0.3%
Royal Bank of Scotland	0.9%	1.0%	1.0%	1.0%	0.8%	0.8%	0.6%	-0.7%	-0.3%	0.0%	0.0%	0.1%	0.2%	0.3%	-0.1%	0.2%
Deutsche Bank	0.1%	0.1%	0.2%	0.3%	0.3%	0.4%	0.0%	-0.2%	0.2%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Commerzbank AG	0.0%	0.0%	-0.2%	0.1%	0.2%	0.3%	0.2%	0.1%	-0.4%	0.1%	0.3%	0.2%	0.2%	0.3%	0.0%	0.2%
Credit Agricole SA			0.3%	0.4%	0.4%	0.4%	0.2%	0.0%	0.1%	0.2%	0.0%	0.1%	0.2%	0.2%	0.1%	0.1%
Mizuho Financial Group			-1.7%	0.3%	0.4%	0.4%	0.4%	0.2%	-0.4%	0.2%	0.3%	0.3%	0.3%	0.3%	0.0%	0.3%
National Bank of Greece	1.1%	0.9%	1.0%	1.1%	1.5%	1.3%	1.9%	1.7%	0.9%	0.4%	-1.5%	-0.2%	0.3%	0.4%	-0.1%	0.2%

1st Quartile
2nd Quartile
3rd Quartile
4th Quartile

Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

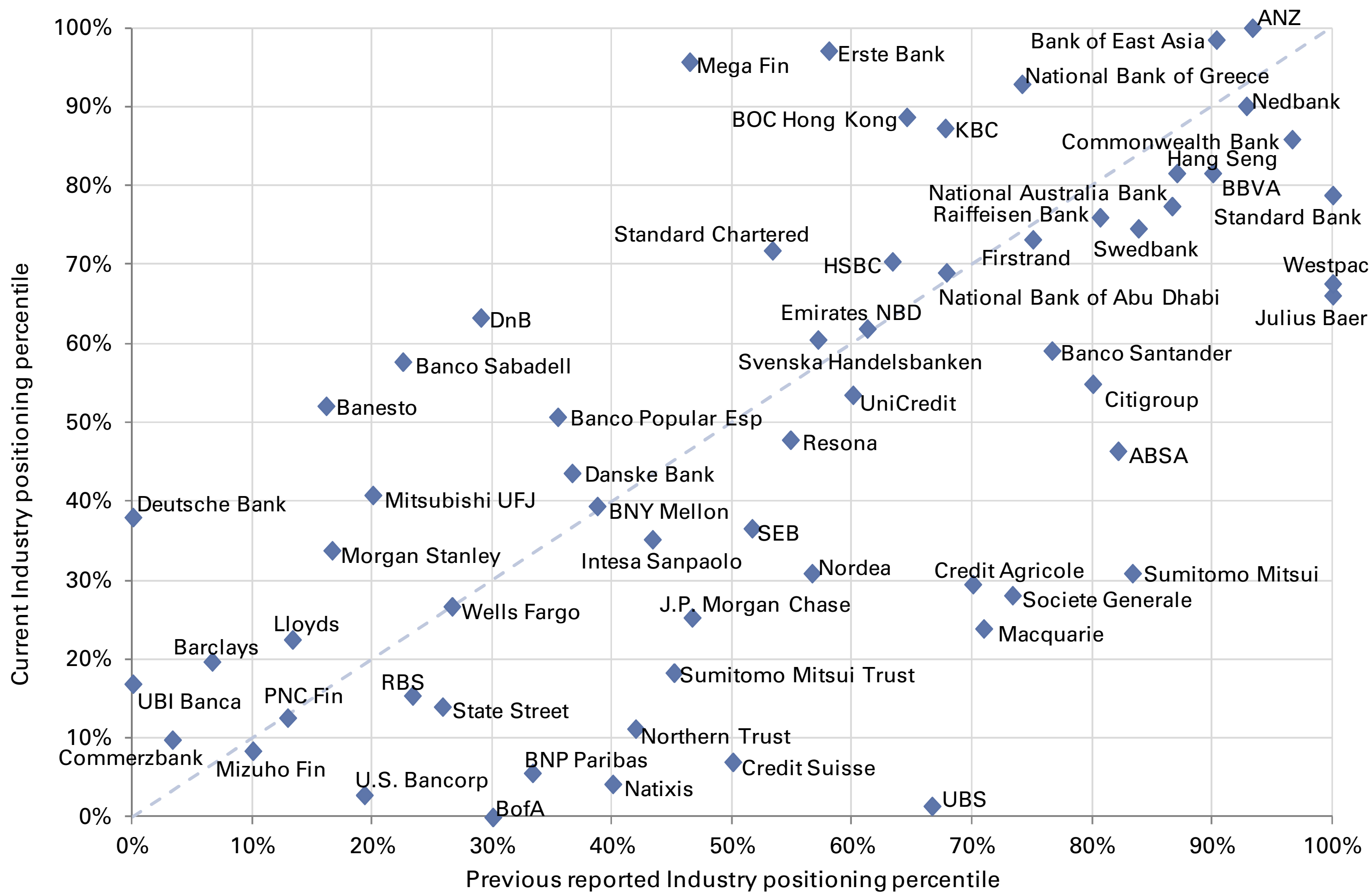
Exhibit 80: Developed market banks – ROA percentile vs. industry positioning percentile



Source: Company data, Goldman Sachs Research, Gao Hua Securities.

Exhibit 81: Changes in industry positioning – Developed market banks

Change in industry positioning scores since previously published performance, by company, as percentile ranking relative to peers



Source: Company data, Goldman Sachs Research, Gao Hua Securities.

Reflecting our assessment of the main structural drivers for the industry, which we identify in conjunction with our sector analysts, we assess companies' performance on key elements of strategic positioning. This analysis enables us to differentiate between companies that are well and poorly competitively positioned over the long term.

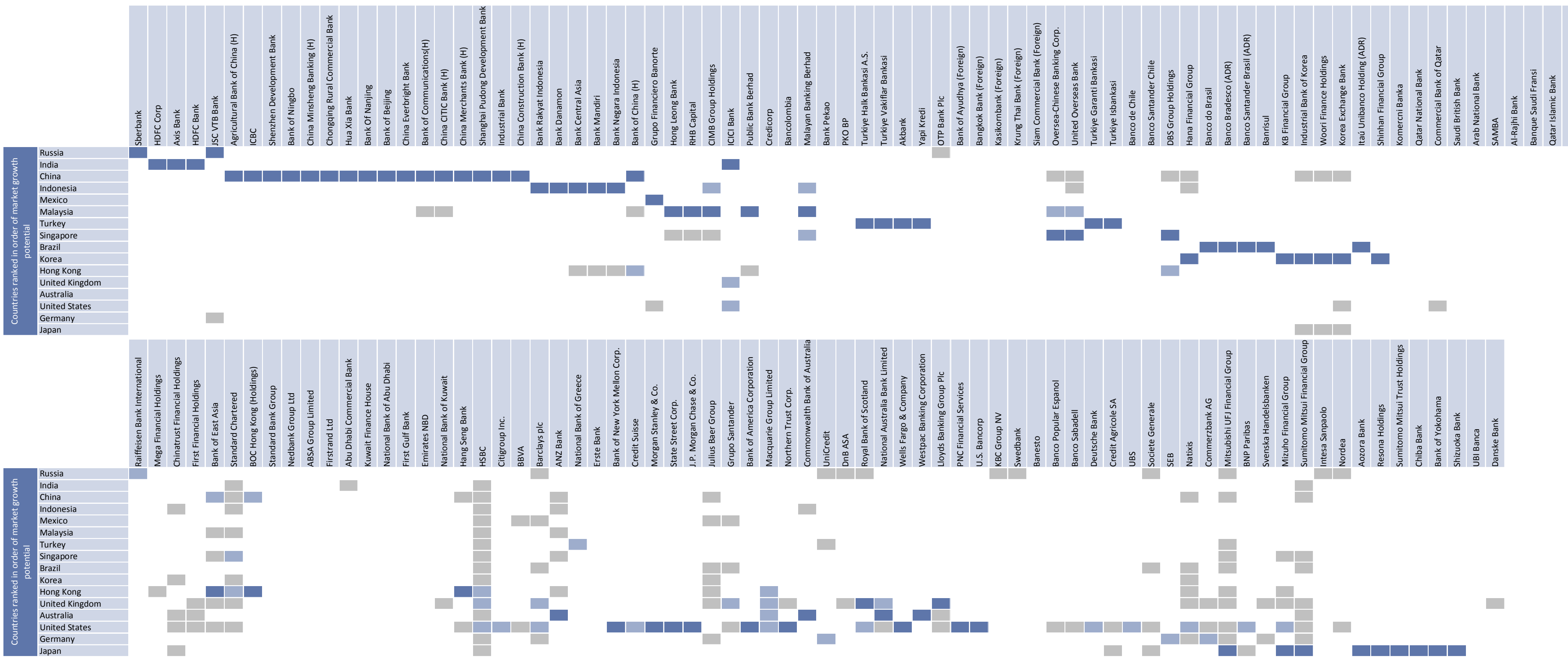
Exhibit 82: Industry positioning: Objective, quantifiable measures of strategic positioning – Developed market banks

Measure		Rationale	Calculation
Country growth	Rate of banking asset growth in end markets	Among mature banking markets, exposure to markets in which demand is growing provides an outlet for growth and typically less intense competition	Weighted average trend rate of banking asset growth across end country exposures (2011-20E CAGR)
Country risk	Indebtedness of economies to which exposed	Blurring of sovereign and private sector balance sheets has heightened financial sector risks in heavily indebted countries	Weighted average country indebtedness (debt/GDP) (2012E)
Market structure	Degree of consolidation in end markets	Consolidated market typically provides greater price and return discipline	Weighted average share of five largest commercial banks across end country exposures (2011)
	State ownership of banking assets in end markets	State-controlled lenders may have incentives to lend at rates at which private institutions cannot generate sufficient returns	Proportion of commercial banking assets controlled by state (2011)
Business mix	Exposure to high return, low volatility business areas	More volatile, higher-risk activities are likely to face the most stringent regulation	Weighted average exposure to attractive (ranked 1-5 on combination of level and standard deviation of global segment ROE) business lines
Funding	Proportion of loans backed by deposits	Access to stable, deposit-backed funding (and ability to attract additional deposits) will be key to funding growth as capital requirements rise and wholesale funding shrinks	Total loans/total assets (2012E)
	Reliance on wholesale funding		(Liabilities-deposits)/Liabilities (most recent reported)
Capital position	Strength of capital base	Better capitalised institutions embody less earnings leverage to credit cycle and reduce risk of shareholder dilution through capital raising	Total assets/total equity

Source: Goldman Sachs Research.

Exhibit 83: Geographical exposures of global banks

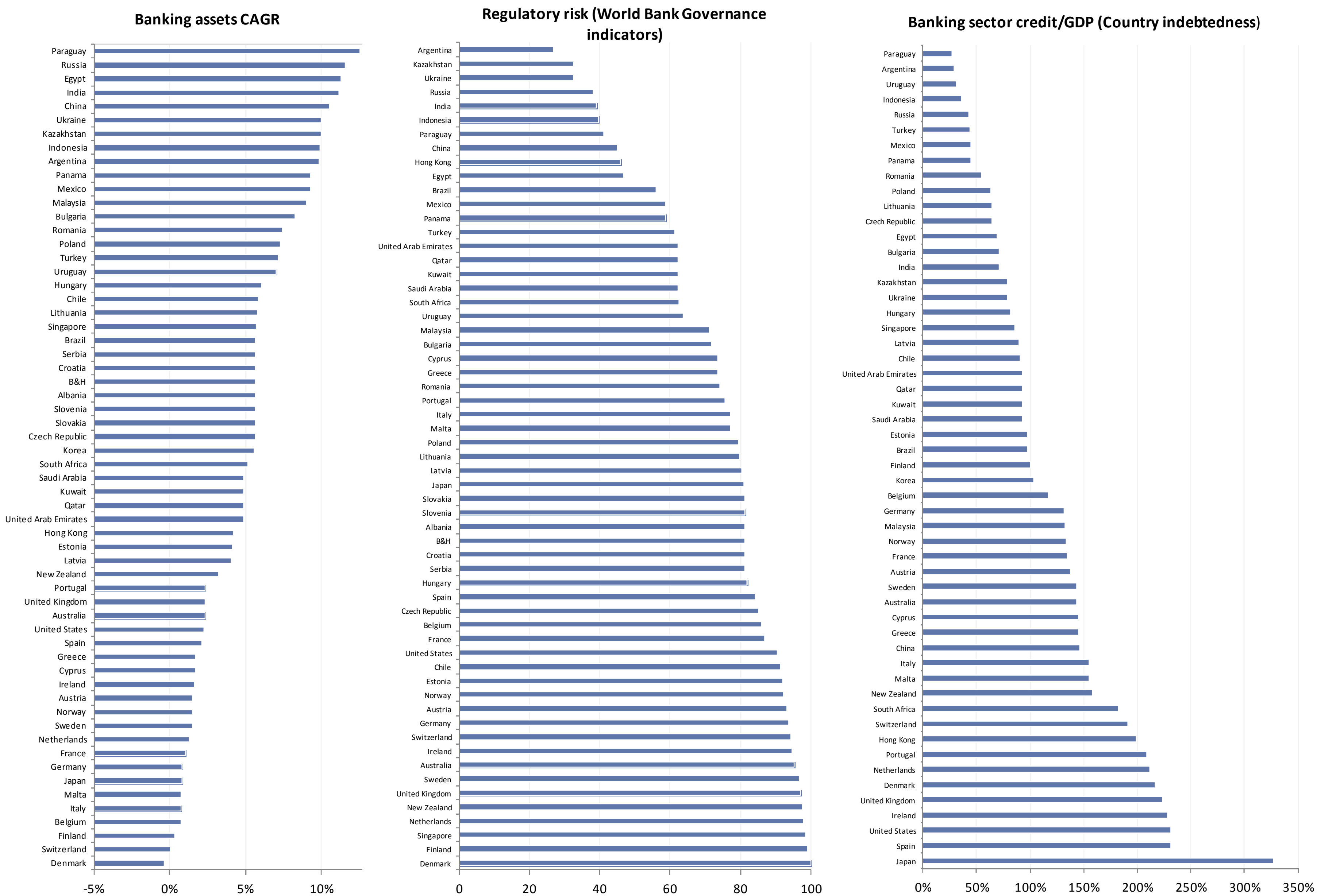
Revenue exposures of banks included in this report to main economic regions (most recent reported)



Source: Company data, Goldman Sachs Research.

Exhibit 84: Ranking of country attractiveness used in global banks analysis

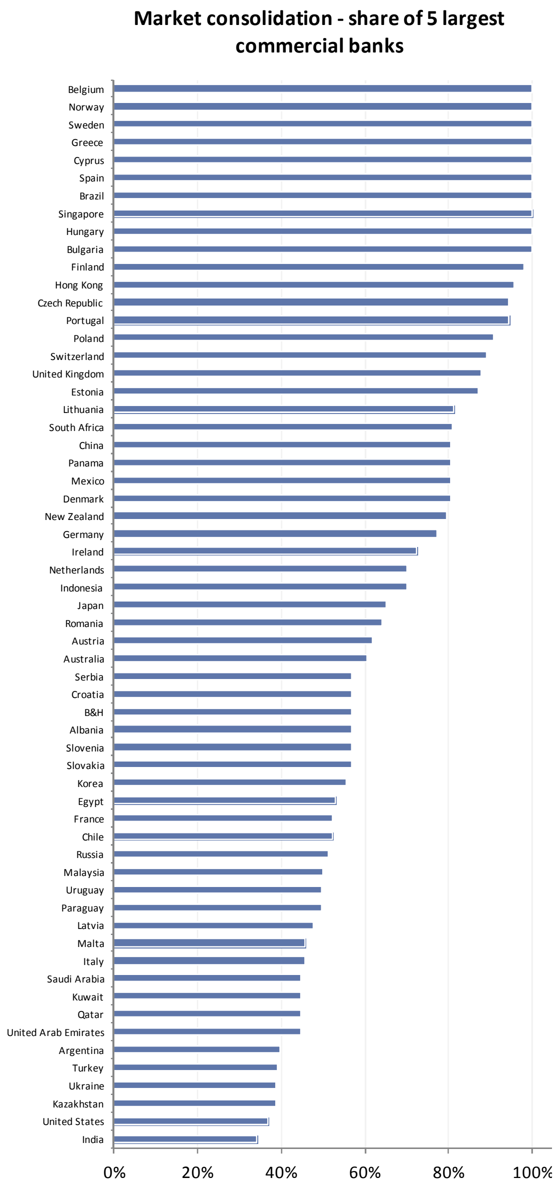
Trend projected banking asset growth (based on economic growth and banking asset penetration), regulatory risk (World Bank) and sector indebtedness by country

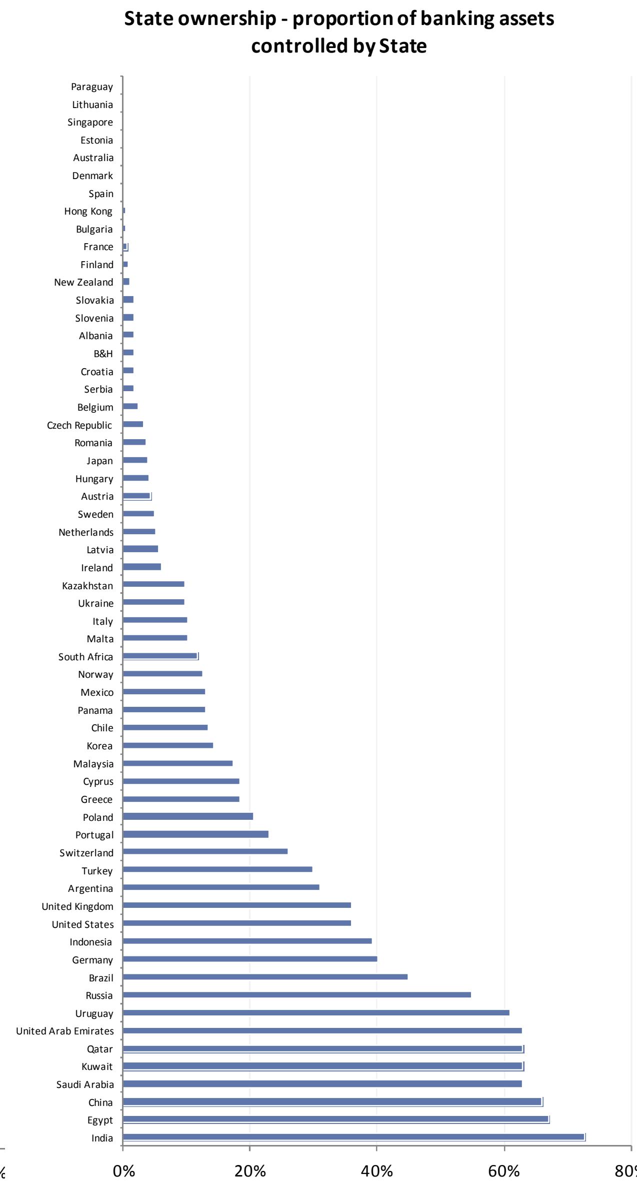


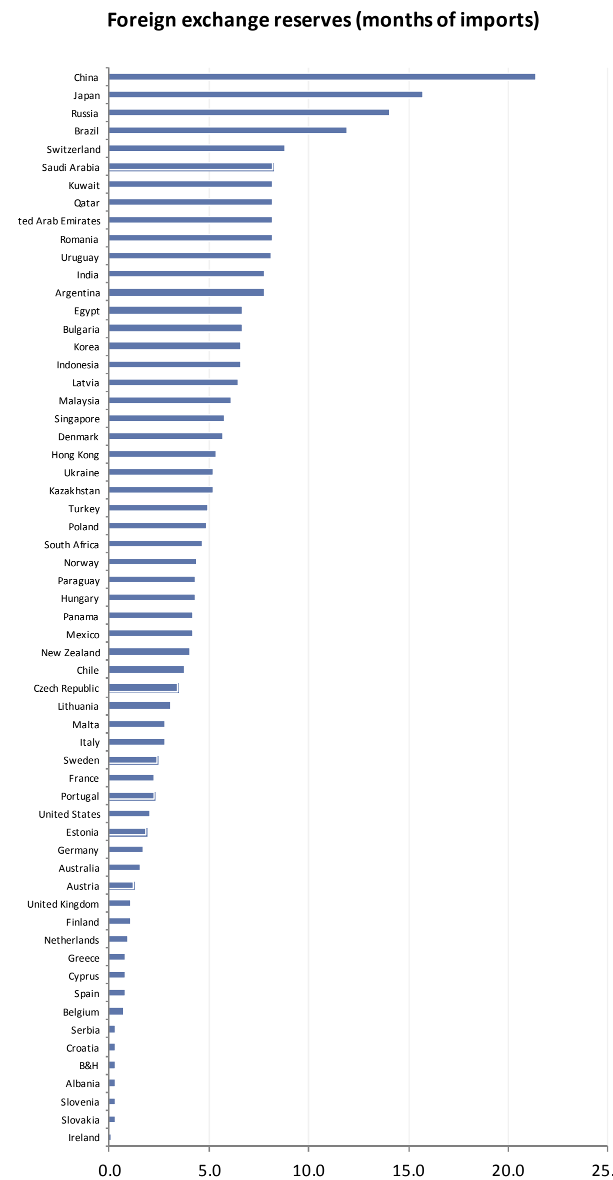
Source: World Bank, IMF, Goldman Sachs Research estimates.

