OLIVER WYMAN

Financial Services

State of the Financial Services Industry 2010

Annual

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About this report

Oliver Wyman's annual State of the Financial Services Industry report reviews the industry's performance and provides senior stakeholders with key insights for success.

Our findings are supported by Oliver Wyman's deep financial services expertise and a number of proprietary analyses, including:

- An objective ranking of the world's largest 400 quoted financial services firms based upon our Shareholder Performance Index[SM] (SPI)
- Projected industry value growth and top management priorities for the coming year from our annual CEO Survey

Note: Many of the names in this report are current and previous Oliver Wyman clients. Any statements pertaining to such clients have been derived from publicly available information.

Financial services 2010

The intensive care provided by governments and central banks helped most financial institutions survive the crisis of late 2008. They are now "in recovery", preparing for life in an uncertain economic and regulatory environment

Executive Summary

Following the failure of Lehman Brothers in late 2008, the interbank lending markets seized up. It seemed possible that the banking system would collapse. Governments intervened on an unprecedented scale, providing financial institutions with over US$1 TN in debt and equity capital. Most survived.

2009 was devoted to recovery, as will 2010 and 2011. As with patients recovering from a medical trauma, the process can be broken into five stages:

- *Intensive care*. Provide continuous monitoring, treatment and life support
- *Convalescence*. Provide lighter care and a protected environment to rebuild strength
- *Preparation*. Doctors and patients take measures that facilitate a return to independence
- *Rebuilding*. Patient sets goals for post-recovery life and starts work towards them
- *New lifestyle*. Patient demonstrates a return to health and changed ways

This year's report examines the state of the financial services industry using this medical analogy. We consider the remedies being applied at each stage of recovery and the factors that will determine the rate of progress towards a healthy new lifestyle or, potentially, of a relapse into terminal illness.

1. Intensive care

The intensive care phase of this recovery had two goals: to stop the bleeding – that is, to prevent liquidity from draining out of the banking system – and to keep the heart beating; that is, to keep banks supplying each other and the real economy with credit. These goals were achieved by extending deposit guarantees, even including interbank deposits, and supplying financial institutions with hundreds of billions of debt and equity capital. As a result, a degree of "financial protectionism" has returned to the industry, with governments attempting to trap deposits and credit in their domestic markets.

2. Convalescence

Many of the habits implicated in the crisis have been abandoned. Much of the mortgage securitization business has shut down and banks have deleveraged their balance sheets. Governmental agencies are providing financial institutions with a congenial business environment in which they can rebuild their strength. The rigors of anticipated new regulatory regimes are being forestalled and near zero short-term interest rates are creating a steep yield curve which banks are using to recuperate.

3. Preparation

Redesigning the regulatory regime for the recovered industry is the most important task in preparing for independence. A great deal of uncertainty about future regulation persists. Financial institutions are rightly engaging with regulators to shape the final outcome. (A summary of current and likely regulatory initiatives is given on pages 25-29 of this report.) The second important task of preparation is deciding when to withdraw government support from financial institutions. Withdraw it too soon and they may relapse into ill-health, leading to losses on taxpayers' investment to date. Support them too long, however, and the potential for perverting the allocation of capital grows.

4. Rebuilding

Financial institutions rebuilding their business models for the post-crisis environment are taking several common measures: "de-risking", managing costs, upgrading operations and IT, and striving to make funding more secure, with a renewed focus on retail and business deposit gathering. However, we expect more dramatic adaptation. Changes in the sources of value to financial institutions, both geographically and across industry sectors, will lead to increased M&A activity and selective diversification. US banks are likely to consolidate from 7,000 to 4,300 by 2015, and we have already seen a 50 per cent increase in insurers buying banking operations. We also expect leading players to become more sophisticated in the way they identify and access pockets of value within low growth markets.

5. New lifestyle

The crisis has dealt a serious blow to the already poor reputation of the financial services industry. Upon recovery, financial institutions will need to demonstrate their healthy new lifestyle not only to regulators but to consumers. Reputation will become a more important competitive lever, and its management an increasing concern for CEOs. Financial institutions will need to take a more customer-centric approach to business, aiming to provide customers with the financial outcomes they seek rather than simply pushing products. The challenge is to be customer-centric without becoming a charity. There is a risk that, between consumer protection regulations and voluntary attempts to appease customers, retail banking profits will be seriously eroded.

The rate at which financial institutions progress through these stages of recovery, and their longer term prospects, will depend in part on regulatory developments which, as noted, remain uncertain. They will also depend on the health of the real economy, and this too is a matter of uncertainty.

With all major economies now out of recession, equity markets recovering lost ground and the growth in unemployment slowing, many claim to see the "green shoots of recovery". Yet these green shoots may be astroturf – not signs of a real return to health but mere artefacts of governments' massive monetary and fiscal stimulus programmes. As these are scaled back, there is a material chance of a W-shaped recovery or that the Japanese experience, of a long period of low growth, will become common in developed economies. Indeed, as we note in section 4, there are even reasons to fear another financial crisis in the not-so-distant future.

1. The crisis and emergency response

It is a sadly familiar story. A man in his 50s, at the pinnacle of his career, apparently carrying all before him, is cut down by a heart attack. Devoting himself to making money, he had failed to attend to the increasingly unhealthy body disguised beneath his expensive suit.

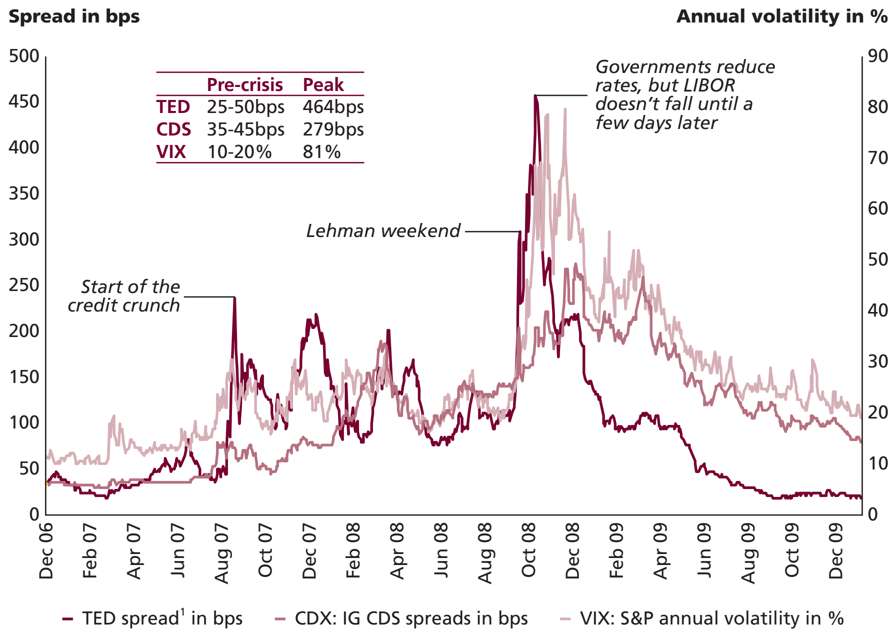
At the end of 2008, something similar happened to an industry in which many such men work. Having enjoyed almost two decades of high profits, but having acquired some unhealthy habits, the financial sector experienced a near fatal collapse.

There had been warning signs, of course. By late 2006, the rate of "early repayment defaults" on US subprime and no-doc loans had elevated, and originate-to-distribute mortgage firms began to sell up or shut down. In mid-2007, Countrywide, the largest US subprime originator, became insolvent; Bear Stearns had to bail out two of its hedge funds that had invested heavily in risky securities; and the European Central Bank provided extra liquidity to the market.

By this time, a liquidity crisis – then referred to as the "credit crunch" – was widely recognized. But most believed that, like the 1998 liquidity crisis triggered by the Russian default and the failure of Long Term Capital Management, it would be short-lived and have little effect on the real economy. They were mistaken.

At the end of 2008, with the collapse of Lehman Brothers, uncertainty about the solvency of major banks with exposure to "toxic" asset backed securities caused the interbank lending market to seize up. LIBOR spreads reached unprecedented levels. There was a material risk that payments in the real economy – many of which depend on bank credit – would also seize up, causing economic calamity.

Exhibit 1: **Indicators of financial markets' health**



Source: Bloomberg, Oliver Wyman analysis.

1 TED Spread: Difference between the interest rates on interbank loans and short-term US government debt (i.e. 3-month US LIBOR rate minus 3-month US T-bill).

This crisis provoked an unprecedented response from governments and central banks. Like doctors dealing with a medical emergency, their immediate priority was keeping the patient alive. To prevent liquidity hemorrhaging from the financial sector, governments dramatically increased their deposit guarantees, often removing a cap altogether, so that even interbank lending was covered. And they provided massive capital transfusions, in some cases with credit and in others with equity capital. The size of these bailouts is unprecedented: 7 per cent of GDP in the US (more than double the S&L crisis in 1984), 19 per cent in the UK, 48 per cent in Ireland and 76 per cent in Iceland. Over 20 national governments have now acquired equity interests in some of the largest and most complex financial institutions in the world (e.g. AIG, Freddie Mac, RBS, Hypo Real Estate).

As the crisis spread to the real economy, and almost all developed economies went into recession, politicians rapidly returned to the Keynesian ideas that they had apparently abandoned in the 1980s. Not only did central banks drop interest rates to near zero (the monetarist prescription), governments began "stimulating" their economies with high levels of deficit spending. The US government, like many others, is now running a deficit of over 10 per cent of GDP, the highest since World War II.

Initially, the response to the emergency occurred at a purely national level. However, those tending to their domestic patients soon realized that, given the international footprint of many institutions and the ease of capital movement, they ran the risk of "bailout arbitrage". For example, deposit guarantees rose in tit-for-tat fashion as governments in Ireland, Greece and then Germany moved to protect domestic bank funding. The Group of Twenty (G20) Finance Ministers and Central Bank Governors, having been established for a similar purpose in the late 1990s, quickly became the main forum for the coordination of national actions.

Exhibit 2: **Medical team and role**

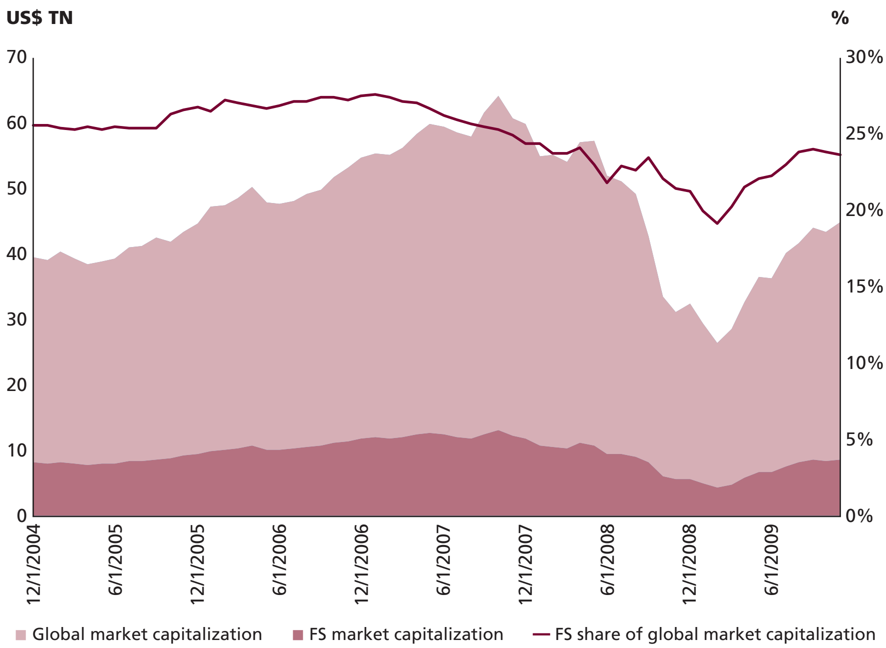
Institution	Description	Primary role during crisis
International finance institutions (IFIs)	▪ Global financial institutions established, capitalized and owned by multiple countries, having the purpose of supporting and managing the global financial system ▪ Examples: IMF, World Bank, regional development banks (e.g. Inter-American Development Bank)	▪ Emergency lending and support to national governments ▪ IMF examples include: – Iceland: \$2.1 BN in 2008 – Hungary: \$15.7 BN in 2008 – Ukraine: \$16.4 BN in 2008 – Latvia: \$2.4 BN in 2008
Financial Stability Board	▪ The FSB was established in April 2009 to address vulnerabilities and to develop and implement strong regulatory, supervisory and other policies in the interest of financial stability; it includes the G20 economies, other FSF members, Spain, and the EC	▪ Surveillance of early warning of macroeconomic and financial risks and actions needed to address them ▪ Shaping regulatory systems to take account of macro-prudential risks; extend regulation and oversight to systemically important financial institutions, instruments and markets
G20	▪ The G20 was established in 1999 in response to the crises of the late 90s and to include emerging market economies in global economic discussion ▪ Members are 19 central bank governors and the EU ▪ In Pittsburgh, it was announced that the G20 would replace the G8 as the permanent council for economic cooperation	▪ Created G20 summits as a response to the crisis, Washington in 2008, London and Pittsburgh in 2009, leading to agreement among member economies on how to deal with the crisis ▪ Laying the foundation for reform to avoid similar crises, including principles for reforming financial markets ▪ Efforts to coordinate macro-economic actions to revive the global economy, and committed over \$1 TN to economic stability and recovery
National central banks	▪ Central banks produce a nation's currency, and lend money to their governments and to commercial banks as a "lender of last resort", and often have supervisory powers ▪ Examples: US Fed, Bank of England, People's Bank of China, Central Bank of Brazil, European Central Bank, Central Bank of the Russian Federation, Reserve Bank of Australia	▪ Pumping liquidity into financial systems to free up capital for lending, and to expand the money supply to minimize the risk of deflation – central banks purchased trillions of dollars of government debt and troubled bank assets in the largest monetary policy program in history ▪ Support large stimulus packages for government spending programs to prop up demand, and bail out companies

These early, dramatic and partially coordinated interventions reduced the final death toll significantly. Without this intervention, banks and banking systems would have failed in many markets around the world, most spectacularly in the US, UK, Germany, Ireland and Iceland. For example, eight of the top 20 US financial institutions either failed or were forced into mergers: namely, AIG, Bear Stearns, Fannie Mae, Freddie Mac, Lehman Brothers, Merrill Lynch, Wachovia, and Washington Mutual. These institutions accounted for almost 25 per cent of the total assets of all US regulated financial institutions. In addition, so far another 130 insolvencies have occurred at small and regional deposit-taking banks.

