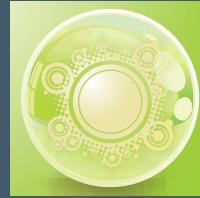


The Future of the Global Financial System

A Near-Term Outlook and Long-Term Scenarios



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ISBN-10 92-95044-17-7

ISBN-13 978-92-95044-17-3



COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

The Future of the Global Financial System

A Near-Term Outlook and Long-Term Scenarios

A WORLD ECONOMIC FORUM REPORT

in collaboration with

OLIVER WYMAN

The World Economic Forum would like to thank its Financial Services and Investors Industry Partners and **Clifford Chance LLP** for their contribution to this project and the report. A full list of contributors can be found on page 82.

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Preface

As the effects of the financial crisis continue to unfold, the world faces serious challenges to the functioning of both capital markets and the global economy. With aggregate demand falling, there is a significant risk of a severe global recession that will affect many sectors, asset classes and regions in tandem.

It is in this context that the World Economic Forum is releasing this report. Its launch is timed to coincide with the World Economic Forum's 2009 Annual Meeting, which will provide leaders from industry, government and civil society with a unique and timely opportunity to actively shape the post-crisis world in a holistic and systematic manner that integrates all the stakeholders of global society. A key track of the meeting will be focused on promoting stability in the financial system and reviving global economic growth, and we hope this report will both provide relevant background as well as catalyze dialogue on related issues.

The crisis is rooted in global imbalances, including long regimes of low interest rates, rapidly rising asset prices, massive leverage and trade and savings imbalances. The World Economic Forum's Global Risk Report pointed to associated risks of these phenomena in early 2007 and 2008.

The crisis has revealed severe limitations in the current regime of global coordination and regulation and a multitude of failures in risk management. Such failures are not limited to financial institutions, but affect governments, central banks, rating agencies, corporations, households and the media. Given the global nature of the financial and economic turmoil, new approaches and solutions from both governments and the private sector are required to restore confidence to markets and ensure an effective long-term response.

To stimulate the dialogue between governments and the private sector regarding the future of the global financial system, the World Economic Forum launched the New Financial Architecture project in January 2008, with the mission of addressing the following central question:

How might the governance and structure of the global financial system evolve over both the near-term and long-term?

This report draws upon many of the World Economic Forum's expert communities in offering a set of answers to this central question.

We trust this publication will challenge your thinking and offer new perspectives on how the global financial system may be significantly altered over the course of the coming years. Above all, we hope the insights it provokes may contribute towards ensuring that together we will find ways to promote long-term financial stability and revive global economic growth.



Professor Klaus Schwab
Founder and Executive Chairman
World Economic Forum

Introduction

The World Economic Forum is proud to release this initial report from our **New Financial Architecture** project. The effort was mandated by the Forum's investors and financial services communities in January 2008 to explore the driving forces that are shaping the global financial system in both the near-term and the long-term, and how these forces might affect governance and industry structure. This report is the outcome of phase one and presents a near-term analysis for key stakeholders and employs scenario thinking to describe four potential long-term futures for the global financial system.

The current financial crisis has triggered a fundamental review of the global financial system, in terms of regulation, the role of financial institutions, and the role of governments, and can be seen as an important inflection point. The world is seeing an unwinding of global imbalances, and after more than two decades of exceptional growth, financial institutions are now adapting to a new environment of tighter credit and lower economic growth, increased government intervention and a threat to the previous pace of globalization. This phase one report does not intend to make any recommendations for the future architecture of the global financial system. However we hope the analysis will serve as a helpful input into the debate among multiple stakeholders about how to reform the global financial system in a constructive manner.

The report is the culmination of a partnership with Oliver Wyman and twelve months of work interacting with senior industry practitioners, leading international scholars, regulators, policy-makers and other distinguished experts and stakeholders. In addition, Clifford Chance provided guidance regarding the future of financial regulation. To date, the project team has had the privilege of interviewing, surveying, debating and facilitating meetings with over 250 of the leading thinkers in global finance. Eight major workshops were convened for the project in Geneva, Kuala Lumpur, London, New York, Sharm El Sheikh and Tianjin.

Throughout this process, intellectual stewardship and guidance was provided by an actively involved Steering Committee co-chaired by John Thain, President of Global Banking, Securities and Wealth Management, Bank of America Merrill Lynch, and David Rubenstein, Co-Founder and Managing Director, The Carlyle Group.

In phase two of this project, the World Economic Forum will work with key stakeholders to delve deeper into the implications of this analysis, with the goal of exploring collaborative strategies and areas of systemic improvement. This will involve an examination of the potential future sources of systemic risk, as well as opportunities to reposition the industry for sustainable, long-term growth in ways that maximize the stability and prosperity of both the financial and real economies.

On behalf of the World Economic Forum and the full project team, we wish to particularly thank the members of the Steering Committee, the members of the Expert Group and our partners at Oliver Wyman (especially Julia Hobart and Andrew Turnbull) and Clifford Chance for their boundless support. Finally, we would like to thank the many people who responded to our invitation to participate in workshops and interviews and who gave so generously of their time, energy and insights.¹

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¹ A list of all contributors can be found on page 82.

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Letter from the Steering Committee

Since the onset of the financial crisis in 2007, we have witnessed fundamental changes in the global financial system. Even with the financial crisis in close focus at the Annual Meeting in Davos last January, it was difficult to predict the dramatic downward trajectory of the global economy in 2008. The global environment remains very challenging and compels us to search urgently for solutions to the new problems. The multiple factors underlying the financial crisis evolved over many years, and it will take us years to work through the crisis and adjust to its long-term effects. The financial markets are forever changed, and we must confront these realities with a broad and creative perspective that seeks to restore the conditions for economic growth.

These challenges will require that international policy-makers and market participants mount a coordinated global effort to find solutions. First, we must navigate through the current crisis in a manner that mitigates further economic damage, while helping to restore confidence and creating the conditions for renewed growth. Second, we must carefully identify the causes of the financial crisis and act responsibly to avoid a recurrence. Although it is difficult to consider future regulatory and market structure changes during a crisis, we must evaluate what went wrong and determine how to fix it.

The Forum has spent the past year analyzing the roots of the crisis, talking to diverse stakeholders and developing a framework for future regulatory and market-based reform efforts. As part of this effort, The World Economic Forum commissioned and drafted a study entitled "The Future of the Global Financial System." While examining the impact of short-term changes to the financial system, the report also challenges us to consider broader, systemic changes to the financial markets and global economies. It identifies new sources of instability within and outside the financial system that policy-makers and financial leaders should also address.

This report is an initial step as the World Economic Forum continues to analyze the financial markets and regulatory reform efforts with the goal of stimulating collaborative, insightful and practical recommendations for industry and regulative reform. The Forum will continue to use its global platform to further these efforts in 2009.

David M. Rubenstein
Co-Founder and Managing Director
The Carlyle Group

John A. Thain
President of Global Banking,
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Executive summary

With the onset of the current financial crisis, the world has seen an initial unwinding of global imbalances that were built up over the past decade. As the crisis continues to unfold – after years of expansionary monetary policies, financial deregulation and excessive credit utilization – a fundamental question emerges:

How might the governance and structure of the global financial system evolve over both the near-term and long-term?

This report explores this question by describing a range of recent macroeconomic shifts in section one, a near-term outlook (up to 2012) for governance and structure in section two and a long-term view (up to 2020) in section three. The near-term outlook is based on analysis of recent shifts in the financial system that have occurred amid the recent market turmoil. The long-term view is based on scenario thinking – a powerful tool that helps policy-makers and business leaders prepare for a range of possible alternative futures in a world defined by uncertainty.

The future of the global financial system²: A near-term industry outlook

After more than two decades of exceptional growth, financial institutions are adapting to a new environment of tighter credit and slower economic growth, increased government intervention and a threat to the previous pace of globalization.

- **Interventionist regulatory reform:** Global policy-makers have committed to a new regulatory framework that is expected to expand the scope of regulated entities, increase global regulatory coordination and constrain the growth prospects of incumbent financial institutions.
- **Back to basics in banking:** Banks of all types have begun the process of repairing their balance sheets through higher liquidity and capital ratios, coupled with reduced reliance on short-term wholesale funding. Re-regulated banks are likely to become more like utilities as they refocus on core

competencies. Moreover, bank strategies are less likely to overlap as individual competitive advantages are reaffirmed.

- **Restructuring in alternatives:** Alternatives players have suffered in the current financial crisis, from both deleveraging and market turmoil. Recent hedge fund losses have called into question the durability of absolute-return products. Private equity firms have to balance steering levered portfolio companies through a severe downturn with the challenge of raising new capital to pursue upcoming investment opportunities when many among their investor base are severely limited in terms of capacity to commit capital. Meanwhile, many investors are shifting their attention to low-cost indexation strategies and “new beta” asset classes. As a result, “unconstrained” providers of capital – such as family offices and sovereign funds – may gain the upper hand.
- **A tale of two insurers:** The fortunes of the insurance industry are broadly split between property & casualty versus life insurers on the one hand, and North America versus Europe on the other. While some organizations will be forced to focus on survival, many will be able to capitalize on the emergence of new acquisition opportunities, continued demand for retirement products and an increased use of traditional insurance products to hedge risk, thereby strengthening their underlying businesses.

The future of the global financial system: Long-term scenarios

Over the longer term, a range of external forces and critical uncertainties will shape the future of the global financial system. During 2008, the World Economic Forum engaged over 250 financial executives, regulators, policy-makers and senior academics at eight different workshops to develop potential long-term evolutionary scenarios for the global financial system. These scenarios go beyond simply extending current trends and explicitly take into account critical uncertainties, potential discontinuities and system dynamics. These scenarios can be used to support strategic decision-making and facilitate collaborative action.

² The report was originally intended to focus on particular actors within the financial system, the so-called ‘new’ financial powerhouses, but was expanded in light of the ongoing financial crisis. The report covers banking, insurance and alternative investors such as hedge funds and private equity firms, but does not explicitly cover other critical actors such as pension funds and exchanges/OTC markets. These actors will be addressed in the second phase of this project.

In answering the project's central question, the scenarios vary along two critical uncertainties: the pace of the ongoing geo-economic power shift from today's advanced economies to the emerging world and the degree of international coordination on financial policy. These critical uncertainties have been defined based on a survey of the World Economic Forum's industry partners, interviews with leaders in the field, and extensive research. Based on this analysis, four plausible and compelling views emerge about how the global financial system might evolve between now and the year 2020 (Figure 1). Each of these scenarios take a myriad of underlying driving forces into account – such as the evolution of energy and commodity prices, global economic growth, fiscal policies, trade regimes, climate change, exchange rate policies, extremism, demographics and global wealth distribution.

Financial regionalism is a world in which post-crisis blame-shifting and the threat of further economic contagion create three major blocs on trade and financial policy, forcing global companies to construct tripartite strategies to operate globally.

Re-engineered Western-centrism is a highly coordinated and financially homogenous world that has yet to face up to the realities of shifting power and the dangers of regulating for the last crisis rather than the next.

Fragmented protectionism is a world characterized by division, conflict, currency controls and a race-to-the bottom dynamic that only serves to deepen the long-term effects of the financial crisis.

Rebalanced multilateralism is a world in which initial barriers to coordination and disagreement over effective risk management approaches are overcome in the context of rapidly shifting geo-economic power.

Each of these scenarios describes key forces and turning points that could fundamentally shape the governance and structure of the global financial system in the next decade. These scenarios are not designed to predict the future, but rather to explore the boundaries of the plausible, to stimulate strategic thinking and facilitate collaborative action between the various stakeholders.

Phase two of the *New Financial Architecture* project

In phase two, the World Economic Forum aims to build on the insights of this report and explore opportunities for collaboration to help strengthen the global financial system. This will involve an examination of potential future sources of systemic risk as well as opportunities to reposition the industry for sustainable long-term growth, and to ensure economic stability and prosperity of both the financial and real economies. Phase two will also explore strategies at the stakeholder level.



The shifting macroeconomic landscape

1

The shifting macroeconomic landscape

The recent dislocations in the capital markets and the subsequent reshaping of the financial services landscape provide a stark reminder of the industry's fiercely evolutionary nature. This report examines the potential implications of recent changes to the wholesale financial system's regulatory framework and market structure, with the goal of identifying and understanding the strategies and business models that will survive and excel in the near- and long-term.

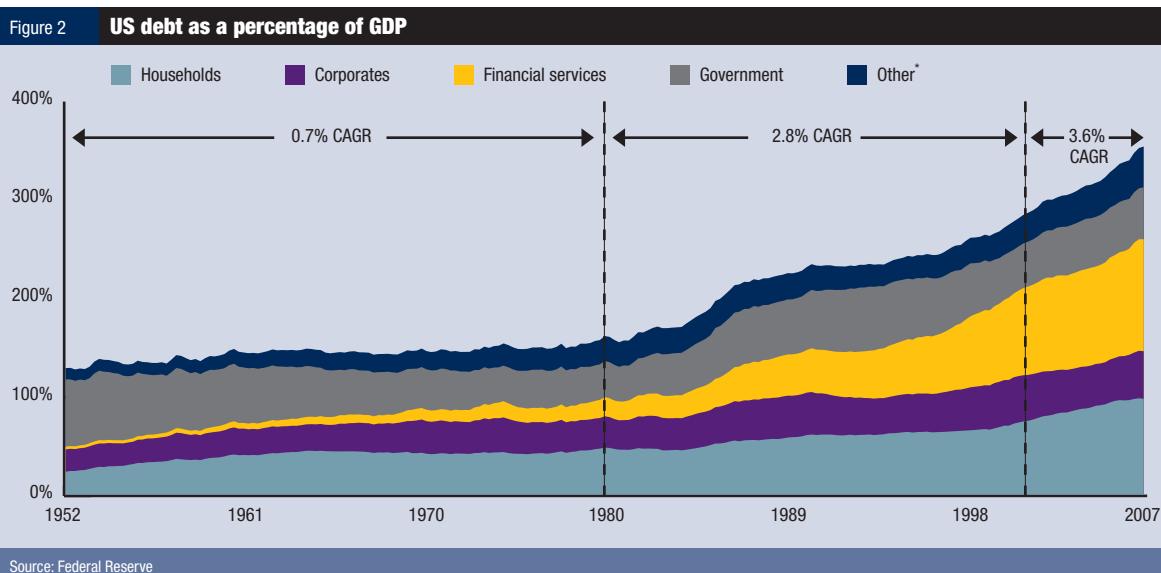
To understand the industry's near-term outlook and potential long-term evolution, a brief assessment of how the industry has been transformed over the past decade is necessary. In this section, we examine both the industry's recent past and the latest emerging trends as a means of contextualizing potential developments. In the following sections, we develop perspectives on the potential near-term implications of the current financial crisis, as well as a set of long-term scenarios for the global financial system.

The recent past: growth driven by credit, leverage and deregulation

During the 20 years leading up to the financial crisis that began in mid-2007, the global economy entered a period characterized by a remarkable degree of macroeconomic

stability. Across the OECD countries, volatility in GDP growth, inflation and unemployment declined substantially. Recessionary periods became shorter and less damaging. Within this environment, the wholesale financial system – in which we include corporate and institutional banks, traditional and alternative asset managers, sovereign and institutional investors, insurance providers and financial exchanges – enjoyed unprecedented earnings growth, particularly throughout the most recent credit cycle, thanks to expansionary monetary policies, financial globalization and sustained economic expansion.

Although it is outside the scope of this report to enumerate the root causes of this prolonged boom, there are several trends within the period that are worth noting. The first is the dramatic expansion of debt relative to GDP. Within the US, total credit market borrowings grew from approximately 160% of GDP in 1980 to over 350% in 2008. This growth in borrowings was particularly acute among two segments: households and the financial services sector. Relative to the size of the US economy, household borrowings roughly doubled from 45% of GDP in 1984 to 97% in 2008. More strikingly, financial sector debt surged even more powerfully during this period, growing from 19% of GDP in 1984 to approximately 115% in 2008 (Figure 2).