Exhibit 85: Ranking of country attractiveness used in global banks analysis (cont.)

Industry consolidation (share of top 5 commercial banks), State ownership (% of assets controlled by government) and national liquidity (foreign exchange reserves/GDP)







Source: World Bank, IMF, Goldman Sachs Research estimates.

Exhibit 86: Environmental, social and governance measures to assess management quality – Banks

		Criteria	Banks specific	Description	Purpose	Weighting
Corporate governance		Independent Board leadership		Separation of CEO and Chairman roles and appointment of independent Lead Director	Maintain balance of power	30%
		Independent Board directors & committees		Percentage of independent, non-executive directors and wholly independent compensation and nomination committees	Shareholder representation	
		Independent auditors		Audit committee independence and ratio of non-audit to audit fees paid to the assigned auditor	Independence of audit process	
		CEO compensation		CEO compensation (including salary, bonus, stock grants and options) as a percentage of net income	Management incentives	
		Share-based compensation		Fair value of share-based compensation expense as percentage of equity	Transparency	
		Minority shareholders' rights		Block ownership greater than 5%, staggered Board, poison pill, unequal voting rights and other provisions	Strength of individual shareholders	
Social	Leadership	Reporting and assurance of ESG performance		Number of years of reporting on environmental and social ("ES") issues and external assurance of data	Transparency	10%
		Leadership responsibility for ESG performance		Compensation link and responsibility of Board, senior executives to environmental and social performance	Integration of ES issues into strategy	
	Employees	Employee compensation		Total payroll costs divided by average number of employees	Employee incentives	25%
		Employee productivity		Net income per employee	Labour efficiency	
		Gender diversity		Gender diversity of total workforce, senior executives, and Board directors	Quality of workplace	
		Employee training		Institutionalized training programme, amount of resources used for training, hours or spend	Quality of workplace	
		Compensation practices	B	Performance-based executive compensation linked to EPS or TSR targets	Employee incentives	
	Stakeholders	Community investment		Community investment as a percentage of equity	Brand, impact on communities	25%
		Supply chain management		Guidelines for suppliers on environmental and social issues, reporting on quantification of environmentally assessed and minority-owned suppliers	Supply chain management	
		Customer and regulator relations	B	Customer surveys leading to company actions, increase in M&A deals completed, microfinance, public policy dialogue	Client and shareholder relationships	
		Risk management	B	Reporting on lines of responsibility for risk management, reporting on risk measurement methodology, reporting on whistle-blowing and escalation process	Reputation	
		Pricing of risk	B	Return on pre-provision operating profit, ratio of tangible equity to tangible assets	Profitability vs. leverage	
Environ-ment		Opportunities	B	Product and business innovation related to environmental and social issues	Product innovation	10%
		Risks	B	Specialized environmental training, environmental checks on project finance and responsible lending, Equator Principles	Risk exposure	

Source: Goldman Sachs Research.

Exhibit 87: Management quality rankings based on ESG performance by category – Banks

Company	Overall ESG	Overall ESG (as % of maximum)	Independent board leadership	Independent Board directors & committees	Independent auditors	CEO compensation	Share-based compensation	Minority shareholders' rights	Governance	Reporting for sustainability	Leadership for sustainability initiatives	Social - Leadership	Compensation Practices (BK)	Employee compensation	Employee productivity	Employee training	Gender diversity	Social - Employees	Community investment	Pricing of risk (B)	Risk management (B)	Supply chain management	Customer and regulator relations (B)	Social - Stakeholders	Climate change opportunities (B)	Climate change risks (B)	Environment
Westpac Banking Corp.	89	89%	4	5	5	5	5	4	28	5	3	8	5	4	5	5	4	23	5	1	5	4	5	20	5	5	10
ANZ Banking Group Limited	88	88%	4	5	5	4	5	4	27	5	5	10	5	4	4	5	5	23	3	1	5	4	5	18	5	5	10
Wells Fargo & Company	87	87%	3	5	4	5	5	4	26	4	4	8	5	5	2	5	5	22	5	5	5	2	5	22	4	5	9
Commonwealth Bank of Australia	84	84%	4	5	3	5	5	4	26	5	3	8	5	5	5	3	3	21	3	3	5	3	5	19	5	5	10
National Australia Bank	84	84%	4	5	5	5	3	4	26	5	2	7	5	5	4	5	3	22	4	1	5	4	5	19	5	5	10
HSBC	84	84%	5	4	4	4	3	5	25	5	3	8	5	4	3	5	5	22	4	1	5	4	5	19	5	5	10
J.P. Morgan Chase & Co.	83	83%	3	5	4	5	3	5	25	4	4	8	3	5	4	3	5	20	4	3	5	5	3	20	5	5	10
UBS	83	83%	5	5	4	4	3	5	26	5	4	9	3	5	4	5	2	19	3	1	5	5	5	19	5	5	10
Deutsche Bank	80	80%	4	1	4	5	3	4	21	5	4	9	5	5	4	5	2	21	4	1	5	4	5	19	5	5	10
Bank of New York Mellon Corp.	77	77%	3	5	4	2	5	4	23	2	2	4	5	5	3	5	4	22	4	3	5	5	5	22	5	1	6
Standard Chartered	77	77%	5	3	3	4	3	3	21	4	4	8	5	4	3	5	4	21	3	1	5	4	5	18	4	5	9
Citigroup Inc.	77	77%	5	5	4	3	3	5	25	4	5	9	3	4	2	5	2	16	4	3	5	4	5	21	3	3	6
Itaú Unibanco Holding (ADR)	76	76%	4	1	5	1	1	2	14	5	4	9	3	4	4	5	2	18	5	5	5	5	5	25	5	5	10
Hang Seng Bank	76	76%	4	3	3	5	5	1	21	4	1	5	5	3	5	5	5	23	3	5	5	4	3	20	2	5	7
Nedbank Group Ltd	76	76%	5	1	3	4	5	3	21	4	3	7	3	3	2	5	5	18	4	3	5	4	5	21	4	5	9
Northern Trust Corp.	76	76%	3	5	3	2	3	5	21	5	4	9	5	4	3	5	4	21	5	3	5	3	3	19	3	3	6
Morgan Stanley & Co.	76	76%	5	5	5	4	3	4	26	2	3	5	5	5	3	3	4	20	5	1	5	2	3	16	4	5	9
Credit Suisse	76	76%	4	3	4	4	3	3	21	5	3	8	5	5	4	5	1	20	2	1	5	4	5	17	5	5	10
Bank of America Corporation	76	76%	4	5	4	3	3	5	24	5	4	9	5	5	2	1	5	18	5	3	3	2	2	15	5	5	10
DnB ASA	75	75%	4	4	3	4	1	2	18	4	3	7	1	5	5	5	5	21	4	1	5	5	5	20	4	5	9
Barclays plc	75	75%	5	5	3	5	3	3	24	5	1	6	5	5	2	3	2	17	5	1	5	4	3	18	5	5	10
PNC Financial Services	74	74%	3	5	5	4	5	5	27	2	2	4	5	4	3	3	3	18	3	5	5	3	1	17	3	5	8
State Street Corp.	74	74%	3	5	4	2	3	4	21	5	2	7	5	5	3	5	2	20	4	3	5	5	5	22	3	1	4
BBVA	74	74%	1	2	3	5	5	4	20	5	2	7	5	3	3	5	1	17	5	3	5	4	5	22	3	5	8
Standard Bank Group	73	73%	4	2	4	4	3	3	20	5	2	7	5	3	2	5	4	19	4	3	3	4	5	19	3	5	8
Swedbank	73	73%	4	2	5	5	3	4	23	5	2	7	3	4	3	5	5	20	1	1	5	4	3	14	4	5	9
Lloyds Banking Group Plc	73	73%	5	4	3	4	3	2	21	5	3	8	5	4	1	5	2	17	5	1	5	4	3	18	4	5	9
Intesa Sanpaolo	73	73%	4	3	4	4	3	3	21	5	2	7	1	4	2	5	4	16	4	1	5	4	5	19	5	5	10
BNP Paribas	73	73%	4	3	2	3	3	3	18	5	2	7	5	5	3	5	4	22	1	1	5	4	5	16	5	5	10
UniCredit	70	70%	4	2	2	1	3	3	15	5	4	9	3	4	1	5	4	17	5	1	5	4	5	20	4	5	9
Royal Bank of Scotland	70	70%	5	4	3	2	3	1	18	5	3	8	5	5	1	3	4	18	5	1	5	4	5	20	3	3	6
Macquarie Group Limited	69	69%	4	5	4	2	3	4	22	2	1	3	5	5	3	3	3	19	5	3	5	2	2	17	5	3	8
U.S. Bancorp	68	68%	3	5	3	4	5	5	25	2	3	5	3	1	1	3	3	11	4	5	5	2	2	18	4	5	9
UBI Banca	68	68%	4	5	3	2	3	1	18	5	3	8	3	5	1	5	1	15	5	1	5	4	5	20	4	3	7
Credit Agricole SA	68	68%	4	1	2	3	5	1	16	4	2	6	3	5	3	5	4	20	4	1	3	4	5	17	4	5	9
National Bank of Greece	68	68%	4	3	5	1	5	4	22	3	4	7	5	3	1	5	2	16	5	3	3	2	3	16	4	3	7
Shinhan Financial Group	67	67%	4	3	5	1	5	3	21	5	2	7	3	5	5	3	1	17	1	3	5	2	5	16	5	1	6
Firstrand Ltd	67	67%	4	1	2	4	3	1	15	4	3	7	3	3	2	5	4	17	4	3	5	3	5	20	3	5	8
Mitsubishi UFJ Financial Group	66	66%	4	1	2	3	3	5	18	4	2	6	1	5	3	3	1	13	4	1	5	4	5	19	5	5	10
Banco Santander	65	65%	5	2	4	1	1	4	17	5	2	7	1	4	4	5	2	16	5	3	3	3	3	17	5	3	8
Banco Santander Brasil (ADR)	64	64%	4	1	1	1	1	1	9	2	1	3	3	4	4	5	5	21	5	5	3	4	5	22	4	5	9
SEB	64	64%	4	2	2	5	5	2	20	2	4	6	1	4	3	3	5	16	1	1	5	3	3	13	4	5	9
Nordea	64	64%	4	2	2	4	3	2	17	3	2	5	3	4	4	5	5	21	2	1	3	3	5	14	4	3	7
KBC Group NV	63	63%	4	1	2	4	3	1	15	4	1	5	5	3	2	5	2	17	1	1	5	5	5	17	4	5	9
Erste Bank	63	63%	4	4	2	4	5	2	21	4	1	5	5	3	1	5	3	17	1	1	3	4	5	14	3	3	6
Societe Generale	63	63%	1	2	2	3	3	1	12	5	3	8	3	4	2	5	5	19	1	1	3	4	5	14	5	5	10
Bancolombia	62	62%	4	2	5	1	1	1	14	2	1	3	3	2	2	5	2	14	4	5	5	5	3	22	4	5	9
Banco Santander Chile	62	62%	4	1	3	1	5	1	15	4	2	6	5	3	4	5	4	21	2	5	3	5	3	18	1	1	2
Banco Bradesco (ADR)	62	62%	4	1	2	1	1	5	14	5	3	8	1	2	3	5	2	13	5	3	2	4	5	19	5	3	8
Banco Popular Espanol	62	62%	1	1	4	4	1	2	13	5	2	7	1	4	3	5	1	14	5	3	3	4	5	20	3	5	8
Average	55.4	55%	3.7	2.2	2.3	2.6	2.4	2.6	15.7	2.8	1.8	4.6	2.1	3.2	3.0	4.0	2.4	14.7	2.5	3.0	3.8	2.4	3.1	14.8	2.8	2.7	5.5
Maximum	**100**		5	5	5	5	5	5	**30**	5	5	**10**	5	5	5	5	5	**25**	5	5	5	5	5	**25**	5	5	**10**

Partial data disclosure
Non disclosure

Source: Company data, Goldman Sachs Research.

Exhibit 88: Management quality rankings based on ESG performance by category – Banks (continued)

Company	Overall ESG	Overall ESG (as % of maximum)	Independent board leadership	Independent Board directors & committees	Independent auditors	CEO compensation	Share-based compensation	Minority shareholders' rights	Governance	Reporting for sustainability	Leadership for sustainability initiatives	Social - Leadership	Compensation Practices (BK)	Employee compensation	Employee productivity	Employee training	Gender diversity	Social - Employees	Community investment	Pricing of risk (B)	Risk management (B)	Supply chain management	Customer and regulator relations (B)	Social - Stakeholders	Climate change opportunities (B)	Climate change risks (B)	Environment
Raiffeisen Bank International	62	62%	4	5	3	1	5	1	19	5	3	8	5	2	1	5	2	15	3	3	5	2	3	16	3	1	4
Banco Sabadell	62	62%	1	2	3	5	1	3	15	5	2	7	1	4	2	5	1	13	4	1	5	4	5	19	3	5	8
Banesto	62	62%	4	2	2	2	1	4	15	5	2	7	3	5	3	5	4	20	1	1	3	4	3	12	3	5	8
Commerzbank AG	62	62%	4	1	2	4	5	2	18	3	2	5	5	5	1	3	2	16	1	1	5	4	5	16	4	3	7
ABSA Group Limited	61	61%	4	2	3	2	5	1	17	2	1	3	3	3	2	5	3	16	4	5	5	4	3	21	1	3	4
Akbank	60	60%	4	1	1	1	1	1	9	2	3	5	1	3	5	5	4	18	2	5	5	3	5	20	3	5	8
Banco do Brasil	60	60%	4	1	1	1	1	1	9	5	2	7	1	4	3	5	2	15	4	3	5	4	3	19	5	5	10
Natixis	60	60%	4	1	2	5	3	1	16	2	2	4	1	5	4	5	2	17	1	1	3	5	3	13	5	5	10
Julius Baer Group	59	59%	5	5	3	2	5	4	24	2	2	4	3	5	5	5	2	20	1	1	3	1	2	8	2	1	3
Danske Bank	58	58%	4	4	3	4	3	2	20	4	2	6	1	5	1	3	4	14	4	1	3	2	3	13	4	1	5
Bank Pekao	57	57%	4	2	2	4	3	1	16	2	1	3	1	2	2	5	5	15	2	5	3	4	5	19	1	3	4
China Merchants Bank (H)	57	57%	4	1	2	3	1	3	14	2	1	3	3	3	4	5	3	18	2	1	5	3	5	16	3	3	6
Housing Development Finance Corporation	55	55%	4	3	3	5	3	3	21	1	1	2	1	3	5	5	2	16	3	5	3	1	2	14	1	1	2
Public Bank Berhad	55	55%	4	4	5	4	3	2	22	2	1	3	1	2	3	5	4	15	1	3	5	1	3	13	1	1	2
Kasikornbank (Foreign)	54	54%	4	2	2	4	1	4	17	4	3	7	1	1	2	5	2	11	1	5	5	2	3	16	2	1	3
ICICI Bank	54	54%	4	2	1	4	1	3	15	2	4	6	1	2	1	3	2	9	3	5	5	2	3	18	3	3	6
DBS Group Holdings	53	53%	4	2	3	4	5	2	20	1	1	2	1	4	4	5	2	16	2	3	5	1	2	13	1	1	2
Oversea-Chinese Banking Corp.	53	53%	4	2	4	4	5	2	21	1	1	2	1	3	4	5	2	15	3	1	5	1	3	13	1	1	2
Resona Holdings	53	53%	4	2	2	1	1	2	12	2	3	5	1	1	4	3	4	13	2	1	5	2	5	15	3	5	8
Malayan Banking Berhad	52	52%	5	2	2	5	5	3	22	1	1	2	1	2	2	3	2	10	1	5	3	4	2	15	2	1	3
Svenska Handelsbanken	52	52%	4	3	1	5	1	4	18	1	1	2	1	5	5	1	4	16	1	1	2	1	3	8	3	5	8
Shizuoka Bank	52	52%	4	1	2	1	3	5	16	4	1	5	1	1	4	3	1	10	1	3	5	2	2	13	3	5	8
OTP Bank Plc	51	51%	1	1	1	1	3	3	10	5	1	6	1	2	1	5	2	11	4	5	3	2	5	19	4	1	5
China Construction Bank (H)	51	51%	4	1	2	3	1	1	12	5	1	6	1	3	5	5	2	16	2	3	3	2	2	12	2	3	5
Industrial and Commercial Bank of China (H)	51	51%	4	1	2	3	1	1	12	3	1	4	3	2	3	5	2	15	2	3	3	1	3	12	3	5	8
National Bank of Abu Dhabi	51	51%	4	2	1	1	5	1	14	2	1	3	1	4	5	5	1	16	1	5	3	4	3	16	1	1	2
Mizuho Financial Group	51	51%	1	2	2	1	3	4	13	4	2	6	1	4	2	1	1	9	3	1	5	2	2	13	5	5	10
Axis Bank	50	50%	4	2	1	4	3	5	19	1	1	2	1	1	1	5	1	9	5	5	5	1	2	18	1	1	2
Bank of China (H)	50	50%	4	1	1	3	1	1	11	2	1	3	1	2	3	5	5	16	2	1	3	2	3	11	4	5	9
Aozora Bank	50	50%	4	4	5	1	1	1	16	2	1	3	1	4	3	3	1	12	3	3	5	1	2	14	2	3	5
Bank Mandiri	49	49%	4	1	1	1	3	1	11	2	1	3	1	2	2	5	2	12	3	5	5	1	5	19	1	3	4
Yapi Kredi	49	49%	4	1	1	1	1	1	9	2	2	4	1	3	4	5	4	17	3	5	2	1	2	13	3	3	6
Komercni Banka	49	49%	1	1	2	4	1	1	10	2	1	3	1	3	4	5	2	15	1	5	2	4	1	13	3	5	8
CIMB Group Holdings	49	49%	5	2	4	4	1	4	20	2	1	3	1	2	2	3	2	10	1	5	5	2	1	14	1	1	2
Kuwait Finance House	49	49%	4	1	1	1	1	4	12	2	1	3	1	5	5	3	1	15	5	5	3	1	2	16	2	1	3
Turkiye Garanti Bankasi	48	48%	4	1	1	1	1	2	10	2	3	5	1	1	5	5	2	14	1	5	2	1	3	12	2	5	7
China Minsheng Banking (H)	48	48%	4	1	2	4	1	4	16	2	1	3	1	3	4	3	1	12	4	1	3	2	2	12	4	1	5
Shanghai Pudong Development Bank	48	48%	4	1	1	1	1	2	10	4	1	5	1	3	5	5	2	16	2	1	3	2	2	10	4	3	7
RHB Capital	48	48%	4	1	3	5	1	1	15	4	1	5	1	2	2	5	2	12	1	3	3	1	3	11	4	1	5
BOC Hong Kong (Holdings)	48	48%	4	1	2	4	1	1	13	2	1	3	1	3	5	3	2	14	2	3	5	3	1	14	3	1	4
Sumitomo Mitsui Trust Holdings	48	48%	4	1	2	1	3	4	15	1	2	3	1	5	5	1	1	13	1	1	3	1	3	9	5	3	8
Sumitomo Mitsui Financial Group	48	48%	4	1	2	1	1	4	13	4	1	5	1	3	3	3	1	11	1	1	5	1	3	11	5	3	8
Bank of Communications(H)	47	47%	4	1	2	3	1	2	13	1	3	4	3	2	4	3	2	14	3	1	3	2	2	11	2	3	5
Woori Finance Holdings	47	47%	1	3	5	1	3	1	14	1	1	2	1	4	2	5	1	13	1	1	5	1	5	13	4	1	5
Banco de Chile	46	46%	4	1	2	1	3	2	13	1	2	3	1	3	3	5	1	13	4	5	3	1	2	15	1	1	2
JSC VTB Bank	46	46%	4	1	1	1	1	1	9	2	1	3	1	2	2	3	2	10	5	5	3	3	5	21	2	1	3
Grupo Financiero Banorte	46	46%	4	2	1	1	1	3	12	3	2	5	1	2	2	5	2	12	1	3	3	2	2	11	3	3	6
Qatar National Bank	45	45%	4	2	1	1	1	4	13	4	2	6	1	1	1	5	1	9	1	5	5	1	2	14	2	1	3
Saudi British Bank	45	45%	4	4	1	1	1	2	13	1	1	2	1	4	5	5	1	16	1	5	3	1	2	12	1	1	2
Average	55.4	55%	3.7	2.2	2.3	2.6	2.4	2.6	15.7	2.8	1.8	4.6	2.1	3.2	3.0	4.0	2.4	14.7	2.5	3.0	3.8	2.4	3.1	14.8	2.8	2.7	5.5
Maximum	100		5	5	5	5	5	5	30	5	5	10	5	5	5	5	5	25	5	5	5	5	5	25	5	5	10