Public sector support has been complemented by private sector engagement. Sometimes at the behest of public agencies, several of the weakest institutions have received capital injections from stronger players, often leading to a takeover. Financial services institutions have issued new equity, raising US$720 BN since the crisis, a 63 per cent increase on the pre-crisis period of the same length (March 05-July 07). And new debt continues to be issued – although, since it is available only to the strongest players, debt capital raised post-crisis has fallen by 42 per cent to US$7,550 BN.

Unsurprisingly, given the quantity of care they have received, the patients are showing signs of recovery. Equity markets have recovered 59 per cent of the value they lost in the fall from their August 2007 high to their low point in February 2009. Financial sector market capitalization has recovered 57 per cent of its losses and returned to 24 per cent of total equity market value, having fallen from a high of 28 per cent to a low of 19 per cent. We have also seen some “early discharges” from hospital. In the US, over 70 per cent of TARP money has been returned. However, more than 600 small and medium-size banks will continue to access public sector support for many years to come.

Exhibit 3: **Global and financial services stock markets' recovery**



Source: World Economic Forum, Datastream, Oliver Wyman analysis.

Of course, the story is not the same for everyone. Countries differ in their exposure to the financial sector and, hence, in the impact of the crisis on GDP and public finances. They also differ in how quickly they have "taken the pain". Variation in accounting rules, and in the percentage of bank assets that are securities as opposed to loans, mean that banks in some countries (notably the US) have already recognized a greater portion of losses than have banks in other countries.

Exhibit 4: **Ultimate credit crisis writedowns from banks, by geography**

Source: Ultimate writedowns from IMF's October 2009 Global Financial Stability Report; losses to date from Bloomberg, as of 06 January 2010.

Nor are all institutions equally unwell. Many have avoided hospitalization, and their relative stock market and financial strength provides them with new opportunities. Some of the strongest players through the crisis as indicated by their 5-year SPI[1] include: Blackrock (SPI: 256), China Life Insurance (SPI: 357), Goldman Sachs (SPI: 158), Royal Bank of Canada (SPI: 257), Santander (SPI: 158), and Zurich Financial Services (SPI: 143).

The short- and medium-term prospects of institutions that are independent of government control depend to a large extent on macroeconomic and regulatory developments.

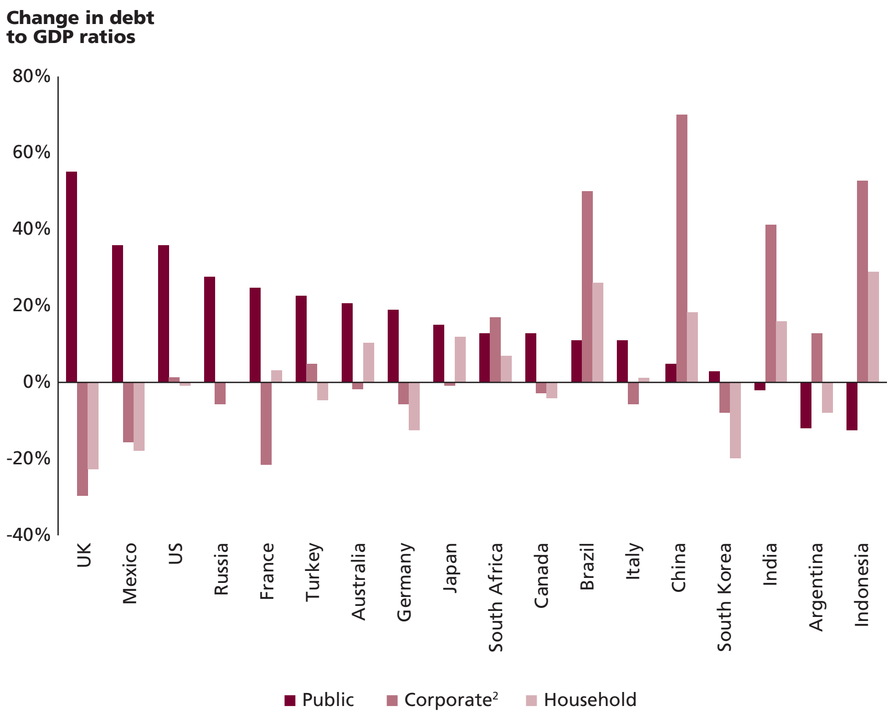
1 Shareholder Performance Index[SM]: An individual firm's performance is determined by publicly available data only. We determine total shareholders' return for five years and adjust for volatility using a Sharpe ratio. The top 400 publicly listed financial services firms are then scored relative to a median of 100

1.1. Macroeconomy: Green shoots or astroturf?

Equity markets have regained much of their lost ground. Many economies have emerged from recession. Unemployment is increasing at a slower rate. And institutions have returned to higher levels of profit. We fear, however, that these "green shoots of recovery" may be a superficial reaction to the medicine rather than signs of a profound return to health: the economic equivalent of a morphine high.

Macro-economic conditions remain weak. GDP growth, though positive, is slow and, we believe, will remain slower than official forecasts. There has been a substantial transfer of household and commercial debt to public debt, which will continue to grow as governments delay the politically difficult decision to cut spending.

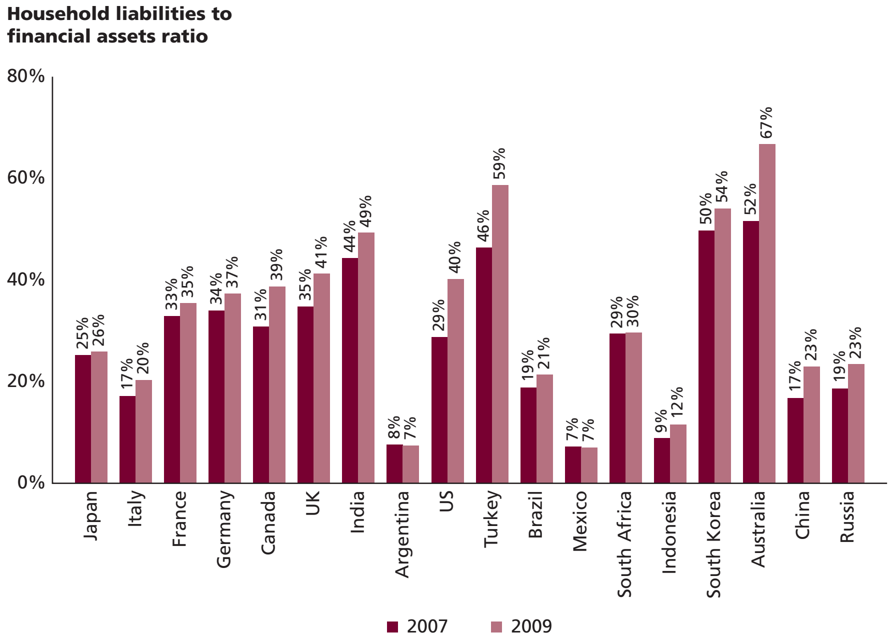
Exhibit 5: **Transfusion of debt between household, corporate and public debt**
Change in debt to GDP ratios from 2007 to 2009 for G20 countries[1]



Source: EIU, Oliver Wyman analysis.
1 Saudi Arabia household liabilities data unavailable.
2 Corporate debt based on EIU data and Oliver Wyman analysis.

While the ratio of household debt to GDP has begun to fall in some countries (UK, Germany and South Korea), in some cases helped by foreclosures, consumer leverage has actually increased in most countries due to substantial financial asset devaluation.

Exhibit 6: **Consumer leverage has increased, not decreased in many countries**



Source: EIU, Oliver Wyman analysis.

Sooner or later, the cost of government borrowing must be passed back to the private sector. As sovereign credit quality declines and the cost of borrowing increases, governments will be forced to cut spending and raise taxes, thereby subduing GDP growth.

In the short term, a W-shaped recession is a real possibility. At least three plausible scenarios would poison the green shoots. The most likely is a "double-dip" in financials. Financial institutions are currently benefitting from liquidity flowing to them from central banks. As this dries up, and corporate and consumer credit losses are finally confronted by those institutions that have been deferring the pain, banks may be forced to raise increasingly expensive capital and to further ration lending.

Or perhaps liquidity will not dry up. Central bankers may sustain their monetary stimulus for too long, recreating the inflationary excesses of the 1970s. Or, most dramatically, a fiscal crisis may lead to a sovereign default that spreads losses through the industry. The sovereign debt of several countries, including Greece and Dubai, was downgraded during 2009 and it remains possible that the institutional failures of 2007 and 2008 may become sovereign failures in 2010.

The probability of such scenarios is difficult to estimate. Our survey of CEO sentiment puts the chance of a W-shaped recession at 32 per cent. That leaves a majority feeling more optimistic. However, 60 per cent do not expect serious economic recovery until 2012 or later. And, even then, on average, they expect financial sector growth to be 8 per cent per annum, down from the 12 per cent rate enjoyed in the five years prior to the crisis, but still high relative to expected global GDP growth. However, individual institutions are not well positioned to detect systemic risks such as a contraction in overall lending leading to recession and, on this issue, CEOs are likely to be more optimistic than is merited.

1.2. Regulation

Financial services regulation is likely to be reformed in all developed economies. Some reforms, such as Basel 3 (which will modify and supplement Basel II) are already in development. Nevertheless, financial institutions cannot be sure of the regulatory regimes under which they will be operating in the coming years. This uncertainty impedes strategic planning.

To help deal with this problem, we have developed a summary of current and likely regulatory initiatives, which can be found on pages 25-29 of this report. It cannot, of course, tell bank managers which regulations will come into force or when. Rather, it is intended to assist strategic planning and regulatory compliance efforts by describing the spectrum of likely and possible regulatory developments.

With regulation comes a supervisory regime. Comparing supervision across jurisdictions in the early 2000s suggests that the crisis was as much a failure of supervision as of regulation. Those countries that came through the crisis with the least damage to their financial sectors – most notably Australia and Canada – had similar regulations to badly hit countries, such as the UK, but a distinctly tougher, more "hands-on" approach to supervision.

The complexity and global scope of some regulatory issues, such as creating rules for determining capital adequacy, mean that progress is unavoidably slow. It took over 10 years to agree and then implement the new rules of Basel II. Today, however, there is another reason for the delay in imposing new regulations: namely, that they would place a burden on banks that is unwanted in the short term.

Politicians want banks to rebuild their balance sheets and to transfer central bank liquidity into the real economy through higher levels of lending. They can achieve this only if the imposition of the strict new regime for healthy living is deferred. An hour on the treadmill every day, though beneficial in the long run, is not what someone needs a week after a heart attack.

For now, the authorities are going easy on the banks, not only providing them with a yield curve from which they can make profits but sometimes slipping them "under the counter medicine". It emerged only in November 2009 that the Bank of England secretly provided RBS and HBOS with emergency funding in the autumn of 2008. It is also emerging that some tax authorities around the globe are being lenient with their collections from small- and medium-sized businesses.

This delay in imposing more aggressive regulations provides institutions with the opportunity to help shape the coming regulatory regime. Regulatory interventions to date – largely concerned with compensation – have been aimed at assuaging voter anger. We expect this fervor to die down with time, making way for the more serious business of devising regulations that reduce the chance of future crises. Institutions must work with regulators to ensure that this is not achieved by placing such burdens on risk taking that banks can no longer play their vital role in the economy.

Most of the CEOs we surveyed agree they must work closely with regulators and most financial institutions are helping shape future regulation in a number of ways, which we list below.

Exhibit 7: **Private sector contributions to the debate on regulation and supervision**

Decreasing direct impact ↓

Interaction	Description	Example	Comments
Direct lobbying	Lobbying efforts with key legislative and regulatory agents to directly influence imminent regulation during design or approval process	Efforts from different stakeholders (small bank associations to individual major bank holding companies) to influence US financial regulation	Most common mechanism in US, dominated by in-house departments or specialist lobbyist firms. In other geographies typically limited to the extent of availability of personal connections
Association roundtable	Roundtable discussion between industry associations and regulators	The European Banking Regulation Roundtable	Preferred method of communication by industry associations, focusing on impending regulation and emerging points of difference
Industry roundtable	Roundtable discussion between representatives of official sector and major individual firms	Australia Banking Industry Roundtable on Reducing Reliance on Rating Agencies	Used to understand nuances in market practices – more frequent in concentrated markets
Commentary	Responses from the industry to published consultative papers from regulatory bodies	Comments to consultative documents from Basel Committee on Banking Supervision	Most frequently used method for regulatory interaction, particularly at the international level
Self-regulation	Formulation of joint proposals and industry codes to shape emerging regulatory agenda	International Institute of Finance study on Compensation in Financial Services	Commonly used across international bodies on areas of major concern IIF recently published a report on "Reform in the Financial Services industry"
Joint committee	Typically one-off working bodies responding to a specific broad issue, with official sector leadership and participation from industry	UK Financial Services Global Competitiveness Group	Official sector participation heavily constrained by the post-crisis need to demonstrate clear distance from the industry
Opinion shaping	Indirect proposals from industry leaders on current regulatory issues and emerging proposals	Commentary from Ackermann in Euro Finance Week conference	Typically used to shape future potential regulation over near- to medium-term
Discussion forum	Regular forum for keynote speech and ideas exchange on emerging issues across firms, associations and regulators	Annual City of London-Swiss Financial Round Table	Used as a forum to exchange ideas on a broad set of themes, rather than specific regulatory proposals

2. The recovery process

Having survived in 2009, for most financial institutions the next few years will be devoted to recovery. As with recovery from medical emergencies, the process can be broken into five stages.