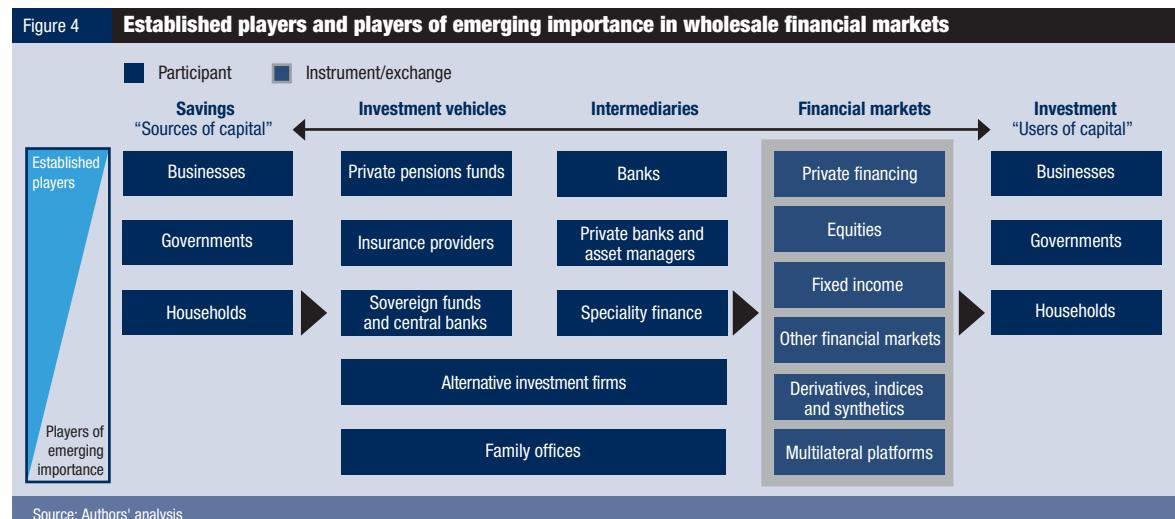
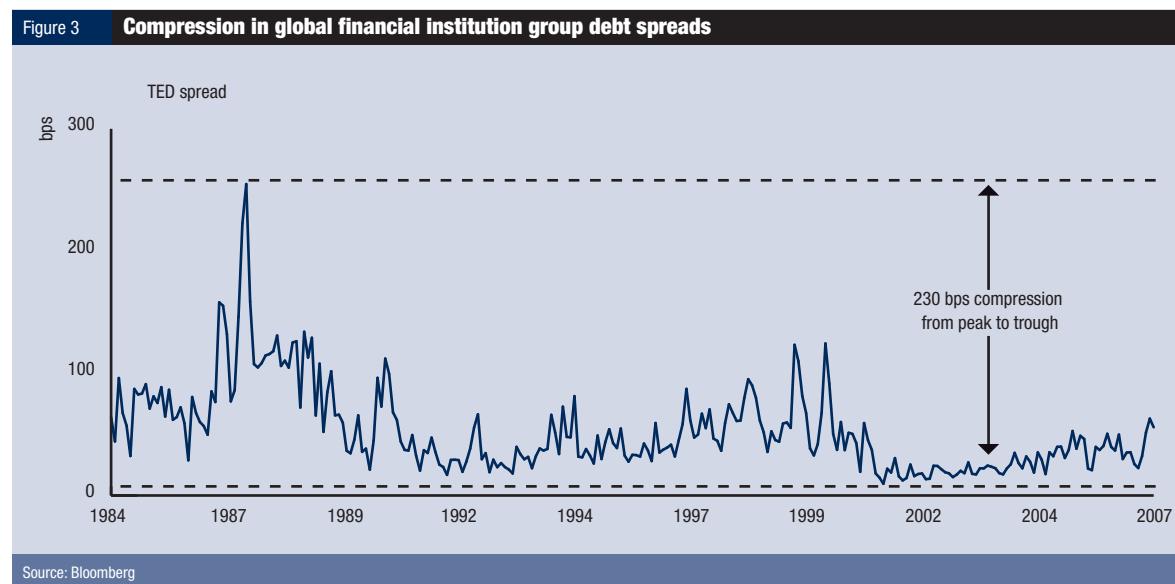


* 'Other' includes non-farm non-corporate businesses, farms, and foreign debt

This rise in borrowing coincided with sharp declines in nominal interest rates, beginning in the early 1980s. Although rates remained prone to fluctuation, the overall downward trend lasted approximately 25-30 years. The yield on 10-year US Treasury Notes fell from a peak of almost 16% in the early 1980s to just over 4% by the second quarter of 2008.

The most recent surge in financial services growth began with the cyclical rate cuts that started at the beginning of 2001. During this cycle, the effective federal funds rate fell to 1% by mid-2003, where it remained until mid-2004. Despite a series of ensuing rate increases by the US Federal Reserve, forward rates remained relatively low for a sustained period, reflecting investor expectations for a continued low-rate environment. As a result, indicators of financial risk, such as the spread between rates on 3-month Treasury bills and 3-month LIBOR, declined sharply (Figure 3).

Within the wholesale financial system (shown in a simplified form in Figure 4), this increase in access to inexpensive credit magnified returns on actively managed investment portfolios. During this period, hedge funds and private equity firms benefited from a confluence of factors, including cheap leverage and increasing appetites for riskier asset classes among institutional investors. Assets under management in the two sectors grew from a combined US\$ 1.8 trillion in 2003 to over US\$ 4 trillion by the end of 2007.³ Searching for yield in a low interest rate environment, institutional investors rewarded capital-intensive, highly leveraged businesses. As profit margins from more mature traditional brokerage and market-making activities declined, the business models of commercial and investment banks increasingly began to converge with the more highly leveraged principal finance activities of alternative asset managers, albeit with significantly higher degrees of leverage.



³ Oliver Wyman

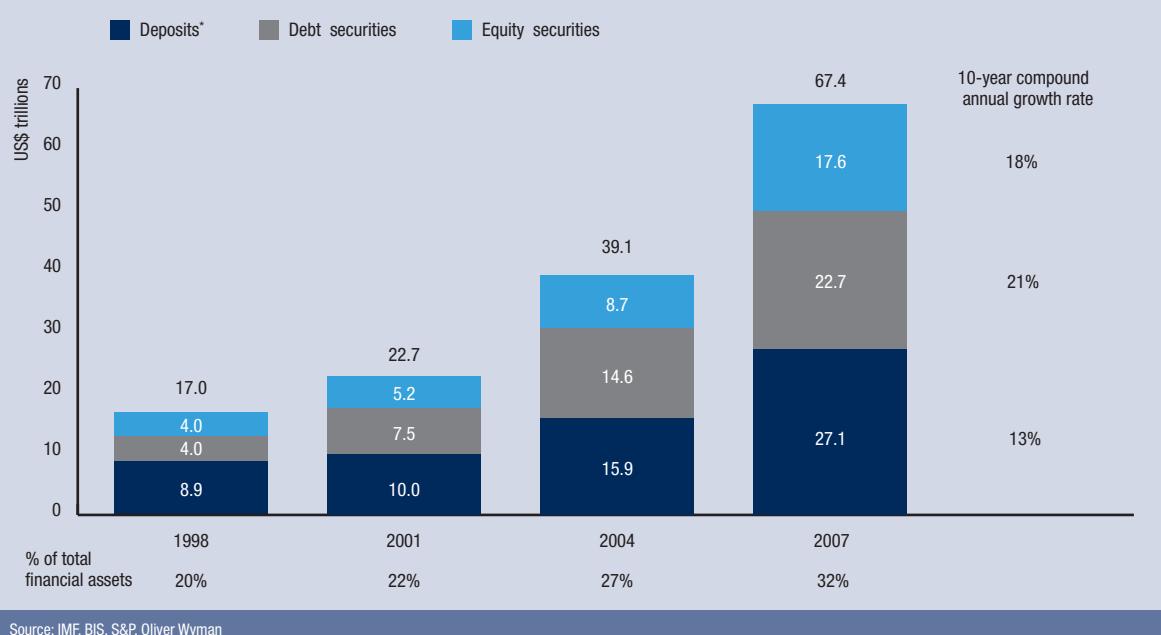
The principal strategies of the global banks were supported by a resurgent belief in free markets, small government and self-regulation. The US financial services sector saw significant deregulation, most notably the repeal of the US Glass-Steagall Act, which until 1999 had prohibited bank holding companies from owning broker-dealers. Another significant event was the 2004 amendment of the net capital rule for investment banks with assets over US\$ 5 billion. This change allowed the banks to use their own risk management systems to compute capital requirements, effectively shifting certain oversight responsibilities from the Securities and Exchange Commission (SEC) and European Union regulators directly onto the banks themselves.

At the same time, the globalization of financial markets and the growth in emerging market economies subtly shifted the prevailing macroeconomic order, precipitating a major restructuring of the global institutional investment landscape. Globally, foreign ownership of financial assets reached US\$ 67 trillion at the beginning of 2008, roughly one-third of total global financial assets, up from just US\$ 17 trillion, or one-fifth of global financial assets, a decade earlier (Figure 5). By 2008, the central banks and sovereign funds of Asian and Middle Eastern countries were

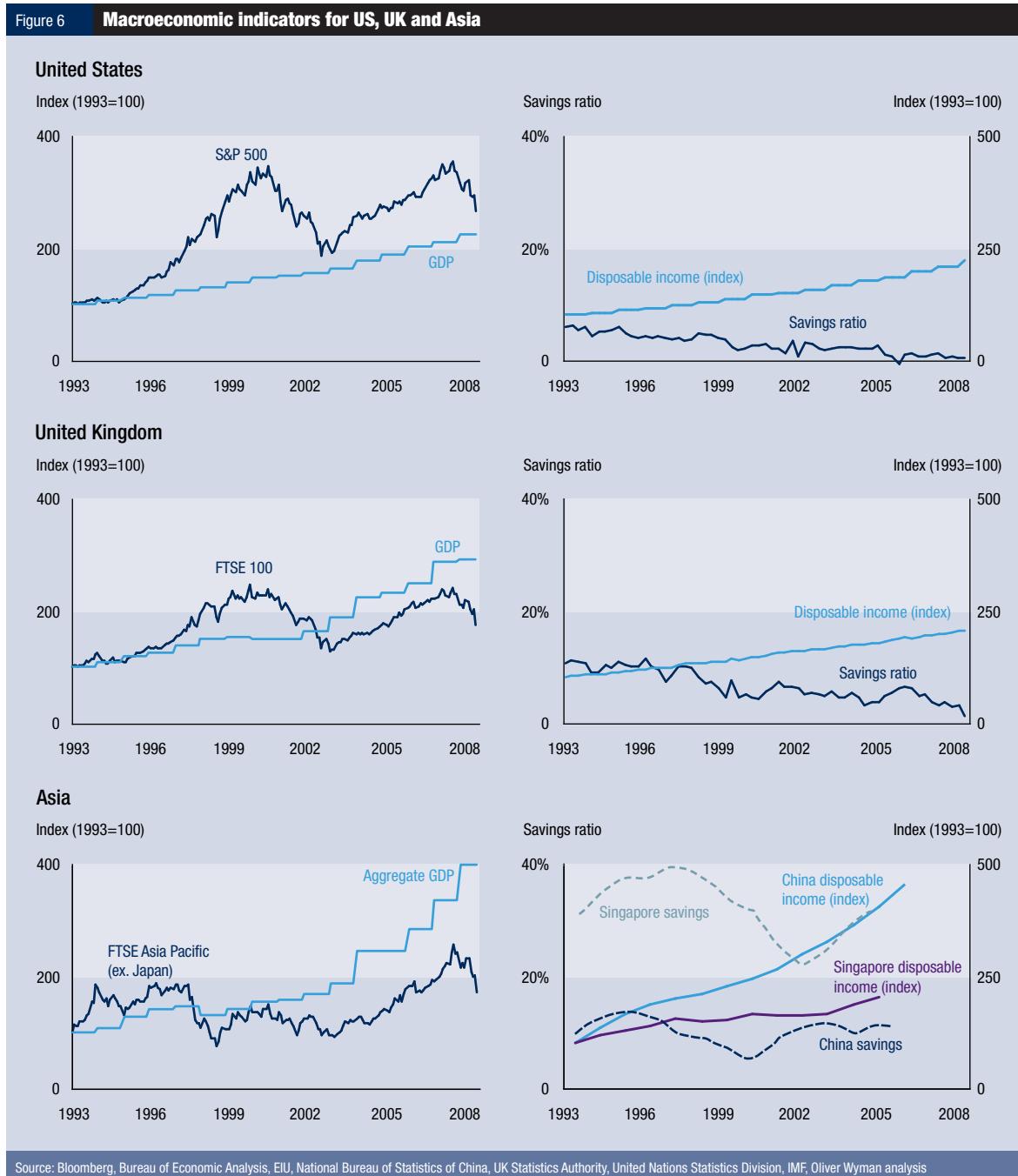
estimated to have amassed some US\$ 7 trillion in combined assets. These sovereign investors became net suppliers of global capital, with the central banks in particular purchasing large amounts of US dollar-denominated debt. With the added demand driving down fixed income yields, institutional investors began diversifying their excess holdings into riskier debt and equity products with higher returns.

Much of this purchasing activity was fuelled by countries with expansionary monetary policies that required them to accumulate sizable US dollar fixed income assets to limit currency fluctuations. This was particularly true for countries with trade surpluses in Asia and energy exporters in the Middle East. By adding significantly to demand for dollar assets, these policies flooded the market with liquidity, helping generate significant upward pressure on dollar-denominated assets, and keeping interest rates on dollar-denominated debt low. This surfeit of liquidity contributed to significant behavioural and market distortions. Consumer and investor euphoria pushed down savings ratios in the OECD countries (illustrated with the US and United Kingdom versus Asia in Figure 6), despite rising disposable incomes.

Figure 5 Estimated global foreign ownership of financial assets



* Deposits are defined as external (i.e. cross-border) assets plus local assets in foreign currency. Figures may not sum properly due to rounding.



In summary, by the beginning of 2007, the financial services landscape had changed dramatically from its condition in 1984. After nearly two decades of healthy growth, the industry as a whole had shifted towards larger levels of leveraged position-taking, aided by flush liquidity conditions and a permissive regulatory environment.

The landscape as a whole had become much more tightly interlinked following the erosion of boundaries between financial business models. National boundaries also became significantly less important, resulting in increased correlation between global asset returns.

Preparing for the great unwind

In hindsight, this recent picture of macroeconomic and financial services growth was built on a foundation of imbalances, namely expansionary monetary and fiscal policy, excessive deregulation and ill-considered use of credit and leverage. The current financial crisis, which started with defaults in US sub-prime mortgages in 2007, marks the beginning of a disorderly reversal of these global imbalances. While hindsight reveals a host of other root causes of the crisis – including heavy use of off-balance sheet financing, overly lenient lending and risk management practices and misaligned compensation policies – the most serious, sustained challenge to existing business models in the financial sector can be found in the unwinding of these global imbalances, which has slowed global growth and given a renewed, more prominent role to governments and policy-makers.