Partial data disclosure
Non disclosure

Source: Company data, Goldman Sachs Research.

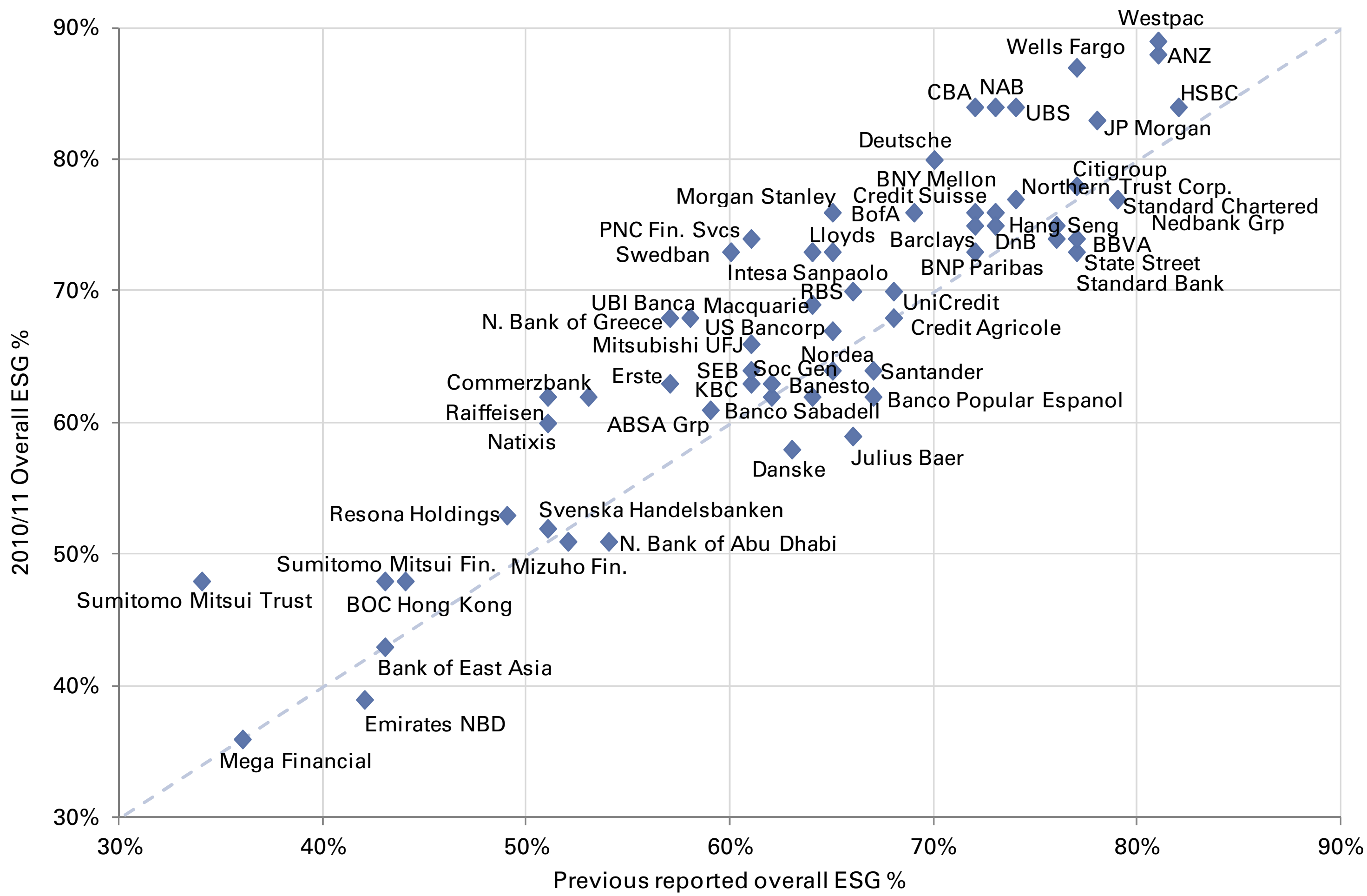
Exhibit 89: Management quality rankings based on ESG performance by category – Banks (continued)

Company	Overall ESG	Overall ESG (as % of maximum)	Independent board leadership	Independent Board directors & committees	Independent auditors	CEO compensation	Share-based compensation	Minority shareholders' rights	Governance	Reporting for sustainability	Leadership for sustainability initiatives	Social - Leadership	Compensation Practices (BK)	Employee compensation	Employee productivity	Employee training	Gender diversity	Social - Employees	Community investment	Pricing of risk (B)	Risk management (B)	Supply chain management	Customer and regulator relations (B)	Social - Stakeholders	Climate change opportunities (B)	Climate change risks (B)	Environment
Industrial Bank	45	45%	4	1	1	3	1	2	12	2	1	3	1	2	5	3	1	12	3	1	3	1	3	11	4	3	7
KB Financial Group	45	45%	1	5	1	1	3	3	14	1	2	3	1	3	1	5	1	11	1	1	3	1	5	11	5	1	6
Commercial Bank of Qatar	44	44%	4	2	1	1	1	4	13	1	1	2	1	5	5	5	1	17	1	5	2	1	1	10	1	1	2
Sberbank	44	44%	4	1	1	3	1	1	11	2	1	3	1	2	1	5	5	14	2	5	2	1	3	13	2	1	3
Turkiye Isbankasi	44	44%	4	1	1	1	1	1	9	1	3	4	1	3	4	3	4	15	1	5	3	1	1	11	4	1	5
China CITIC Bank (H)	44	44%	4	1	2	3	1	4	15	2	1	3	1	1	5	3	1	11	2	1	3	3	2	11	3	1	4
Bank of Ningbo	44	44%	4	1	1	4	1	1	12	2	1	3	1	3	4	3	5	16	3	1	3	1	2	10	2	1	3
Krung Thai Bank (Foreign)	44	44%	5	1	2	3	1	1	13	4	2	6	1	1	2	3	2	9	1	3	5	2	3	14	1	1	2
Bank of Beijing	44	44%	4	1	1	1	1	2	10	3	1	4	1	3	5	3	3	15	2	1	5	1	2	11	3	1	4
SAMBA	43	43%	4	1	1	2	1	5	14	1	1	2	1	5	5	1	1	13	2	5	3	1	1	12	1	1	2
Arab National Bank	43	43%	4	4	1	1	1	1	12	1	1	2	1	4	5	3	1	14	3	5	3	1	1	13	1	1	2
Chongqing Rural Commercial Bank	43	43%	4	1	1	3	1	3	13	2	1	3	1	2	2	3	1	9	4	3	2	1	2	12	3	3	6
Bank Of Nanjing	43	43%	4	1	1	4	1	2	13	2	1	3	1	3	5	3	1	13	1	3	3	1	3	11	2	1	3
United Overseas Bank	43	43%	4	2	4	1	5	3	19	1	1	2	1	1	1	3	2	8	1	3	5	1	2	12	1	1	2
First Gulf Bank	43	43%	4	1	1	1	1	4	12	1	1	2	1	5	5	3	1	15	1	5	3	1	2	12	1	1	2
Bank of East Asia	43	43%	1	2	3	2	5	3	16	2	1	3	1	3	3	3	1	11	3	3	3	1	1	11	1	1	2
PKO BP	42	42%	4	1	2	4	3	1	15	1	1	2	1	2	2	3	1	9	2	5	3	1	2	13	2	1	3
Bank of Ayudhya (Foreign)	42	42%	4	1	4	1	1	2	13	2	1	3	1	2	1	5	3	12	1	5	3	1	2	12	1	1	2
Hua Xia Bank	42	42%	4	1	1	4	1	2	13	2	1	3	1	3	4	3	2	13	3	1	3	1	1	9	3	1	4
National Bank of Kuwait	42	42%	4	1	1	1	1	5	13	2	1	3	1	1	1	3	2	8	5	5	3	1	2	16	1	1	2
Chiba Bank	42	42%	1	1	2	1	3	4	12	1	3	4	3	1	4	3	1	12	1	1	3	1	3	9	4	1	5
Siam Commercial Bank (Foreign)	41	41%	1	2	5	1	1	4	14	4	2	6	1	1	1	3	3	9	1	5	1	2	1	10	1	1	2
HDFC Bank	41	41%	4	2	1	5	3	2	17	1	1	2	1	2	1	3	1	8	1	5	3	1	2	12	1	1	2
Turkiye Vakiflar Bankasi	41	41%	4	1	1	1	1	1	9	1	1	2	1	3	4	5	2	15	1	5	3	1	2	12	2	1	3
Industrial Bank of Korea	41	41%	1	2	1	1	1	1	7	1	1	2	1	5	5	5	1	17	1	3	3	1	5	13	1	1	2
Abu Dhabi Commercial Bank	41	41%	4	1	2	1	1	1	10	2	1	3	1	4	3	3	1	12	1	5	5	1	2	14	1	1	2
Bank Central Asia	40	40%	4	2	1	1	1	2	11	1	1	2	1	2	3	5	2	13	2	5	3	1	1	12	1	1	2
Banque Saudi Fransi	40	40%	4	1	1	1	1	1	9	1	1	2	1	4	5	3	1	14	1	5	3	2	2	13	1	1	2
Bank Danamon	40	40%	4	2	1	1	1	1	10	1	1	2	1	2	1	5	2	11	1	5	5	1	3	15	1	1	2
Hong Leong Bank	40	40%	4	1	2	4	1	1	13	4	1	5	1	1	1	3	3	9	3	3	2	1	2	11	1	1	2
Shenzhen Development Bank	40	40%	5	1	1	4	1	2	14	3	1	4	1	3	4	1	2	11	2	1	2	1	3	9	1	1	2
Korea Exchange Bank	40	40%	1	1	1	1	5	1	10	1	1	2	1	5	5	3	1	15	1	5	3	1	1	11	1	1	2
Bank of Yokohama	40	40%	1	1	2	1	3	5	13	2	1	3	1	1	4	3	2	11	1	1	5	2	2	11	1	1	2
Turkiye Halk Bankasi A.S.	39	39%	4	1	1	1	1	1	9	1	1	2	1	2	4	5	1	13	2	5	3	1	2	13	1	1	2
Riyad bank	39	39%	4	2	1	1	1	1	10	1	1	2	1	3	5	3	1	13	1	5	3	1	2	12	1	1	2
Agricultural Bank of China (H)	39	39%	4	1	1	3	1	1	11	2	1	3	1	2	2	3	1	9	2	1	3	1	3	10	3	3	6
Emirates NBD	39	39%	4	1	1	1	3	1	11	1	1	2	1	4	4	3	1	13	1	5	3	1	1	11	1	1	2
Al-Rajhi Bank	36	36%	4	1	1	1	1	1	9	1	1	2	1	3	5	3	1	13	1	5	2	1	1	10	1	1	2
Bank Rakyat Indonesia	36	36%	1	1	1	1	1	1	6	1	1	2	1	2	2	5	1	11	1	5	5	1	3	15	1	1	2
Banrisul	36	36%	4	1	1	1	1	1	9	1	1	2	1	3	3	3	2	12	1	5	2	2	1	11	1	1	2
Bangkok Bank (Foreign)	36	36%	1	1	3	1	1	2	9	4	1	5	1	1	1	3	2	8	1	5	3	2	1	12	1	1	2
Mega Financial Holdings	36	36%	4	1	2	1	1	3	12	1	1	2	1	3	3	1	2	10	1	3	3	1	2	10	1	1	2
Qatar Islamic Bank	35	35%	4	1	1	1	1	5	13	1	1	2	1	1	1	3	1	7	1	5	3	1	1	11	1	1	2
Credicorp	35	35%	1	1	2	1	1	3	9	1	1	2	1	2	2	3	1	9	1	5	3	2	2	13	1	1	2
Hana Financial Group	31	31%	1	2	1	1	3	4	12	1	1	2	1	1	1	3	1	7	1	1	3	1	2	8	1	1	2
Chinatrust Financial Holdings	31	31%	4	2	1	1	1	1	10	1	1	2	1	1	1	3	2	8	1	3	2	2	1	9	1	1	2
First Financial Holdings	30	30%	4	1	1	1	1	1	9	1	1	2	1	1	2	5	1	10	1	1	2	2	1	7	1	1	2
Average	55.4	55%	3.7	2.2	2.3	2.6	2.4	2.6	15.7	2.8	1.8	4.6	2.1	3.2	3.0	4.0	2.4	14.7	2.5	3.0	3.8	2.4	3.1	14.8	2.8	2.7	5.5
Maximum	100		5	5	5	5	5	5	30	5	5	10	5	5	5	5	5	25	5	5	5	5	5	25	5	5	10

Partial data disclosure
Non disclosure

Source: Company data, Goldman Sachs Research.

Exhibit 90: Changes in management quality – Developed market banks
Change in ESG scores since previously published performance, by company, as % of maximum score possible for each company



Source: Company data, Goldman Sachs Research.

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Insurance

Industry roadmap: Key trends and drivers of performance

Exhibit 91 summarises the key structural shifts we have identified for the global insurance industry, and the measures that we use to identify those companies we believe are best placed to sustain industry leadership against this backdrop of change.

Exhibit 91: Industry roadmap – Insurance

Themes

- **Emerging market consumption growth**
  - Emerging markets offer sustainable growth due to rising wealth and financial intermediation
  - Developed markets need to rebuild depleted wealth
- **Increased regulation**
  - Increasing focus on regulation of risk-taking in financial services
  - Gradual moves towards harmonized regulatory standards
- **Debt/capital imbalances across developed & emerging economies**
  - Increased costs of capital and risk pricing, especially in developed economies

Drivers of corporate performance / **Insurance**

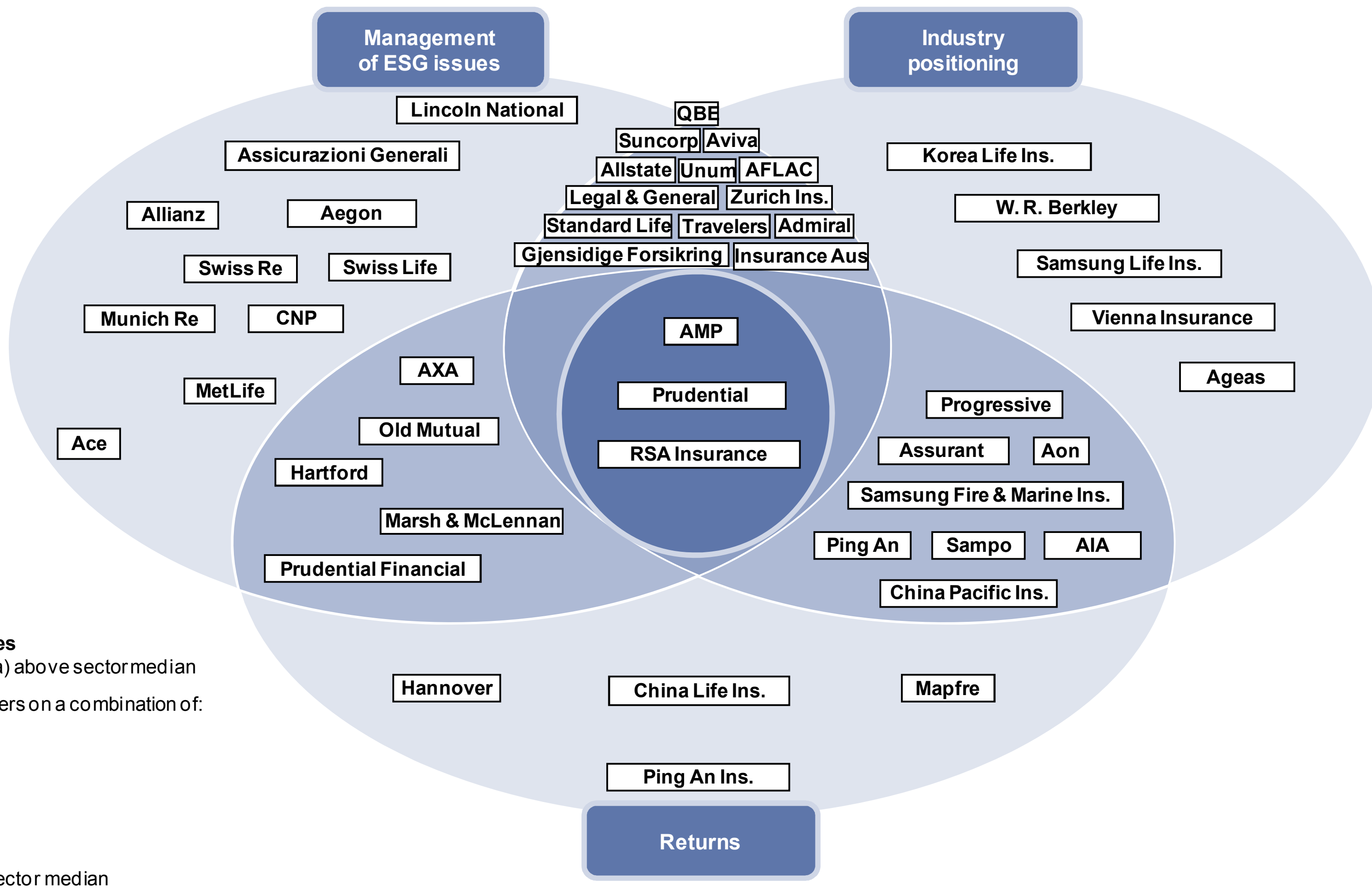
- **Management quality**
  - **ESG**: Environmental, social and governance issues
- **Industry positioning**
  - Exposure to growth markets: High potential growth markets - Exposure to growth markets (premiums CAGR to 2015E)
  - Pricing power in distribution: Attractive distribution mix - Exposure to channels with high pricing power
  - Attractiveness of business lines: Business mix low volatility and low capital intensity
- **Return on capital**
  - **ROE**: Return on equity
- **Balance sheet strength**
  - Leverage, cash flow generation

GS SUSTAIN

Source: Goldman Sachs Research.