Exhibit 8: **Industry recovery process**

Stages	Description
Intensive care *The first stage of care for life threatening medical conditions*	Provides intensive care for those who need continuous monitoring, treatment and support
Convalescence *The initial stage of return to health and strength*	Provides lighter care and a protected environment to rebuild strength and prepare for the next stage of recovery
Preparation *The middle stage on the road to recovery*	Configures self-administered treatments to facilitate a return to independence
Rebuilding *The final stage of recovery*	Defines meaningful goals and commences steps to achieve them
New approach to life *Post-recovery*	Communicates wellness to others, demonstrates changed ways and seeks a more meaningful existence

2.1. Intensive care

Intensive care has come from three sources. The least critically injured institutions have been able to self-treat, avoiding insolvency by issuing new equity and, in some cases, debt into the private market. Some have taken "Eastern medicine", with significant capital transfusions from sovereign wealth funds and Chinese banks.

Banks have also been saved by being grafted onto other financial institutions, usually at the behest of governments offering financial inducements. Thus we have seen the weak being taken over by the able-bodied: Merrill Lynch by Bank of America and HBOS by Lloyds TSB, for example.

Most often, however, intensive care has been provided by government agencies, with two goals: to stop the bleeding (that is, to prevent liquidity flooding out of the banking system) and to keep the heart beating (that is, to keep payments and credit flowing through the real economy).

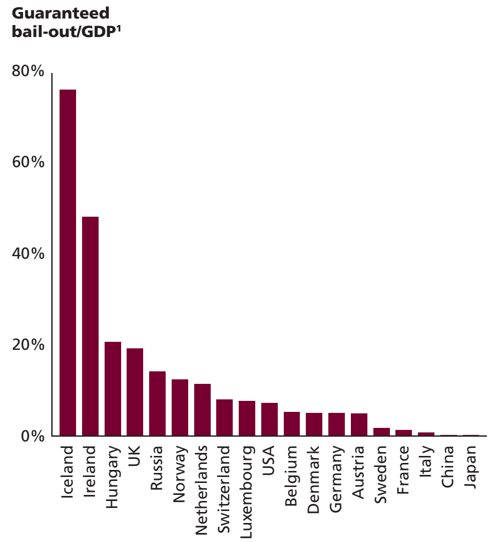
The first was achieved principally with retail deposit guarantees, which were extended in countries where they already existed and introduced into some countries for the first time. When Lehman Brothers failed, the UK government even extended deposit guarantees to the interbank market. Other countries in Europe followed.

Three main procedures have been used to keep the heart beating:

- *Debt support*. In addition to guaranteeing private loans to banks, governments have directly lent them public funds. Schemes whereby central banks or government treasuries have swapped high-quality assets, such as government bonds, for banks' low-quality assets, such as sub-prime mortgage-backed securities, belong in this category, since they create a repayment obligation rather than a claim on the banks' profits
- *Equity transfusions*. Governments in many countries have provided banks with the equity capital required to remain solvent. Typically the equity has been provided in a form that does not carry voting rights, such as preferred shares or silent participation. The number of financial institutions that are fully or partly nationalized has increased dramatically post-crisis (see Exhibit 10)
- *Temporary regulatory relief*. In several European countries mark-to-market accounting has been selectively discarded so that banks can defer recognizing the devaluation of their assets. Regulators have also attempted to support financial institutions' market capitalization with bans on short selling their shares. The US ban in September 2008 lasted only three weeks but bans in Australia, Japan and several European counties continued into 2009

Exhibit 9a: **Number of companies bailed out and bail-out as a proportion of GDP by country**

Country	No. of companies bailed out	Guaranteed bail-out/GDP[1]
Iceland	3	76.2%
Ireland	3	48.3%
UAE	7	32.2%
Hungary	1	20.6%
UK	4	19.3%
Russia	3	14.2%
Norway	1	12.5%
Netherlands	4	11.5%
Switzerland	1	8.0%
Luxembourg	2	7.7%
USA	717	7.3%
Belgium	4	5.4%
Denmark	3	5.2%
Germany	7	5.1%
Austria	5	5.0%
Sweden	2	1.8%
France	8	1.4%
Italy	1	0.7%
China	1	0.2%
Japan	3	0.1%

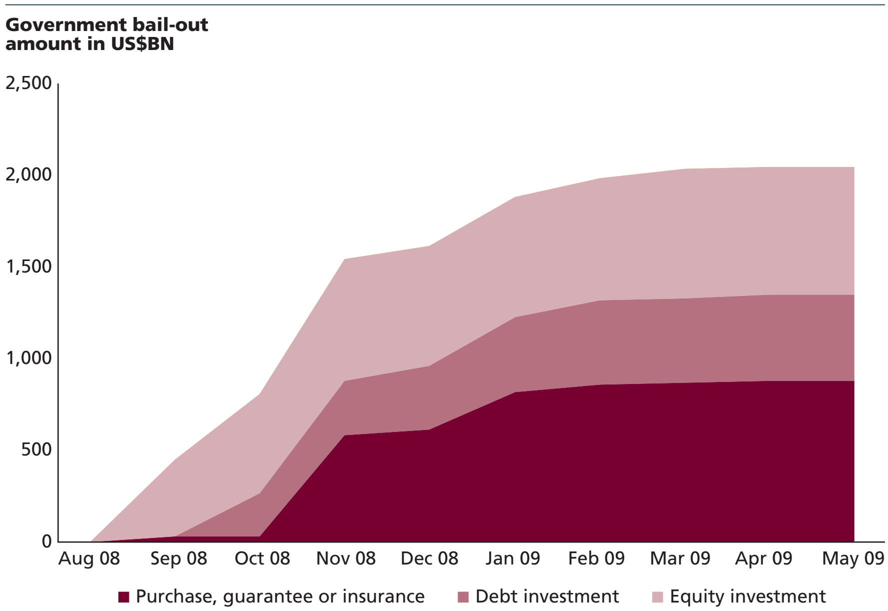


Source: Grail Research, Oliver Wyman analysis.
Grail Research logs all bailouts at firm and country levels based on publicly available data.

Note: Number of bailed out companies is defined as those financial institutions that have been reported to have received targeted individual bailout support from governments.
Guaranteed bailout figures are based on country or regional bailout packages announced by governments to deal with the financial crisis.

1 2008 GDP figures.

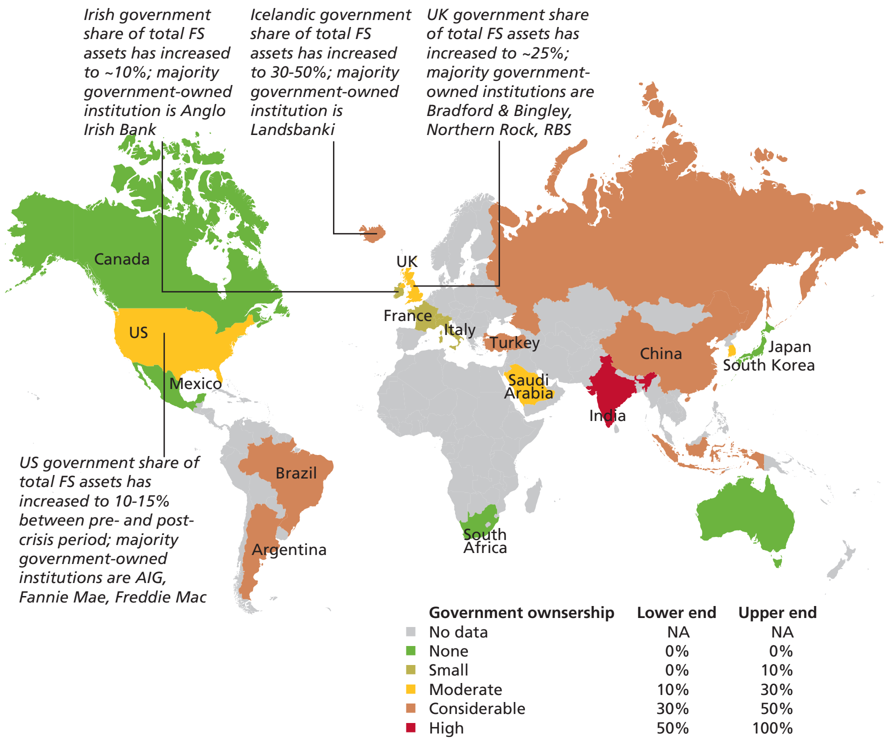
Exhibit 9b: **Global government bail-outs of financial institutions by type of support**



Note: Purchases, guarantees and insurance policies valued at total potential taxpayer exposure.

Source: *Governments as shareholders: navigating the challenges of newly held interests in financial institutions* – World Economic Forum working paper in collaboration with Oliver Wyman, Grail Research, Oliver Wyman analysis.

Exhibit 10: **Government ownership of financial institutions**



Source: World Economic Forum, World Bank Research on Bank Regulation and Supervision (2007 database, updated June 2008), Oliver Wyman analysis.

Note: Per cent of banking system's assets in financial institutions with over 50% government ownership.

Governmental intensive care has re-introduced a degree of "financial protectionism" into the global market. In Switzerland, for example, loans made to foreign companies now attract a regulatory capital penalty. And the UK government has attempted to use anti-terrorism laws to protect UK citizens' deposits in failing Icelandic banks. Several countries have introduced more severe liquidity constraints, resulting in more locally trapped liquidity.

But most of the post-crisis de-globalization of the financial services market is due to institutions voluntarily withdrawing from non-core markets. For example, several insurers, such as US-based The Hartford, have stopped writing new variable annuities business in foreign markets, such as Japan. ING announced this summer that it would exit ten of the 48 countries in which it operates. And many Irish banks that were previously big players in the UK commercial property market have been forced to draw back.

2.2. Convalescence

During convalescence, patients are provided with a protected environment in which they can stop the behavior that caused their crisis and rebuild strength. This is the stage of recovery now occupied by a large proportion of the industry.

Either by choice or by the disappearance of willing counterparties, banks are now giving up the practices that led to the crisis. The "shadow banking" of special purpose vehicles and asset-backed securities is, for the moment, a thing of the past. Balance sheets are being deleveraged, high-risk and peripheral lines of business are being abandoned and underwriting standards are being tightened.

And customers are being shown new consideration. Financial institutions are retreating from "toxic products", such as subprime loans and high-margin structured investment products, and from "toxic practices", such as providing unsolicited credit card limit increases and applying card repayments to the least expensive outstandings.

This might normally lead to diminished profits. But, in an attempt to rebuild the strength of banks, the authorities have created an extraordinarily congenial environment for them. The near-zero short-term interest rates set by central banks have created a steep yield curve. The resulting interest rate differences across the natural duration gap between long-term assets (lending) and short-term liabilities (deposits) create the potential for maturity "mismatch" earnings. This "morphine high" has been enjoyed most by institutional banks who have reported record profits from their fixed-income trading businesses. The weaning process is starting and we forecast significant drops in profitability in 2010.

2.3. Preparation

The preparation stage of recovery is devoted to readying the patient for a return to independence and ensuring that he is capable of standing on his own feet. As financial institutions and their governmental doctors plan for this independence day, they must answer two questions:

- When should life-support be withdrawn?
- How can doctors be assured that their patients are healthy enough to cease ongoing care?

2.3.1. Withdrawing life-support

Governments are currently providing banks with indirect support, through monetary and fiscal stimulus, and, in many cases, direct support with debt and equity capital. Properly timing the withdrawal of this support is difficult. If the indirect support of economic stimulus is withdrawn too soon, recession may return and with it, perhaps, a second banking crisis. Sustain it too long, however, and public finances may deteriorate to a point that creates its own sovereign economic crisis or we may suffer high levels of inflation.

Properly timing the withdrawal of direct support for financial institutions involves a trade-off between the perils of public ownership – which can pervert the allocation of capital – and recouping taxpayers' investment in financial institutions. The longer governments maintain their ownership during the recovery period, the greater the chance of both outcomes. Hence the dilemma.

We have published a separate report on how governments should manage and exit their equity states in financial institutions (*Governments as shareholders: navigating the challenges of newly held interests in financial institutions* – World Economic Forum working paper in collaboration with Oliver Wyman). So we will not elaborate here, except to note that the proper answer to the de-nationalization question depends, in part, on how successfully re-regulation of the industry can address the "too big to fail" problem. If taxpayers must bear the cost of extreme losses, then why should they not also take a portion of the profits through ongoing minority ownership? For example, having bailed out its industry in the early 1990s, Sweden still owns 20 per cent of Nordea.

2.3.2. Assuring a healthy lifestyle

As institutions finalize their return to independence, taxpayers and their representatives will seek assurance that they will not simply create another crisis: that is, that they will lead healthier lifestyles. The proposed regulatory changes described in our table on pages 25-29 represent the spectrum of levers that may be employed to provide this reassurance. However, it is worth noting two other measures, on which work has already begun.

The first is banking supervisors' increased use of "stress tests": that is, estimates of banks' losses given adverse economic scenarios. Such tests were performed by the US Federal Reserve as part of its intensive care triage in the first half of 2009, and we recommend they become a standard part of the financial sector health monitoring regime. Many institutions are developing more advanced macro stress tools applied to increasingly granular depictions of their business.

The second is improving board governance (see Exhibit 11) which, despite the relatively small portion of blame allocated to it, has clearly failed to protect the interests of financial institutions' shareholders. This failure is not entirely surprising. The independent director model is a century old legacy of the shift from proprietorial to managerial capitalism. In the meantime, financial services have become increasingly complex and technical, exacerbating the inherent difficulty of making boards competent to understand risks yet independent of executive management.