The financial crisis marks the beginning of a new chapter for the global financial system, characterized by three important changes. They are:

1. deleveraging and a global economic slowdown
2. increased government intervention
3. a threat to the pace of globalization

In the near-term (2009-2012), the financial system will continue the deleveraging process, while financial institutions adapt their strategies to work within the constraints of increased government intervention and a weakening economic outlook. Over the longer term (2009-2020), the degree of financial leverage, the role of government and the threat to the pace of globalization are

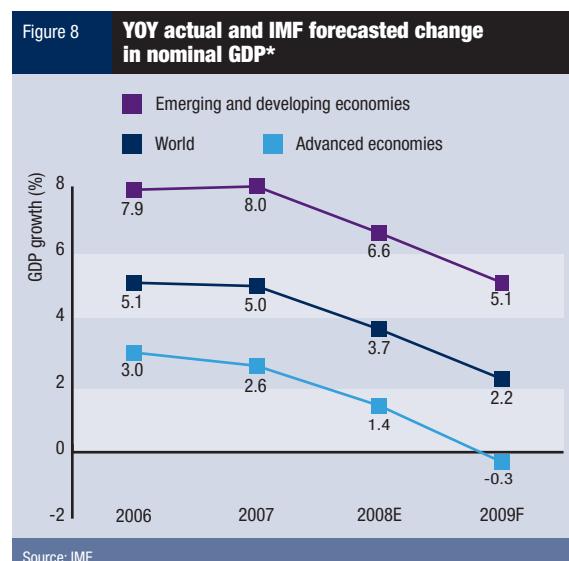
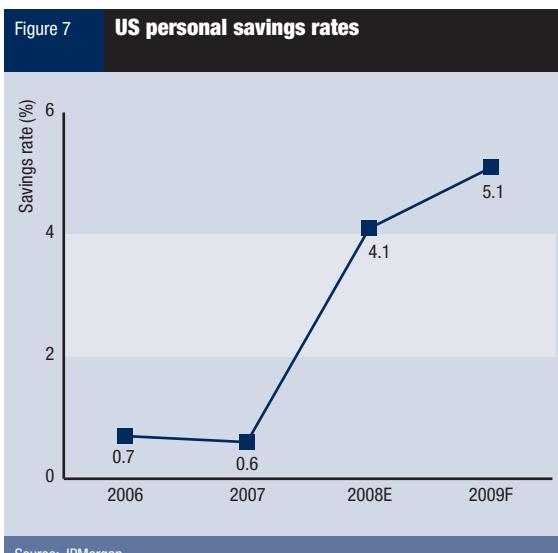
all much less certain, but will be equally critical for financial institutions to understand to develop effective business strategies. The remainder of this section will explore the near-term implications of these three key changes.

1. Deleveraging and a global economic slowdown

Over the near-term, the process of deleveraging bank and household balance sheets will have significant implications for the financial services sector, chief among them being the placement of sustained stress on the global economy. The corrective actions of banks and investors have so far had the most prominent effects, as manifested in ongoing price declines across global credit and equity markets. The rising cost of credit and the negative economic outlook have forced many investors to dramatically reduce their use of leverage, resulting in large global sell-offs across almost every asset class. These market declines have lowered household expectations for wealth creation, resulting in lower debt and higher savings ratios.

The unwinding of consumer debt, particularly among US households, will have the longest and most enduring effect. Despite the various fiscal stimulus packages currently making their way through the major economies, consumption across industrialized countries is all but certain to give way to increased private savings (Figure 7).

Although there is still some disagreement amongst economic forecasts, many believe that this aggregate decline in OECD consumption will lead to a long and protracted global slowdown. Already, the IMF is forecasting that world output will grow only 2.2% in 2009, down from 5% growth in 2007 and an estimated 3.7% in 2008 (Figure 8). This deceleration will be led by continuing



declines in house prices, rising default rates and sluggish spending associated with higher saving ratios.

The global downturn will have significant effects on the financial services landscape. In the near-term, slowdowns in the financial industry and in the real economy will mutually reinforce each other. With weakening levels of global consumption, economic growth will be limited, leaving financial institutions with fewer attractive lending and investment opportunities. Tighter credit standards and heightened risk aversion will make it difficult for businesses to finance their operations, resulting in further losses and bankruptcies. This will ultimately impact the value of existing bank assets, forcing further write-downs and credit contraction (Figure 9).

It is unlikely that the current unwinding of debt levels will resolve itself in the short term. The current levels of leverage within the system were accumulated over a span of 20+ years and are unlikely to simply disappear. As the "great unwind" spreads through the system, its effects will fundamentally shift the global macroeconomic order. First, governments will envision a renewed role in the oversight of financial markets. Second, different countries will be affected and will respond to the crisis in different ways, resulting in the potential acceleration or deceleration of existing power shifts from industrialized countries to emerging ones. Third and finally, reduced wealth and lower financial leverage will alter the visions and strategies of financial institutions. Those that fail to adapt will be marginalized by rising stars and new entrants unencumbered by historic practices.

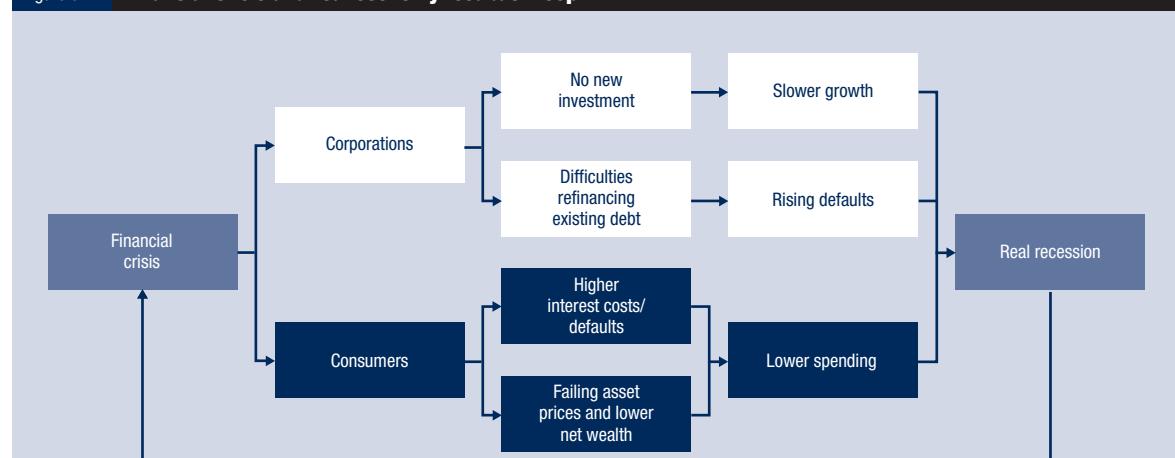
2. Increased government intervention

Once the extent of the financial crisis became more evident in mid-2008, most finance ministries, treasuries and central banks responded forcefully. These actions represented a new implicit contract between countries and their respective financial services sectors, in which governments will assume the risk from their national banking sectors in exchange for significantly increased levels of financial regulation and oversight. This latter side of the contract will take time for thoughtful design and implementation.

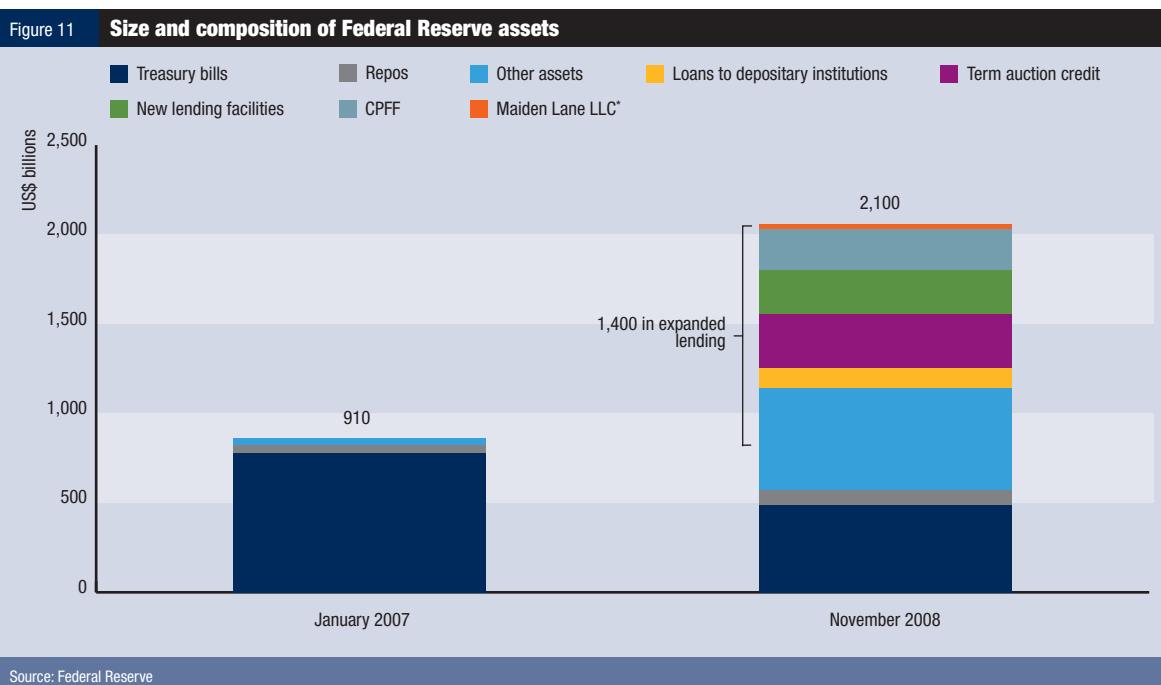
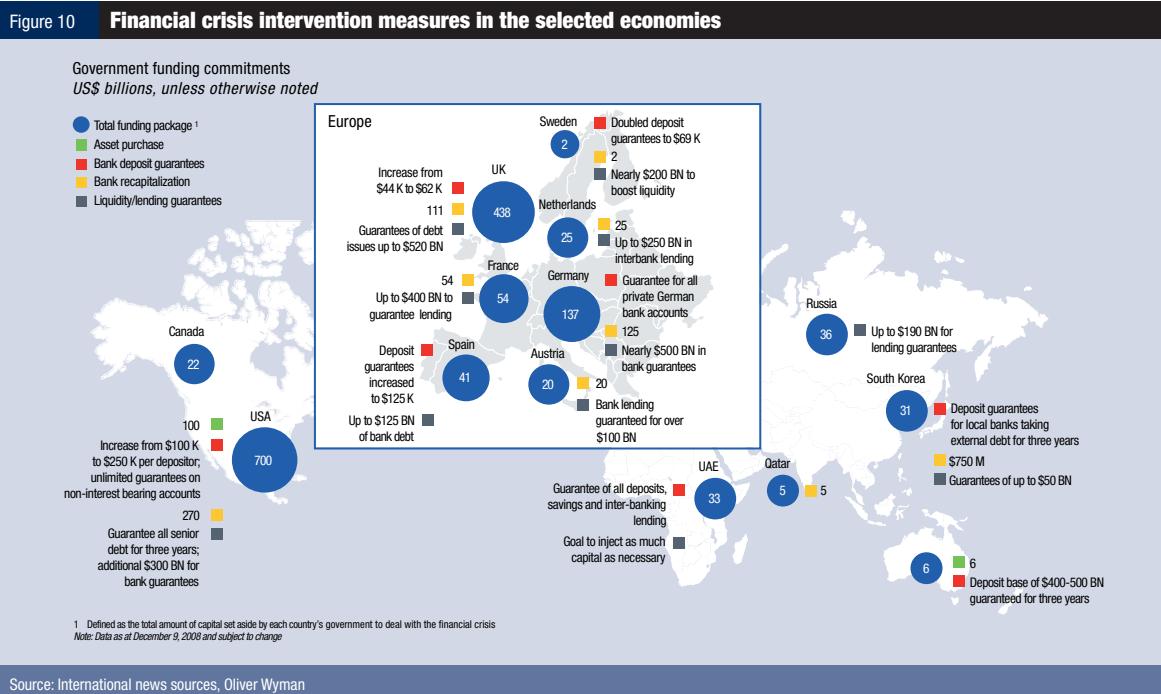
Intervention so far has been broad-based and relatively consistent across the major economies. These measures have included negotiated bank acquisitions, outright nationalizations when buyers could not be found, emergency lines of credit, liquidity injection programs to bolster short-term lending markets, state guarantees on interbank loans, and the introduction or expansion of deposit insurance schemes (Figure 10).

The scale of intervention has stretched the finances – and the creativity – of the major central banks, as illustrated by the change to the Federal Reserve's balance sheet (Figure 11). With these efforts to recapitalize national banking systems and inject liquidity back into the system, the central banks have added a plethora of new lending programs that have effectively transferred much of the world's leverage and financial risk on to national balance sheets.

Figure 9 **Financial crisis and real economy feedback loop**



Source: Authors' analysis



Intervention on such a massive scale has made it necessary for central banks to request special financing packages from their governments. As a result, national fiscal positions will be strained, raising the risk of sovereign defaults and the potential for IMF intervention. In the developing economies that have a greater reliance on external financial markets, the risks are even more significant, and include renewed pressures on inflation, currency devaluation, deterioration in foreign direct investment and a negative economic outlook.

This expansion of national risk-taking has dramatically shifted the role of government within the financial services sector. Where the activities of governments and their agencies were previously focused on oversight, they have now become active players in the very markets they regulate. Government intervention will be felt acutely by the newly semi-nationalized financial institutions, which will face competing objectives from sovereign and private shareholders. At a time when private shareholders are expected to take a more activist role to bring these

companies back to profitability, government shareholders could introduce new objectives that are misaligned with those of private investors. Take, for example, UK Financial Investments Limited (UKFI), HM Treasury's vehicle for bank holdings. Its overarching objective will be to protect and create value for the taxpayers as shareholders, with due regard to financial stability and acting in a way that promotes competition.⁴ Exactly how UKFI will balance its objective of maximizing UK economic growth – which might imply temporary below-hurdle lending rates – with its objective of maximizing public shareholder returns remains an open question. In short, governments and private shareholders of partially-nationalized banks may not agree on what measures should be optimized in the near-term: domestic GDP growth or bank profitability. Finally, the effects of government intervention will also be felt by non-nationalized players as they compete with players backed by state guarantees.

The assumption of risk by governments is expected to lead to the greater regulation of all financial entities benefiting from their programs to ensure that taxpayer-funded investments are properly managed. This forms the second part of the implicit contract between governments and financial markets. Such regulation and supervision will have the dual objective of minimizing systemic financial risks and protecting businesses and households from market failures when they do occur. In contrast to the relatively consistent short-term response to market failures, the degree of change in regulation and supervision is expected to vary greatly by country, including the approach each takes to capital and liquidity management, compensation reform, regulatory oversight of the non-bank sector, and, to a lesser extent, the introduction of early warning systems and circuit breakers for systemic financial risks and increased coordination with foreign regulators.

3. Threat to the pace of globalization

The expectation of a sustained global economic slowdown threatens the pace of financial market globalization and, thus, future growth opportunities for wholesale financial institutions. Financial globalization has allowed these firms to expand their operations into new markets in both the advanced and the emerging economies. This has been a boon for the industry, resulting in increased revenues, investment access and portfolio diversification.