We identify AMP, Prudential and RSA Insurance as industry leaders on each of (1) return on capital (ROE), (2) industry positioning and (3) management quality (as measured by environmental, social and governance (ESG) performance above the sector median).

Exhibit 92: Winners circle – Insurance



Management of ESG issues
– ESG (based on 2010 data) above sector median

Industry positioning: leaders on a combination of:
– Country growth
– Country risk
– Pricing power
– Favourable business mix
– Sound capital base

Returns
– ROE (2012-14E) above sector median

Balance sheet strength
– Leverage and cash flow generation above bottom sector quintile

Note: Chubb, Tokio Marine Holdings, SCOR, Principal Financial Group, XL Group, MS&AD Holdings, American International Group, NKSJ Holdings, The Dai-ichi Life Insurance Company, T&D Holdings, Sony Financial Holdings, Cathay Financial Holding Company scored below median on all three metrics.

Source: Company data, Goldman Sachs Research estimates.

Exhibit 93: Winners table – Insurance

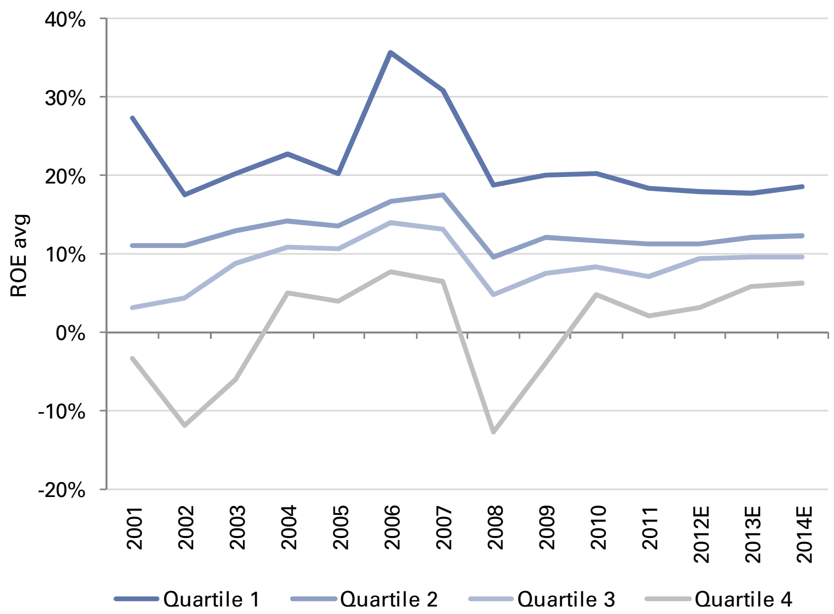
Company	Return on capital			Industry positioning											Management quality		
	ROE			Regional growth		Country risk			Pricing power			Business mix		Overall Industry Positioning	ESG		
	2012-14E	change vs 2009-11 in ppts	Percentile	Weighted average premium growth (2010-20 CAGR)	Percentile	Country risk (AM Best) (rank 1-4)	World Bank Regulatory Quality score	Percentile	Distribution channel mix (1-6 reflecting proximity to customer)	Weighted avg. top 3 market share in largest market	Percentile	Business line volatility adjusted profitability (rank 1-7)	Percentile	Percentile	Score as a % of maximum (2010/11)	Change vs last report	Percentile (2010/11)
Admiral Group Plc	45%	-9%	100%	2%	47%	1.0	97	100%	4.0	30%	58%	4.0	80%	98%	59%	1%	52%
Aflac Incorporated	21%	1%	98%	1%	17%	1.8	83	45%	4.0	47%	83%	3.7	65%	65%	59%	-7%	52%
The Hartford Financial Services	19%	17%	97%	2%	45%	1.0	90	72%	2.0	36%	23%	3.0	32%	25%	64%	3%	67%
Marsh & McLennan Companies	19%	2%	95%	2%	33%	0.9	61	53%	2.0	23%	7%	7.0	98%	47%	60%	New	57%
Prudential Plc	18%	2%	93%	3%	83%	1.8	73	17%	3.0	45%	70%	4.0	77%	82%	82%	4%	98%
Ping An Insurance Group	16%	0%	90%	9%	95%	3.0	45	0%	3.1	56%	83%	2.5	15%	48%	47%	-6%	20%
Legal & General Group	15%	-2%	88%	2%	63%	1.0	96	97%	2.3	38%	30%	3.5	50%	80%	82%	6%	98%
Gjensidige Forsikring ASA	15%	3%	86%	0%	0%	1.0	94	85%	3.7	61%	97%	3.8	68%	85%	66%	New	70%
Aon Plc.	14%	0%	85%	3%	82%	1.9	71	15%	2.0	27%	10%	7.0	98%	63%	57%	New	45%
AMP	14%	-9%	83%	2%	68%	1.2	94	77%	2.6	45%	57%	3.5	52%	87%	77%	6%	87%
QBE Insurance Group	14%	1%	81%	2%	70%	1.2	81	57%	2.1	45%	33%	3.9	75%	78%	60%	2%	57%
Insurance Australia Group	14%	8%	80%	2%	72%	1.2	94	73%	3.1	76%	92%	4.0	80%	100%	78%	2%	90%
China Life Insurance Company	14%	0%	78%	9%	95%	3.0	45	0%	3.1	56%	88%	2.0	0%	38%	51%	-3%	23%
Old Mutual plc	14%	4%	76%	1%	12%	0.5	47	52%	2.2	18%	8%	2.3	12%	0%	74%	-1%	83%
Sampo	13%	2%	75%	1%	3%	1.1	95	85%	3.5	66%	98%	2.7	25%	68%	54%	-1%	40%
China Pacific Insurance (H)	13%	3%	73%	9%	95%	3.0	45	0%	3.2	56%	90%	2.5	18%	62%	39%	0%	8%
AXA	13%	4%	71%	1%	18%	1.3	79	38%	2.5	41%	42%	3.2	35%	7%	78%	8%	90%
Zurich Insurance Group	13%	1%	69%	2%	42%	1.4	80	40%	2.3	35%	27%	4.2	93%	58%	71%	-2%	77%
The Progressive Corporation	13%	-5%	68%	2%	50%	1.0	90	88%	2.8	35%	48%	4.0	80%	93%	52%	-3%	28%
Mapfre S.A.	12%	-2%	66%	3%	77%	2.2	60	10%	3.1	33%	52%	3.3	43%	33%	53%	-8%	37%
Torchmark Corp.	12%	0%	64%	2%	50%	1.0	90	88%	3.4	35%	63%	2.0	0%	60%	44%	New	15%
Aviva plc	12%	3%	63%	2%	60%	1.5	87	57%	2.5	43%	45%	3.4	48%	65%	79%	0%	97%
RSA Insurance Group	11%	1%	61%	2%	35%	1.2	85	65%	2.6	39%	47%	4.0	80%	75%	78%	-2%	90%
Standard Life Plc	11%	4%	59%	3%	75%	1.3	95	70%	2.3	43%	38%	5.0	95%	95%	77%	6%	87%
Hannover Ruckversicherung	11%	-5%	58%	2%	67%	1.4	81	47%	1.0	20%	0%	3.6	63%	30%	52%	-3%	28%
AIA Group	11%	0%	56%	6%	93%	2.8	49	7%	3.0	55%	80%	2.6	20%	55%	52%	-2%	28%
Samsung Fire & Marine Insurance	11%	0%	54%	5%	88%	2.0	79	18%	2.6	50%	65%	2.7	27%	53%	54%	7%	40%
Assurant Inc.	11%	2%	53%	2%	37%	0.9	81	78%	2.9	32%	43%	3.6	62%	72%	49%	New	22%
Prudential Financial, Inc.	11%	-1%	51%	1%	23%	1.3	79	42%	2.3	37%	32%	2.3	13%	2%	65%	3%	68%
MetLife Inc.	10%	6%	49%	2%	62%	1.2	84	68%	2.4	36%	35%	2.2	10%	28%	71%	12%	77%
Allianz SE	10%	1%	47%	1%	22%	1.3	73	37%	2.7	34%	38%	3.5	57%	18%	73%	-1%	80%
SCOR	10%	1%	46%	2%	28%	1.0	74	50%	1.0	20%	0%	3.8	72%	13%	53%	-3%	37%
Chubb Corp.	10%	-3%	44%	2%	27%	0.7	66	60%	2.5	26%	22%	4.0	80%	40%	57%	1%	45%
Assicurazioni Generali	10%	2%	42%	2%	25%	1.6	81	43%	2.6	42%	53%	3.3	42%	22%	73%	2%	80%
Unum Group	10%	2%	41%	2%	57%	1.0	91	95%	2.0	35%	17%	4.0	80%	83%	66%	-3%	70%
Lincoln National Corp.	10%	9%	39%	2%	50%	1.0	90	88%	2.0	35%	15%	2.0	0%	20%	63%	New	63%
Principal Financial Group, Inc.	10%	3%	37%	2%	40%	0.9	85	80%	2.5	33%	25%	3.4	45%	43%	52%	New	28%
Munich Re (reg)	10%	1%	36%	2%	32%	1.3	86	63%	1.6	20%	5%	3.3	38%	12%	74%	2%	83%
Sony Financial Holdings	10%	-6%	34%	1%	8%	2.0	81	27%	4.0	50%	93%	2.1	8%	10%	38%	-2%	7%
The Travelers Companies, Inc.	10%	-1%	32%	2%	43%	1.0	87	82%	2.5	34%	27%	4.0	80%	77%	66%	-2%	70%
The Allstate Corp.	9%	5%	31%	2%	50%	1.0	90	88%	2.9	35%	50%	3.9	73%	92%	67%	-8%	75%
ACE Limited	9%	-2%	29%	3%	80%	1.8	77	28%	2.2	30%	20%	3.5	53%	35%	58%	New	50%
Korea Life Insurance	8%	3%	27%	5%	88%	2.0	79	18%	2.4	50%	53%	6.6	97%	88%	46%	New	18%
W. R. Berkley Corp.	8%	-2%	25%	2%	58%	1.0	81	67%	2.1	33%	17%	4.0	78%	72%	42%	New	12%
CNP Assurances	8%	0%	24%	1%	20%	1.3	84	55%	2.7	45%	60%	2.5	17%	15%	61%	2%	60%
Swiss Re	8%	3%	22%	2%	30%	0.9	72	62%	1.0	20%	0%	3.6	60%	15%	63%	New	63%
Suncorp Group Limited	7%	2%	20%	2%	65%	1.1	95	82%	3.2	80%	100%	3.2	37%	97%	59%	New	52%
Ageas SA/NV	7%	3%	19%	2%	73%	2.0	79	32%	2.7	49%	67%	3.4	47%	70%	57%	-1%	45%
Cathay Financial Holding Company	7%	2%	17%	4%	87%	2.7	48	8%	2.8	56%	75%	2.6	22%	45%	28%	New	0%
Aegon N.V.	6%	0%	15%	2%	48%	1.2	92	75%	2.4	38%	37%	3.0	28%	40%	78%	1%	90%
American International Group, Inc.	6%	2%	14%	2%	38%	1.0	62	48%	2.2	25%	13%	3.1	33%	8%	51%	New	23%
XL Group Plc	6%	4%	12%	4%	85%	2.3	67	12%	2.1	22%	12%	3.5	55%	22%	52%	New	28%
Samsung Life Insurance	6%	-2%	10%	5%	88%	2.0	79	18%	2.5	50%	60%	3.0	30%	52%	33%	New	2%
Swiss Life Holding	5%	0%	8%	0%	2%	1.0	92	98%	2.7	54%	72%	2.6	23%	50%	62%	5%	62%
T&D Holdings	5%	12%	7%	1%	5%	2.0	80	33%	3.7	50%	87%	2.0	0%	3%	39%	2%	8%
Tokio Marine Holdings	5%	1%	5%	1%	15%	1.9	75	25%	3.2	45%	73%	3.6	58%	27%	55%	New	43%
The Dai-ichi Life Insurance Company	4%	-4%	3%	1%	10%	2.0	81	28%	3.7	50%	93%	2.0	0%	5%	43%	7%	13%
MS&AD Holdings	0%	-1%	2%	1%	13%	2.0	76	23%	3.2	47%	77%	3.8	70%	37%	51%	New	23%
NKSJ Holdings	-1%	0%	0%	1%	5%	2.0	80	33%	3.2	50%	77%	3.8	67%	32%	45%	New	17%
Vienna Insurance Group				3%	78%	2.5	74	13%	2.8	49%	68%	3.3	40%	55%	37%	1%	5%
PICC Property and Casualty Company						3.0	45		2.7	67%		4.0			36%	-1%	3%

Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

Exhibit 94 shows the average returns on equity (ROE) of global insurance companies examined within the GS SUSTAIN framework, grouped by their quartile of ROE relative to sector peers. Exhibit 95 shows the cumulative average total shareholder returns generated by companies in each quartile of return on equity since 2000.

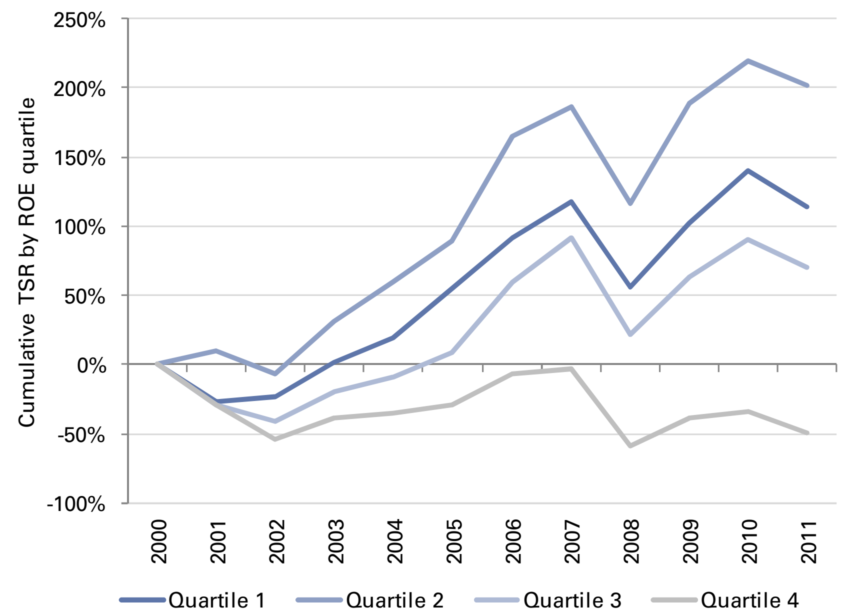
In common with most sectors to which we have applied the GS SUSTAIN framework, we find that companies with leading returns have consistently outperformed lower-return peers.

Exhibit 94: Average returns on capital (ROE) by quartile, 2001–2014E



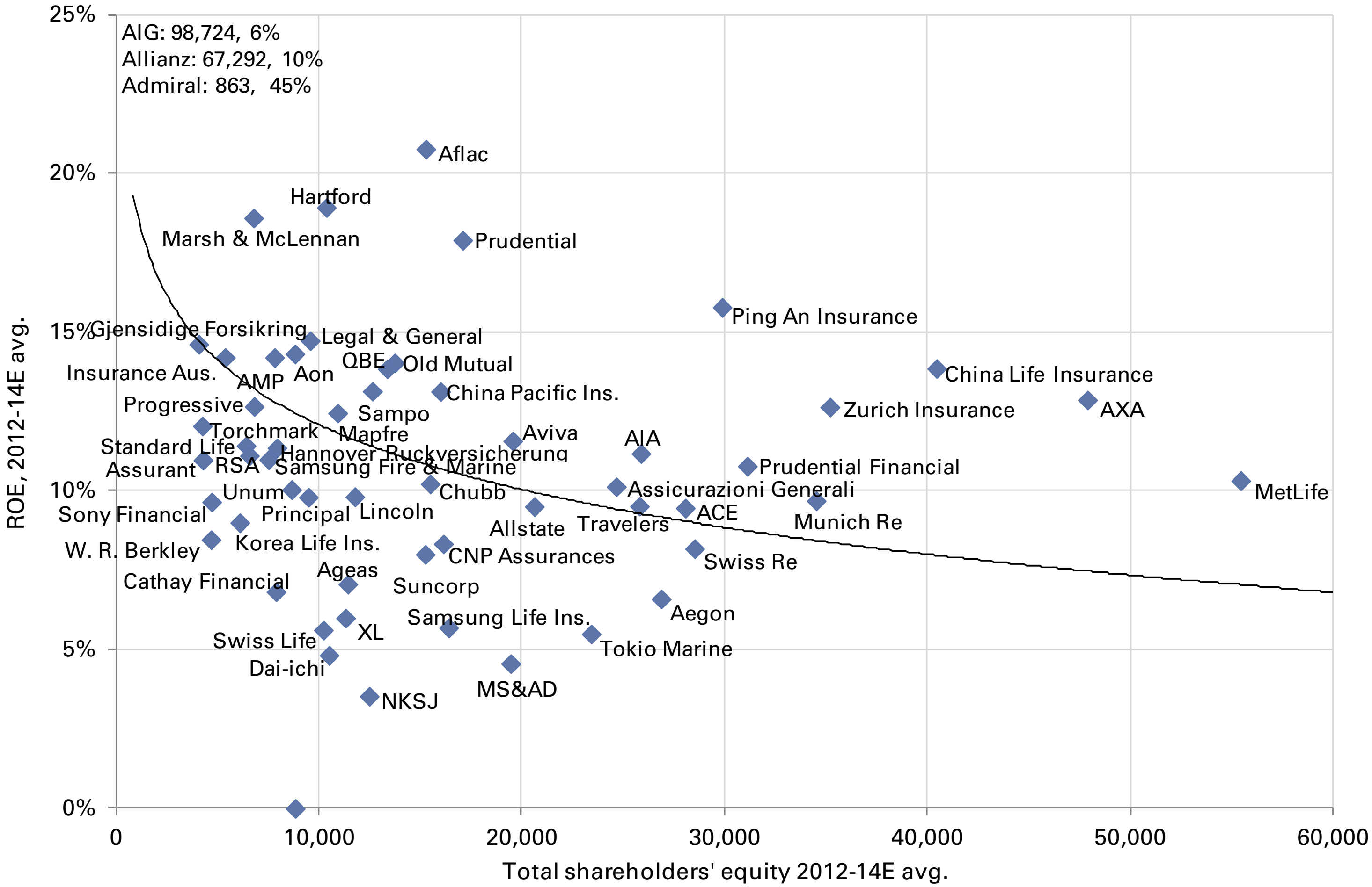
Source: Datastream, Goldman Sachs Research estimates, Gao Hua securities, Quantum database.