Exhibit 11: **Improving board governance**

Measure[1]		Possible response
Average number of board members	12	■ Consider reducing (at least to current average)
Proportion with CEO in Chairman role	28%	■ Consider splitting combined CEO and Chairman roles
Proportion of executive directors on board (excluding CEO)	11%	■ Reduce the proportion of executive directors (at least to current average)
Share of independent directors without primarily FS background	32%[2]	■ Increase the proportion of independent board members with a strong background in financial services
Audit and Risk in separate committees	30%	■ Split the complex challenges facing the Audit and Risk Committees ■ Consider supplementing the more technical sub-committees with independent advisory expert resources on critical topics
Average board member age	60	■ Rejuvenate boards. As much as 60 per cent of boards have an average age above 60 years old and 10 per cent have an average age above 65
Board tenure ■ Average ■ Maximum	 7 14	■ Accelerate the rotation of directors and stagger their appointments to avoid group-think and encourage debate
Other possible modifications		■ Create transparency with a section of the annual report that details the board's contribution to critical decisions and risk management ■ Ensure the Chief Risk Officer has significant and direct exposure to the board

1 Source: Annual reports, websites, Oliver Wyman analysis based on a sample of more than 100 boards of financial institutions.

2 Often have deep functional capabilities in law, marketing, human resources and the like.

2.4. Rebuilding

Many boards are seeking comfort from a well-articulated recovery plan. Senior managers are responding with remedies aimed at making their businesses more resilient, typically by making them cheaper to run, simpler and less risky.

2.4.1. Common remedies

Managing expenses

Our global CEO survey reveals a wide spectrum of expected changes to costs. One-third of CEO respondents estimate increases from 5 per cent to more than 15 per cent, with a weighted average across the sample of close to zero. While anticipated increases in compliance costs explain some of these expected increases, the remainder is aimed at upgrading IT and Operations capabilities (75 per cent of the CEOs we surveyed plan to use this period of relative stability to deploy major upgrades) and positioning for the likely sources of revenue growth post-crisis.

Summary of current and likely regulatory initiatives

Introduction

What is it?

Given that regulation is currently one of the two most important drivers in our industry, the other being macro-economic conditions, this summary elaborates the spectrum of near-term global regulatory evolution, one including newly enforced measures, recent proposals and principles, and possible future regulatory actions.

- Our tool categorizes major areas of reform, using seven levers:
  - Solvency
  - Liquidity
  - Compensation
  - Investor and consumer protection
  - Global coordination & cross-border regulation
  - Market infrastructure reform
  - Reducing systemic risk
- Each category defines specific regulatory topics, the spectrum of regulatory actions from least to more aggressive forms and possible future actions. We also detail implications, key cases of interest and a summary background and implications.

Who is it for?

- This summary of current and likely regulatory initiatives is aimed at Boards, CEOs, C-suite executives and risk and strategy teams, providing them with a single referencing resource. It should provide a starting point for definition of a current geography's regulation and its likely evolution along each of the seven categories.

How can it be used to develop a regulatory compliance strategy?

- Conducting further geographical refinement along with a more detailed assessment of the importance and impact of the various levers provides an opportunity to develop a regulatory forecast tool, one that will allow an institution to plot where it currently sits in terms of regulatory compliance, assess the leeway present, determine future direction of regulation and define subsequent responses. This allows companies to define the proportion of regulatory responses which should be proactive and the proportion which should be reactive, with the objective of formulating an optimal regulatory compliance strategy.
- By identifying the current and most likely evolution along each regulatory category, participants can also assess likely impacts on their individual business model and economics.

1. Solvency

Regulatory topic	Less	Spectrum of regulation	More	Possible future action	Implications	Key cases
Risk-adjusted capital ratio	■ Increased Tier 1 ratio to 6% ■ Emphasis on through-the-cycle parameters	■ Increased capital requirements for market risk ■ Regulatory stress tests for other financial institutions e.g. Insurers	■ "Stressed capital" ratio requirements, +2-3% to base ratio	■ Mandatory counter-cyclical buffers with payout restrictions ■ Capital requirements across other financial institutions, e.g. asset manager	Increase earnings retention	
Absolute-leverage ratio	■ Gross leverage ratio restrictions of 3-4%, for overseas operations only	■ "Tangible leverage" ratio restrictions based on local accounting rules	■ Leverage ratio restrictions at a consolidated level	■ "Tangible leverage" ratio restrictions based on harmonized IFRS-based valuation	Ensure "right-risking" with a diverse mix of less and more risky activities to achieve balance	**Switzerland**: Imposed absolute leverage restrictions for its major banks
Allowable capital	■ Exclusion of sub-ordinated convertible debt from Tier 1 ■ Higher levels of Tier 1 capital relative to Tier 2	■ Exclusion of hybrid securities ■ Tier 2 harmonized and Tier 3 eliminated ■ Tighter restrictions on innovative Tier 1 instruments	■ Exclusion of deferred tax assets ■ "Top up" capital such as contingent capital	■ Tier 1 replaced with "Crisis Common Equity"	Match capital raising instrument to efficient frontier of regulatory decree and investor preference	**US**: State of California ordered bank to raise more common equity
Off-balance sheet vehicles	■ Severe capital requirements for third-party securitization exposures	■ Liquidity facilities to off-balance sheet vehicles penalized	■ Underlying securitization assets used for recovery under receivership	■ Bringing off-balance sheet vehicles back onto balance sheets	Penalized off-balance sheet and netted exposures and higher capital requirements	

Background and implications

- Low levels of capital held by institutions, coupled with high levels of leverage that served to multiply risk, were identified as some of the root causes of the financial crisis. Solvency has therefore been a regulatory priority
- We believe that solvency-related regulation, and the associated increase in capital requirements, will lead to a re-pricing of risk that will significantly compress margins of riskier activities. As a result, financial institutions will withdraw from previously attractive activities, particularly those relying on high levels of leverage, whilst increasing earnings retention to compensate for lower RoEs

Source: Oliver Wyman

2. Liquidity

Regulatory topic	Less ◀ Spectrum of regulation		▶ More	Possible future action	Implications	Key cases
Liquidity measurement	■ Coverage of on-and off-balance sheet exposures via business-driven tools/ metrics	■ Breakdown of liquidity stress across key risk drivers ■ Holistic stress testing (including reverse stress tests)	■ Modelling of stressed cash/collateral flows for all exposures ■ Additional regulator specified ratios/ metrics	■ Prescriptive measurement methodology and stressed parameters per product	Significant upgrade of data gathering, liquidity measurement and MIS system capabilities	**NZ**: Prescription of three liquidity ratios to cover mismatch and core funding capacity for local banks **Europe**: CEBS guidance to compute stressed liquidity position by projecting cash/collateral flows
Intra-day, intra-group liquidity management	■ Liquidity measurement and management across group entities ■ Estimation of and plan to counter intra-day exposure	■ Liquidity buffer setup to consider intra-group dependencies ■ Manage intra-day risk across settlement/payment systems	■ Demonstrate group-wide resilience given legal/regulatory constraints on constituent entities e.g. trapped liquidity	■ Demonstrate self-sufficiency across all group entities ■ Buffers/commitments to withstand severe intra-day stress	Need to quantify liquidity risk contribution by each group entity and account for trapped liquidity Management of intra-day exposure across settlement/payment systems	**UK**: FSA guidance on measurement and management of intra-day and inter-group liquidity management as part of a bank's ILAS submission and systems/controls requirements
Contingency planning and liquidity buffers	■ Guidance on expected survival horizon ■ Commitments from group or parent bodies considered	■ Limitations on sources of contingent liquidity ■ Guidance on the composition of liquidity buffer	■ Minimum survival horizon specification ■ Prescriptive buffer requirements for specific product types	■ Formulaic specification of contingency/buffer requirements	Construction of liquidity buffer from diversified set of highly liquid assets, capability to execute contingency plans under stress Regional parameter calibration	**Switzerland**: SNB outline on increased liquidity buffers across wholesale and retail funding to be finalized by Q2 2010
Liquidity systems, controls and governance	■ Oversight and management across operational and monitoring groups	■ Systems/processes to support daily and even intra-day oversight and reporting of liquidity		■ Inclusion of regulatory oversight on an operational basis	Establish and demonstrate robust capabilities to measure and monitor evolving liquidity situation with senior management oversight	**US**: Inter-agency guidance on liquidity management including corporate governance, strategies, policies, procedures and risk limits
Liquidity viable business models	■ Guidance to seek stable/diversified funding sources	■ Inclusion of liquidity price across products and funding models	■ Steering to less volatile funding sources and lower risk assets	■ Forced separation of business areas to isolate and contain liquidity risks ■ Limitations on asset options available	Implied shift in the source and maturity of funding and assets held by institutions Quantification and inclusion of liquidity premium in pricing	**Global**: BCBS consultation paper outline on differential buffer requirements (e.g. wholesale vs. retail funding)

Background and implications

- Driven by the sub-prime crisis, inter-bank lending stalled and capital markets froze, resulting in a liquidity crisis that subsequently highlighted inadequate liquidity buffers and poor liquidity risk management within banks
- We anticipate that the requirement to hold more and higher quality liquid assets will reduce bank lending capacity, and limit the institution's ability to diversify into more profitable and less liquid assets. Also, fulfilling increasingly stringent measurement and reporting requirements will likely involve significant upgrades of internal systems with associated costs
- Unless there is a global coordination of liquidity standards, there could be an overall cost to a country or region's attractiveness from more aggressive regulation
- Potential for liquidity regulation to extend to consumer protection both in retail asset management redemptions and NBFIs

3. Compensation

Regulatory topic	Less ◀ Spectrum of regulation		▶ More	Possible future action	Implications	Key cases
Compensation governance	Board oversight	Linking risk oversight & comp. governance	Public disclosure of compensation	Stricter independence of compensation committee	Greater involvement of risk function, more transparency	**UK**: New financial services pay rules to require disclosure of top 20 non-executive earners
Structure of compensation process	Linking to firm-wide results	Linking of bonus pool to enhanced risk-adjusted metrics	Linking individual comp. to risk-adjusted metrics and KPIs	More consequential validation process	Alignment of compensation to strategy promoting right employee behaviors	**Australia**: Proposal that Boards can be sacked if two rounds of compensation recommendations are not accepted
Setting of executive and risk-taker compensation levels	Stricter rules on guaranteed bonuses	Compensation cap on companies that received government aid	Alignment of control function comp. levels with required calibre of talent	Linking of compensation policies and levels to required capital	Potential for loss of talent to rival companies/other industries	**US**: Pay Tsar appointed with remit to design pay rules for execs at companies receiving government aid
Payout mechanisms	Greater proportion of payout in stock	Deferral of bonus linked to risk horizon	Deferred compensation at risk of future results	Legal clawbacks on untruthfully inflated earnings	Incentivizing longer-term and through-the-cycle good behaviors	**FSB**: Proposals calling for 40-60% of bonuses to be deferred for several years and subject to clawback

Background and implications

- Diagnosis of the role of compensation in the financial crisis has been overplayed, but it is an important transmission mechanism that Boards can oversee, top management can steer and regulators can, and indeed have, introduced and implemented a variety of rules and principles on
- Oliver Wyman expects to see institutions complying with the recent and emerging regulatory actions in two possible ways. Companies will either implement and adhere to the regulatory requirements minimally, using leeway in interpretations and loopholes to ensure least disruption to the status quo. Or they will embrace regulation, be proactive and embark on a full redesign in anticipation of longer term company benefits achieved through balanced, better controlled and more risk adjusted compensation schemes with the correct incentivization of behaviors. Should future regulation remove or reduce "first-mover disadvantage", we expect a greater number to embark on the latter option
- We anticipate future compensation regulation to involve making current proposals more concise, closing loopholes and increasing practical application rather than introducing new, or changing existing principles. We also expect that compensation mechanisms for non-advised products will largely be self-regulated and consumer protection laws will be extended

Source: Oliver Wyman

4. Consumer and investor protection

Regulatory topic	Less	Spectrum of regulation	More	Possible future action	Implications	Key cases
Provision of adequate and appropriate information	■ Advice requirement for most complex products	■ More stringent prosecution of mis-selling, particularly structured products	■ Explicit fiduciary duty for all investment advice	■ Ongoing tax on consumer FS firms to subsidize financial literacy	Mis-selling concerns increases aversion to third party products, Increasing channel access for established players	**US**: Proposed Investor Protection Act mandates fiduciary duty for all financial intermediaries
Protection from aggressive practices	■ Mandatory cooling off periods ■ Limits on foreclosure and recovery practices	■ Limits on excessive rates, fees and charging models ■ Prohibit negative payment hierarchies	■ Extending range of products that fall under advised product regulation	■ Over-selling compensation e.g. forced mark-down on mortgages based on house prices	Pre-emption emerges as a tool: introducing flexible payout structures for mortgage or cards, especially for stressed consumers	**US**: Bill in Congress proposes bankruptcy courts to adjust mortgages
Preventing over-in debtedness	■ Customer credit limits e.g. Total debt or debt servicing (unsecured lending only) cannot exceed proportion of annual income	■ Limiting proactive credit limit increases	■ Enforced period of savings as condition for loan – potentially government run, funded, or subsidized scheme ■ Stricter insolvency laws	■ Prohibiting long-term revolving credit ■ Caps on LTVs	Reduced levels of leverage	**Germany**: Government sponsored Bauspar system requiring savings of up to a certain percentage of mortgage before release of full loan
Preventing moral hazard in rating agency	■ Additional disclosure of information about – Potential conflicts of interest – Material limitations on scope of rating	■ Rating agencies subject to external dispute resolution schemes and liable for their ratings ■ Explicit risk retention requirement for securitizations	■ Revision of rating agency compensation structure	■ Publicly owned rating schemes funded by general or transaction tax revenues	Withdrawal of ratings from retail products	**Australia**: ASIC mandated to regulate rating agencies ASIC rules that rating agencies can be sued for ratings given to investment products
Aligning incentives	■ Extended disclosure of advisor remuneration	■ Constraints around soft incentives	■ Capped commission levels	■ Fee-only based independent advisor remuneration	Bifurcation between fee-only independent channels and commissioned in-house channels	
Valuation of assets in illiquid markets	■ Reduced allowance to classify assets as hold-to-maturity	■ Focus on through-the-cycle type accounting measures	■ Capped commission levels	■ Adjust carrying value of lending book via market based risk measures, e.g. CDS spreads	Liquidity and marketability of assets explicitly considered as a premium	