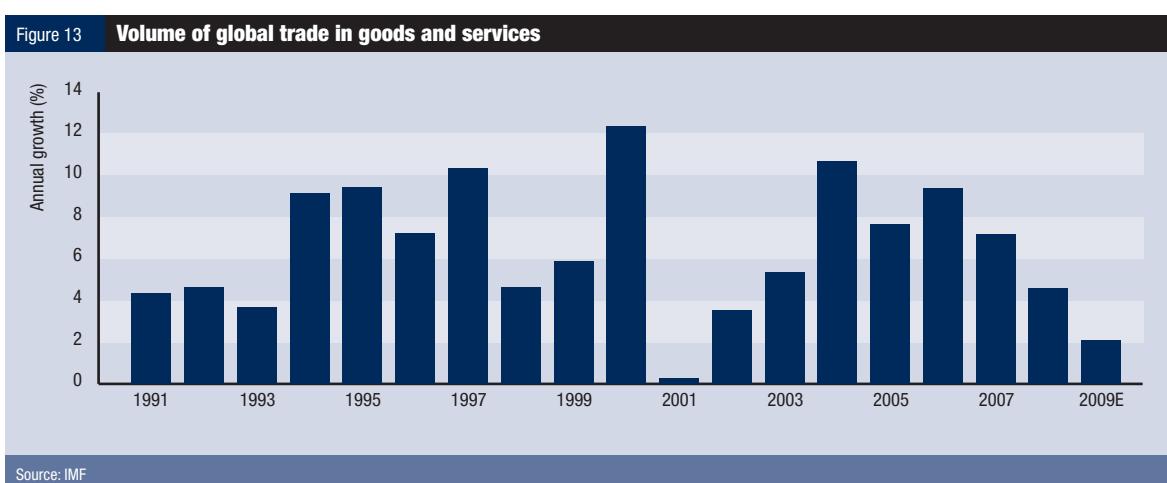
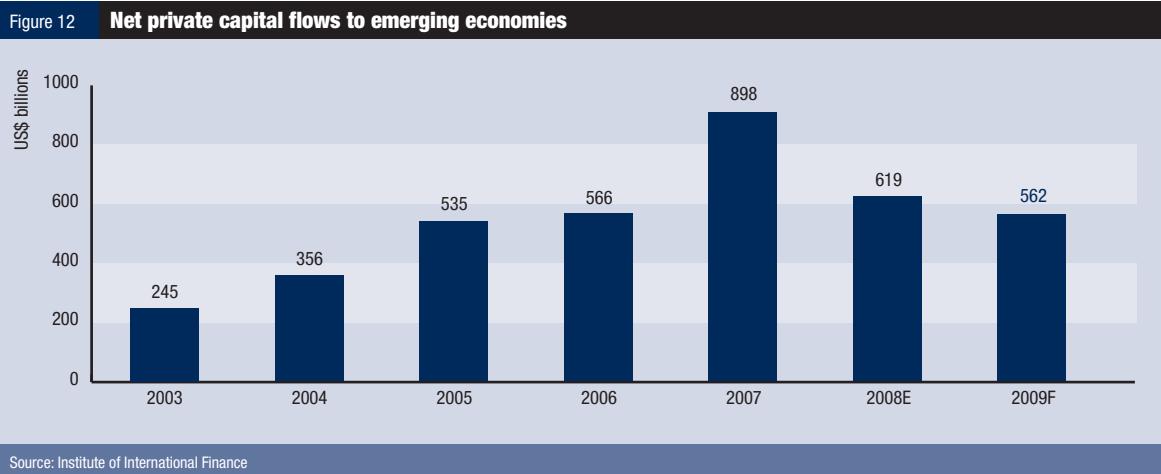
However, as damage from the financial crisis works its way through to newly open economies, the threat of increased capital controls becomes a distinct possibility. Debates regarding the role of "hot money" flows in international financial crises, having already received significant attention in the wake of the Asian and Russian default crises, may once again return to the forefront of public debate. As national governments investigate the conditions that led to the current crisis, arguments for limiting the exposure of domestic economies to external crises are also likely to regain their former prominence. Should national governments close themselves off and reinstate capital controls as a means of protecting their economies, these restrictions would significantly limit growth and investment opportunities for financial institutions. Such controls could potentially lead to higher debt costs – with supply/demand equilibriums differing greatly among regions – and might decrease the correlation of global asset returns.

Signs of a slowdown in economic globalization are already evident in cross-border capital flows and trade volumes. The Institute of International Finance forecasts that net private capital flows to emerging economies will fall back to between 2005 and 2006 levels after reaching a peak of \$US 898 billion in 2007 (Figure 12). Likewise, global trade flows, which rose 9.4% in 2006 and 7.2% in 2007, are forecasted to grow by just 2.1% in 2009, the slowest rate of growth since 2001 (Figure 13).

As the number of nationalized banks continues to rise, so too will the incentive for governments to adopt nationalistic banking policies. Having invested billions of dollars in shoring up national banks, some governments may be loath to permit foreign banks to compete in their domestic markets. These impulses may be somewhat tempered by the need for additional sources of lending across the global economy. However, should nationalistic sentiment predominate, it could lead to greater fragmentation of the banking sector, with banks increasingly focused on their domestic markets.

There is significant uncertainty as to the extent to which the current crisis could result in a full-blown reversal of the trend towards globalization. While some economies may attempt to inoculate themselves from future global

⁴ HM Treasury, <http://www.hm-treasury.gov.uk>, 2008.



contagions, others are likely to recognize that the potential damage from such policies outweighs the upside.

Moreover, much of the impact of globalization, such as the emergence of global banks, the integration of bond markets and the connectivity of financial data and communication systems, would be extremely difficult to reverse. However, some degree of reversal remains a distinct possibility.

Over the long-term (2009-2020), the level of financial leverage, the role of government and the prospects for globalization are all much less certain, but will be equally critical for financial institutions seeking to develop effective business strategies. Consequently, in section three, we use a scenario-based approach to understand how key driving forces – social, technological, environmental, economic and political – might shape the wholesale financial landscape.

Key forces for the near- and long-term

Hence, over the near-term (2009-2012), the dominant trends in the global financial system will continue to be deleveraging, adaptation to increased government intervention and a weakening of cross-border economic activity. In section two, we develop a new industry outlook on the basis of these near-term trends and the implications identified in this section.

Section

2

A near-term industry outlook

Section

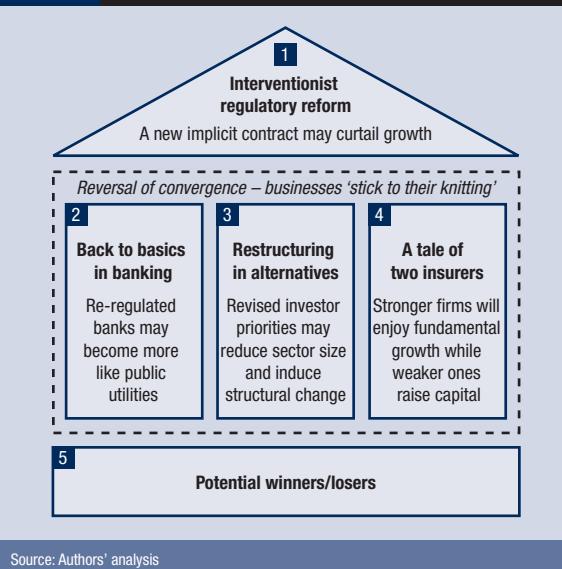
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A near-term industry outlook

The near-term implications of deleveraging, a global economic slowdown, increased government intervention and a threat to the pace of globalization – combined with a decline in investor risk appetites and a rise in shareholder activism on issues such as compensation reform – have created a perfect storm for change in the financial services industries.

In the near-term, the crisis is likely to constrain financial activity and relocate a limited set of growth opportunities within the global financial system. Despite the speed of the crisis, many of the fundamental changes stemming from it could take years to work through, as institutions grapple with the ramifications of re-regulation and a new industry structure. In this section, we begin with the near-term outlook for financial regulation and supervision. We then explore how the changes identified in the first section, as well as potential trends in industry regulation, will alter the near-term structure of wholesale financial markets. We conclude with a brief assessment of the potential winners and losers in this process as many financial institutions reassess their existing business models (Figure 14).

Figure 14 **Summary near-term outlook for wholesale financial markets**



1. An interventionist regulatory framework

The financial crisis has led to a dramatic rethinking of the role of government in financial services. In stark contrast to the past decade's US-led trend towards deregulation and freer markets, institutions and investors now look to national governments for the capital and leadership needed to save the global financial system. As previously discussed, this fundamental change in perspective signals the beginning of a new implicit contract between these governments and their financial institutions, in which many of the latter were granted a new lease on life in exchange for an overhaul of existing rules and regulations.

Global policy-makers have already begun to assemble the framework for future regulations. The first major international step was made by leaders of the G20 nations at their November 2008 summit on financial markets and the world economy. They committed to take immediate and medium-term action on five common principles for reform (Table 1):

1. Strengthening transparency and accountability
2. Enhancing sound regulation
3. Promoting integrity in the financial markets
4. Reinforcing international cooperation
5. Reforming international financial institutions

Table 1

G20 common principles and actions for reform of financial markets

Common principle for reform	Immediate actions by March 31, 2009	Medium-term actions
Strengthening transparency and accountability: Enhance disclosure on complex financial products and align incentives to avoid excessive risk-taking	<ul style="list-style-type: none"> Enhance guidance for disclosing the valuation of complex, illiquid securities Enhance governance of international accounting standard-setting bodies Assess private-sector best practices for private pools of capital and/or hedge funds 	<ul style="list-style-type: none"> Create a single, high-quality global accounting standard Ensure that regulators, supervisors, accounting standard setters and the private sector work more closely together on consistent application and enforcement of standards Enhance financial institution risk and loss disclosures including off-balance sheet activities
Enhancing sound regulation: Strengthen regulatory regimes, prudential oversight and risk management	<ul style="list-style-type: none"> <i>Regulatory regimes:</i> Review pro-cyclicality, including the ways that valuation, leverage, bank capital, executive compensation and loss provisioning exacerbate cyclical <i>Prudential oversight:</i> Enhance international standards and minimize conflicts for ratings agencies; ensure maintenance of adequate capital, speed efforts to implement central counterparty services <i>Risk management:</i> Re-examine bank risk management and internal controls, in particular relating to liquidity and counterparty risks, stress testing, incentive alignment and development of structured products 	<ul style="list-style-type: none"> <i>Regulatory regimes:</i> Undertake Financial Sector Assessment Program with view to ensuring that all systemically important institutions are appropriately regulated <i>Prudential oversight:</i> Register credit rating agencies; develop robust international frameworks for bank liquidity management and central bank intervention <i>Risk management:</i> Ensure awareness and ability to respond to evolving financial markets and products; monitor substantial changes in asset prices and their implications for the macro-economy/financial system
Promoting integrity in financial markets: Protect integrity of financial markets and promote information sharing	<ul style="list-style-type: none"> Enhance regional/international regulatory cooperation Promote information sharing on threats to market stability; ensure legal provisions to address threats Review business conduct rules to protect markets and investors against market manipulation and fraud 	<ul style="list-style-type: none"> Implement measures that protect against uncooperative and/or non-transparent jurisdictions posing systemic risks Continue work against money laundering and terrorist financing Promote international tax information exchange
Reinforcing international cooperation: Formulate consistent global regulations	<ul style="list-style-type: none"> Establish supervisory colleges for all major cross-border financial institutions to strengthen surveillance Strengthen cross-border crisis management procedures and conduct simulation exercises 	<ul style="list-style-type: none"> Collect information on areas of convergence in regulatory practices (e.g. accounting, auditing, deposit insurance) to accelerate progress where necessary Ensure that temporary measures to restore stability and confidence create minimal distortions
Reforming international financial institutions: Advance the reform of Bretton Woods institutions to reflect changing economic weight	<ul style="list-style-type: none"> Add emerging economies to Financial Stability Forum Strengthen IMF and FSF collaboration on surveillance and standard setting, respectively Review resource adequacy of development banks Review ways to restore access to credit and resume private capital flows to emerging economies 	<ul style="list-style-type: none"> Comprehensively reform Bretton Woods institutions so they can more adequately reflect changing international economic weights and effectively respond to future challenges IMF should conduct surveillance reviews of all countries Provide capacity-building programs for emerging economies on the formulation of effective regulation

Source: US Executive Office of the President

The G20 directive provides a view of immediate policy-maker concerns and the regulatory landscape they are seeking to create. In short, these policies imply a regulatory future characterized by a more highly regulated financial sector with substantially higher disclosure and transparency requirements. This is expected to have three broad implications for the global financial system:

- expanded scope of regulatory oversight
- constrained financial institutions
- increased global regulatory coordination

We will briefly discuss each of these implications in turn.

Expanded scope of regulatory oversight

Current statements by many national political leaders and regulators indicate they will push for the financial regulation of all systemically important entities, regardless of institution type. The primary objective of regulatory reform will almost certainly be to reduce the amount of risk-taking, via the extension of regulatory oversight to additional market participants. The EU and the US have recently extended this treatment to securities dealers (in the US case, however, only to the largest such firms). Various EU member governments have publicly demanded that hedge funds and private equity funds be more transparent and come under greater regulatory control. There have also been some public statements in favour of extending the same regulatory framework to include sovereign wealth funds. Current policies appear to be in the direction of extending bank-like regulation to at least some of these players. Although this will require a tailored approach given their differences in ownership, structure and specific involvement in financial markets, such changes would dramatically alter the outlook for these heretofore less-regulated entities, particularly hedge funds.

Constrained financial institutions

In the near future, global governments will be expected to clarify the implicit “too big to fail” doctrine used to determine financial institutions of systemic importance. This will effectively split the financial community into two distinct sets: financial utilities and financial risk-takers. Virtually every financial institution falling into the former category will face significant new operating restrictions in light of the implicit and explicit government guarantees underpinning their businesses.

First, financial utilities will likely be held to heightened disclosure requirements to ensure that all risks to their solvency are transparent and somehow mitigated. They

will also be required to devote more resources to upgrading their liquidity, market, credit and counterparty risk measurement practices. Beyond adding significantly to ongoing reporting costs, such measures might also induce these institutions to avoid or reduce their use of complex or hard-to-value securities to ensure compliance with regulatory authorities. Off-balance-sheet vehicles will likely be significantly less prevalent, diminishing the ability of banks to originate new assets faster than they can increase their capital bases.

Second, utility-like financial institutions will be forced to hold more capital against their assets, particularly in their securities businesses, inhibiting growth in this segment. While it is possible such limitations could be circumvented through the use of derivatives, the combination of principles-based regulation and increased supervision would presumably stamp this sort of activity out if initiated.

Third, financial utilities are likely to face more stringent liquidity requirements, including tighter liquidity management practices and caps on short-term funding reliance. This is already leading to intensified competition for deposits, as institutions seek cheaper funding sources. At the same time, there will also be greater reliance on longer term unsecured wholesale funding, consequently driving up costs of capital across the industry. Taken together, these two implications point towards a greater emphasis on cost management, as well as lower net interest margins across the industry.

The imposition of new disclosure requirements and higher capital and liquidity ratios may force the largest and most systemically important entities to focus on client businesses over principal risk-taking. As with other utilities, investors would look to these entities for steady cash flows, rather than earnings growth.

The remaining institutions deemed too small to pose systemic risks will be faced with an ongoing dilemma. They will either have to subsist below the defined size threshold, thus limiting their future growth, or be forced to redefine their business models to survive under the added regulatory burdens of the financial utility model.

Increased global regulatory coordination

The importance of global regulatory coordination cannot be understated. Without effective cooperation between regulators in the key financial markets, there is a possibility that market participants will engage in regulatory arbitrage

by (re)incorporating in regions that offer the path of least resistance. Under this scenario, the aggregate level of risk-taking in the system would not be reduced; it would simply be reshuffled from one location to another.

The potential implications of the global coordination promised by the G20 summit are difficult to assess due to the wide variance in potential levels of coordination. On the one hand, despite recent commitments to global coordination, regulatory cooperation remains rudimentary. Governments have historically been wary of acting in ways that could be perceived as committing their taxpayers to support residents of other countries. Until the guidelines for global coordination are fully determined, the trend among national regulators may be to increase requirements for local incorporation, capital holding, autonomous management and/or treasury management within their jurisdictions to improve their regulatory “grip” on cross-border businesses. Current policies are strongly in the direction of increasing national regulation over global firms. This will increase costs for financial institutions across the board through reductions in the efficiency of capital and liquidity utilization, and may significantly affect the rate of globalization of many if not most financial services. On the other hand, the development of global colleges of supervisors appears to have been accelerated and should allow regulators and supervisors for sharing of best practices as well as a better understanding of a parent bank’s risk profile as opposed to solely a subsidiary’s risk profile.

Given the range of possibilities and the relative speed of global policy negotiations and policy-making, we assume that changes in global coordination will take considerably more time to implement than national regulatory reforms. In light of this, we explore potential scenarios for the impact of degrees of international coordination on financial policy in section three.

In summary, the positions taken by global regulators will significantly reshape the financial services landscape. By expanding the scope and power of regulations, policy-makers will redraw the efficient frontier for institutional risk-taking, reducing the risk profiles of the largest financial institutions. Through global coordination, policy-makers will attempt to present a united front and thus minimize regulatory arbitrage.

2. Back to basics in banking

In the wake of the re-regulation anticipated over the next three years, financial institutions engaged in investment banking may re-emerge as focused, client-centric utilities. In the years leading up to the crisis, these institutions moved away from their roots as agents providing corporate finance, advisory, brokerage and asset management services to clients. An increasing proportion of their revenue and earnings growth was attributable to principal finance and proprietary trading activities. In their post-crisis form, they can be expected to orient their strategies towards core competencies that prioritize client businesses over ring-fenced proprietary trading activities, which may migrate back to client units and/or away from the bank sector altogether. Furthermore, investors will demand that re-regulated banks emphasize balance sheet efficiency and stable cash flow generation over revenue and earnings growth.