Exhibit 95: Cumulative outperformance of the highest returns companies over time



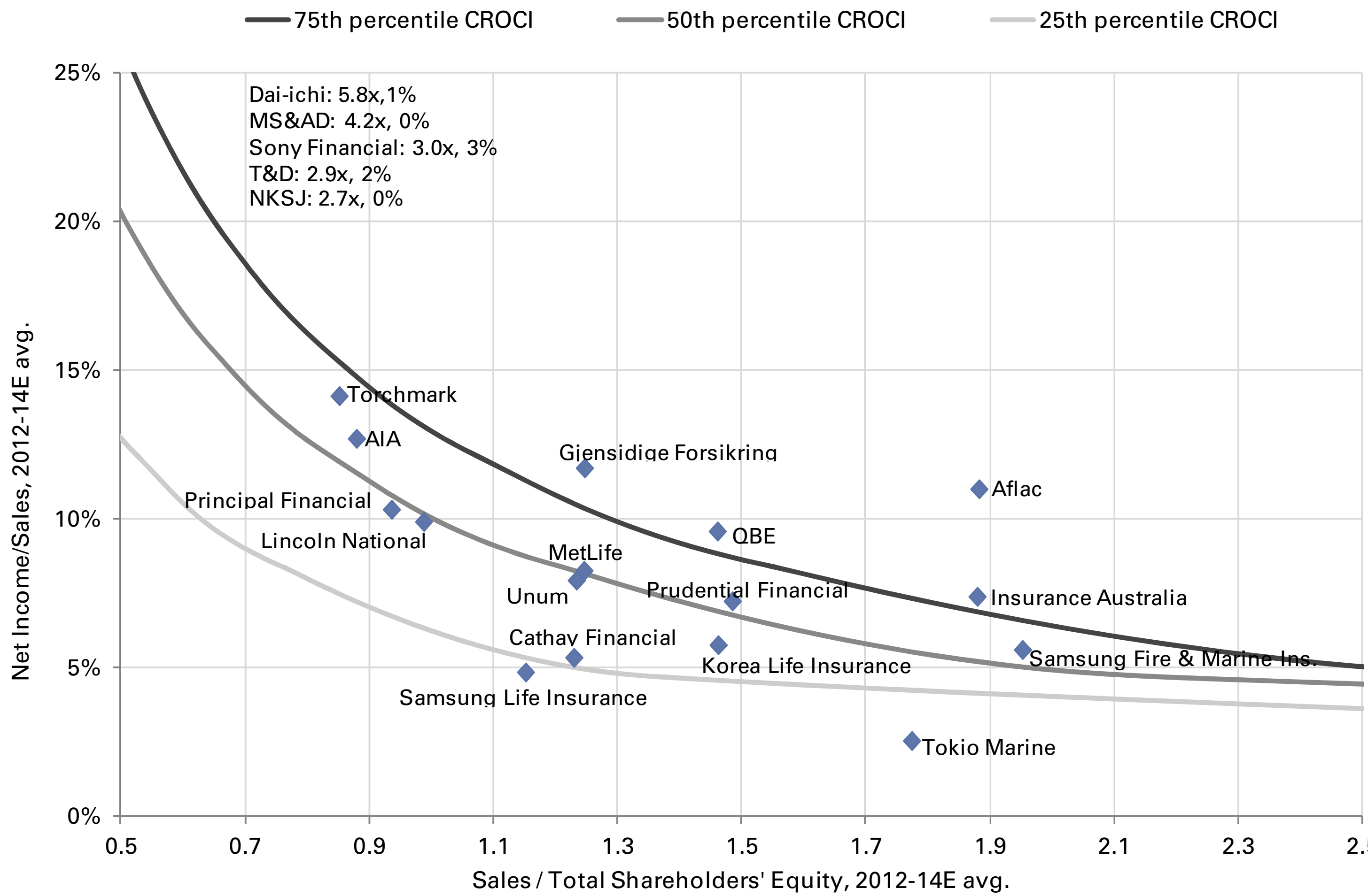
Source: Datastream, Goldman Sachs Research, Gao Hua securities, Quantum database.

Exhibit 96: Return on Equity (ROE) vs. total shareholders' equity, 2012-14E avg. – Insurance



Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

Exhibit 97: Net income/sales vs. sales/total shareholders' equity, 2012-14E avg. – Insurance



Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

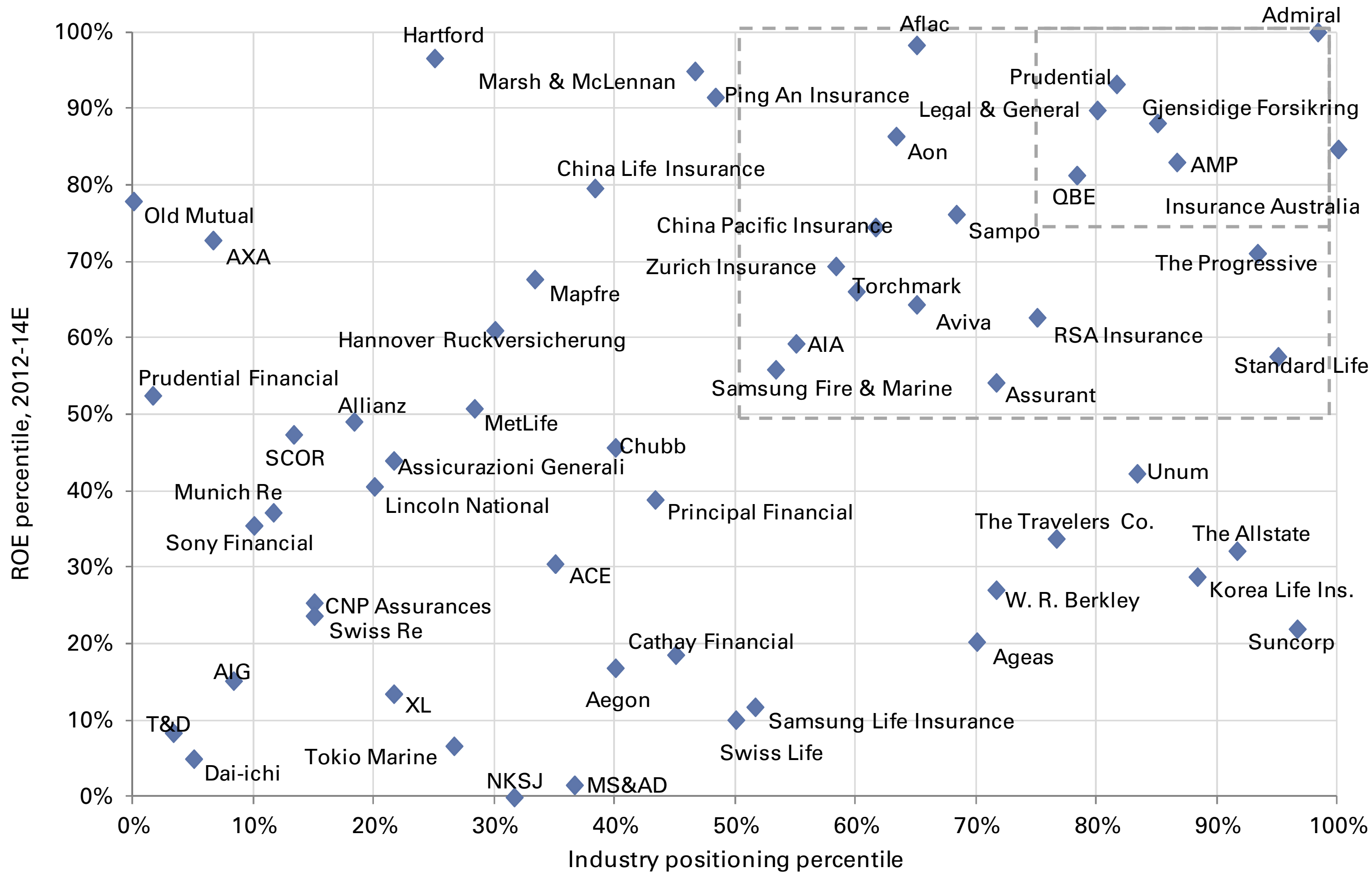
Exhibit 98: Return on equity (ROE) progression over time – Insurance

Company	ROE 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012E	2013E	2014E	ROE, 2009-11	ROE, 2012-14E
The Hartford Financial Services		9%	-1%	15%	15%	15%	15%	-30%	-6%	8%	3%	5%	15%	37%	2%	19%
Admiral Group Plc									52%	55%	56%	52%	46%	37%	54%	45%
Aflac Incorporated	20%	21%	18%	26%	25%	21%	21%	17%	18%	23%	18%	21%	21%	20%	19%	21%
Prudential Plc								43%	13%	18%	16%	17%	18%	18%	16%	18%
Marsh & McLennan Companies		27%	28%	29%	15%	17%	33%	13%	14%	18%	17%	18%	19%	19%	16%	19%
PICC Property and Casualty Company	17%	3%	9%	1%	5%	10%	13%	1%	8%	20%	23%				17%	
Old Mutual plc									7%	9%	13%	13%	14%	15%	10%	14%
Ping An Insurance Group	56%	17%	18%	11%	13%	17%	20%	2%	16%	16%	15%	16%	16%	15%	16%	16%
The Progressive Corporation	13%	18%	25%	32%	23%	24%	24%	-2%	18%	18%	17%	13%	12%	13%	18%	13%
China Life Insurance Company			9%	11%	12%	14%	20%	11%	16%	17%	9%	13%	13%	16%	14%	14%
Legal & General Group								-29%	20%	17%	14%	15%	14%	15%	17%	15%
AMP						39%	48%	20%	30%	26%	13%	13%	14%	15%	23%	14%
Insurance Australia Group						21%	13%	3%	5%	4%	9%	12%	14%	16%	6%	14%
China Pacific Insurance (H)						153%	67%	5%	10%	11%	11%	12%	14%	14%	10%	13%
Aon Plc.						14%	14%	28%	19%	11%	14%	13%	15%	15%	15%	14%
QBE Insurance Group						23%	22%	20%	17%	13%	8%	15%	13%	14%	13%	14%
Gjensidige Forsikring ASA							12%	1%	10%	13%	12%	15%	14%	15%	12%	15%
Zurich Insurance Group	2%	10%	13%	14%	26%	27%	25%	16%	14%	9%	12%	13%	13%	12%	12%	13%
Sampo	29%	13%	12%	24%	22%	19%	46%	15%	8%	12%	12%	13%	13%	13%	11%	13%
Torchmark Corp.	13%	13%	13%	14%	14%	15%	16%	20%	12%	14%	12%	12%	12%	12%	13%	12%
AXA	2%	4%	4%	11%	13%	13%	15%	3%	9%	6%	12%	12%	13%	14%	9%	13%
RSA Insurance Group								15%	12%	9%	11%	10%	12%	12%	11%	11%
Aviva plc							11%	-9%	13%	11%	1%	9%	12%	13%	8%	12%
Mapfre S.A.	8%	11%	13%	10%	11%	15%	17%	18%	15%	14%	14%	13%	13%	12%	14%	12%
Prudential Financial, Inc.	1%	4%	6%	9%	16%	15%	16%	-5%	14%	10%	12%	9%	12%	11%	12%	11%
Hannover Ruckversicherung	-3%	12%	12%	11%	2%	16%	22%	-4%	20%	17%	12%	12%	11%	11%	16%	11%
Standard Life Plc								13%	4%	11%	8%	10%	12%	12%	7%	11%
Samsung Fire & Marine Insurance					10%	8%	9%	12%	14%	10%	10%	10%	11%	11%	11%	11%
AIA Group							14%	5%	12%	14%	7%	11%	11%	12%	11%	11%
SCOR	-10%	-37%	-41%	7%	7%	16%	12%	10%	10%	10%	7%	10%	11%	10%	9%	10%
Allianz SE	5%	-7%	9%	8%	11%	14%	17%	-7%	11%	11%	6%	10%	11%	10%	9%	10%
Principal Financial Group, Inc.		2%	12%	13%	13%	15%	12%	6%	7%	7%	7%	9.0%	9.9%	10.1%	7%	10%
Assurant Inc.			6%	11%	14%	15%	16%	10%	9%	6%	11%	13%	10%	10%	9%	11%
Assicurazioni Generali				15%	14%	16%	20%	8%	8%	10%	6%	10%	10%	10%	8%	10%
Munich Re (reg)	1%	2%	-2%	9%	11%	13%	15%	7%	11%	11%	3%	10%	10%	9%	8%	10%
Unum Group	11%	6%	-14%	-13%	7%	3%	8%	9%	10%	10%	4%	10%	10%	9%	8%	10%
Vienna Insurance Group								11%	9%	9%	10%				9%	
MetLife Inc.	4%	13%	15%	17%	19%	20%	14%	9%	-13%	7%	17%	10%	11%	11%	4%	10%
Chubb Corp.		3%	9%	15%	15%	18%	19%	13%	14%	14%	11%	11%	10%	10%	13%	10%
The Travelers Companies, Inc.					9%	17%	17%	11%	13%	13%	6%	10%	9%	9%	10%	10%
ACE Limited	-2%	0%	17%	11%	10%	16%	15%	8%	13%	14%	6%	9%	9%	9%	11%	9%
Sony Financial Holdings					3%	4%	4%	9%	15%	18%	14%	9%	10%	9%	16%	10%
Lincoln National Corp.	9%	-3%	10%	13%	14%	11%	10%	-6%	-11%	6%	7%	10%	10%	10%	1%	10%
Korea Life Insurance					19%	12%	7%	10%	2%	7%	8%	8%	8%	9%	6%	8%
The Allstate Corp.		7%	13%	15%	9%	23%	21%	-13%	5%	5%	4%	10%	9%	9%	5%	9%
CNP Assurances				10%	11%	11%	11%	7%	9%	9%	7%	8%	8%	8%	8%	8%
W. R. Berkley Corp.		13%	20%	20%	21%	21%	20%	9%	9%	12%	10%	9%	8%	8%	10%	8%
Suncorp Group Limited						21%	9%	6%	4%	6%	5%	5%	7%	8%	5%	7%
Swiss Re									2%	3%	9%	9%	8%	8%	5%	8%
Cathay Financial Holding Company		12%	15%	17%	11%	6%	13%	2%	5%	2%	5%	6%	7%	7%	4%	7%
Aegon N.V.	16%	11%	9%	18%	16%	19%	20%	-27%	2%	12%	5%	6%	6%	6%	6%	6%
Ageas SA/NV									14%	3%	-4%	8%	7%	6%	4%	7%
Tokio Marine Holdings							3%	4%	1%	6%	4%	0%	6%	8%	4%	5%
Samsung Life Insurance					7%	8%	6%	8%	2%	7%	13%	5%	6%	6%	7%	6%
Swiss Life Holding	-2%	-41%	5%	9%	11%	12%	18%	-10%	4%	7%	7%	6%	5%	5%	6%	5%
XL Group Plc					-15%	15%	2%	-37%	2%	6%	-4%	6%	6%	6%	1%	6%
American International Group, Inc.									-11%	7%	16%	8%	5%	5%	4%	6%
The Dai-ichi Life Insurance Company					9%	6%	6%	8%	15%	6%	3%	2%	3%	5%	8%	4%
T&D Holdings					6%	3%	4%	5%	-30%	4%	4%	4%	5%	5%	-7%	5%
MS&AD Holdings									-1%	4%	0%	-11%	5%	5%	1%	0%
NKSJ Holdings									-6%	4%	-1%	-9%	2%	5%	-1%	-1%

1st Quartile
2nd Quartile
3rd Quartile
4th Quartile

Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

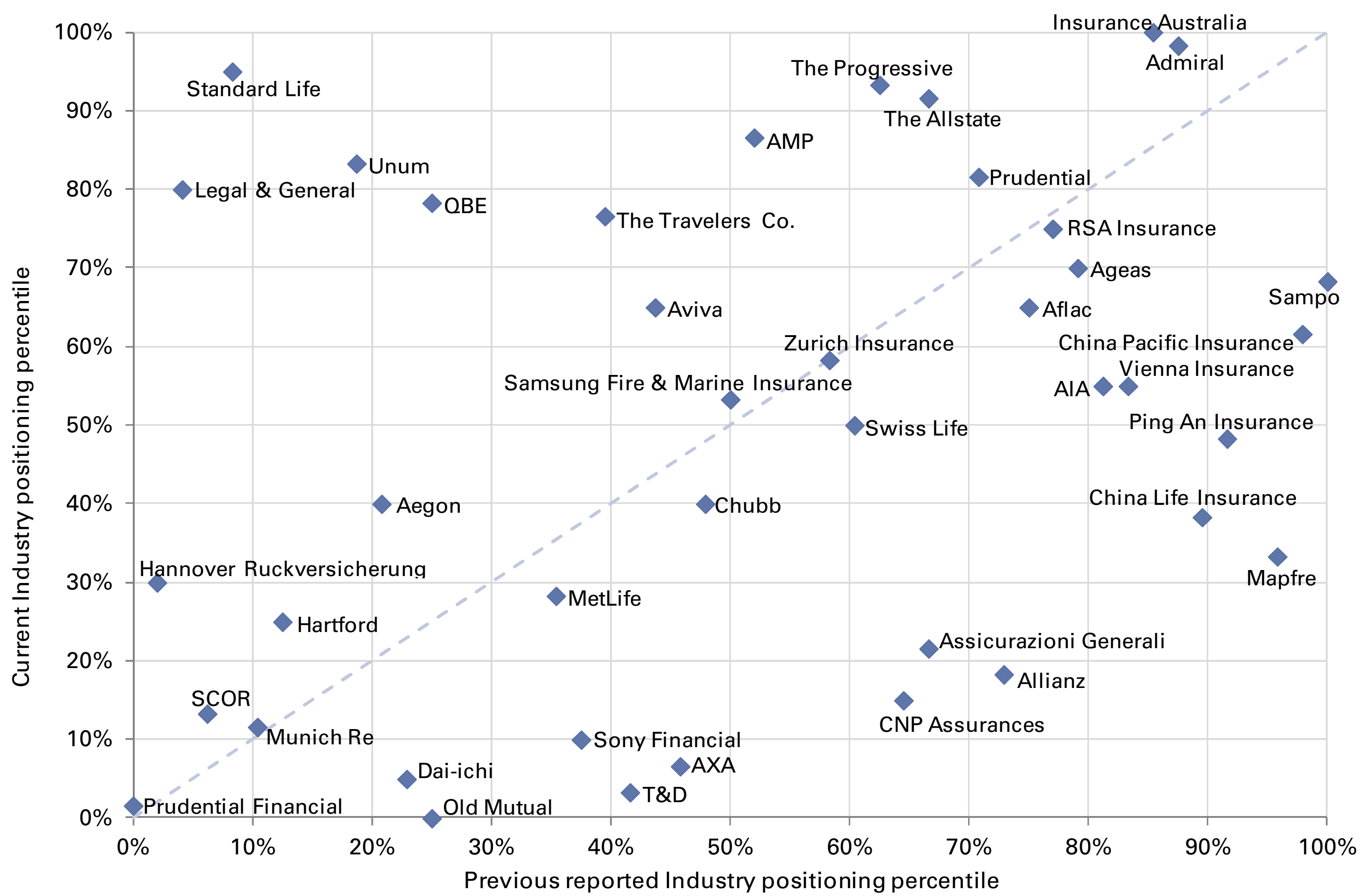
Exhibit 99: Insurance – ROE percentile vs. industry positioning percentile



Source: Company data, Goldman Sachs Research estimates, Gao Hua Securities.