Background and implications

- Consumers and investors have suffered significant losses in a financial crisis that was stimulated in large part due to flawed practices and structural weaknesses of financial institutions e.g. misaligned incentives encouraging risk, improper advice, etc.
- We anticipate that market participants in their desire to attract back investors and consumers, will not only embrace the regulatory efforts to boost consumer and investor protection, but will also help drive action from within the industry to restore confidence e.g. self and proactive regulation to cease activities which might be deemed exploitative, e.g. proactive revolving credit card limit increases. We see the restoration of investor and consumer confidence, and the rebuilding of reputation as a joint regulatory and industry priority

5. Global co-ordination and cross-border regulation

Regulatory topic	Less	Spectrum of regulation	More	Possible future action	Implications	Key cases
Protecting domestic tax payers	■ Self-contained liquidity requirements ■ Delayed privatization and foreign entry	■ Increased capital requirements for overseas lending ■ Capital controls into short-term portfolio investments	■ Broader controls across all capital investments	■ Capital liquidity "regulated" internationally – Bretton Woods for bank capital	Adoption of multi-domestic model with standalone local entities and a global "brand"	**Taiwan**: Banning of foreign funds from investing into deposits
Tackling cross-border capital/tax arbitrage	■ Branches urged to become subsidiaries ■ Pressure on banks to disclose tax haven assets	■ Branch establishment under home-regulation restricted	■ Host country taxation for tax-advantaged foreign investors	■ Branches subject to host regulation	Financial centres compete not based on tax-arbitrage but by regulation, access and skill-base	**UK**: FSA proposed turning overseas branches into subsidiaries fully capitalized locally and overseen by the local regulator
Windfall tax on financial institutions	■ "Systemic risk tax" on major banks to fund systemic risk relief efforts	■ Windfall tax on banks to repay subsidies during crisis	■ Explicit taxation of Financial Services transactions (Tobin tax)	■ Mandatory tax on large, "too big to fail" institutions in return for government insurance against failure	Advocate alignment of total taxation to total subsidy benefits Increase visibility of regulation costs as a tax	**UK**: Government to impose on banks a one-off 50% tax on all bonus payments above £25,000
Encouraging competition	■ Encourage sub-scale consolidation ■ Selectively lowering barriers to entry	■ Lowering barriers for large scale non-bank entities e.g. retailers ■ Facilitate bank account portability	■ Creation of government/Post banks ■ Restricted participation in domestic asset sales	■ Costless and automated bank account portability	Public efforts to provide choice unlikely to stem flight-to-quality in the short term	**UK**: To grant licence for creation of new bank – front runner is Virgin
Supervision and regulation of multinational organizations	■ Named list of systematically crucial players	■ Establishment of supervisory collages	■ Harmonization of regulatory principles across EU ■ Establishment of information sharing standards	■ Global harmonization of regulatory interpretation and implementation	Supervision and regulation of multinationals dependent on extent to which harmonization and global implementation of regulation is achieved	**FSB**: Announced that they will publish a named list of systematically crucial players
Withdrawal of support mechanisms	■ Prior exchange of information on planned exit strategies between regulators	■ Market-based exit from support mechanisms	■ Deferred co-ordinated disengaging from extraordinary depositor protection policies compensation at risk of future results	■ Retaliatory actions to countries that don't adhere to coordinated programs	Increased regional and global coordination	**Hong Kong, Singapore, Malaysia**: Formed a regional tripartite working group to co-ordinate exit from current exceptional guarantees

Background and implications

- To reap the full benefits of regulation will require regional and, as much as is possible, global co-ordination and harmonization of the rules. However, there is early indication that such global co-ordination may be limited, as evidenced by general US independence in crisis response action and in future regulatory proposals and actions (e.g. reluctance in adopting Basel II)
- Should a windfall tax be considered, it should take into account two things: timing and rationale. Firstly, taxing too much too soon might prevent banks from rebuilding their capital bases at a time when regulators are demanding that they do so. Taxing too little too late might mean that all the big profits are paid out before governments have a chance to recoup their subsidies. Secondly, it is important that these taxes are imposed for a reason i.e. to reclaim subsidies, and that banks that didn't receive any subsidy are not taxed

Source: Oliver Wyman

6. Market infrastructure reform

Regulatory topic	Less	Spectrum of regulation	More	Possible future action	Implications	Key cases
Clearing houses	■ Clear business continuity plan and contingency funding standards, especially transfer to alt clearing house upon failure	■ Application of "competitive clearing model" in markets where conglomerate/ exchange owned clearing houses operate	■ Imposition of capital charge against ownership risk on conglomerate/ exchange owned clearing house	■ Restricted licensing and takeovers ■ Enforced separation of clearing houses from exchanges	Break-ups	**US**: Department of Justice has called for clearing houses to be broken off from the futures exchanges that own them
Standardization and migration of OTC derivatives onto exchanges	■ Standardization of contract specification details	■ Migration onto electronic platforms (e.g. ASEF, MTF)	■ Migration of OTC trades onto exchanges (or similar venues with "pre-trade" transparency)	■ Reporting of major exposures in a more transparent and accessible way	Potential for major market structure disruption and migration of profit pools if OTC business goes on exchange	
Central clearing of all standardized OTC derivatives	■ Strengthening of bi-lateral clearing	■ Require all "standardized" derivatives for FI counterparties to be centrally cleared	■ Require "standardized" derivatives for all counterparties to be centrally cleared	■ Require CCPs to actively monitor product market for potential provision of CCP service	Reduced counterparty risk charges; migration of value to tech heavy players; potential for substantial client side disruption	
Reporting of all non-CCP cleared OTC derivatives	■ More stringent recordkeeping and reporting requirements	■ Central collection of data on all OTC derivatives – data available to regulators	■ Public reporting of OTC derivative position data		Improved systemic risk oversight; risk of liquidity damage from public reporting	
Non-standardized OTC derivatives	■ Higher capital charges for increasingly complex products and transactions (e.g. non-CCP OTC trades)	■ Higher capital charges for non-bank participants in OTC trades	■ Restricted participation by retail or non-financial institutions	■ Zero capital charge for CCP cleared derivatives	Higher capital costs and less profitability for non-standardized business, less product flexibility for clients, less innovation	**UK**: Suggested zero capital charge for CCP cleared derivatives to incentivize transactions through CCP

Background and implications

- Opacity and complexity associated with OTC derivatives allowed high levels of leverage to build up through these products at both an institutional and system-wide level. Furthermore, the crisis highlighted potential weaknesses of regulatory concern in the wider market infrastructure
- We anticipate that profitability of OTC trading is likely to face pressure from market structure reforms that could drive up the cost of non-standardized business, reduce liquidity and ultimately could severely erode margins. Eventual outcome of regulation could range from changes to back-office processes and reporting only to the virtual disappearance of flow OTC activity in favour of exchange-based trading for certain product classes

7. Reducing systemic risk

Regulatory topic	Less	Spectrum of regulation	More	Possible future action	Implications	Key cases
Tackling capital arbitrage	■ Restricting activity	■ Alignment of Basel II and Solvency II to reduce arbitrage between banking and insurance	■ Specific treatments for identified arbitrage opportunities	■ Global adoption of Basel II ■ Regulatory capital requirements for hedge funds	Institutions required to hold more capital	
Addressing "too big to fail"	■ Regulatory forbearance dialed back	■ International scrutiny ■ Curbs to growth for implicit subsidies ■ Living wills	■ Incremental capital charge for increasing institution size/ complexity ■ Forced break up	■ Maintain partial government ownership ■ Moral hazard tax ■ Re-instating Glass-Steagall act	Capital-rich buyers benefit from expanded cross-border growth opportunities	**UK**: Lloyds Banking Group to be broken up in accordance with EC requirements
Regulatory coverage and interfaces	■ Strengthening of data collection procedures/ more stringent data submission requirements	■ Creation of a macro-prudential supervisor/ regulator	■ Movement to risk-based supervision across banking, insurance, asset management	■ Coverage of "shadow" financial sector ■ Establishment of registration, reporting and oversight for hedge funds	Robust supervision of risks across the whole financial system to potentially reduce severity of future crises	
Monitoring and reducing leverage build-up	■ Implementation of a leverage ratio	■ Limitations on Repo activity	■ Increasing capital requirements at margin as leverage increases	■ Creation of an independent body with the policy instruments to deal with increasing leverage levels	Reduced financial system leverage to increase stability but lower industry RoE	**Basel Committee**: Proposal to introduce a volume-based leverage ratio
Mitigating pro-cyclicality	■ Relief from mark-to-market accounting rules	■ Loan to value ratios at the asset level	■ Counter-cyclical capital requirements/ loan loss provisions dependant economic cycle	■ Mandated portfolio diversification for pro-cyclical assets, markets ■ Encouragement back to DB/hybrid retirement schemes	Contained excess credit growth and protection of banking sector from system-wide risk	**Spain**: Requires forward-looking loan loss provisioning across banking sector

Background and implications

- A number of specific regulatory shortcomings and loopholes made the crisis possible and played a significant part in regulatory action not being taken to mitigate and prevent systemic risk occurring. The unchecked growth of institutions within the financial systems led to some that were simply "too big to fail". The potential for system wide instability from the failure of such institutions, as evidenced with the fallout from the collapse of Lehman Brothers, has thus required unprecedented levels of government support and intervention
- We see regulatory action to deal with "too big to fail" institutions as a two pronged approach involving firstly, regulation that encourages healthy competition in the market, and secondly, active measures to keep the size of firms from becoming too large
- We feel that, post recovery, enacting some of the more aggressive measures such as forcing the break up of institutions, may prove difficult to justify. Furthermore, developing a widely accepted definition of "too big" will be difficult. Therefore we believe that living wills and incremental capital charges are seen as more attractive options to tackle the "too big to fail" issue

Source: Oliver Wyman

Business model implications of likely regulatory evolution

Category	Indicative business model implications
Solvency	■ Higher across-the-board capital requirements will lead to lower ROEs ■ Capital surcharges for systemically important institutions will penalize size, undercutting scale benefits ■ Assets will shift back on balance sheet through reductions in flow-based businesses and long-term changes to securitization
Liquidity	■ Viability of pure wholesale-funded businesses seriously challenged ■ Restructuring of balance sheet to reduce liquidity maturity gaps in banks, investment banks, monolines, and guaranteed principal funds ■ Emergence of "closed-loop/match funded" models
Compensation	■ Compensation restrictions in regulated firms likely to create growth opportunities in unregulated, niche sectors
Consumer and investor protection	■ Increased compliance costs, especially for sales and distribution, due to heightened scrutiny ■ Increased liability costs in litigious jurisdictions ■ Use of behavioral economics to redesign incentive-compatible consumer products ■ Push for greater product standardization and price transparency to erode margins and increase scale advantages (particularly in retail and SME products)
Global co-ordination and cross-border regulation	■ Reduced opportunities for cross-border regulatory arbitrage ■ Increased complexity of home/host supervision reducing attractiveness of global models
Market infrastructure reform	■ Splitting of clearing houses and futures exchanges ■ Reduction of flow OTC activity in favour of exchange-based trading
Reducing systemic risk	■ Scale and complexity penalized by systemic risk surcharges ■ Yet "too-big-to-fail" and quasi-nationalized institutions will benefit from lower debt costs

Source: Oliver Wyman.

De-risking

After a necessarily brutal de-risking of business portfolios, most financial institutions are now adopting a more thoughtful approach to risk management. Many are reviewing their risk measurement to ensure it captures all relevant risks (including liquidity, operational and reputational), and better aligning risk taking and likely earnings volatility to investor expectations. Some boards are seeking independent external audits to ensure that actual risk taking complies with stated risk appetite across the business portfolio.

Given the magnitude of pre-crisis investments, some bankers are understandably dismissive of risk capabilities. However, more have reacted to the crisis by increasing their investment in applied risk analytics, improving their capabilities in scenario analysis, portfolio structuring and individual exposure underwriting.
The lesson such firms draw from the crisis is that technical risk capabilities remain important, and that the answer is more rather than less investment in tools and management, coupled with a much more prominent role for risk in strategy and governance.

Securing funding sources

Since the start of the crisis, retail deposits have become the lifeblood of the banking industry. Banks have responded primarily by lifting prices, both those paid to depositors and the internal funds transfer prices paid for deposit gathering.

Price wars are always expensive. This one is exacerbated by the state of securitization markets and by regulations that threaten to dramatically reduce fee income from retail deposit accounts. Some players are avoiding the worst consequences of this war for deposits by:

- Re-thinking historical “truths” about the business, including the absolute value of deposits and the best means of attracting and retaining core customers (such as branch density)
- Developing explicit end-to-end deposit strategies which ensure that non-price levers are fully exploited

- Building new tools, including short-term supply curves that show the relative cost of incremental deposit volumes across the enterprise, internal/external cannibalization matrices, which help with short-term price/volume trade-offs, and value/volume tools that ensure value is maximized for given volume
- Improving organizational focus and alignment around deposits by developing an explicit deposit culture (often CEO led) and forming deposit councils or other cross-organizational mechanisms

Beyond these common remedies there are several additional areas where we see banks taking action to aid their recoveries or to maintain their current relative strength.

2.4.2. Other remedies

Improved value analytics

Following the crisis, the sources of value for financial institutions are likely to change with more speed and uncertainty than usual, increasing the difficulty of properly allocating resources. Firms will do better if they have analytic capabilities that allow them to estimate the value of products and customers (or segments) and the migration of value given likely changes to regulations and in customer and competitor behavior.

To date, the use of such sophisticated analytics has been most advanced in US credit monolines and direct general insurance players. It is now gaining mainstream appeal, in part, because of its ability to identify pockets of value in a generally low growth and low margin environment. Although deposit volumes are growing quickly as developed market customers remember how to save, margins on new business are often negative. Conversely, lending growth is slow to negative but margins are healthy, at least until more aggressive regulation is enacted.