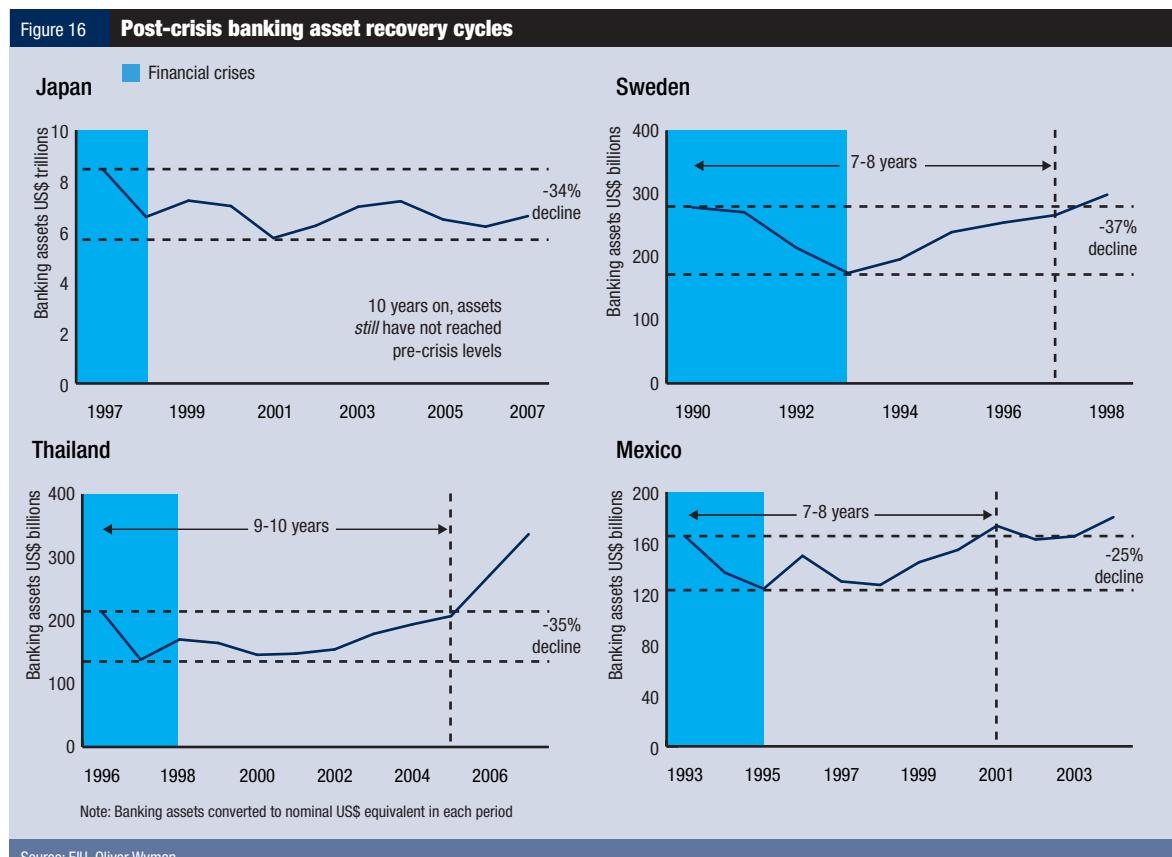
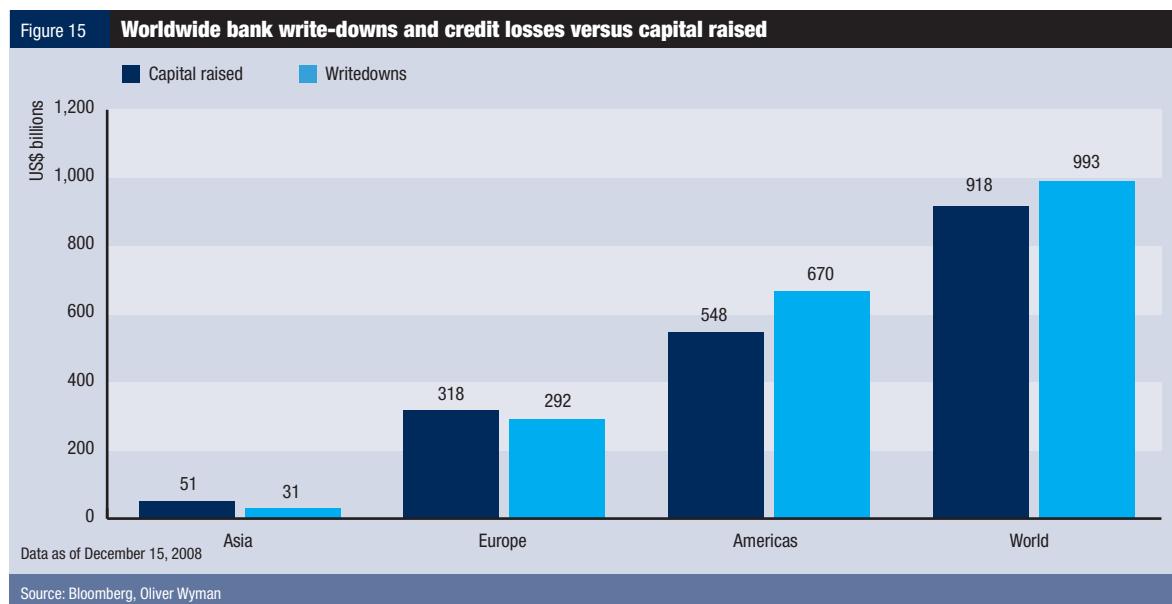
Most banks will probably make this transition in two distinct stages. In the first stage, they will focus on simply surviving the waves of write-downs now rippling through the industry. The strategic emphasis during this period will be on repairing damaged balance sheets through changing asset-liability compositions and raising capital, with mergers as a distinct possibility for institutions too weak to rebuild. In the second stage, the surviving banks will reassess their capabilities and refocus their business models on narrower, more client-centric activities.

Stage 1 of 2: Surviving the storm through balance sheet repair

In the face of rising defaults and ongoing write-downs, successful wholesale banks will strengthen their balance sheets. On the equity side, these efforts will continue to focus on closing the gap between write-downs and raised capital, leading to higher Tier 1 capital and tangible common equity ratios and lower leverage ratios. On the asset side, banks will increase the proportion of short-term instruments and take other measures to boost liquidity. On the liability side, they will seek to reduce their reliance on wholesale funding by attracting deposits; where wholesale funding is used, banks will continue to reduce reliance on short-term repurchase agreements in favour of longer term, unsecured debt financing.

Although capital injections from national governments and private investors have strengthened the capital positions of many banks, most will need to continue raising capital as the great unwind continues and rising defaults further depreciate the value of the loans and securities on their books, leading to further write-downs. Overall, global capital raised since the onset of the crisis remains less than total write-downs (Figure 15). At the same time, the regulatory demand for higher capital ratios will force

banks to shrink their balance sheets by selling assets and slowing new lending. Following the historical precedents set by previous financial crises, this deleveraging process will ultimately result in a significant reduction in the sector's total assets (Figure 16). However, given the magnitude and global nature of the current crisis, this contraction may well be significantly deeper and require a much longer recovery period than seen in other recent crises.



Nonetheless, the importance of maintaining a solid capital base cannot be understated. An analysis of the ratio of bank tangible common equity to tangible assets shows a strong correlation with stock performance (Figure 17), suggesting that banks must actively maintain the strength of their balance sheets if they wish to maintain the market's confidence.

Another significant challenge for banks so far has been their ability to maintain sufficient liquidity levels. This was the lesson learned from Bear Stearns, Lehman Brothers and American International Group, each of which suffered liquidity crises as counterparties closed positions, demanded additional collateral and withdrew fund balances. Hence, a key focus for banks and regulators going forward is expected to be the revision of liquidity risk management practices, including measurement and monitoring, scenario and stress testing, and the quality of contingency plans.

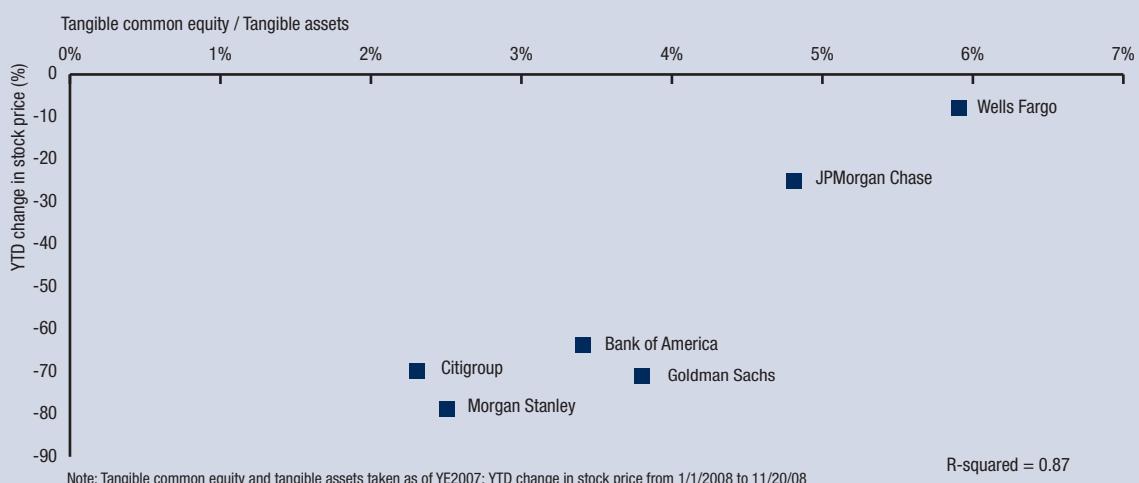
Prior to the crisis, many wholesale banks believed they held excess liquidity through their mortgage portfolios. It was believed that such loan pools could easily be securitized in the event of a liquidity crisis. As a result, banks that held large mortgage books tended not to hold segregated liquid securities portfolios, which may have contributed to the liquidity crisis many of these institutions faced in 2008.

To avoid the “tipping point” at which liquidity becomes too scarce to stave off default, banks will likely take (or be forced to take) a number of steps to improve their liquidity risk management practices. These could include:

- improving liquidity ratios by raising the level of cash and short-term securities relative to total assets and strengthening other funding ratios
- segregating asset liquidity pools by creating or enhancing liquidity portfolios matched to short-term liquidity gaps/buckets
- imposing tougher stress tests by revising assumptions about their survival horizons without access to wholesale funding, creating bank/national/global systemic scenarios and performing mock liquidity drills
- tightening monitoring by refining the use of early warning triggers, such as credit default swap (CDS) spreads and ratings downgrades, to detect imminent liquidity threats
- developing escalation procedures for contingency processes, such as the extension of deposit and borrowing maturities, and improving crisis communications plans

Equal if not greater attention will be paid to wholesale banks’ near-term liability profiles. Banks will compete heavily to attract “stickier” retail and high net worth deposits to lower their longer term funding costs, while simultaneously minimizing reliance on wholesale funding sources. The transformation of Goldman Sachs and Morgan Stanley into US bank holding companies will enable each to gather retail deposits as regulated commercial banks. For example, Goldman Sachs has committed to transfer up to US\$ 150 billion, or 14% of the bank’s total assets as of third quarter 2008, to its

Figure 17 **Tangible common equity* / tangible assets versus year-to-date performance**



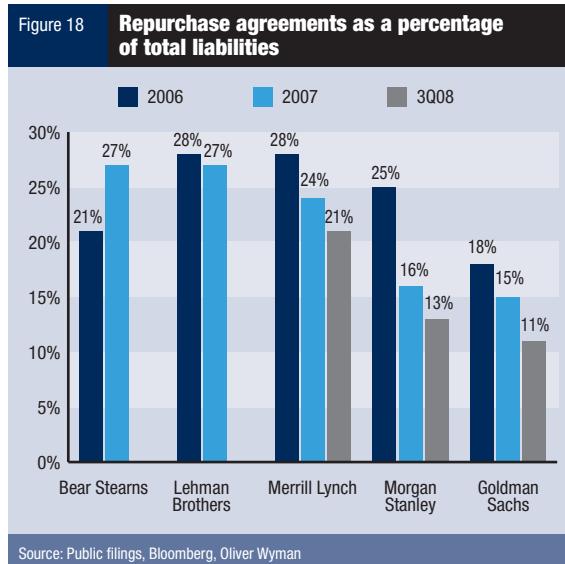
Source: Bloomberg, authors' analysis

* Tangible common equity is defined as common equity less intangible assets such as goodwill

Utah-based commercial bank to build a deposit-taking business.⁵ Both may raise deposits organically via their wealth management businesses, by using third-party distribution (e.g. brokered certificates of deposit) or through the acquisition of businesses with existing deposit bases.

Prior to the crisis, what were the five independent global investment banks – Bear Stearns, Lehman Brothers, Merrill Lynch, Morgan Stanley and Goldman Sachs – relied greatly on repurchase agreements (repos), a form of short-term secured lending, to finance longer term assets (Figure 18). These banks have faced severe difficulties in rolling over these and other short-term funding positions during the crisis, exposing them to significant liquidity risks. The survivors, who have either converted to or been acquired by bank holding companies, have begun reducing their reliance on repos in favour of longer term liabilities. This has also occurred among some of the universal banks, although to a lesser extent. Regulatory and shareholder pressure will likely continue on this front, meaning repo usage as a percentage of total liabilities is unlikely to reach pre-crisis levels for many years, if ever.

As write-downs continue and governments provide asymmetric support to the strongest franchises via direct equity injections, many banks will be unable to raise enough capital to remain creditworthy in the eyes of the market. This will inevitably lead to further near-term consolidation, as weaker banks sell their assets to those with stronger capital positions. The concentration of

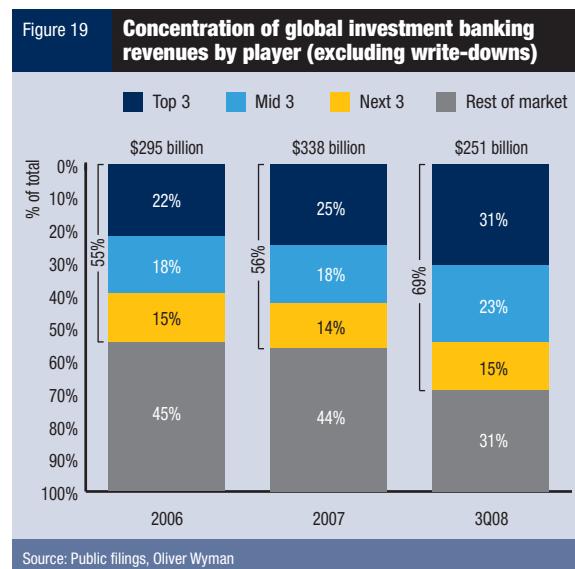


investment banking revenues has already risen sharply, with the 2008 acquisitions of Bear Stearns by JPMorgan Chase and Merrill Lynch by Bank of America, as well as the sale of Lehman Brothers assets to Barclays Capital in the US and Nomura in Europe and Asia. Based on third quarter 2008 public filings, the top nine players are now capturing an estimated 69% of investment banking revenues (excluding write-downs), compared to just 56% at the end of 2007 (Figure 19).

In the very near-term (2009-2010), revenue concentration is expected to continue as macroeconomic conditions drive further bank consolidation. Universal banks are likely to be among the short-term winners. Furthermore, if banks use government funding to make acquisitions, revenues may further concentrate at the regional level. This may be viewed positively by increasingly risk-averse shareholders who prefer universal banks because of their diversified revenue streams and funding sources or negatively by shareholders who question whether universal banks can be managed effectively.

In the medium-term (2011-2012), firm-specific strategies will ultimately determine the structure of wholesale banking as some universal banks maintain scale while others potentially break up.

Prior to the crisis, management teams at universal banks were under pressure to find greater synergies between business lines to warrant the complexity of their conglomerate structures. Unfortunately, there is no new evidence that the



⁵ Blankfein, L. Goldman Sachs Presentation to 2008 Merrill Lynch Financial Services Conference. November 11, 2008. Goldman Sachs

potential positive effects of universality, such as additional cross-selling opportunities, revenue diversification and shared services, outweigh the costs, such as management distractions, coordination costs, misalignment of purpose and the potential inefficiencies of shared services.