Exhibit 100: Changes in industry positioning

Change in industry positioning scores since previously published performance, by company, as percentile ranking relative to peers



Source: Company data, Goldman Sachs Research, Gao Hua Securities.

Reflecting our assessment of the main structural drivers for the industry, which we identify in conjunction with our sector analysts, we assess companies' performance on key elements of strategic positioning. This analysis enables us to differentiate between companies that are well and poorly competitively positioned over the long term.

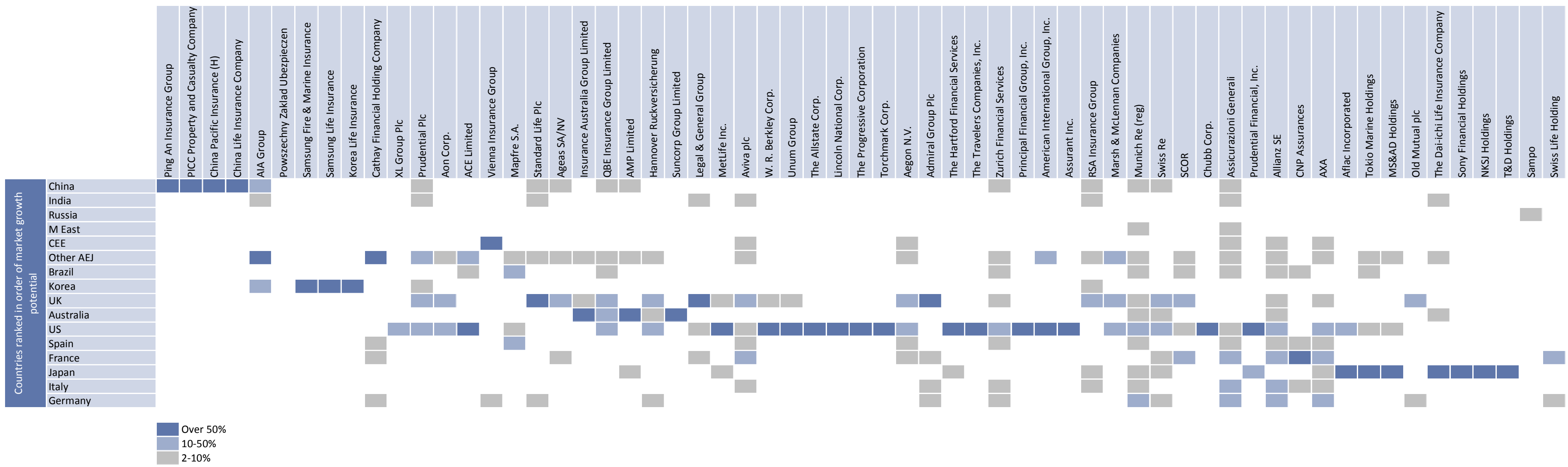
Exhibit 101: Industry positioning: Objective, quantifiable measures of strategic positioning – Insurance

Measure		Rationale	Calculation
Country growth	Rate of insurance premium growth in end markets	Markets in which insurance premia are growing quickly provide greater growth options and typically stronger pricing	Weighted average trend rate of growth in insurance premia (life/non-life) across end countries (2011-20E CAGR)
Country risk	Insurance specific regulatory and political risk	Clarity and stability of regulatory regime critical to future returns visibility and sustainability	Weighed average AM Best country risk rankings across end countries
	Quality of regulatory institutions		Weighed average World Bank Regulatory Quality rankings across end countries
Pricing power	Proximity to customer	Direct relationship with consumer provides stronger pricing power and more stable relationships	Weighted average exposure to more/less direct distribution channels (six distribution channels ranked by customer proximity)
	Level of consolidation & market discipline	More consolidated markets tend to support more attractive pricing	Weighted average share of three largest insurers (life/non-life separately) across end markets
Business mix	Business line volatility	Exposure to higher return, less volatile insurance products improves visibility into future returns profile	Weighted average exposure to attractive (ranked 1-5 on combination of level and standard deviation of global segment ROE) business lines
Capital position	Strength of capital base	Better capitalised institutions embody less earnings leverage to income and credit cycles and reduce risk of shareholder dilution through capital raising	Total assets/total equity

Source: Goldman Sachs Research.

Exhibit 102: Geographical exposures of global insurers

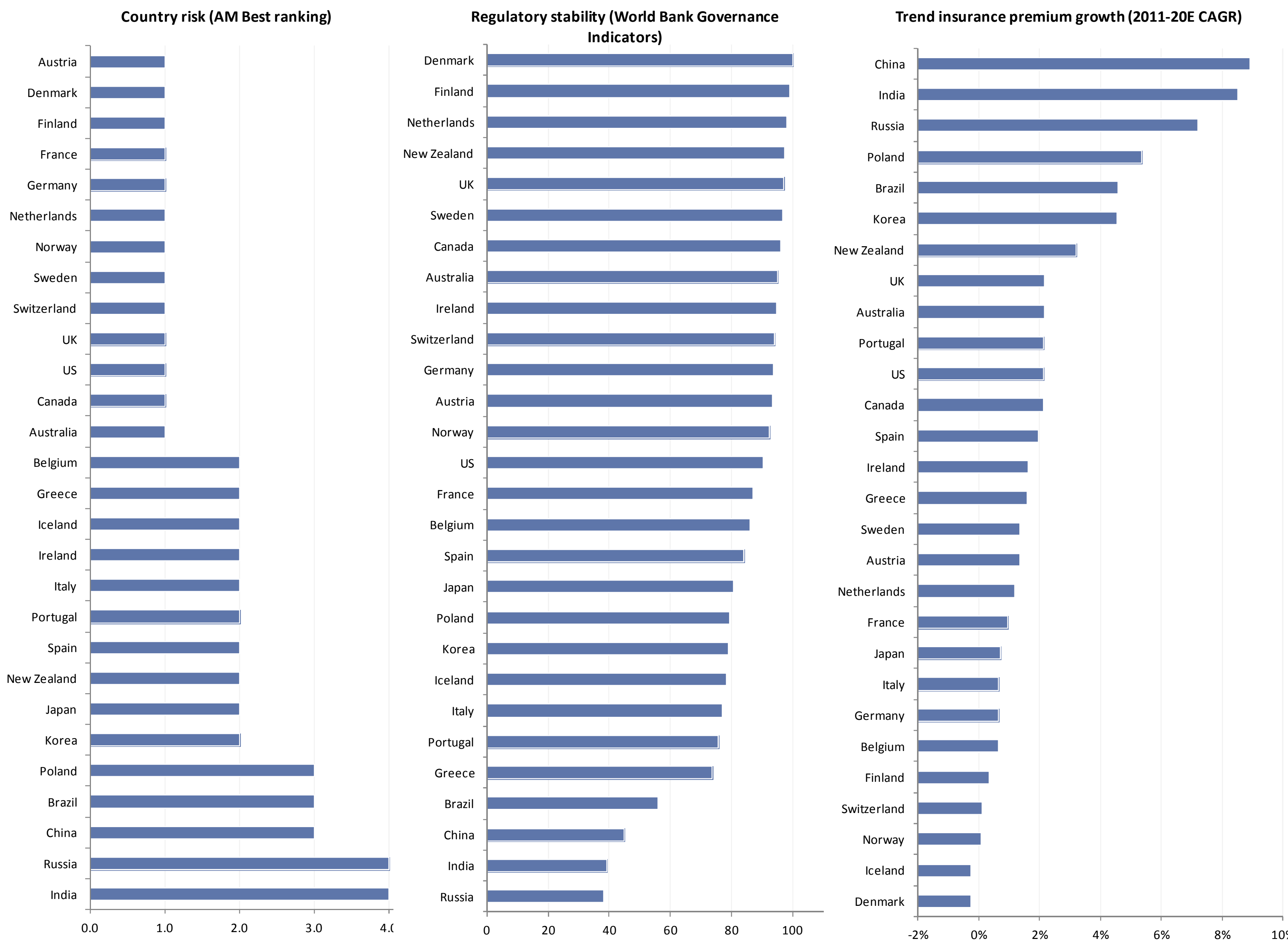
Revenue exposures of banks included in this report to main economic regions (most recent reported)



Source: Company data, Goldman Sachs Research.

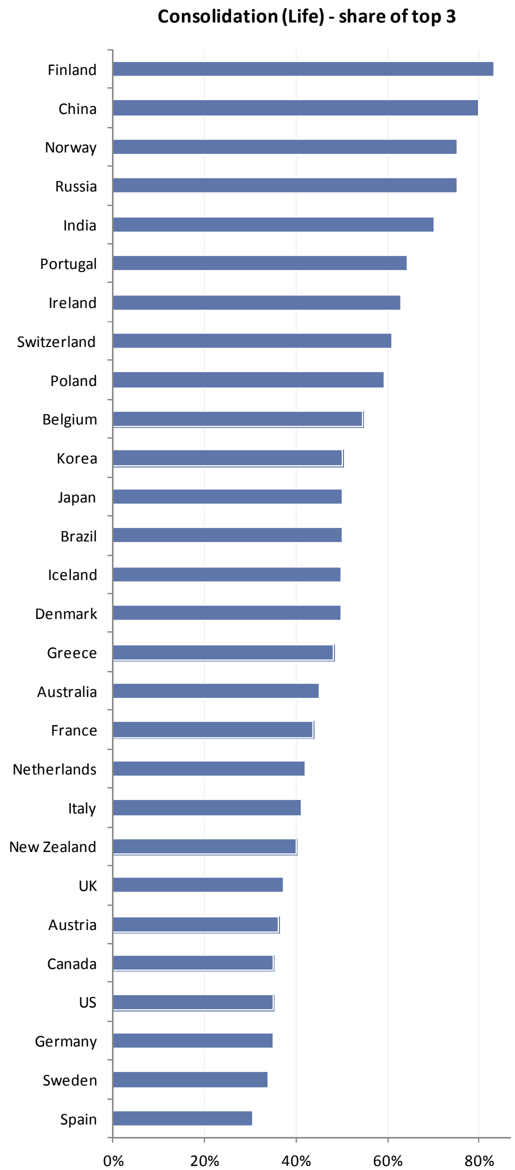
Exhibit 103: Ranking of country attractiveness used in global insurance analysis

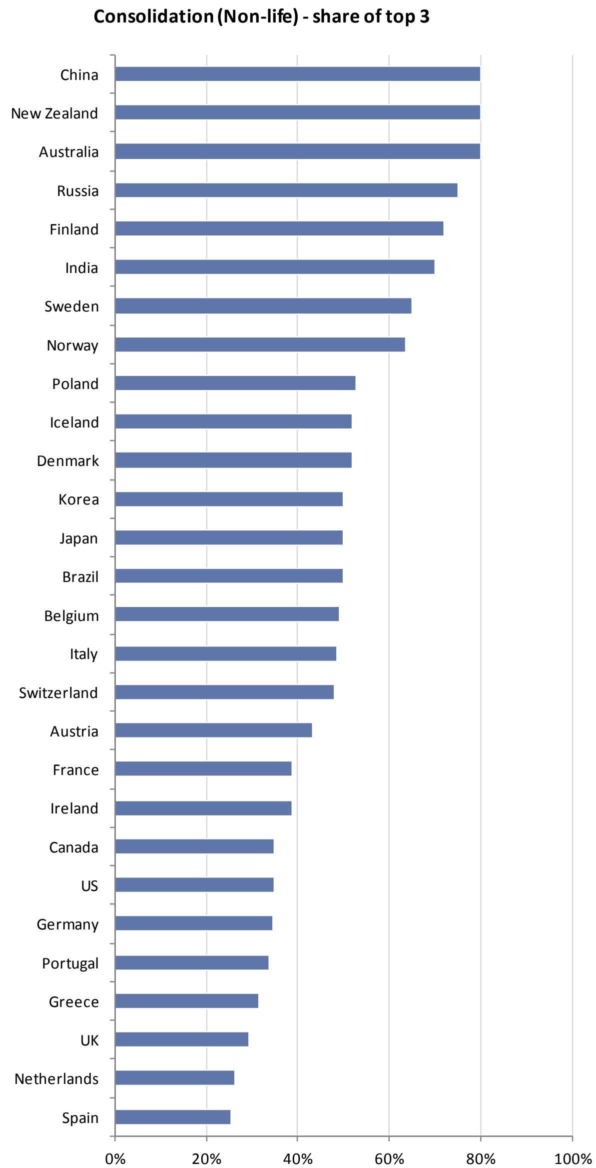
Regulatory risk (AM Best), regulatory stability (World Bank) and trend projected insurance premium growth (based on economic growth and insurance penetration)



Source: Swiss Re, AM Best, World Bank, Goldman Sachs Research estimates.

Exhibit 104: Ranking of country attractiveness used in global insurance analysis (cont.)
Share of three largest players in domestic Life and Non-life insurance markets





Source: Swiss Re, AM Best, World Bank, Goldman Sachs Research estimates.

Exhibit 105: Environmental, social and governance measures to assess management quality – Insurance

		Criteria	Insurance specific	Description	Purpose	Weighting
Corporate governance		Independent Board leadership		Separation of CEO and Chairman roles and appointment of independent Lead Director	Maintain balance of power	31%
		Independent Board directors & committees		Percentage of independent, non-executive directors and wholly independent compensation and nomination committees	Shareholder representation	
		Independent auditors		Audit committee independence and ratio of non-audit to audit fees paid to the assigned auditor	Independence of audit process	
		CEO compensation		CEO compensation (including salary, bonus, stock grants and options) as a percentage of net income	Management incentives	
		Share-based compensation		Fair value of share-based compensation expense as percentage of equity	Transparency	
		Minority shareholders' rights		Block ownership greater than 5%, staggered Board, poison pill, unequal voting rights and other provisions	Strength of individual shareholders	
Social	Leadership	Reporting and assurance of ESG performance		Number of years of reporting on environmental and social ("ES") issues and external assurance of data	Transparency	11%
		Leadership responsibility for ESG performance		Compensation link and responsibility of Board, senior executives to environmental and social performance	Integration of ES issues into strategy	
	Employees	Compensation practices	I	Performance-based executive compensation linked to EPS or TSR targets	Employee incentives	26%
		Employee compensation		Total payroll costs divided by average number of employees	Employee incentives	
		Employee productivity		Net income per employee	Labour efficiency	
		Employee training	I	Institutionalized training programme, amount of resources used for training, hours or spend	Quality of workplace	
		Gender diversity		Gender diversity of total workforce, senior executives, and Board directors	Quality of workplace	
	Stakeholders	Community investment		Community investment as a percentage of equity	Brand, impact on communities	21%
		Customer and regulator relations	I	Customer surveys leading to company actions, microinsurance and low income health insurance programs, public policy dialogue	Client and shareholder relationships	
		Risk management	I	Reporting on lines of responsibility for risk management, reporting on risk measurement methodology, reporting on whistle-blowing and escalation process	Reputation	
		Supply chain management		Guidelines for suppliers on environmental and social issues, reporting on quantification of environmentally assessed and minority-owned suppliers	Supply chain management	
Environ-ment		Opportunities	I	Product and business innovation related to environmental and social issues, signatories of UNPRI	Product innovation	11%
		Risks	I	Response to climate change and social issues including policy, research and disclosure	Risk exposure	

Source: Goldman Sachs Research.

Exhibit 106: Management quality rankings based on ESG performance by category – Insurance

Company	Overall ESG	Overall ESG (as % of maximum)	Independent board leadership	Independent Board directors & committees	Independent auditors	CEO compensation	Share-based compensation	Minority shareholders' rights	Governance	Reporting for sustainability	Leadership for sustainability initiatives	Social - Leadership	Compensation Practices (I)	Employee compensation	Employee productivity	Employee training	Gender diversity	Social - Employees	Community investment	Customer and regulator relations	Risk management (I)	Supply chain management	Social - Stakeholders	Climate change opportunities (I)	Climate change risks (I)	Environment
Prudential Plc	78	82%	5	4	3	5	5	4	26	4	2	6	5	3	4	3	5	20	3	5	5	4	17	4	5	9
Legal & General Group	78	82%	5	4	3	4	5	4	25	4	4	8	5	4	5	5	1	20	3	2	5	5	15	5	5	10
Aviva plc	75	79%	5	3	5	5	1	4	23	5	3	8	5	3	3	5	3	19	4	5	5	5	19	3	3	6
Insurance Australia Group	74	78%	4	5	4	2	3	4	22	5	3	8	5	3	1	3	5	17	5	3	5	5	18	4	5	9
AXA	74	78%	3	3	4	4	3	3	20	5	3	8	5	5	2	5	2	19	4	5	3	5	17	5	5	10
RSA Insurance Group	74	78%	5	4	3	4	3	1	20	5	4	9	5	3	2	3	4	17	4	5	5	5	19	4	5	9
Aegon N.V.	74	78%	4	5	5	3	3	3	23	5	3	8	5	5	4	5	2	21	3	2	5	4	14	5	3	8
AMP	73	77%	4	5	4	4	5	4	26	1	2	3	5	5	5	3	5	23	3	2	5	1	11	5	5	10
Standard Life Plc	73	77%	5	3	4	5	3	4	24	5	2	7	5	4	3	3	3	18	5	3	5	3	16	3	5	8
Old Mutual plc	70	74%	5	3	3	5	5	3	24	2	4	6	5	3	2	1	1	12	5	5	5	4	19	4	5	9
Munich Re (reg)	70	74%	4	2	4	3	3	4	20	4	5	9	5	4	3	5	2	19	1	5	5	1	12	5	5	10
Assicurazioni Generali	69	73%	4	2	5	4	5	3	23	4	2	6	1	3	2	5	1	12	4	5	5	5	19	4	5	9
Allianz SE	69	73%	4	2	2	4	3	4	19	4	4	8	5	4	2	5	1	17	1	5	5	4	15	5	5	10
MetLife Inc.	67	71%	3	5	4	5	5	3	25	4	3	7	5	3	3	3	3	17	5	2	5	1	13	3	2	5
Zurich Insurance Group	67	71%	4	5	4	4	3	4	24	1	1	2	5	4	3	3	1	16	3	5	5	4	17	3	5	8
The Allstate Corp.	64	67%	1	5	5	4	3	5	23	4	2	6	5	1	2	3	5	16	5	2	5	1	13	3	3	6
Gjensidige Forsikring ASA	63	66%	4	2	5	4	3	1	19	2	2	4	1	4	5	5	5	20	1	5	5	4	15	2	3	5
Unum Group	63	66%	5	5	5	4	5	4	28	2	1	3	3	3	4	3	3	16	4	2	5	2	13	1	2	3
The Travelers Companies, Inc.	63	66%	3	5	5	4	5	5	27	2	2	4	5	1	4	3	3	16	4	2	5	1	12	2	2	4
Prudential Financial, Inc.	62	65%	3	5	5	4	5	5	27	2	2	4	5	1	3	1	3	13	4	1	5	1	11	5	2	7
The Hartford Financial Services	61	64%	1	5	5	5	5	5	26	2	3	5	5	1	3	3	2	14	1	3	5	1	10	3	3	6
Lincoln National Corp.	60	63%	4	5	5	2	5	4	25	1	2	3	5	1	4	3	2	15	5	2	5	1	13	1	3	4
Swiss Re	60	63%	4	5	5	2	3	3	22	5	3	8	1	5	4	5	1	16	1	1	5	4	11	1	2	3
Swiss Life Holding	59	62%	4	5	3	4	3	3	22	2	1	3	5	5	3	5	1	19	3	2	5	1	11	2	2	4
CNP Assurances	58	61%	4	1	2	3	3	1	14	4	1	5	3	5	5	5	2	20	2	5	3	3	13	3	3	6
Marsh & McLennan Companies	57	60%	4	5	5	2	5	5	26	2	2	4	5	1	2	1	3	12	1	2	3	3	9	3	3	6
QBE Insurance Group	57	60%	4	3	5	5	5	4	26	1	1	2	5	1	4	1	4	15	1	2	5	1	9	3	2	5
Admiral Group Plc	56	59%	5	4	3	4	3	3	22	4	1	5	5	3	4	3	2	17	2	3	3	1	9	1	2	3
Aflac Incorporated	56	59%	3	4	5	4	3	4	23	1	3	4	3	5	5	3	4	20	1	1	3	1	6	1	2	3
Suncorp Group Limited	56	59%	4	5	4	5	3	1	22	2	1	3	5	4	2	3	3	17	4	2	5	1	12	1	1	2
Average	55.4	58%	3.5	3.3	3.5	3.0	3.2	3.1	19.7	2.5	1.9	4.3	3.6	2.8	3.0	3.1	2.3	14.8	2.3	2.6	4.3	2.1	11.3	2.4	2.8	5.3
Maximum	95		5	5	5	5	5	5	30	5	5	10	5	5	5	5	5	25	5	5	5	5	20	5	5	10

Partial data disclosure

Non disclosure

Source: Company data, Goldman Sachs Research.