We believe there are many areas in a typical financial services business where significant value can be captured with advanced analytics. Beyond the traditional areas, such as lifetime value and attrition root-cause analysis, the crisis has improved the business case for using advanced analytics in areas such as deposit-loan matching, online pricing and sub-segment targeting.

More consolidation

Our analysis reveals that smaller and in-market acquisitions produce the best results. The crisis has only increased the advantages accruing to domestic scale – with implicit “too big to fail” government guarantees, reduced unit compliance costs and the de-globalization of funding – thereby reinforcing the in-market consolidation strategy. (Of course, this could be reversed by regulatory measures aimed at discouraging banks from becoming “too big to fail”.)

The learning gained by serial acquirers means that they have generated the most consistent returns. Hence we are seeing an increasing number of newcomers to takeovers partnering with Private Equity houses who bring not only capital but expertise in post-merger integration.

The opportunity is greatest in the largest and most fragmented banking market, namely, the US. A combination of either failures or enforced mergers (we estimate 675-1000 through the fullness of this crisis), including substantial entities such as Bear Stearns, Wachovia, Merrill Lynch and Washington Mutual, will reduce the total number of US banks from over 7,000 to around 4,300 by 2015.

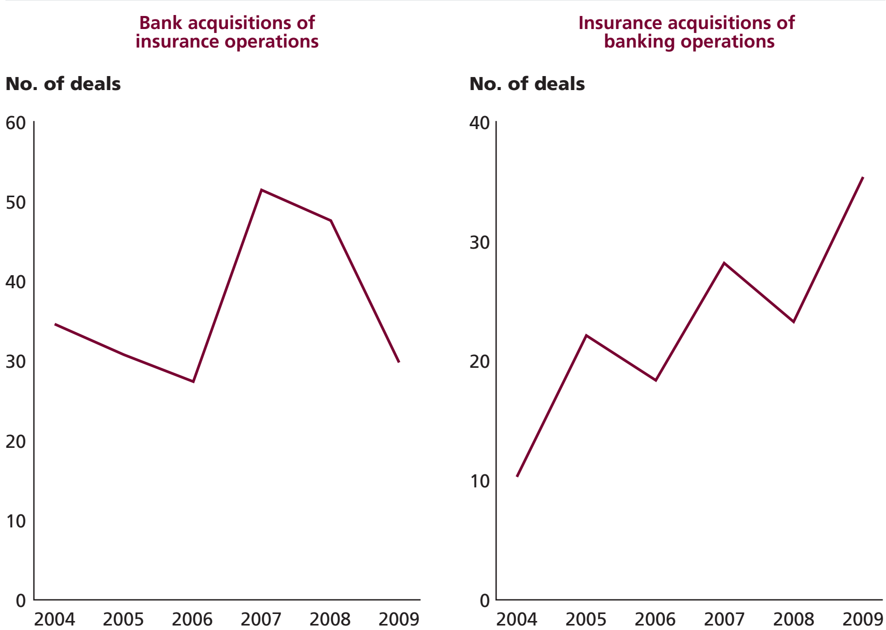
More diversification

An obvious approach to diversification is to apply a successful domestic proposition in another country. This can be done well, as demonstrated by banks such as HSBC, Santander and Standard Chartered, but it is not easy. Our analysis suggests that geographic diversification creates sustainable value in only two ways: by reducing unit costs in the platform (Santander) or by increasing risk diversification in the asset portfolio (HSBC).

Nevertheless, we expect that the higher growth trajectory of emerging economies will encourage cross-border diversification from developed economy financial institutions (see Exhibit 13). For example, the Paris-headquartered AXA is selling its Australian assets to help fund its plan to invest US$7 BN in higher growth Asian markets.

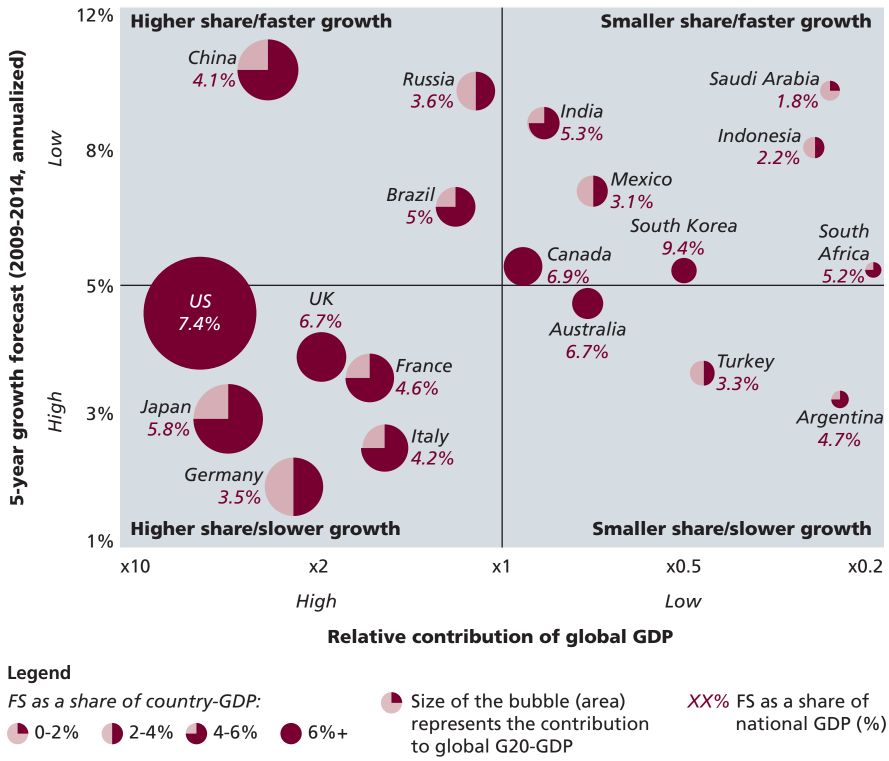
The other form of diversification is cross-sector, typically pursued to provide fuller access to the lifetime value of clients. About a quarter of the financial institutions we monitor are selectively diversified: they have a cross-sector offering, but are not a complete financial services "one-stop shop". The most popular combination (80 per cent) is banking and wealth management. Next is bancassurance. The frequency of bancassurance failures and scarcity of capital has meant that the number of banks acquiring insurance assets has fallen by 38 per cent this year. However, the relative strength of insurance players has resulted in a 52 per cent annual increase in their acquisition of banking operations.

Exhibit 12: **M&A activity between banks and insurers**



Source: Dealogic, Oliver Wyman analysis based on all global transactions.

Exhibit 13: **Economic attractiveness and financial services industry share**



Source: IMF, World Economic Outlook, April 2009, Oliver Wyman analysis.
Note: Only G20 countries have been positioned on this matrix. Contribution to global GDP is based on G20 countries.

Another form of selective diversification worth noting involves bolting on flow or low-capital intensity annuity-style businesses. These include transactions, payment and bill processing, ATM networks, administration services, charge card businesses, merchant acquiring, custody and security processing. In general, these businesses already benefit from significant scale and higher P/E ratios. Acquiring them can therefore require a big bet, but it is one that will typically increase ROE and lead to a sustainable positioning in a relatively smaller profit pool. While this is a strong play for banks, global insurance firms, such as AXA and Allianz, have also been active in the payment segment. By bolting on payments, insurers gain customer control (fraud prevention), improve collections and claims payments, and take costs out of their value chain.

Innovation

Innovation has a perhaps deservedly bad reputation in financial services. On the one hand, retail banks and insurers rank poorly at innovation relative to telecoms and other industries. On the other, innovative products in capital markets, which have accelerated capital mobility and contributed over 40 per cent of annual profits to the sub-sector, have been blamed for the crisis.

Given the death of entire product categories and slowing or negative volume growth, the industry will need to innovate to find new profits. Financial services innovation falls into four broad categories:

- *Downward mobility.* This involves the development of lower-cost business models to supply products and services that could previously be provided only to large customers, to a broader group of customers. This is occurring rapidly across the industry, for example, with corporate banking products, such as hedging and working capital solutions, being provided to middle-market and small and medium enterprise (SME) customers, lifestyle or target-date funds being provided to retail investors, and risk prevention advice being provided to P&C customers
- *Refining or combining existing products to be more solution-oriented.* While early approaches added bells and whistles or were forms of cross-selling or bundling, more successful recent efforts have used third-party products and affinity marketing to create compelling client segment-focused propositions. Given the aging populations of developed economies, the comprehensive pre- and post-retiree proposition of SAGA and AARP are good examples
- *Creating new products and services that complement existing propositions.* For example, the crisis has highlighted the fact that many people have no savings buffer. The industry could complement existing savings products with a service that helps customers build a saving buffer to cover lost income or unexpected health expenses

- *Creating fundamentally new products*. At its most basic level, the financial industry provides four things: saving and investment, credit, transactions and risk management. The most potential for innovation is across, rather than within, these categories. Little has been done to combine components from wealth, insurance and banking to create effective solutions for clients. Nowhere is this need more acute than in the succession phase for business-owners and the "dis-saving" phase for retirees, where issues about accessing owner-occupied housing equity, liquidity, longevity protection and long-term care coalesce

  Nor has the industry provided advice or education that allows customers themselves to combine products from the traditional segments effectively. The rise of the personal finance media and third party advisory channels (including brokers, intermediaries, and accountancy consulting services) testifies to the failure of industry incumbents to capture this opportunity. Consequently, where regulation allows, product sales roles are increasingly being broadened into advisory roles – initially with the goal of cross-selling but gradually evolving to a genuine attempt to produce better outcomes for clients

In Exhibit 14 below, we summarize the likely post-crisis evolution of business models for each major financial services sub-sector.

Exhibit 14: **Summary of likely business model adaptations by sector**

	Business model evolutionary trends
Retail banks	■ Exploit sell shelf space to access insurance and wealth profit pools, selective diversification and ultimately convergence in saturated consolidated markets ■ Simplified and detoxified product ranges ■ Focus on proprietary sales channels for service and operational and reputational risk
Business banking	■ Exploit sell shelf space to access insurance and wealth profit pools, especially for high net worth business owners and private banking customers ■ Bias to domestic markets ■ Cross-selling and liabilities focus
Corporate and institutional banking	■ Deeper local franchise where present, reduce marginal locations ■ In-market universal banking ■ Expansion of processing-type and advisory-type businesses ■ Exit illiquid principal strategies ■ Convergence with asset management ■ Scaled intermediation ■ Significant complexity reduction in delivery
All banks	■ Selective exposure to fast-growing emerging markets ■ Bias to multi-domestic and regional rather than global models ■ Focus on liabilities and exploration of "closed-loop"/match funding models ■ Consolidation for cost saving and benefits of multi-brand/multi-channel management ■ Outsourcing/offshoring of non-advantaged activities ■ Non-operating holding company models which create clear delineation of sub-sector specific subsidiaries ■ Nationalization unlikely to go away fully or quickly ■ Risk appetite retrenchment
Life insurers	■ Gain exposure to retail banking customers and products through acquisitions of traditional franchises or build-out of direct channels ■ Focus on pre-and post-retirement solutions by building closer ties with governments and industry associations ■ Selective exposure to fast-growing emerging markets through portfolio reallocation, joint-ventures and acquisitions
P&C and mixed insurers	■ Focus on low-cost direct distribution and alternative channels (e.g. automotive manufacturers, dealers) and some moves into retail banking ■ Selective exposure to fast-growing emerging markets through portfolio reallocation, joint-ventures and acquisitions
Payment processors	■ Re-emergence and reinforcement of domestic payment schemes supported by domestic regulators and participants as an alternative to the globals ■ Continue to seek emerging market exposure ■ Banks, insurers and others to expand their control in payments to access low capital businesses

Source: Oliver Wyman.

2.5. New lifestyle

Upon recovery, many who suffer a near-fatal experience resolve to lead more meaningful lives. “The bad habits are a thing of the past”, they declare. We expect financial firms to go through a similar process, making efforts to repair their damaged reputations and, in some areas, changing their ways.

2.5.1. Rebuilding reputations

Like those recovering from a medical emergency, financial institutions will have to convince their stakeholders that they are fit and healthy again, and that they can be relied upon to fulfill their commitments.

Reputation management is not a new challenge for the banking sector. Well before the crisis, “bank bashing” was a popular pastime. The crisis has further sullied the industry’s reputation. But the consequence for individual institutions is not so straightforward. A recent survey revealed that UK customers are angry with bankers in general but not with their own bank. And banks and insurers that have done well during the crisis have actually improved their reputational scores (while some poor performing institutions have seen theirs halved). At the individual firm level, the importance of reputation to customers increased by 51 per cent over the six months to December 2008. Our annual survey of CEOs reveals their view of the most important “reputation levers”.

Exhibit 15: **Top five reputation levers currently explored by CEOs to enhance industry reputation**

	Initiatives	CEO mentions
1	Transparency	40%
2	Communication	18%
3	Better advice/service quality through improved field training	14%
4	Client first/adapt products to clients' needs	12%
5	Community/social responsibility	12%

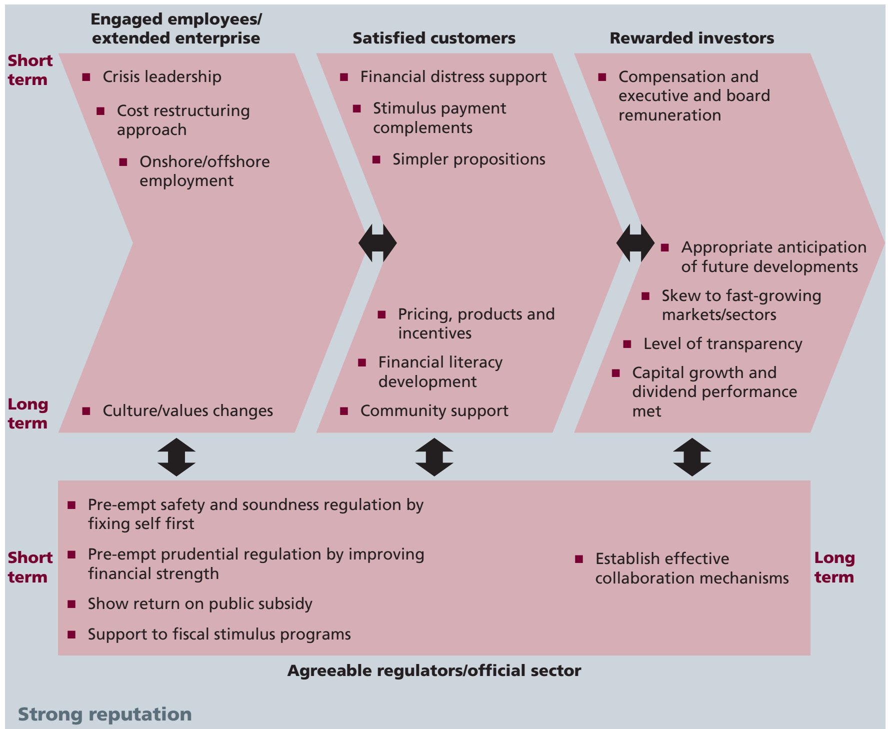
Source: Oliver Wyman Annual CEO Survey, Oliver Wyman analysis.