During the current period of bank consolidation, shareholders have effectively given these management teams the opportunity to retest the hypothesis that conglomerate structures lead to increased effectiveness. While it is too early to determine the outcome of this test, if management fails to deliver ongoing benefits – or if policy-makers reverse course and decide that the best approach to reducing systemic financial risk is to break up conglomerates – a period of disaggregation might quickly follow the current wave of consolidation. This uncertainty highlights the importance of embedding optionality in post-merger integration plans, making it possible to realize merger synergies while allowing the distinct business areas to retain enough of a ring fence that divestiture remains an available option.

Stage 2 of 2: Reconstructing the business model

After experiencing worldwide write-downs and credit losses of nearly US\$ 1 trillion by the end of 2008, the surviving global commercial and universal banks, as well as many regional banks, are likely to refocus their visions around what they deem to be their core activities based on individual competitive advantages. The two primary dimensions of this vision-setting exercise will be the geographic reach of and activities performed by the institutions involved (Template A).

In terms of geographic reach, while some regional banks appear to be expanding their global footprint by acquiring the operations of foreign banks, others that had once aspired to become global banks have recommitted to their regional franchises to weather the crisis and focus on their core competencies.

In terms of activities performed, the fact that client revenues have remained relatively strong through the crisis to date has led banks to prioritize client-oriented

Template A		A vision-setting framework for banks with wholesale activities	
Activity	Geographic reach		
	Regional		Global
	Advisory		
	Agency		
	Proprietary trading		
	Retail/wealth		

Source: Authors' analysis

businesses over principal risk-taking. As a result, banks have reduced ring-fenced proprietary trading. Depending on the bank, these activities have either been migrated back into the client businesses in which they were incubated or have been shut down entirely. The latter may partially re-emerge in a less regulated sector, such as hedge funds. Likewise, the attractiveness of retail and high net worth clients has increased as deposits have grown in strategic importance. This has given rise to two effects: first, banks that have long-established roots in retail and wealth management have recommitted to these businesses; second, banks that have traditionally been weaker in this area have had a renewed motivation to gather retail deposits and/or wealth management assets.

In the near-term, it is expected that banks will reassess where their competitive advantages lie along these two dimensions and design strategies that support their renewed visions (Table 2). At least five dominant business models are likely to emerge that leverage one or more core competencies and reduce the amount of overlap in global banking. These can be characterized as:

1. Scale globals
2. Focused regionals
3. Private banks
4. Merchant banks
5. Alpha risk takers

Table 2

Emergent post-crisis business models for investment banking activities

	<p>Potential priorities in new vision</p> <p>Legend:</p> <ul style="list-style-type: none"> Core competency (Green) Complements core competency (Yellow) Limited to no activity (Red) 															
1. Scale globals will likely to be part of a small, super class of global liquidity providers. They will use their deposit-funded, fortress-like balance sheets, global footprint and trading infrastructure to maintain or become major liquidity providers across markets and asset classes. Many of them will be universal banks, and will grow retail deposits and high net worth accounts to stabilize their funding sources, but will reduce the amount of ring-fenced proprietary trading.	<p>Geographic reach</p> <table border="1"> <thead> <tr> <th></th> <th>Regional</th> <th>Global</th> </tr> </thead> <tbody> <tr> <td>Advisory</td> <td>Yellow</td> <td>Green</td> </tr> <tr> <td>Agency</td> <td>Yellow</td> <td>Green</td> </tr> <tr> <td>Proprietary trading</td> <td>Yellow</td> <td>Yellow</td> </tr> <tr> <td>Retail/ wealth</td> <td>Yellow</td> <td>Green</td> </tr> </tbody> </table>		Regional	Global	Advisory	Yellow	Green	Agency	Yellow	Green	Proprietary trading	Yellow	Yellow	Retail/ wealth	Yellow	Green
	Regional	Global														
Advisory	Yellow	Green														
Agency	Yellow	Green														
Proprietary trading	Yellow	Yellow														
Retail/ wealth	Yellow	Green														
2. Focused regionals will likely recommit to regional franchises. They will dramatically reduce their capital commitments and balance sheets, will pick businesses where they identify a regional advantage, and will extract corporate and commercial cross-sell synergies to dominate mid-sized corporate and government advisory and financing mandates. They will build secondary trading operations to support their advisory and primary issuance businesses and support small international teams that can help syndicate issues globally. As regional specialists, they may engage in a limited amount of proprietary trading where they have an informational advantage.	<p>Geographic reach</p> <table border="1"> <thead> <tr> <th></th> <th>Regional</th> <th>Global</th> </tr> </thead> <tbody> <tr> <td>Advisory</td> <td>Green</td> <td>Red</td> </tr> <tr> <td>Agency</td> <td>Green</td> <td>Yellow</td> </tr> <tr> <td>Proprietary trading</td> <td>Yellow</td> <td>Red</td> </tr> <tr> <td>Retail/ wealth</td> <td>Green</td> <td>Red</td> </tr> </tbody> </table>		Regional	Global	Advisory	Green	Red	Agency	Green	Yellow	Proprietary trading	Yellow	Red	Retail/ wealth	Green	Red
	Regional	Global														
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Proprietary trading	Yellow	Red														
Retail/ wealth	Green	Red														
3. Private banks will recommit to their retail, small business and high net worth client franchises. Like scale globals, they will emphasize deposit funding, but like focused regionals, they will significantly de-risk their trading businesses and seek to extract cross-sell synergies for other banking products. They will maintain some presence in secondary markets to facilitate client transactions.	<p>Geographic reach</p> <table border="1"> <thead> <tr> <th></th> <th>Regional</th> <th>Global</th> </tr> </thead> <tbody> <tr> <td>Advisory</td> <td>Red</td> <td>Red</td> </tr> <tr> <td>Agency</td> <td>Yellow</td> <td>Yellow</td> </tr> <tr> <td>Proprietary trading</td> <td>Red</td> <td>Red</td> </tr> <tr> <td>Retail/ wealth</td> <td>Green</td> <td>Green</td> </tr> </tbody> </table>		Regional	Global	Advisory	Red	Red	Agency	Yellow	Yellow	Proprietary trading	Red	Red	Retail/ wealth	Green	Green
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4. Merchant banks may emerge and gain share in advisory and corporate finance as a greater number of institutions focus on domestic and retail markets and the scale globals look to serve only the largest international clients.	<p>Geographic reach</p> <table border="1"> <thead> <tr> <th></th> <th>Regional</th> <th>Global</th> </tr> </thead> <tbody> <tr> <td>Advisory</td> <td>Yellow</td> <td>Green</td> </tr> <tr> <td>Agency</td> <td>Yellow</td> <td>Green</td> </tr> <tr> <td>Proprietary trading</td> <td>Red</td> <td>Yellow</td> </tr> <tr> <td>Retail/ wealth</td> <td>Red</td> <td>Red</td> </tr> </tbody> </table>		Regional	Global	Advisory	Yellow	Green	Agency	Yellow	Green	Proprietary trading	Red	Yellow	Retail/ wealth	Red	Red
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5. Alpha risk takers , such as hedge funds and private equity firms, may increasingly act as market makers on instruments where spreads have widened or arbitrage opportunities are present. Hedge funds with trading infrastructure are likely to move into select high-margin sell-side businesses (e.g. fixed income, credit, corporate finance). Private equity firms with established track records of aligning the interests of general and limited partners will be best positioned to attract fresh capital to invest in illiquid markets.	<p>Geographic reach</p> <table border="1"> <thead> <tr> <th></th> <th>Regional</th> <th>Global</th> </tr> </thead> <tbody> <tr> <td>Advisory</td> <td>Red</td> <td>Red</td> </tr> <tr> <td>Agency</td> <td>Red</td> <td>Yellow</td> </tr> <tr> <td>Proprietary trading</td> <td>Green</td> <td>Green</td> </tr> <tr> <td>Retail/ wealth</td> <td>Red</td> <td>Red</td> </tr> </tbody> </table>		Regional	Global	Advisory	Red	Red	Agency	Red	Yellow	Proprietary trading	Green	Green	Retail/ wealth	Red	Red
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Retail/ wealth	Red	Red														

Source: Oliver Wyman, authors' analysis

As scale globals, focused regionals and even private banks reduce risk exposures, raise capital and generally become more utility-like, they will have a limited set of levers for near-term revenue and earnings growth outside of extracting further synergies and operational efficiencies. As a result, investors are likely to view these banks based on their balance sheet efficiency and their ability to generate cash flow, rather than on their growth or reinvestment prospects. Meanwhile, merchant banks and alpha risk takers will likely gain share in cross-border banking and select broker-dealer businesses, respectively, as incumbents become more focused.

3. Restructuring in alternative investments

As the deleveraging process and the global economic slowdown continue to severely impact alternative investment portfolios, both hedge funds and private equity firms will be forced to re-evaluate their business models and make some significant changes in the wake of the financial crisis. After years of outsized performance, numerous hedge funds with the stated performance objective of producing absolute returns have been exposed as levered beta performers. Similarly, private equity firms that had recently been on an acquisitions binge are now suddenly faced with the prospect of portfolios under stress and limited exit opportunities. In both cases, the financial crisis exposed weaknesses that will reduce overall investor demand and require strategic adjustments. However, the size and shape of these adjustments will differ significantly across the two asset classes.

The combined effect of deteriorating market conditions, investor redemptions and the forced unwinding of leveraged positions have been problematic for the hedge fund industry. The negative performance of the majority of hedge funds throughout the crisis has raised questions concerning fee structures. In addition, the unwinding of hedge fund leverage is also believed to have contributed to market volatility, highlighting the industry's potential systemic impact and raising the possibility of greater regulatory oversight. In light of the industry's troubles, many former hedge fund clients with a renewed focus on risk-adjusted returns will likely reallocate to lower-cost

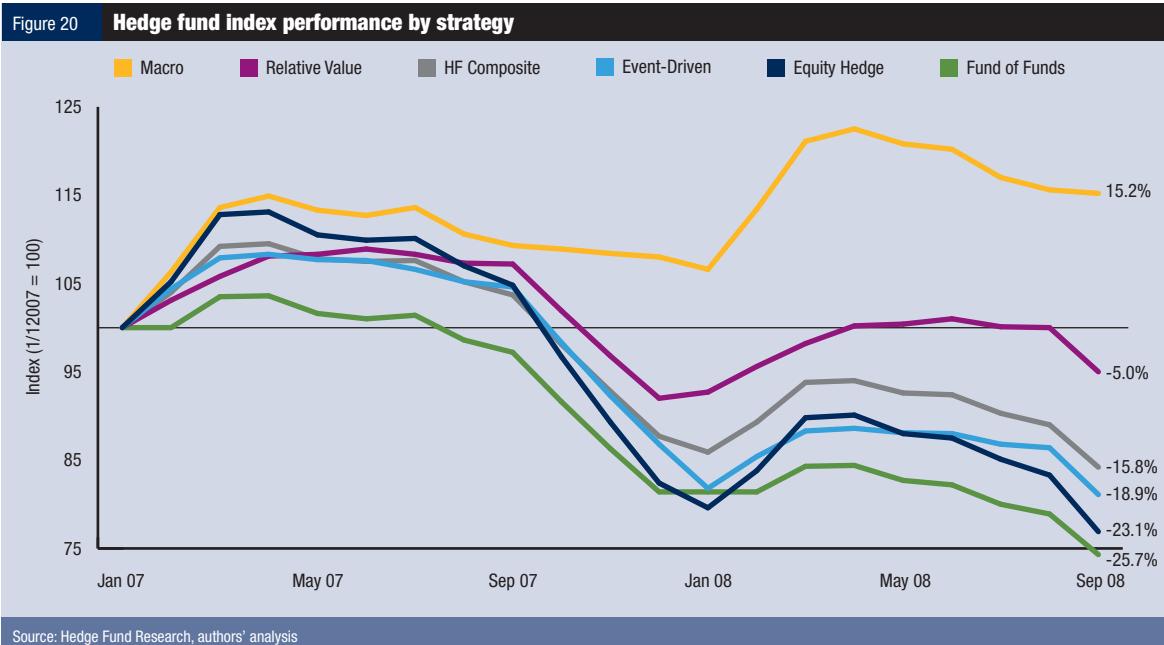
indexation and "new beta" strategies.⁶ To combat this trend, hedge funds will likely take major steps in revising their overall model, including a reduction in fees and a migration to a more private equity-like funding structure.

At the same time, private equity firms face the near-term challenges of steering levered portfolio companies through a severe downturn and adapting their business models to a deleveraging world where cheap financing will be hard to find. However, unlike the hedge fund industry, private equity has not emerged as an amplifier of systemic risk and is thus not a likely candidate for significant regulation. As such, the majority of changes in the private equity sector will likely be strategic, rather than structural. The pre-crisis wave of large leveraged buyout transactions will be replaced by a focus on smaller deal making that will prioritize operational improvement, distressed and turnaround situations over the use of financial leverage. Attractive investment opportunities will likely emerge as a result of the crisis. The challenge for private equity firms will be to raise capital for these opportunities in an environment where many traditional limited partners are at or above their target allocations.

Hedge fund underperformance will result in restructuring and greater indexation

The median performance of hedge fund managers since the onset of the crisis has been negative, in contrast to investor expectations of positive absolute returns and downside protection. Indeed, according to Hedge Fund Research Inc., the majority of hedge fund strategies have demonstrated a close correlation to market returns during the crisis, the main exception being macro strategies (Figure 20).

⁶ The term "new beta" refers to asset classes that are expected to deliver superior risk-adjusted returns for structural reasons, such as lower liquidity, complexity and/or higher barriers to entry.



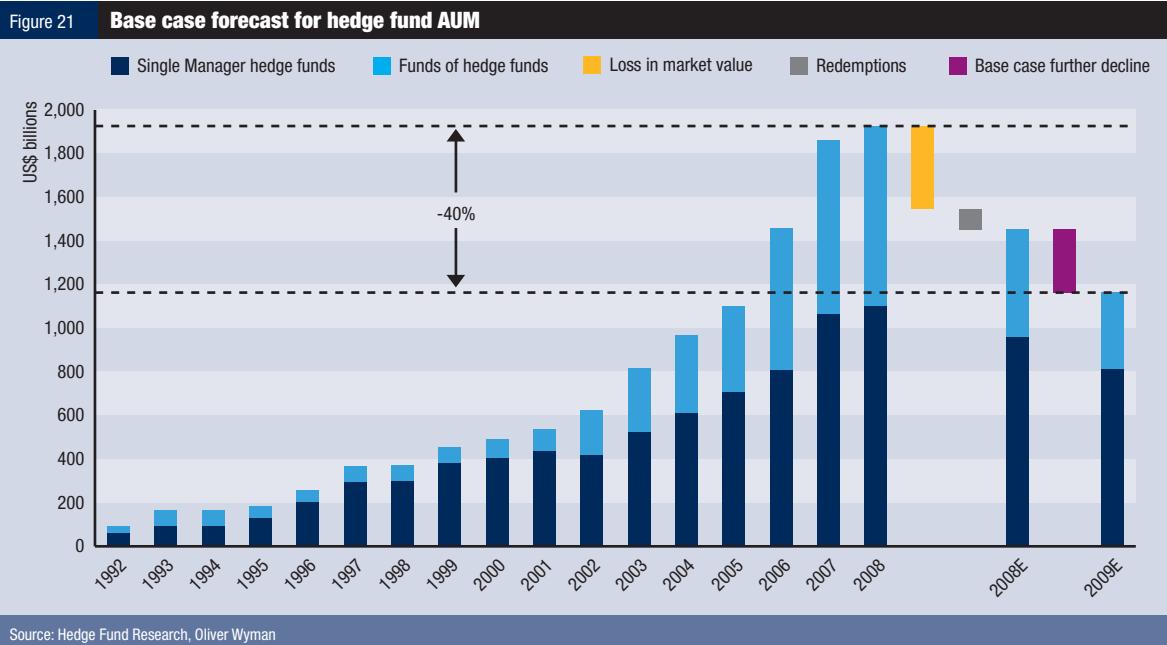
In the defence of hedge funds, many observers have noted that, although relative performance is not their mandate, they have outperformed equity indices by a significant margin in most cases. However most investors have not paid hedge funds for relative performance. As a result, in the second half of 2008, virtually every major hedge fund faced net redemption requests either as a direct result of fund performance or an indirect consequence of reduced appetite for market, credit or liquidity risk (it should be noted that even well performing funds have been subject to withdrawals, as underlying investors face liquidity issues across their portfolios). In response, some hedge funds halted redemptions and created a variable fee structure to compensate for different lock-up periods.