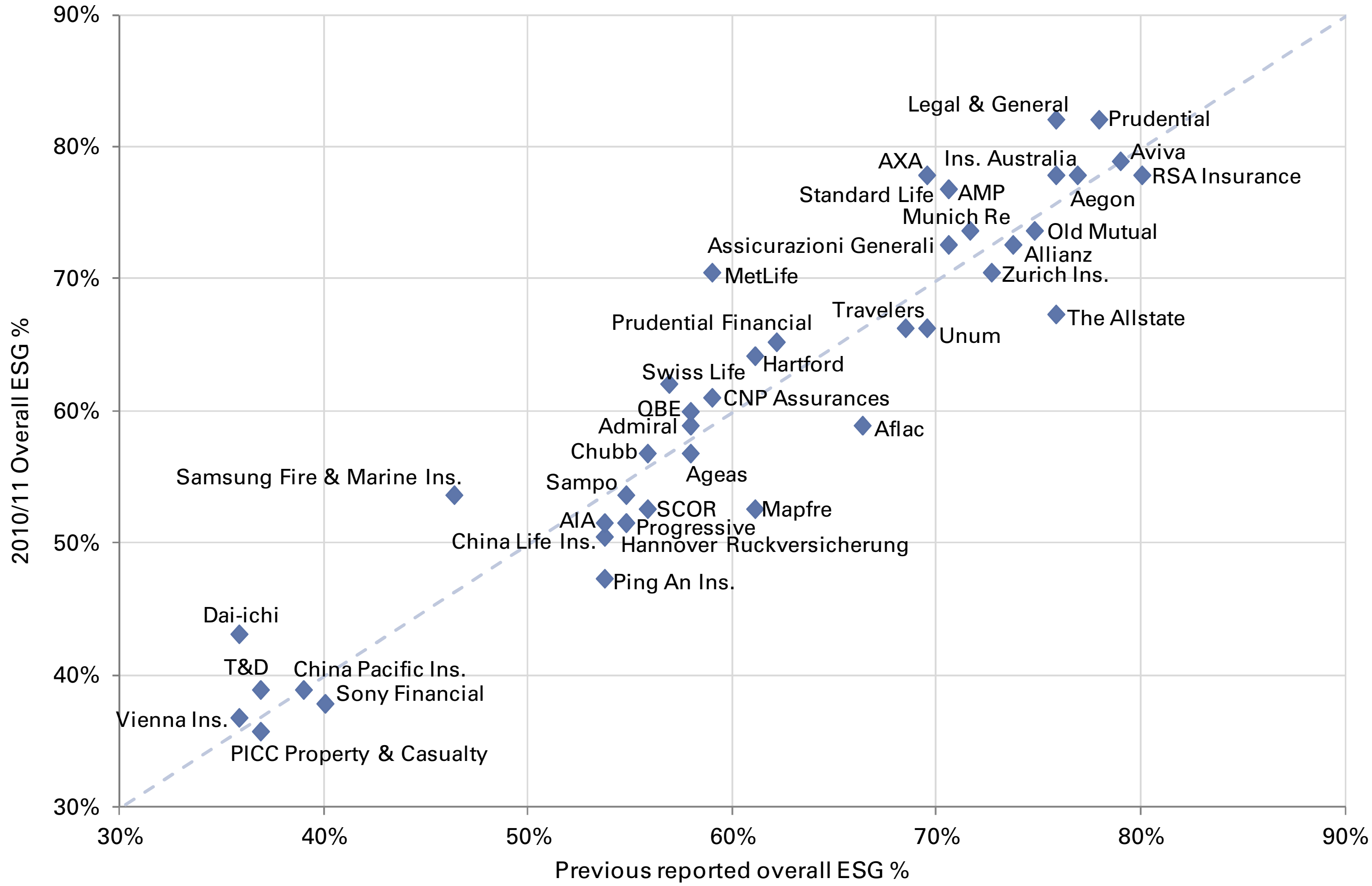
Exhibit 107: Management quality rankings based on ESG performance by category – Insurance (continued)

Company	Overall ESG	Overall ESG (as % of maximum)	Independent board leadership	Independent Board directors & committees	Independent auditors	CEO compensation	Share-based compensation	Minority shareholders' rights	Governance	Reporting for sustainability	Leadership for sustainability initiatives	Social - Leadership	Compensation Practices (I)	Employee compensation	Employee productivity	Employee training	Gender diversity	Social - Employees	Community investment	Customer and regulator relations	Risk management (I)	Supply chain management	Social - Stakeholders	Climate change opportunities (I)	Climate change risks (I)	Environment
ACE Limited	55	58%	3	5	4	5	3	3	23	2	1	3	5	5	5	1	1	17	1	1	3	1	6	1	5	6
Aon Plc.	54	57%	4	3	5	2	3	5	22	1	1	2	5	5	1	3	2	16	1	2	5	1	9	3	2	5
Chubb Corp.	54	57%	5	5	5	4	5	5	29	1	1	2	5	2	5	1	2	15	1	1	3	1	6	1	1	2
Ageas SA/NV	54	57%	4	3	3	5	5	4	24	1	1	2	5	4	2	5	2	18	1	1	5	1	8	1	1	2
Tokio Marine Holdings	52	55%	4	1	2	1	3	4	15	3	2	5	1	4	3	3	1	12	2	3	5	2	12	3	5	8
Sampo	51	54%	4	2	2	4	3	3	18	1	1	2	5	5	5	3	3	21	1	2	3	1	7	1	2	3
Samsung Fire & Marine Insurance	51	54%	4	2	1	1	1	3	12	2	3	5	1	4	4	3	1	13	5	5	5	1	16	3	2	5
Mapfre S.A.	50	53%	1	1	2	1	3	1	9	5	2	7	5	3	2	5	2	17	1	5	3	3	12	2	3	5
SCOR	50	53%	1	2	4	2	3	4	16	1	1	2	5	1	5	3	1	15	1	3	5	2	11	1	5	6
The Progressive Corporation	49	52%	4	5	5	4	3	3	24	2	1	3	1	1	2	1	3	8	1	2	5	1	9	3	2	5
Hannover Ruckversicherung	49	52%	4	1	1	1	3	1	11	4	1	5	5	5	5	3	1	19	1	3	5	1	10	1	3	4
AIA Group	49	52%	4	1	2	4	3	2	16	2	1	3	5	2	5	3	1	16	2	3	5	1	11	1	2	3
Principal Financial Group, Inc.	49	52%	3	4	5	1	3	3	19	1	2	3	5	1	3	3	3	15	1	1	3	2	7	3	2	5
XL Group Plc	49	52%	4	5	4	2	3	3	21	1	1	2	5	1	5	3	2	16	1	1	5	1	8	1	1	2
China Life Insurance Company	48	51%	4	1	5	3	3	1	17	2	1	3	1	2	3	5	3	14	3	3	3	2	11	1	2	3
American International Group, Inc.	48	51%	4	5	5	4	5	1	24	1	2	3	5	1	4	1	2	13	1	1	2	1	5	2	1	3
MS&AD Holdings	48	51%	1	1	2	1	1	3	9	4	2	6	1	5	1	3	1	11	3	2	5	3	13	4	5	9
Assurant Inc.	47	49%	4	5	5	2	3	4	23	1	1	2	5	1	1	1	3	11	1	1	5	1	8	1	2	3
Ping An Insurance Group	45	47%	1	1	2	3	3	3	13	5	1	6	1	2	2	5	2	12	2	3	3	3	11	2	1	3
Korea Life Insurance	44	46%	5	4	1	1	1	5	17	1	2	3	1	3	4	3	1	12	5	2	2	1	10	1	1	2
NKSJ Holdings	43	45%	4	1	2	1	3	4	15	1	1	2	1	2	1	3	1	8	2	3	3	2	10	3	5	8
Torchmark Corp.	42	44%	3	5	5	2	3	3	21	1	1	2	1	1	5	1	1	9	1	1	5	1	8	1	1	2
The Dai-ichi Life Insurance Company	41	43%	4	1	2	1	1	4	13	4	3	7	1	1	1	3	2	8	1	2	5	1	9	2	2	4
W. R. Berkley Corp.	40	42%	1	5	5	2	3	3	19	1	1	2	3	1	4	1	2	11	1	1	3	1	6	1	1	2
China Pacific Insurance (H)	37	39%	4	1	1	3	1	2	12	2	1	3	1	2	1	3	2	9	3	1	5	1	10	1	2	3
T&D Holdings	37	39%	1	1	2	1	1	4	10	2	2	4	1	1	1	3	2	8	1	2	5	1	9	3	3	6
Sony Financial Holdings	36	38%	1	1	2	1	1	1	7	1	1	2	1	2	4	3	1	11	2	2	5	2	11	3	2	5
Vienna Insurance Group	35	37%	4	3	4	1	1	1	14	1	1	2	1	2	1	3	2	9	1	1	3	2	7	1	2	3
PICC Property and Casualty Company	34	36%	4	1	2	3	3	1	14	1	1	2	1	2	1	3	2	9	1	2	3	1	7	1	1	2
Samsung Life Insurance	31	33%	4	2	1	1	1	1	10	1	1	2	1	1	1	3	2	8	1	3	3	1	8	1	2	3
Cathay Financial Holding Company	27	28%	1	2	1	1	1	2	8	1	1	2	1	2	1	3	2	9	1	2	2	1	6	1	1	2
Average	55.4	58%	3.5	3.3	3.5	3.0	3.2	3.1	19.7	2.5	1.9	4.3	3.6	2.8	3.0	3.1	2.3	14.8	2.3	2.6	4.3	2.1	11.3	2.4	2.8	5.3
Maximum	**95**		5	5	5	5	5	5	**30**	5	5	**10**	5	5	5	5	5	**25**	5	5	5	5	**20**	5	5	**10**

Partial data disclosure
Non disclosure

Source: Company data, Goldman Sachs Research.

Exhibit 108: Changes in management quality
Change in ESG scores since previously published performance, by company, as % of maximum score possible for each company



Source: Company data, Goldman Sachs Research.

Goldman Sachs global ESG scoring methodology

Our analysis of companies' management of environmental, social & governance (ESG) performance is based on c.70 publically disclosed data points, verified with companies where possible, and used to calculate scores 1-5 on each of 20-25 indicators applicable to each sector. The scoring methodology is designed to be as objective, transparent and quantitative as possible. Exhibits 109-114 detail the calculations used to determine scores 1 (low) to 5 (high) for each company on each indicator (indicators shown apply to all sectors – only those specific for each financial sector are applied to companies analysed in this report).

Exhibit 109: Goldman Sachs Global ESG scoring methodology: Corporate governance
Scoring schema defining requirements for scores 1-5

Indicator	Score 5	Score 4	Score 3	Score 2	Score 1
Independent Board leader	Separate CEO/Chair -AND- Existence of a lead Director	Separate CEO/Chair, no Lead Director	Existence of a lead director, no separate CEO/Chair		No separate CEO/Chair, no Lead Director
Independent Board directors and committees	>= 75% independent directors with independent nomination -AND- compensation committees	50 - 75% independent directors with independent nomination -AND- compensation committees	>50% independent directors with independent nomination -OR- compensation committee	>= 50% independent directors -OR- independent nomination -OR- compensation committee	<50% independent directors, non-independent nomination and compensation committees
Independent auditors	Audit committee comprising independent Board directors and < 10% non-audit to audit fees	Audit committee comprising independent Board directors and < 25% non-audit to audit fees	Audit committee comprising independent Board directors and > 25% non-audit to audit fees	Non-independent audit committee and disclosure of audit fees and non-audit fees	No disclosure of audit fees and non-audit fees
CEO compensation as % of DACF	3rd quintile CEO compensation as a % of DACF	2nd or 4th quintile CEO compensation as a % of DACF	5th quintile CEO compensation as a % of DACF	1st quintile CEO compensation as a % of DACF (or negative number due to negative cash flow)	No disclosure
Share-based compensation as % DACF	Share based compensation as % of DACF in the 2nd tercile		Share based compensation as % of DACF in the 1st or 3rd tercile		No disclosure of share-based compensation
Protection of minority shareholders	No block shareholdings > 5% -AND- no defences against minority shareholders, staggered Boards, poison pills, unequal voting rights and restrictions on voting rights	No block shareholdings > 5% and one defence against minority shareholders -OR- block shareholdings < 25% and no defence against minority shareholders	25% >=No block shareholdings > 5% and one defence against minority shareholders -OR- block shareholdings < 25% and two defences against minority shareholders	25% < Block shareholdings < 50% -AND- less than three defences against minority shareholders	Block shareholdings >= 50% -OR- three or more defences against minority shareholders

Source: Goldman Sachs Research.

Exhibit 110: Goldman Sachs Global ESG scoring methodology: Social leadership
Scoring schema defining requirements for scores 1-5

Indicator	Score 5	Score 4	Score 3	Score 2	Score 1
Reporting on sustainability	>= 5 years environmental and social reporting -AND- external assurance of ES data	>= 5 years environmental and social reporting -AND- no external assurance of ES data	< 5 years environmental and social reporting -AND- external assurance of ES data	< 5 years environmental and social reporting -AND- no external assurance of ES data	No environmental and social reporting
Leadership on sustainability	Both Board -AND- Senior Executive responsible for ES performance -AND- compensation link at board and at senior executive levels	Three of four satisfied	Two of four satisfied	One of four satisfied	None of the four satisfied

Source: Goldman Sachs Research.

Exhibit 111: Goldman Sachs Global ESG scoring methodology: Employees
Scoring schema defining requirements for scores 1-5

Indicator	Score 5	Score 4	Score 3	Score 2	Score 1
Employee compensation	Reported payroll expense per employee (year average) > 1st quartile	2nd quartile < reported payroll expense per employee (year average) <= 1st quartile	3rd quartile <reported payroll expense per employee (year average) <= 2nd quartile	4th quartile < reported payroll expense per employee (year average) <= 3rd quartile	Reported payroll expense per employee (year average) <= 4th quartile
Employee productivity	DACF per employee (year average) > 1st quartile	2nd quartile < DACF per employee (year average) <= 1st quartile	3rd quartile < DACF per employee (year average) <= 2nd quartile	4th quartile < DACF per employee (year average) <= 3rd quartile	DACF per employee (year average) <= 4th quartile
Employee gender diversity	>median Board directors, >median Senior executives and >median overall workforce females	Two above median, all reported	Two above median	One above median	No disclosure -OR- none above median
Employee training	(Reporting on training expenditure - OR - reporting on training hours), and training policy		(Reporting on training expenditure - OR - reporting on training hours), or training policy		None of the three satisfied
Fatalities	Fatalities = 0	Fatalities below median -AND- Fatality rate below median	Fatalities below median -OR- Fatality rate below median	Fatalities above median	No disclosure of fatalities
Health & safety performance - LTI	4th quartile Lost Time Injury rate (LTI)	3rd quartile Lost Time Injury rate (LTI)	2nd quartile Lost Time Injury rate (LTI)	1st quartile Lost Time Injury rate (LTI)	No disclosure of LTI
Health & safety management	Health & safety behaviour based, health & safety risk assessment, and pandemics policy	Two of three satisfied	One of three satisfied		None of the three satisfied
Compensation practices (B)/(I)	Performance-based executive compensation linked to EPS or TSR targets and pay-out formula for EPS or TSR targets		Performance-based executive compensation linked to EPS or TSR targets		No disclosure
Employee development (M)	Flexible work arrangement, Sponsorship of continuing education for employees, on-site medical facilities, H&S policy, H&S training	Four of five satisfied	Three of five satisfied	Two of five satisfied	One/none of five satisfied
Employee development (SS)	Flexible working arrangements, family care, sponsorship of continuing education, and on-site facilities policies	Three of four satisfied	Two of four satisfied	One of four satisfied	None of the four satisfied

Sector specific indicators: B: Banks, I: Insurance, M: Media, SS: Software & Services

Source: Goldman Sachs Research.