A great variety of actions are possible within these categories, and we expect many to be taken as more players complete their recovery and begin to invest in rebuilding reputations. To take one notable example, Bank of America has issued its first *Lending and Investing Initiative* quarterly report. This provides a snapshot of the firm's activity in ten areas important to reviving the US economy, fulfilling a pledge to provide greater transparency to shareholders and the public.

Rebuilding trust is not easy. Many goals, such as embedding values into organizational culture, will take many years to achieve and to be recognized externally. Improving a poor reputation is a major undertaking, requiring the same kind of senior management attention and discipline that other important projects receive. A perceived lack of commitment or inappropriate behavior within any of the firm's divisions can quickly undo any amount of good work.

Exhibit 16 identifies the issues that must be addressed if financial institutions are to win the confidence of employees, customers, investors and regulators.

Exhibit 16: **Reputation remedies by stakeholder group**



Source: Oliver Wyman.

As competitive reputation rebuilding initiatives become increasingly common and therefore less differentiated, we expect to see more substantial initiatives with cross-industry benefits to be led and coordinated by industry associations.

2.5.2. Changing ways

We believe financial institutions will build the strongest long-term futures by devoting themselves to serving customers' interests. There has been much talk about customer-centric strategies in recent years, but its meaning is often vague. We mean only that the proposition to customers should be based on their desired outcomes. The industry is still typified by manufacturers and distributors who simply supply financial products, leaving it to customers to configure them to achieve their goals. This stands in sharp contrast to healthcare, our metaphor industry, where the industry is devoted to supplying customers with an outcome – namely, their good health – rather than with the products that might deliver it.

The challenges in delivering an outcomes-based proposition lie in finding suitable measures of success and, of course, in achieving them. Consumers of financial services have very different circumstances and preferences, making it difficult to construct performance benchmarks that are appropriate for more than a small fraction of customers (although progress can be made, see Exhibit 17). And financial institutions cannot control factors that will unavoidably affect outcomes, such as property values, interest rates and the performance of stock markets.

Exhibit 17

	Customer relative to benchmark	**Customer base relative to competitors**	**Country relative to economic peers**
Retail	What savings buffer targets suit you?	What is the proportion of a customer base who have a current savings buffer in place?	What is the population savings rate?
Business	What is the ideal level of working capital for your business?	What is the proportion of businesses with a working capital plan in place?	What is the level of GDP-adjusted credit provided to the sector?
Life insurance	What proportion of my "human capital" is insured?	What proportion of a customer base have income insurance or access via a current offer?	What proportion of the population have income protection in place?
General insurance	What proportion of your assets are insured?	What proportion of a customer base are not under-insured?	What proportion of owner-occupied houses are insured?
Wealth	What investable assets do you have for your age and income band?	What proportion of a customer base have a current retirement plan in place?	What proportion of the population will retire with their target income level?

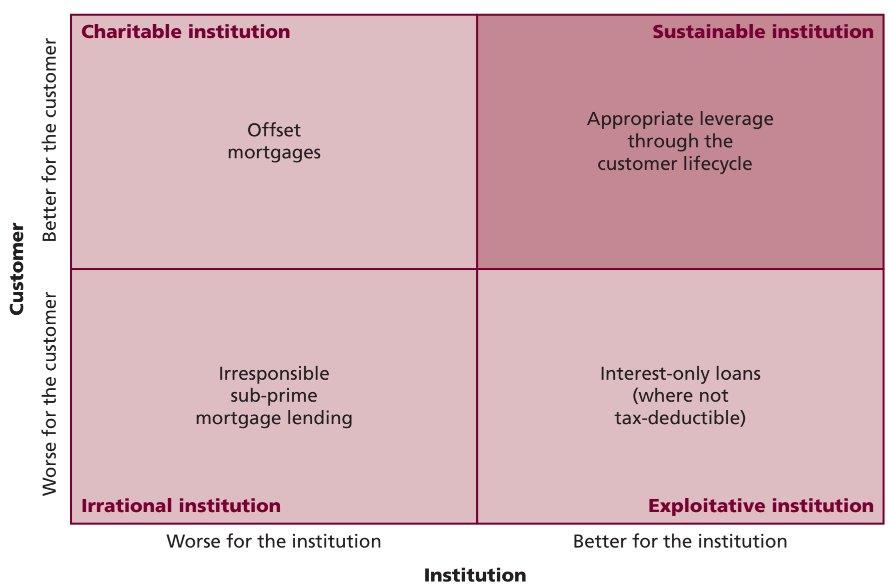
Source: Oliver Wyman

But these obstacles are not insurmountable. Private banking clients live with this unavoidable uncertainty, and so can less wealthy consumers of insurance, wealth management and other financial services. Provided it is presented with suitable honesty and humility, consumers should prefer an outcomes-based proposition to simple product push, creating a significant competitive advantage for those institutions that rise to the challenge.

Financial institutions are not charities. They cannot take "putting the customer first" to mean taking no profits from them. Rather, they must seek to maximize long-term profits from ethically uncontentious sources. They must aim to do what is both good for the customer and good for the institution. This is the sustainable approach to business.

A surprising amount of financial institutions business pre-crisis failed to meet this standard. As sketched in Exhibit 18 below, some was good for the institution but not the customer (such as extending high-margin, unrequested credit card limits), some was good for the customer but not the institution (such as offset mortgages, which reduce banks' interest income) and some was bad for both parties (such as making home loans to people incapable of meeting even the interest payments).

Exhibit 18: **"Good institution, bad institution" framework**



Source: Oliver Wyman.

3. Progress to date

Exhibit 19 reveals the recovery progress made so far – at least, as measured by our shareholder performance index (SPI) applied to the period from August 2007 to December 2009. Since this measures only post-crisis shareholder returns (see the inside back cover for the methodology), which may be driven by governmental support rather than successful structural or strategic reforms, this should not be taken as a forecast of future performance.

Exhibit 19: **Recovery performance**

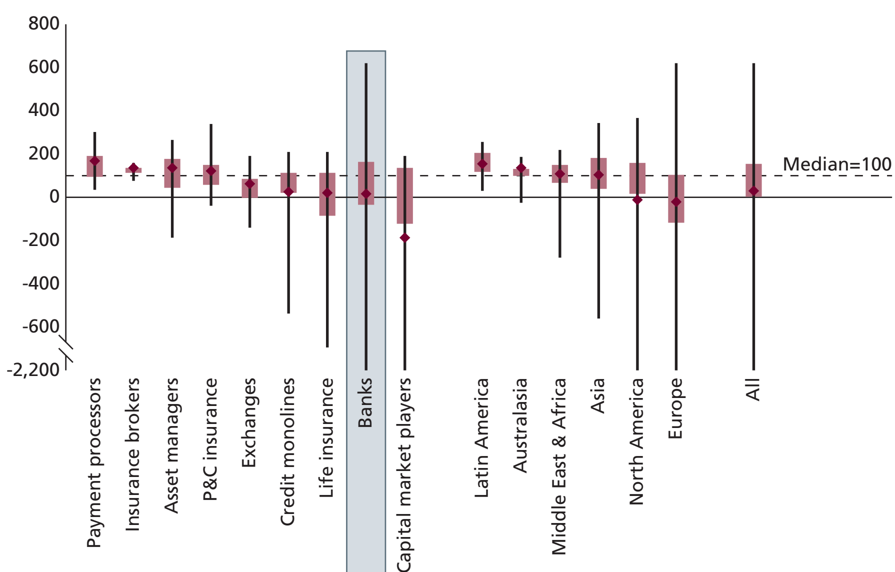
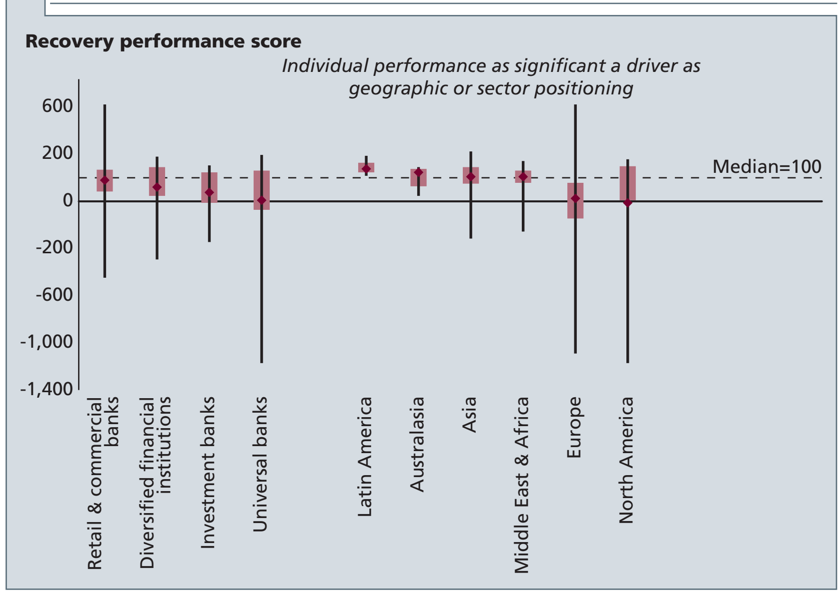
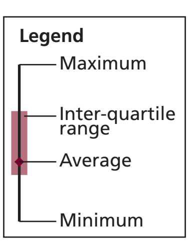


Exhibit 19b: **Recovery performance of the banking sector**





Source: Oliver Wyman analysis based on shareholder performance from the post-crisis period (August 07-December 09).

Performance post this crisis has several drivers, many of them facts about the pre-crisis situation. At the national level, these include macro-economic performance, the strictness of the pre-crisis regulatory regime, the capacity for government borrowing (partly determined by the pre-crisis ratio of debt to GDP) and the capacity for interest rate cuts (also determined by their pre-crisis levels).

At the institution level, the main drivers are exposure to devaluing assets and the mix of funding sources. Banking sub-sectors have fared better when a high portion of their funding came from retail deposits and when they had low exposures to opaque structured assets or declining property markets. P&C insurers, with their conservative asset/liability profiles, have done well, while life insurers' balance sheets have been severely damaged by their exposure to "toxic assets".

4. How likely is a relapse?

As noted, most financial institutions have returned to profit and their share prices are rising. They appear to be moving through the five stages of recovery, with most in developed economies somewhere between the convalescence and rebuilding phases.

And there have been a number of external or structural developments that justify a renewed sense of security. Household savings rates in developed economies have increased; the sub-prime mortgage securitization business that fueled and spread the crisis has shut down; financial institutions are deleveraging their balance sheets; supervisory agencies are highly engaged; and there are globally coordinated initiatives to improve regulation.

Yet it would be premature to declare success. There are several reasons to fear a reversal of fortunes for the sector or even another crisis in the not-so-distant future. We cannot say with certainty that they will lead to a major set back, but we can list them:

- Governmental responses to the crisis have exacerbated the "moral hazard" in banking. First, it has confirmed that some financial institutions – those deemed systemically important – are "too big to fail". This means that the risk premium depositors and bond holders demand from such a financial institution bears little relation to its risk taking, thus removing the principal market discipline on risk. Second, the forced mergers of weak banks have increased the number that count as systemically important

- The regulatory agenda is placing great faith in capital ratios as a mechanism for ensuring bank solvency. This faith may be misplaced. All of the US and UK banks that required bailouts had capital well in excess of their regulatory minimum. It is unlikely that politicians will allow regulatory capital minimums to be lifted to the extraordinarily high levels that would have been required to prevent the recent crisis. For this would entail an increased cost of borrowing that would dramatically slow economic activity

- More generally, too much confidence may be being placed in the ability of regulation to avoid financial crises. Despite much rhetoric to the contrary, the industry was heavily regulated pre-crisis. Indeed, the crisis occurred immediately after most developed economy banks had come into compliance with Basel 2, a major regulatory initiative aimed at ensuring bank solvency. The likelihood of error in the design of regulations, of slow implementation and of "regulatory arbitrage" mean that regulatory efforts could end up being worse than useless
- There have been some radical proposals for restructuring the industry, such as a return to Glass-Steagall or splitting financial institutions whose assets exceed some limit or applying "pace makers" aimed at preventing credit driven bubbles (e.g. linking regulatory capital to the ratio of credit to GDP). These may or may not be effective means of avoiding future crises. However, they are politically difficult to implement, especially since they would work only with a high degree of international cooperation. Competing financial centres would have an incentive to "break ranks"
- The public finances of several countries are extremely strained, and not all of them are as small as Iceland, whose sovereign debt is now junk. A major sovereign default could spread losses though an already weak banking system
- The full extent of household and commercial bad debt may not have been faced in some (primarily European) economies. And current governmental pressure on banks to stimulate economic activity by making loans they do not deem worth the risk could exacerbate future credit losses
- The financial services industry remains global, with many developed economy financial institutions turning their attention to the growth potential of emerging markets. This increases the banking system's vulnerability to an economic shock in a rapidly growing, immature economy
- With short-term interest rates near zero and fiscal deficits in many major economies exceeding 10 per cent of GDP, governments have little scope to further improve the trading environment for financial institutions

Many who suffer life-threatening health crises survive them. But they do not all go on to enjoy the same quality of life. Some find a new lease on life, while others live out their remaining days as invalids. How the financial institutions who have survived the financial crisis fare will depend on many forces beyond their direct control. But it also will depend on their own responses. In 2010 we will begin to see who is rising to the challenge.