Only the highest performing hedge fund managers are expected to retain current fee levels in the near-term as they seek to minimize redemptions in the face of lower-than-expected median fund performance. Despite fee reductions, net redemptions are expected to continue through 2009. Hedge fund assets under management (AUM) peaked at US\$ 1.9 trillion in the second quarter of 2008. The combination of redemptions and market depreciation is estimated to have reduced AUM by at least 25% – from the peak – by the end of 2008. While losses and redemptions have fed on each other, the temporary halting of redemptions by some managers has likely caused a lag in total redemptions. It is forecast that

by the end of 2009 hedge fund AUM will have fallen 40% or more from its 2008 peak (Figure 21), a decline largely driven by continued market losses and net redemptions from funds of hedge funds, which currently represent the bulk of industry redemptions. This would return the industry roughly to its size in 2005, but with a greater proportion of single-manager funds.

A similar picture is unfolding in terms of the number of hedge funds still in business. It is expected that 3,000-4,000 single-manager funds and funds of funds will have closed by the end of 2009, including the 700 that did so in the first three quarters of 2008. Underperforming funds of funds will be particularly impacted, as investors become less inclined to pay the extra layer of fees. It is expected that larger hedge funds will have a better chance of surviving than smaller hedge funds as investor allocations are redirected to those with greater perceived "safety" and the most institutionalized infrastructure.

This restructuring is causing a rethink among investors that is reinforcing a trend towards a more structured approach to expectations of hedge fund managers and how they are evaluated. More stringent, broad-based due diligence is likely to create a difficult capital-raising environment for all but the top quartile of performers in the near-term. Top quartile performers who can demonstrate consistent alpha generation are likely to be continued winners as balances are transferred to their management.



One result of restructuring in hedge funds will be a greater reallocation to low-cost passive indexation strategies. The passive business will continue to be dominated by scale players, as low-margin indexation requires asset managers of sufficient scale to cover the fixed costs of portfolio management. Due to the commoditized nature of index products, these players will compete heavily on their management fees and cost discipline. Players with established track records, global distribution and upwards of US\$ 1 trillion in AUM will be well-positioned to deliver cheap indexation and further grow AUM.

The second result will be the emergence of “new beta” sources of return, which will likely permeate strategic asset allocations. These are asset classes that have structural reasons for creating value, such as lower liquidity, complexity and/or higher barriers to entry. Sources of new beta may include:

- infrastructure/project finance
- intangible assets (e.g. intellectual property, royalties)
- research and development exposure
- mega-trends (e.g. clean energy, technology)
- frontier markets
- distressed assets
- insurable risk (e.g. catastrophe bonds)

In the near-term, large institutional and high net worth investors may shift allocations to these newer asset classes, thereby partially substituting for assets previously allocated to hedge fund strategies. It will be up to asset managers to seize the opportunity presented by new beta; however, given the narrow focus required to understand these more opaque markets, it is possible that niche asset managers and alternatives firms will fill this role.

There are two other reasons for restructuring and scale in hedge fund management. First, single-strategy revenues are more volatile than diversified businesses. Hedge fund managers, therefore, have an incentive to diversify their business and reduce the volatility of their earnings. All else being equal, a diversified hedge fund business requires greater scale to maintain its depth of expertise in each asset class covered. Second, depending on how hedge fund regulation is implemented, the sector may also consolidate to distribute the fixed costs of compliance across more assets. On the other hand, smaller, more nimble hedge funds that can consistently exploit specific market inefficiencies as they operate in a less-regulated sector will continue to rise to the top of the industry.

Assuming the trend towards longer investor locks continues, there is a great deal to be learned from the private equity sector in aligning the long-term interests of the manager/general partner with those of the investors/limited partners.

Private equity firms will juggle troubles in their portfolios and new opportunities

Historically, private equity has always been a cyclical business. The industry's challenge in the near-term is to balance the attention it pays to steering portfolio companies through the severe downturn with the efforts to raise new capital for emerging investment opportunities.

Key focus areas for private equity will be:

1. protecting the valuation and viability of existing investments, particularly challenging for those made in 2006-2007
2. putting existing commitments to work
3. raising new funds
4. adapting to new deal characteristics of smaller and less leveraged deals

Some recent private equity portfolio investments are under pressure, as highly levered portfolio companies struggle to cover interest expenses amid weakening global demand and deteriorating exit conditions. General partners have five main ways to reduce portfolio company leverage.⁷ These can be prioritized as:

1. improving cash flow and earnings to build the retained earnings account
2. restructuring debt under more favourable terms before covenants are breached, loans become due or bonds are called/redeemed
3. injecting capital either directly using committed, but not yet invested, capital ("dry powder") or indirectly by repurchasing debt in the secondary markets at significant discounts to par value
4. diluting equity by introducing additional equity investors (a tactic commonly used in venture capital in down rounds) and using the proceeds to retire debt
5. selling non-core assets to free up capital

On the other hand, private equity firms also will be presented with new opportunities. As equity valuations approach cyclical lows and corporate needs for operational improvement increase, returns on future vintage funds, particularly in distressed and turnaround opportunities, are expected to rise. The long-term closed-end fund structures in private equity additionally favour the asset class in this crisis.

Despite rising prospects, institutional investors will be challenged to increase their allocations to alternatives as they rebalance their strategic asset allocations, which in many cases are at or above target weights for private equity (Figure 22). Currently, US\$ 800 billion in committed private equity capital has not yet been invested.

Moreover, a number of institutional investors are already struggling to produce enough cash to finance upcoming capital calls, forcing them to sell their private equity portfolios in the secondary markets, many at steep discounts. It remains to be seen if the entry of new investors to the asset class can partly offset the impact of the decline in fresh capital from many established limited partners. The likely decline in available funds is expected to separate top-performing general partners from below-average players, resulting in a smaller, more concentrated sector.

Since the onset of the current crisis, large, highly-leveraged transactions have been replaced by fewer, smaller deals reoriented to new regions and turnarounds. Recent transactions have begun to illustrate these trends (Table 3).

There has been a recent rise in the number of minority-stake investments partially caused by a fundamental reorientation towards opportunities that have been relatively less affected by the deteriorating conditions in the US and Europe. As a result, a greater number of transactions are being consummated in Asia, where minority and growth capital investments tend to dominate. In addition we might see a growth of private investments in public enterprises (PIPEs). The latter will



⁷ Romeo, J. How to remain a top performing Private Equity firm during the global economic crisis. In *Oliver Wyman Point of View Series*, Issue 3, October 21, 2008

Table 3 New private equity deals look different			
New property	Metric	Pre-financial crisis 3Q06 to 2Q07 average	Latest available 2Q/3Q08
More equity	Average equity contribution (% of purchase price)	30-35%	40%
Smaller deals	Average deal size*	US\$ 631 million	US\$ 244 million
Fewer deals	Number of completed deals per quarter	637	410
Higher cost of funding	Average spread of LBO loan versus LIBOR	275 bps	420 bps
Increased minority stakes	Minority investment by financial sponsors** (% of total PE deal volume)	5%	31%

Source: Dealogic, S&P, authors' analysis

* Global financial sponsor buyouts

** Financial sponsor buyouts acquired stake less than 50% (excludes add-on transactions)

likely raise questions about limited partner and general partner alignment as limited partners have been questioning the viability of the traditional private equity fee structure when investing in public markets.

Private equity firms are also beginning to invest alongside corporate partners or sovereign funds (e.g. Blackstone/NBC Universal's US\$ 3.5 billion acquisition of The Weather Channel) and holding periods are expected to lengthen as private equity firms spend more time improving the operational performances of portfolio companies.

Overall it is likely that these developments will favour top performing firms with a strong track record as once again investor allocations are redirected to those with greater perceived "safety" as well as firms with a proven capacity to add significant operational value. Furthermore, those private equity firms who have recently raised funds but kept much of their powder dry in 2006/2007 stand to benefit. The possible outcome will be a concentration of the industry towards a set of large global firms and many highly specialized players. It remains to be seen if a new incentive and renumeration structure in private equity might emerge as an outcome of the current downcycle or if the traditional carried interest and management fee model between general partners and limited partners that has been the steady state for the last 20 years will prevail.

Another open question remains whether governments will intensify oversight of the private equity sector. Importantly, any regulation of private equity firms will be distinct from proposals for increased regulation of hedge funds.

First, the impetus for regulatory change is higher for hedge funds because they are larger participants in public markets, and thus are financial counterparties of systemic importance. Private equity appears to have less systemic relevance as capital is committed on a long-term basis, leverage is held at portfolio company and not at general partner or fund level and private equity funds themselves are not subject to a "run" on the stock.

Second, both regulation of fundraising activities and the regulation and approval of mergers and acquisitions are well established and have not been the focus of proposed amendments thus far.

Therefore any oversight efforts will likely be focused on further expanding transparency. In addition private equity might be impacted indirectly by regulation aimed at other financial institutions.

Hedge funds may adopt elements of the private equity model, resulting in further restructuring

Hedge funds and private equity firms have two very different and distinct business models. However in terms of fund structures, hedge funds may start to look more like private equity firms by adopting a closed-end fund model, which would lessen liquidity risk and improve the alignment of interests between fund managers and investors. Hedge funds also are likely to pursue arbitrage opportunities in less liquid asset classes, such as investing in "new beta" or increasing the size of private equity side pockets. Their inability to frequently trade in and out to immunize portfolio risk will lead hedge funds to adopt new approaches to risk management that have

closer ties to private equity than to traditional hedge fund practices.

In the near-term, a shrinking hedge fund sector, greater regulatory oversight, the income benefits of asset class/strategy diversification and the potential for shared best practices may all lead some top performing hedge funds to merge with other alternative investment firms. In doing so, these firms will build additional scale and fill out a multi-line investment firm model designed for volatile markets and a more difficult environment for capital raising.

“Unconstrained” investors will have the industry’s upper hand

In the face of lower allocations from current investors, an emerging set of “unconstrained” investors may become either the new best friends of alternatives firms or their fiercest competitors.

As capital becomes scarcer and liquidity less dependable, “unconstrained” funding sources will gain the wholesale industry’s upper hand. Investors with long time horizons and limited or no significant liabilities will prove the least constrained, allowing them to enter transactions that more liability-driven investment vehicles simply cannot accept. This shift in power will allow these unconstrained investors to dictate the most advantageous terms. At least two candidates are currently positioned to fill this role: family offices and sovereign funds.

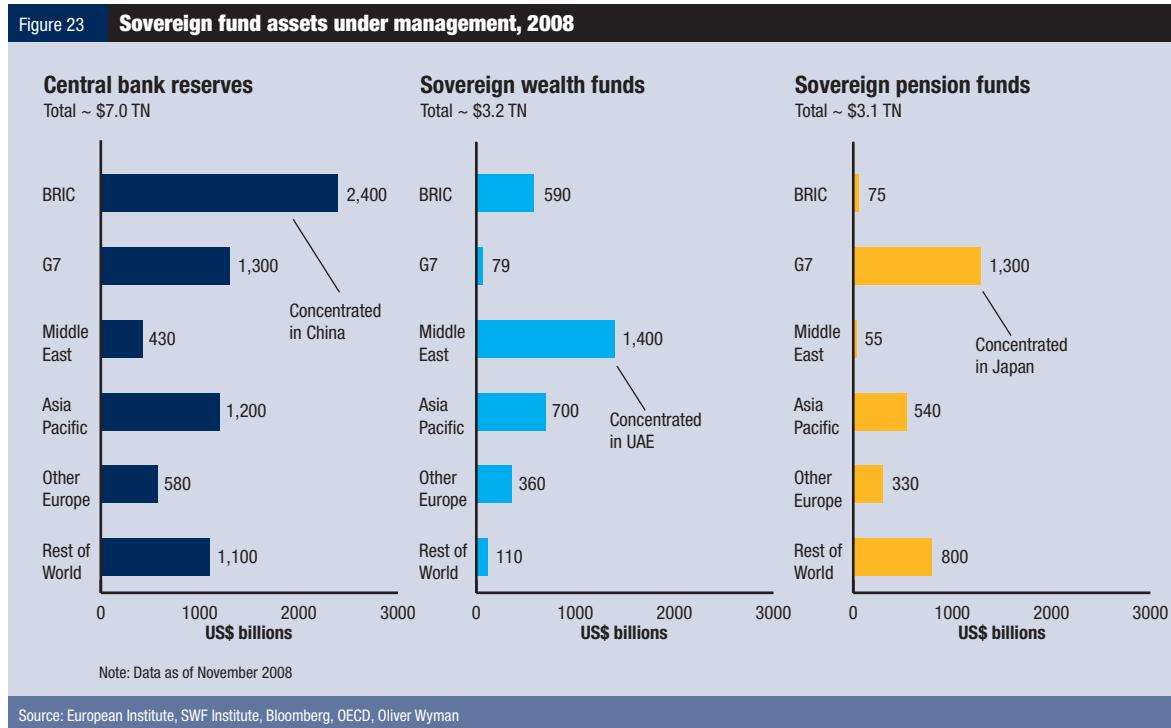
Family offices, which have been around since the industrial revolution, are private companies that manage the wealth and investments of one or more wealthy families. Family office structures have matured dramatically in recent years with their ability to attract third-party capital. Family offices take both minority and majority stakes in liquid public markets and in private equity markets. A number of large family offices have opened up their investment vehicles to other families to build scale, attract and retain top investment talent, and gain access to the most attractive deals. A recent survey by the Family Wealth Alliance listed 83 multifamily offices in the US with US\$ 334 billion in AUM. These 83 firms alone hold assets equal to roughly 19% of total global hedge fund AUM (as of the third quarter of 2008).

More aggressive, professionally managed family offices seek more than just capital preservation and are willing to assume greater risk in doing so, including through the use of financial leverage. Because intergenerational wealth transfer is typically a top priority, the time horizon for most family offices is typically longer than for institutional investors. Consequently, family offices are well positioned, relative to banks and alternative asset managers, to act as long-term investors in undervalued assets that may be less liquid and carry greater investment risk.

Sovereign funds are state-owned funds which invest primarily in financial assets. There are three broad types of sovereign funds: central bank reserves (e.g. People’s Bank of China), sovereign wealth funds (e.g. Abu Dhabi Investment Authority) and sovereign pension funds (e.g. Government Pension Fund of Norway). Like family offices, sovereign funds tend to have long time horizons. While central bank reserves are used to execute monetary policy, and sovereign pension funds serve future retirees, most sovereign wealth funds’ assets typically serve multigenerational development and wealth transfer objectives. Their investment horizons makes them uniquely unconstrained compared to traditional institutional investors like pension funds and insurers, which must match assets to actuarial liabilities.

Despite having existed for decades, sovereign funds gained greater attention this decade for their exponential growth in assets thanks to rising commodity prices and trade surpluses. At the beginning of 2008, total sovereign fund assets were estimated at US\$ 13 trillion, equivalent to roughly 8% of global bond and equity market capitalization (Figure 23).

Prior to the financial crisis, the actions and intentions of sovereign funds were widely questioned, with critics calling for investment ground rules and greater transparency to quell international political tensions. Since the onset of the crisis, however, direct investments by sovereign funds in a number of troubled financial institutions – including Citigroup, Merrill Lynch and Morgan Stanley – have generally served to shape their profile as responsible players on the world stage. A note of caution is warranted, though, given that these same investments have performed relatively poorly and may constrain further near-term sovereign fund allocations to financial services.