Exhibit 112: Goldman Sachs Global ESG scoring methodology: Stakeholders
Scoring schema defining requirements for scores 1-5

Indicator	Score 5	Score 4	Score 3	Score 2	Score 1
Supply chain management	Supplier guidelines, suppliers: assess for environment, suppliers: assess for human rights, and % of suppliers assessed disclosed	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Business ethics and corruption	Procedures for stakeholder dialogue, Whistleblower mechanisms, UN declaration of human rights, bribery prohibition	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
R&D / DACF	1st quartile R&D as a % sales	2nd quartile R&D as a % sales	3rd quartile R&D as a % sales	4th quartile R&D as a % sales	No disclosure
Community investment / Sales	1st quartile Community investments as a % sales	2nd quartile Community investments as a % sales	3rd quartile Community investments as a % sales	4th quartile Community investments as a % sales	No disclosure
Customer and regulator relations (B)/(I)	Customer surveys leading to actions, microfinance, public policy dialogue		Two of three	One of three	None
Risk management (B)/(I)	Reporting on lines of responsibility for risk management, reporting on risk measurement methodology, reporting on whistle-blowing and escalation process		Two of three	One of three	None
Pricing of risk (B)	Both return on assets and tangible equity / tangible assets above median		Either return on assets or tangible equity / tangible assets above median		Both return on assets and tangible equity / tangible assets below median
Responsible marketing (M)	Policies for: i) self-regulation, ii) consumer privacy, iii) consumer data protection, and iv) senior executive responsibility	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Independence of content (M)	Policy for editorial independence, senior executive responsibility of editorial independence, no political donations, policy on bribery	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Marketing self-regulation (CS)	Policy statement on self-regulation, Guidelines for marketing to youth, Policy on product labelling and Community health initiatives	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Health and wellness strategy (CS)	Policy statement on health, Advisory panel on health, Stakeholder consultation and Targets to reduce product health risks	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Lobbying and political donations as % of cash flow (H)	Political donations % of cash flow <= median -AND- lobbying costs % of cash flow <= median	Both numbers are reported (political donations and lobbying costs) and one of the two is below median	Both numbers are reported (political donations and lobbying costs) and both are above median	Only one number is reported (political donations and lobbying costs)	No disclosure of lobbying and political donations
Access to healthcare and product donations (H)	Product donations to least developed countries as % of cash flow > median, Patient assistance programs, one of the following: Sale at no profit to least developed countries -OR- Sale at discount to emerging markets	Product donations to least developed countries as % of cash flow < median, Patient assistance programs, one of the following: Sale at no profit to least developed countries -OR- Sale at discount to emerging markets	Product donations to least developed countries as % of cash flow > median, and one of the two: 1. Patient assistance programs, 2. one of the following: Sale at no profit to least developed countries -OR- Sale at discount to emerging markets	One of the three is satisfied: 1. Product donations to least developed countries as % of cash flow is disclosed, 2. Patient assistance programs, 3. one of the following: Sale at no profit to least developed countries -OR- Sale at discount to emerging markets	No disclosure
Litigation Cost as % of cash flow (H)	Litigation costs as % of sales < median		Litigation costs as % of sales > median		No disclosure
Access, security, and privacy measures (SS)	Access, security, and privacy policy / guidelines, governance structure, and implementation	Policy -OR- Governance structure -AND- Implementation	Policy -AND- Governance structure -OR- Implementation	Policy -OR- Governance structure	None of the four satisfied
Customer retention (T)	Churn rate <= 80% of the observed churn rates	Churn rate <= 60% of the observed churn rates	Churn rate <= 40% of the observed churn rates	Churn rate <= 20% of the observed churn rates	Churn rate > 20% of the observed churn rates
Customer engagement (T)	Actioned customer satisfaction survey, customer satisfaction survey with quantitative reporting, customer fraud protection, support for vulnerable customers.	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Customer management Customer management (R)	Reporting on procedure to address customer complaints, customer loyalty scheme, customer confidentiality policy	Two of three	One of three		None
Lobbying & political donations as % of cash flow (A&D)	Political donations % of cash flow <= median -AND- lobbying costs % of cash flow <= median	Both numbers are reported (political donations and lobbying costs) and one of the two is below median	Both numbers are reported (political donations and lobbying costs) and both are above median	Only one number is reported (political donations and lobbying costs)	No disclosure of lobbying and political donations
Human rights and security (MM)	Support human rights and security principles, employees trained on human rights and suppliers assessed on human rights issues.	Two of three	One of three		None
Corruption risk management (MM)	Member of EITI or disclose tax and royalty payments, no political donations	Member of EITI or disclose tax and royalty payments, make political donations	Member of EITI or disclose tax and royalty payments, no disclosure on political donations - OR - Not member of EITI nor disclosure of tax payments, but no political donations	No disclosure on EITI membership or tax and royalty payments, make political donations	No disclosure on EITI membership and tax and royalty payments and on political donations

Sector specific indicators: B: Banks, CS: Consumer Staples H: Healthcare, I: Insurance, M: Media, R: Retail, SS: Software & Services, T: Telecoms
Subsector specific indicators: A&D: Aerospace & Defense, MM: Metals & Mining

Source: Goldman Sachs Research.

Exhibit 113: Goldman Sachs Global ESG scoring methodology: Environmental
Scoring schema defining requirements for scores 1-5

Indicator	Score 5	Score 4	Score 3	Score 2	Score 1
Environmental policy & targets	Climate change targets, policy to increase use of power from renewable sources, recycling program	Two of three	One of three		None
Energy consumption / GCI	4th quartile Total energy consumption relative to GCI	3rd quartile Total energy consumption relative to GCI	2nd quartile Total energy consumption relative to GCI	1st quartile Total energy consumption relative to GCI	No disclosure of Total energy consumption
GHG emissions / GCI	4th quartile Total GHGs emissions relative to GCI	3rd quartile Total GHGs emissions relative to GCI	2nd quartile Total GHGs emissions relative to GCI	1st quartile Total GHGs emissions relative to GCI	No disclosure of Total GHGs emissions
Water consumption / GCI	4th quartile Total water consumption relative to GCI	3rd quartile Total water consumption relative to GCI	2nd quartile Total water consumption relative to GCI	1st quartile Total water consumption relative to GCI	No disclosure of Total water consumption
Waste generation / GCI	4th quartile Total waste production relative to GCI	3rd quartile Total waste production relative to GCI	2nd quartile Total waste production relative to GCI	1st quartile Total waste production relative to GCI	No disclosure of Total waste production
Climate change opportunities (B)/(I)	Carbon finance, SRI funds, climate change -related products, investment or financial services related to renewable energy or other climate change related projects	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Climate change risks (B)/(I)	Research on impacts of climate change & environmental and social catastrophe modelling, Environmental policy, Integration of climate change & environmental/social risks into risk assessment		Two of the four satisfied	One of the four satisfied	None
Resources (CS)	Water conservation programme, Water conservation targets, Energy efficiency projects and Renewable energy projects	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Packaging (CS)	"Sustainable packaging policy", "Source packaging materials from sustainable sources", "Packaging reduction targets" and "Report on progress"	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Climate change initiatives (SS)	Renewable energy policy, alternative commute, green buildings, and climate change related products	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Climate change initiatives (M)	Climate change target, external verification of emissions, renewable energy use policy, and alternative commute	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Climate change policies (T)	Alternative transport/fleet management, renewable energy use policy, infrastructure related energy efficiency initiatives, environmental training of employees	Three of the four satisfied	Two of the four satisfied	One of the four satisfied	None
Other emissions versus asset base (U)	SOx relative to GCI < median (0.85 tonnes / mn $US GCI) and NOx relative to GCI < below median (0.45 tonnes / mn $US GCI)	Both reported but only one below median	Both reported and both above or equal to median	One reported	None reported

Sector specific indicators: B: Banks, CS: Consumer Staples H: Healthcare, I: Insurance, M: Media, R: Retail, SS: Software & Services, TH: Tech Hardware, T: Telecoms, U: Utilities, PG: Power Generation
Subsector specific indicators: AU: Autos, A&D: Aerospace & Defense, INT/E&P: Integrated and E&P, MM: Metals & Mining

Source: Goldman Sachs Research.

Exhibit 114: Goldman Sachs Global ESG scoring methodology: Environmental (cont.)

Scoring schema defining requirements for scores 1-5

Indicator	Score 5	Score 4	Score 3	Score 2	Score 1
Zero carbon capacity Power Utilities (PG)	1st quintile Zero carbon capacity as a % of total power generation	2nd quintile Zero carbon capacity as a % of total power generation	3rd quintile Zero carbon capacity as a % of total power generation	4th quintile Zero carbon capacity as a % of total power generation	5th quintile Zero carbon capacity as a % of total power generation
Restriction of hazardous substances RoHS (TH)	Plans to phase out PVC and BFR by end of 2009		Plans to phase out PVC and BFR in 2010 or thereafter		No reported plans to phase out PVC and BFR
Product recycling at end-of-lifecycle (TH)	>0% product recycling at end-of-lifecycle and 3R product design		3R product design, % products recycled at end-of-lifecycle not disclosed		No disclosure of % products recycled at end-of-lifecycle, 3R product design
Product safety (R)	Initiatives to phase out use of specific ingredients on environmental/safety grounds -AND- product safety testing		Initiatives to phase out use of specific ingredients on environmental/safety grounds -OR- product safety testing		No disclosure
Sustainable packaging use (R)	At least four of "Sustainable packaging initiative", "quantifiable packaging reduction -AND- targets", "quantifiable reporting on plastic bag elimination -AND- targets"	Three of five satisfied	Two of five satisfied	One of five satisfied	No disclosure
Fleet Emission (AU)	Below median on lowest emission model -AND- below median on average fleet emission		Only one below median		None below median
Technology development (AU)	Development of hybrid technology, availability of hybrid technology, development of cell fuel/electric technology, availability of cell fuel/electric technology	Three of four satisfied	Two of four satisfied	One of four satisfied	No disclosure
Environmental impact management (MM)	Environmental impact assessment (EIA) conducted at all projects -AND- biodiversity strategy		Environmental impact assessment (EIA) conducted at all projects -OR- biodiversity strategy		No disclosure
Land disturbance and rehabilitation (MM)	Hectares disturbed per mn US$ GCI below median -AND- land rehabilitation rate above median	Hectares disturbed per mn US$ GCI below median -OR- land rehabilitation rate above median	Hectares disturbed per mn US$ GCI above median -AND- land rehabilitation rate below median	Disclosure of one figure	No disclosure
Reuse of slag (S)	Slag recycling >= 99.5%	Slag recycling >= 95%	Slag recycling >= 80%	Slag recycling >= 2%	No disclosure of recycling of slag or < 2%
Chemical hazards (C)	VOC emissions < 0.15 AND COD emissions < 0.15 AND follows Responsible Care policy	VOC emissions < 0.15 OR COD emissions < 0.15 AND follows Responsible Care policy	Three of the three ,VOC OR COD are disclosed OR follows Responsible Care policy	Two of the three ,VOC OR COD are disclosed OR follows Responsible Care policy	Everything else
Gas flaring versus production Producers (INT/E&P)	3rd tercile gas flaring relative to production	2nd tercile gas flaring relative to production	1st tercile gas flaring relative to production		No disclosure
Gas reserves and low carbon investments (INT/E&P)	(Gas reserves >= 40% of total reserves and strategic renewables investment) -OR- (gas reserves > 65 % of total reserves and no strategic renewables investment)		(Gas reserves >= 40% of total reserves and no strategic renewables investment) or (strategic renewables investment)		No gas reserves, no strategic investment in renewables
Oil spills, absolute and versus production (INT/E&P)	Average 1st quartile absolute oil spills (kbls) and Oil spills rate (kbls / mn boe production)	Average 2nd quartile absolute oil spills (kbls) and Oil spills rate (kbls / mn boe production)	Average 3rd quartile absolute oil spills (kbls) and Oil spills rate (kbls / mn boe production)	Average 4th quartile absolute oil spills (kbls) and Oil spills rate (kbls / mn boe production)	No disclosure

Sector specific indicators: B: Banks, CS: Consumer Staples H: Healthcare, I: Insurance, M: Media, R: Retail, SS: Software & Services, TH: Tech Hardware, T: Telecoms, U: Utilities, PG: Power Generation
Subsector specific indicators: AU: Autos, A&D: Aerospace & Defense, INT/E&P: Integrated and E&P, MM: Metals & Mining

Source: Goldman Sachs Research.

GS SUSTAIN Focus List and performance

We have applied the GS SUSTAIN framework to c.1,400 companies across 27 global industries, applying objective measures to identify those leaders in the strongest position to sustain industry-leading returns on capital, which in turn translates into superior growth and equity market outperformance. The GS SUSTAIN Focus List, bringing together leaders identified since the product's launch in June 2007, has outperformed global equity benchmarks (Exhibit 116) as well as global industry peers (Exhibit 117).

Exhibit 115: GS SUSTAIN Focus List: 69 global industry leaders

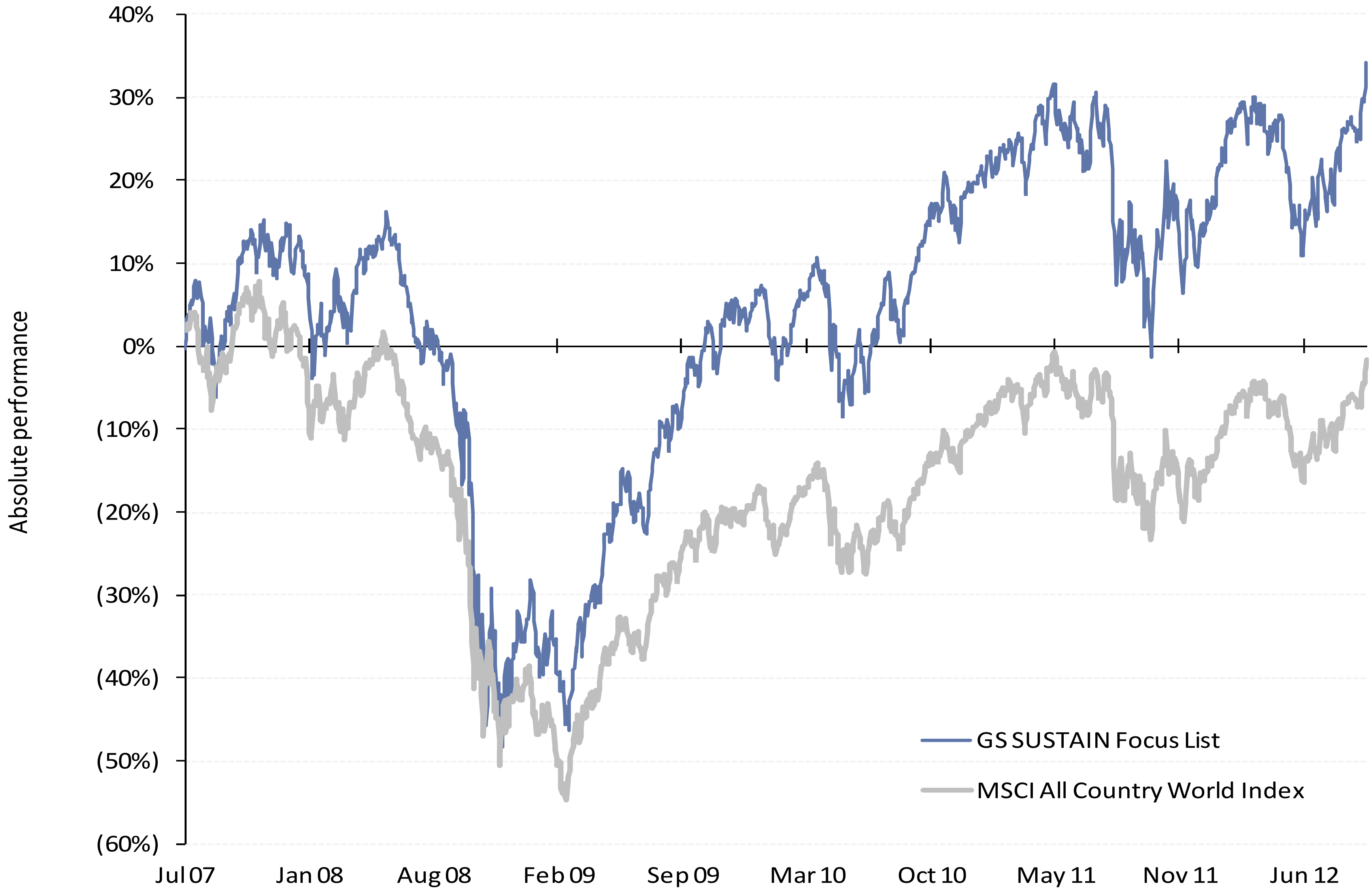
GS SUSTAIN Focus List as of September 17, 2012

Industry	Sector	Americas		EMEA		Asia-Pacific	
Resources	Oil producers	Occidental	OXY US	BG Group	BG/ LN		
				Novatek	NVTK LI		
	Oil Services	Halliburton	HAL US	Saipem	SPM IM		
				Technip	TEC FP		
	Chemicals	Monsanto	MON US	Novozymes	NZYMB DC		
		Potash	POT US	Syngenta	SYNN VX		
	Mining			Antofagasta	ANTO LN		
				BHP Billiton	BLT LN	BHP Billiton	BLT LN
	Steel	Gerdau	GGB US				
	Utilities			Centrica	CNA LN		
				Fortum	FUM1V FH		
Industrials	Capital goods	Caterpillar	CAT US	ABB	ABBN VX		
		Cummins	CMI US	Atlas Copco	ATCOA SS		
		Rockwell Automation	ROK US	KONE	KNEBV FH		
	Autos			Nokian Renkaat	NRE1V FH	Bajaj Auto	BJAUT IN
	Construction	Fluor Corp	FLR US				
	Aero & defense	Boeing	BA US	Rolls Royce	RR/ LN		
Consumer	Hospitality			InterContinental Hotels	IHG LN		
	Retail & apparel	TJX	TJX US	Inditex	ITX SM		
				Richemont	CFR VX	Belle International	1880 HK
	Staples retail			Jeronimo Martins	JMT PL		
	Consumer products	Coca-cola	KO US	Diageo	DGE LN		
		Hershey	HSY US				

Industry	Sector	Americas		EMEA		Asia-Pacific	
TMT	Tech Hardware	Apple	AAPL US	ARM	ARM LN		
		EMC	EMC US				
		Qualcomm	QCOM US				
	Software & internet	Amazon	AMZN US			Tencent	700 HK
		Priceline	PCLN US				
	IT Services	Accenture	ACN US				
		Mastercard	MA US				
	Semiconductors	Altera	ALTR US	ASML	ASML NA		
	Media			Publicis	PUB FP		
	Telecom			Millicom	MIC SS	China Mobile	941 HK
				MTN	MTN SJ		
Healthcare	Pharma	Allergan	AGN US	Novo Nordisk	NOVOB DC		
		Biogen Idec	BIIB US	Roche	ROG VX		
				Shire	SHP LN		
	Med Tech	Agilent Technologies	A US			Cochlear	COH AU
	Healthcare services	Cerner	CERN US				
Financials	Banks	Itau Unibanco	ITUB US	BBVA	BBVA SM	Commonwealth Bank	CBA AU
				Firstrand	FSR SJ	Hang Seng	11 HK
				HSBC	HSBA LN	HSBC	HSBA LN
				Julius Baer	BAER VX		
				Standard Chartered	STAN LN	Standard Chartered	STAN LN
	Insurance			Prudential plc	PRU LN	AMP	AMP AU
				RSA	RSA LN		

Source: Goldman Sachs Research.

Exhibit 116: The GS SUSTAIN Focus List has outperformed MSCI ACWI by 43% since launch in June 2007 (performance as of Sept 14, 2012)



Note: Results presented should not and cannot be viewed as an indicator of future performance. Performance is calculated on an equally weighted basis relative to the MSCI All Country World index (market-cap-weighted total return series in US$). Full details of the performance of stocks in the GS SUSTAIN universe can be provided upon request.

Source: MSCI, Datastream, Goldman Sachs Research.

Exhibit 117: GS SUSTAIN Focus List stocks have outperformed their MSCI ACWI global benchmarks in most sectors

Note: Results presented should not and cannot be viewed as an indicator of future performance. Performance is calculated on an equally weighted basis relative to the relevant index (market-cap-weighted total return series in US$). Full details of the performance of stocks in the GS SUSTAIN universe can be provided upon request.

Source: MSCI, Datastream, Goldman Sachs Research.

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Disclosure Appendix

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We, Andrew Howard, Richard Manley, Derek R. Bingham and Nick Hartley, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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The precise calculation of each metric may vary depending on the fiscal year, industry and region but the standard approach is as follows:

Growth is a composite of next year's estimate over current year's estimate, e.g. EPS, EBITDA, Revenue. **Return** is a year one prospective aggregate of various return on capital measures, e.g. CROCI, ROACE, and ROE. **Multiple** is a composite of one-year forward valuation ratios, e.g. P/E, dividend yield, EV/FCF, EV/EBITDA, EV/DACF, Price/Book. **Volatility** is measured as trailing twelve-month volatility adjusted for dividends.

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GS SUSTAIN

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Distribution of ratings/investment banking relationships

Goldman Sachs Investment Research global coverage universe

	Rating Distribution			Investment Banking Relationships		
	Buy	Hold	Sell	Buy	Hold	Sell
Global	31%	55%	14%	48%	41%	35%

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