Cohort analysis

As with last year, we use a cohort analysis approach to compare SPI performance in the industry. A cohort is a group of institutions sharing one or more characteristics, for example, industry sub-sector, geography, size and market sophistication.

In our analysis, we classified the top 400 largest financial services institutions into at least one cohort. For example Banco Santander is included in the "Global banking behemoths" and the "Major European universals" cohorts.

The cohorts are depicted in Exhibit 20. For each cohort we identify the top performer and the most improved.

An individual firm's performance is determined by publicly available data only. We determine total shareholders' return for five years and adjusted for volatility using a Sharpe ratio. The top 400 publicly listed Financial Services firms are then scored relative to a median of 100.

Exhibit 20: **Selection of cohorts across business lines and geographical footprint**

<table>
<tr><th></th><th colspan="2">Banking</th><th>Insurance</th><th>Wealth</th><th>Utility/Other</th></tr>
<tr><td rowspan="5">Global</td><td colspan="5">All financials</td></tr>
<tr><td colspan="5">Emerging market</td></tr>
<tr><td colspan="3">Major bancassurers and allfinanz</td><td></td><td></td></tr>
<tr><td colspan="2">Global banking behemoths</td><td>Global insurance giants</td><td>Major global asset managers</td><td></td></tr>
<tr><td colspan="2">Major capital market players</td><td>Sophisticated insurance markets – major players</td><td>Mid-tier asset managers</td><td>Major exchanges</td></tr>
<tr><td rowspan="6">Regional</td><td colspan="4">Major European Universals</td><td></td></tr>
<tr><td>Asian capital market players</td><td>Converged consolidated sophisticated market players</td><td>European re-insurers</td><td></td><td></td></tr>
<tr><td>Emerging market banking behemoths</td><td>Emerging Europe banking titans</td><td>Major Asia Pacific P&C insurers</td><td></td><td></td></tr>
<tr><td>Major African banks</td><td>Major Scandinavian banks</td><td>Major European diversified insurers</td><td></td><td></td></tr>
<tr><td>Major LatAm banks</td><td>Major Middle Eastern banks</td><td>Major North American P&C insurers</td><td></td><td></td></tr>
<tr><td>Major Southeast Asian banks</td><td></td><td></td><td></td><td></td></tr>
<tr><td rowspan="5">Local</td><td colspan="4">Major US universals</td><td></td></tr>
<tr><td>Major Australian banks</td><td>Major Canadian banks</td><td>American re-insurers</td><td></td><td>US payment processors</td></tr>
<tr><td>Major Chinese banks</td><td>Major Indian banks</td><td>Major US life insurers</td><td></td><td></td></tr>
<tr><td>Major Italian banks</td><td>Major Japanese banks</td><td>Major US P&C insurers</td><td></td><td></td></tr>
<tr><td>Major Korean banks</td><td></td><td>UK insurers</td><td></td><td></td></tr>
</table>

SPI results

Global

Cohort			Top performer			Most improved		
Rank	Name	SPI average	Name	SPI score	Market value $MM	Name	SPI score	Market value $MM
1	Emerging markets	216	China Life Insurance	357	36,802	Turkiye Garanti Bankasi	179	17,793
2	Major exchanges	215	Singapore Exchange	347	6,345	Hong Kong Exchanges And Clearing	311	19,347
3	Major global asset managers	170	Blackrock	256	43,824	Franklin Templeton Investments	166	24,151
4	Major bancassurers and allfinanz	124	Royal Bank of Canada	257	76,429	Allianz	75	57,066
5	Sophisticated insurance markets – major players	111	RSA Insurance	221	6,646	Prudential	139	26,168
6	Global insurance giants	89	Zurich Financial Services	143	32,296	Prudential	139	26,168
7	Mid-tier asset managers	88	Schroders	192	4,854	Schroders	192	4,854
8	Global banking behemoths	4	Banco Santander	158	136,631	Banco Santander	158	136,631
9	Major capital market players	-85	Goldman Sachs Group	158	86,798	Credit Suisse	114	58,682

Regional

Cohort			Top performer			Most improved		
Rank	Name	SPI average	Name	SPI score	Market value $MM	Name	SPI score	Market value $MM
1	Emerging market banking behemoths – BRIC	236	Shanghai Pudong Development Bank	282	28,054	Bradesco	210	26,407
2	Major Latin American banks	189	Banco de Chile	223	7,407	Banco de Chile	223	7,407
3	Major Southeast Asian banks	188	CIMB Group	321	13,244	CIMB Group	321	13,244
4	Major African banks	149	African Bank Investments	175	3,254	RMB Holdings	125	4,860
5	Asian capital market players	138	CITIC Securities	284	30,855	CITIC Securities	284	30,855
6	Major North American P&C insurers	119	Travelers Companies	176	27,242	Travelers Companies	176	27,242
7	Major Asia Pacific P&C insurers	115	Samsung Fire & Marine Insurance	237	8,116	Samsung Fire & Marine Insurance	237	8,116
8	Major Scandinavian banks	109	Nordea Bank	154	41,148	Nordea Bank	154	41,148
9	European re-insurers	105	SCOR Group	159	4,623	Munich Re	155	30,834
10	Emerging Europe banking titans	103	Turkiye Garanti Bankasi	179	17,793	Turkiye Garanti Bankasi	179	17,793
11	Major European diversified insurers	99	Sampo Oyj	217	13,679	Prudential	139	26,168
12	Major Middle Eastern banks	94	Attijariwafa Bank	318	6,602	Turkiye Garanti Bankasi	179	17,793
13	Major European universals	89	Banco Santander	158	136,631	Banco Santander	158	136,631
14	Converged consolidated sophisticated market players	86	Royal Bank of Canada	257	76,429	Commonwealth Bank of Australia	223	75,682

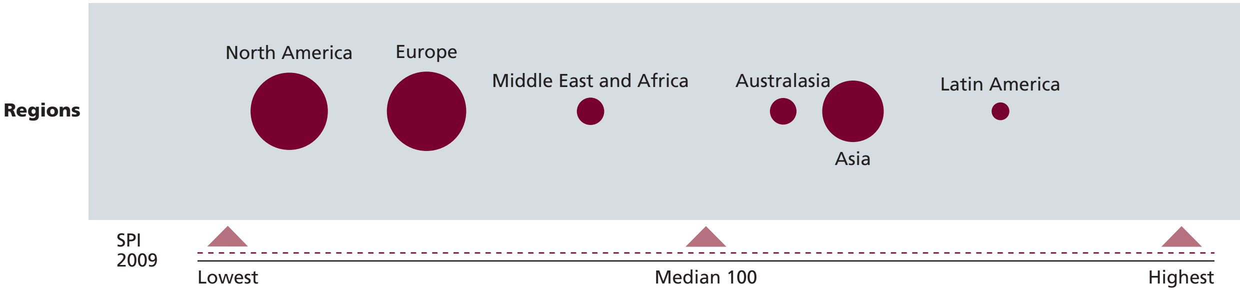
Local

Cohort			Top performer			Most improved		
Rank	Name	SPI average	Name	SPI score	Market value $MM	Name	SPI score	Market value $MM
1	Major Chinese banks	250	Shanghai Pudong Development Bank	282	28,054	China Construction Bank	281	193,276
2	Major Indian banks	221	Axis Bank	263	8,576	Axis Bank	263	8,576
3	Major Canadian banks	181	Royal Bank of Canada	257	76,429	Toronto-Dominion Bank	168	54,107
4	US payment processors	173	MasterCard	386	28,100	Fiserv	102	7,461
5	Major Australian banks	158	Commonwealth Bank of Australia	223	75,682	National Australia Bank	86	51,639
6	Major Korean banks	152	Shinhan Financial Group	175	17,592	Industrial Bank of Korea	158	6,536
7	UK insurers	112	Admiral Group	356	5,117	Prudential	139	26,168
8	Major US P&C insurers	110	Travelers Companies	176	27,242	Progressive Corporation	69	12,129
9	American re-insurers	99	PartnerRe	156	5,950	Transatlantic Holdings	63	3,459
10	Major Italian banks	56	Intesa Sanpaolo	94	53,551	Unicredit	34	56,312
11	Major US life insurers	21	Aflac	105	21,640	Prudential Financial	56	22,989
12	Major Japanese banks	-49	Shizuoka Bank	76	6,141	Shizuoka Bank	76	6,141
13	Major US universals	-73	Goldman Sachs Group	158	86,798	Goldman Sachs Group	158	86,798

Note: For custom cohort analysis, contact your local Oliver Wyman office

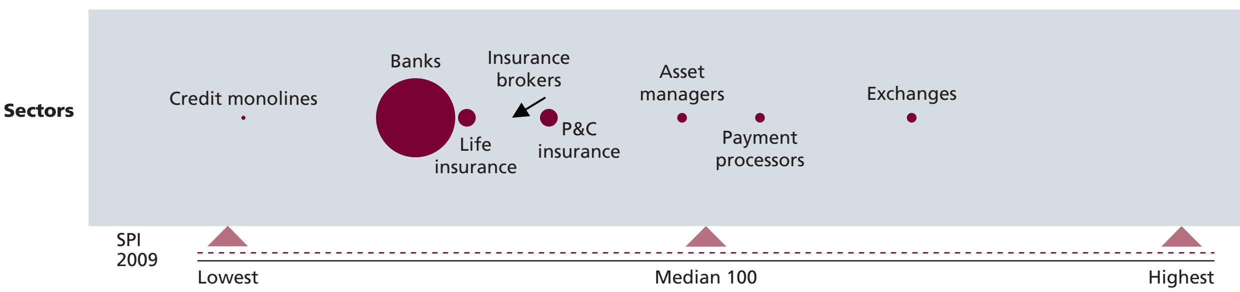
Geographic and sector SPI results

Regional SPI results



Geography			Top performer			Most improved		
Rank	Name	SPI average	Name	SPI score	Market value $MM	Name	SPI score	Market value $MM
1	Latin America	199	Credicorp	316	6,126	Banco de Chile	223	7,407
2	Asia	165	China Life Insurance	357	36,802	Daewoo Securities	211	3,224
3	Australasia	149	Commonwealth Bank of Australia	223	75,682	National Australia Bank	86	51,639
4	Middle East & Africa	104	Attijariwafa Bank	318	6,602	Turkiye Garanti Bankasi	179	17,793
5	Europe	66	Valiant	613	3,275	Baloise-Holding	209	4,162
6	North America	34	MasterCard	386	28,100	Fairfax Financial Holdings	183	7,630

Sector SPI results



Sector			Top performer			Most improved		
Rank	Name	SPI average	Name	SPI score	Market value $MM	Name	SPI score	Market value $MM
1	Exchanges	215	Singapore Exchange	347	6,345	Hong Kong Exchanges And Clearing	311	19,347
2	Payment processors	173	MasterCard	386	28,100	Fiserv	102	7,461
3	Asset managers	151	Blackrock	256	43,824	Schroders	192	4,854
4	P&C insurance	114	Admiral Group	356	5,117	Travelers Companies	176	27,242
5	Insurance brokers	97	AON	189	10,502	AON	189	10,502
6	Life insurance	91	China Life Insurance	357	36,802	Swiss Life	69	4,057
7	Banks	77	Valiant	613	3,275	Banco de Chile	223	7,407
8	Credit monolines	29	Housing Development Finance Corporation	252	16,449	American Express	34	48,185
9	Capital market players	-46	CITIC Securities	284	30,855	Daewoo Securities	211	3,224

Note: size of bubble (area) indicates market capitalization

METHODOLOGY

Background and approach

Oliver Wyman has created, and systematically tracks, a single performance index based on publicly available data to create an objective measure of volatility-adjusted shareholder value performance specific to sectors and geographies. Since creating the Shareholder Performance IndexSM (SPI) in 1997, we have calculated it annually as a performance benchmark for the world's largest financial institutions. Several features distinguish the SPI from other performance based indices for financial institutions:

- It is a measure of performance adjusted for volatility using a Sharpe ratio. If two firms have produced the same absolute return to shareholders, the one whose returns are less volatile is ranked higher
- It covers all parts of the global financial services value chain
- Takeovers, mergers, spin-offs and currency effects are explicitly captured and used to adjust raw performance data. A firm cannot move up the rankings simply by getting bigger in a local currency

The SPI calculation

Each calculation of the SPI is based on a five-year moving window of performance data of the top 400 financial institutions worldwide, in terms of market valuation at the end of the period. Consequently, the present index is calculated over the period January 2005 to December 2009.

This five-year window is designed to measure shareholder performance over the medium term. As a result, SPI scores can be affected both by the inclusion of the past year's data, and the exclusion of data from over five years ago. Changes in SPI from year-to-year do not solely reflect performance in the last year – rather, they reflect changes in a firm's five-year medium-term performance. This measure of medium-term performance is complemented by the Post-Crisis SPI, a score that is calculated over the period of August 2007 to present, that forms the basis of our sector/geography Recovery Performance score.

The first step in calculating the SPI is to compute the five-year Sharpe Ratio for a given institution:

Sharpe Ratio (firm) = Return (r*) / Risk (r*)

Where

- r* = Monthly measurements of total merger adjusted shareholder return net of the risk free rate (Excess Returns)
- Return(r*) = Geometric average of r*
- Risk(r*) = Standard deviation of r*

We calculate the Sharpe ratio for each of the 400 institutions in our universe and rank them from highest to lowest. The SPI for a given firm is then defined by comparing it to a median of 100:

SPI (firm) = [Sharpe Ratio(firm)-Sharpe Ratio(median firm)] x 1000 + 100

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