Despite their recent losses, the investment strategies of family offices and sovereign funds will be closely watched by alternative firms (and wholesale banks) looking to serve this increasingly important client segment. There are a number of key questions:

- Will they favour minority or majority investments?
- Where will they invest in terms of industries, regions, asset classes or the capital structures of target firms?
- Will they outsource portfolio management or build and/or extend their in-house capabilities?
- What types of external providers will they want, and how will they select them?
- Will they be passive or active shareholders?

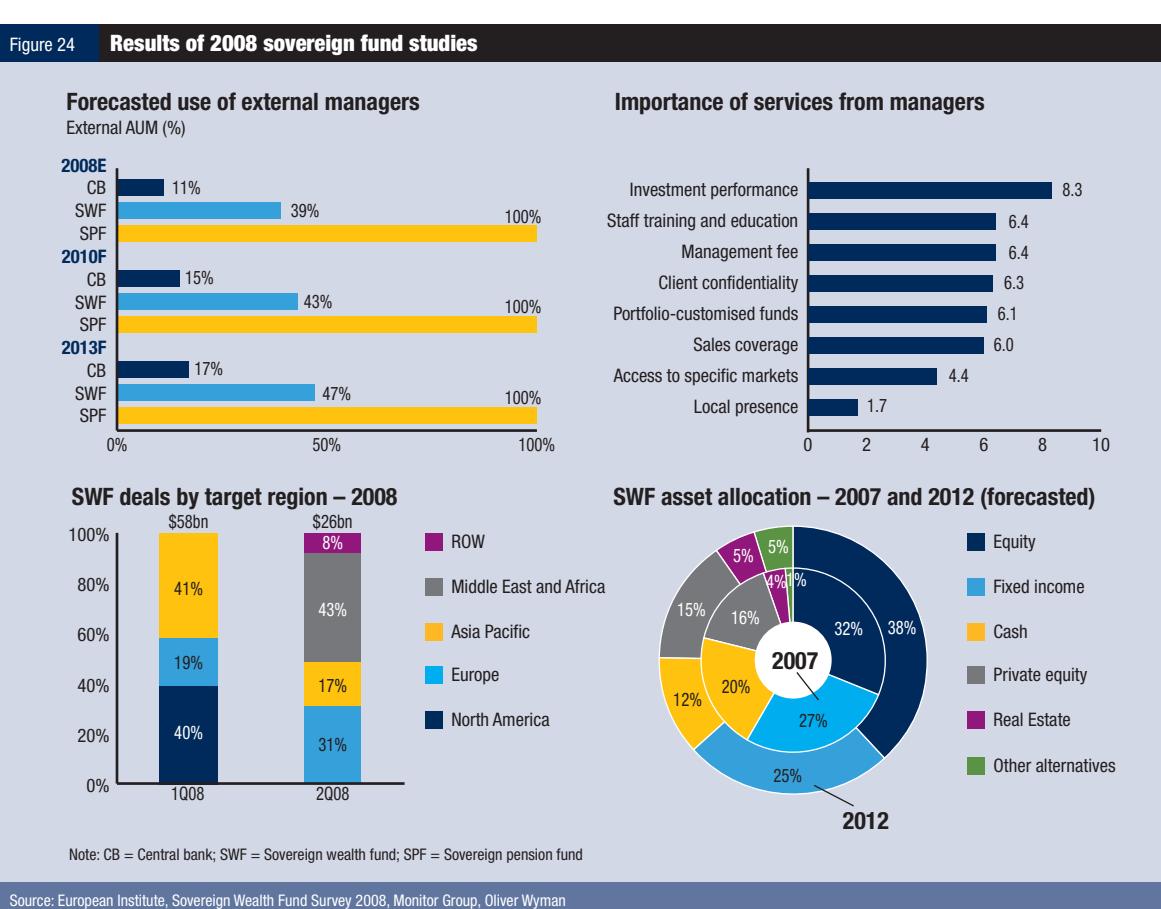
A recent study conducted by Oliver Wyman and the European Institute provides some clues to the future direction of sovereign investing (Figure 24). First, the use of external managers is expected to increase across central banks and SWFs; sovereign pension funds are expected to continue their use of outside managers. In return for these mandates, sovereign funds will expect superior investment performance first and foremost, followed by staff training and education services that can help them improve their in-house management capabilities. Recent quarterly SWF investment data indicate that politically driven domestic investments have become a higher priority as the financial crisis has

unfolded. It is likely that sovereign funds will continue to shift their focus internally as their own economies begin to feel the full effects of the current turmoil. The challenge for sovereign funds will be balancing their image as global investors with potential new roles as custodians of their countries' financial institutions.

In summary, median hedge fund performance that is far below investor expectations is likely to cause sector restructuring. As systemically important financial institutions, the largest hedge funds will face stricter regulation and oversight, either directly or indirectly through their counterparties. In the near-term, investor allocations to hedge funds are expected to fall, as will the fees of some managers.

Private equity firms will also be under performance pressure as they seek to steer levered portfolio companies through a prioritized combination of debt restructuring, capital injection, equity dilution and the sale of non-core assets. In the near-term, private equity firms as turnaround specialists are likely to find a multitude of opportunities, particularly for the top quartile firms that have demonstrated consistent outperformance. The industry's challenge will be to raise capital in an environment where many limited partners are at or above their target allocations and capital is scarcer.

Figure 24 Results of 2008 sovereign fund studies



For both hedge funds and private equity firms, there will need to be change. Hedge funds may adopt more closed-end fund structures and allocate more assets to illiquid investment strategies, while private equity firms will have to adapt to smaller and less leveraged deals.

As the financial crisis has evolved, the wave of selling across asset classes has greatly hurt asset managers in general as their asset bases and revenues have been directly hit. The shift from alpha strategies to “new beta” strategies should help traditional asset managers regain assets, but a net decline in AUM is expected to persist. This decline, coupled with slowing global economic growth, will force asset managers to continue focusing on cost management to maintain operating leverage.

4. A tale of two insurers

Due to the variance in insurer business models, the impact of the financial crisis on insurers has been largely heterogeneous. While some firms in the life insurance industry have suffered losses in their credit or equity portfolios, many others have proven far less exposed and/or well hedged against market volatility. On an

absolute scale, most firms in the insurance industry will to some extent be negatively impacted by the crisis, with some being affected deeply enough to require capital injections to maintain their existing credit rating. But for those with relatively limited exposure to the most deeply affected markets, the near-term outlook is positive, as the underlying fundamentals of their industry remain strong and the deterioration of their rivals opens the door for potential opportunistic expansion.

Relative to the business models of wholesale banks, those of insurance providers are more diverse and contrasting. Life insurers derive most of their revenues from their presence in the medium- to long-term savings markets, offering investment products for individuals as well as classic spread lending products for institutions. The P&C carriers, for the most part, continue to focus on underwriting as their core area of expertise and generally have less exposure to credit and equity markets in their investment portfolios. Within the life business itself a second distinction is necessary between North American and European life insurers. These differ greatly in their product offerings and strategic asset allocations, giving rise to further differences in asset-liability management.

The crisis has been felt by insurers to varying degrees in at least five ways: Through the deterioration in credit markets, the decline in equity valuations and the overall contraction in financial liquidity, through falling real interest rates, and via a potential rise in liability claims against corporate directors, officers and other professionals.

A. Deteriorating credit markets

Whereas P&C insurers are more exposed to US municipal bonds, life insurers are generally more heavily invested in corporate credit, mortgage-backed securities (MBS) and commercial real estate (CRE) loans. Coming into the crisis, US life insurers held substantial residential and commercial MBS, CRE, corporate bonds and structured credit – such as collateralized debt obligations, or CDOs – in their general account portfolios. Almost all the major European life insurers also had US credit exposure, ranging from major (e.g. Aegon), to moderate (e.g. Prudential UK, Axa, ING) to minor (e.g. Aviva and Allianz, excluding its recent Hartford investment).

Although municipal bond spreads have risen substantially, the muni market has not been a primary focus of the crisis, unlike the markets in sub-prime residential and commercial MBS or CRE loans. Most of the realized losses to date for US life insurers have come from their exposure to sub-prime MBS and CDOs. Further compounding their problems, many of these firms are highly leveraged to CRE securities and whole loans.⁸ It is estimated they hold up to US\$ 200 billion (or 25% of total outstandings) in commercial MBS and US\$ 300 billion (or 15% of their total lending capacity) in CRE loans. With anticipated weakness in CRE mortgage portfolios based on increasing vacancy rates decelerating rent growth and declining interest coverage ratios, significant unrealized losses are likely in the near-term.

B. Declining equity markets

Relative to life insurers, P&C insurers have limited equity market exposure, and have suffered only limited losses in their equity portfolios. US life companies, on the other hand, are exposed to equity market risk through their variable annuity books, which are imperfectly hedged using mutual funds. European life insurers are somewhat less exposed to market declines than their US counterparts due to their heavier use of equity derivatives (e.g. caps and collars) for hedging.

In the US, variable annuities effectively provide policyholders with put options on equity markets. As markets have plunged and price volatility has soared, many of these embedded

options presumably have moved into the money. This has two implications: first, exposed US life insurers will need to liquidate deflated assets to cover policyholder liabilities; second, the longer term prospects for this business, which was a key driver of recent growth, have been significantly diminished. For European life companies, the caps and collars used to hedge equity market declines have typically held up; further market declines would be needed to cause substantial losses.

C. Contracting liquidity

While the reduced availability of short-term liquidity has been less significant for most P&C and life insurers than the declines in their equity and fixed income portfolios, companies that built substantial securities lending businesses have at times been acutely exposed to the disappearance of liquidity. Some of these firms lent securities to squeeze out additional yields. In effect, this has exposed them to the liquidity problems of their counterparties – in many cases, other large financial institutions – that have become forced sellers of assets and, therefore, have demanded their collateral back.

This was a major issue for American International Group (AIG), in that the firm's securities lending program was substantially greater than its US\$ 50 billion investment in sub-prime residential MBS. Deteriorating credit markets caused AIG's counterparties to demand their collateral back, damaging AIG's own liquidity position. Further, AIG underwrote credit default swaps through a unit of its financial services segment that secured those swaps against all of AIG's assets. When the firm's credit rating was downgraded, it was required to post additional collateral against its outstanding swaps, leaving the company with only a few days of liquidity and ultimately forcing the US Treasury and Federal Reserve to intervene.

While the substantial size of AIG's securities lending portfolio as well as its appetite to underwrite credit derivatives made it somewhat unique among insurers, other firms also have sizable securities lending books and thus are susceptible to contracting liquidity.

D. Falling real interest rates

As global interest rates continue to decline, insurers are expected to suffer an additional squeeze. While this has not yet manifested itself in their financial statements, lower rates will likely narrow lending margins and raise concerns about negative spreads over the coming few quarters.

⁸ Welcome to the tail: Transferring coverage of the life insurers with a bearish view. November, 2008. New York: Goldman Sachs Global Investment Research

E. Professional liability claims

As the crisis subsumes more financial institutions, the potential for professional liability losses in P&C businesses rises. In particular, claims against corporate directors and officers are expected to spike as class action law suits begin to be filed on behalf of shareholders.

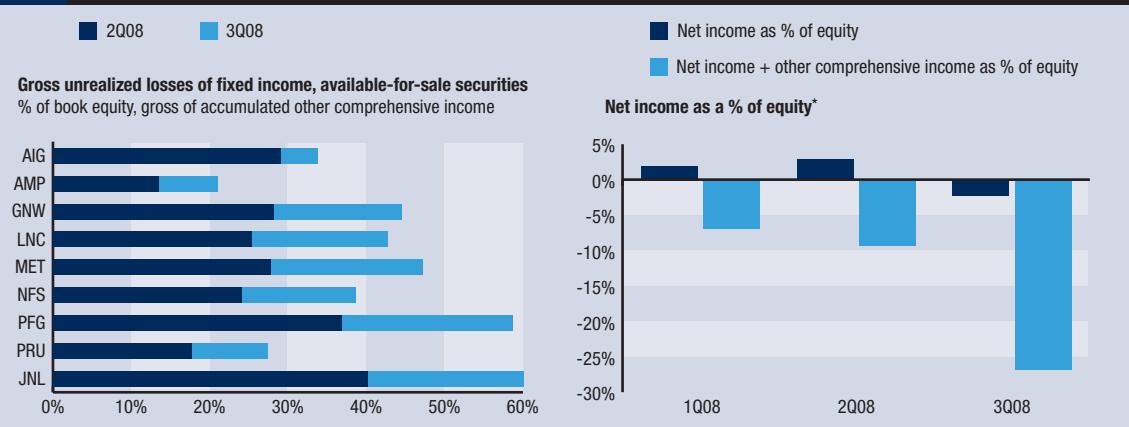
While all insurers, regardless of segment or geography, have felt some pain from the crisis, the nature and severity of their exposure varies dramatically. In the near-term, the most afflicted insurers, particularly those in the US life business, will need to refresh capital – via government or private means – or risk insolvency. In fact, at the time of this writing, a number of US insurers have purchased small savings and loan companies to qualify for capital injections from the US Troubled Asset Relief Program (TARP).

Additionally, insurers increasingly are being evaluated by investors based on balance sheet measures over traditional income measures. Figure 25 illustrates gross unrealized losses as a percentage of book equity for a selected group of insurers over the last two available quarters. When these losses are added to net income and further compared to book equity, the adjusted income measure becomes sharply negative, highlighting the transition that investors are making towards valuing insurers on the basis of tangible book equity, as opposed to traditional price-to-earnings ratios.

For insurers that emerge from the current crisis relatively unharmed, the fundamentals remain positive. First, acquisition opportunities will be plentiful, which could help accelerate existing growth plans, such as building additional scale in the home market, entering into new markets or extending into adjacent businesses such as asset management. Second, the needs of the growing age 50+ segment in advanced economies creates undeniable demand for innovative, well-priced insurance products, including principal protection, supplemental health, longevity and retirement income products. Finally, appetite for risk has fallen along with the markets, suggesting increased use of insurance to hedge financial and non-financial risks. Structurally, risk appetites are expected to continue to decline as retirees shift strategic asset allocations to fixed income assets.

The near-term implications for insurers are very different depending on their business models entering the crisis. Those significantly exposed to credit, equity, liquidity or interest rate risk will be focused on shoring up their balance sheets. In contrast, many well-capitalized insurers will use the consolidation opportunity to expand their footprint. The ultimate winners will be those that take action on emerging demand trends and effectively price their liabilities on the assumption of further volatility in the capital markets.

Figure 25 Gross unrealized losses of fixed income for key insurers



Note: Based on IFRS Shareholder Funds as of 2Q08; equity is defined as total common equity

Source: Morgan Stanley Research, Oliver Wyman analysis

* Results based on market-weighted blend of Genworth, Hartford, MetLife, Nationwide, Principal, Prudential, SunLife, and ManuLife

5. Potential winners / losers

In this section, we explored the implications of the current financial crisis for the global financial regulatory system and for the individual business models of banks, asset managers, alternative investment firms and insurance providers. The analysis points to a new set of near-term winners and losers. The former will primarily be those who:

- entered the crisis with low financial leverage, easing their transition to a deleveraged world
- have flexible liquidity arrangements
- can capitalize on consolidation opportunities that give them scale and extend their reach

The latter are likely to be those that had high exposure to credit, counterparty, market and liquidity risk, or who were encumbered with devalued assets, or who were forced to

liquidate assets at multi-year lows. Winners will emerge from all sectors, as will losers (Table 4).

Going forward, winners will be defined more by their business strategies than by their responses to the financial crisis. Therefore, a robust long-term analysis is required to evaluate the driving forces that are certain to shape the future of the financial system. For example, how might international coordination on financial policy – or the lack thereof – impact the governance of wholesale financial markets? Equally, how will the shift of power to the emerging countries, and to emerging Asia in particular, influence market structure?

In section three, we will explore four long-term scenarios for the future governance and structure of the global financial system based on these and other critical uncertainties in society, technology, the environment, economy and politics.

Table 4 Potential near-term losers and winners

Stakeholder	Loser	Winner
Banks	<ul style="list-style-type: none"> • Banks with significant exposure to toxic assets • Re-regulated “utility” banks that did not streamline costs to adapt to a new, low-growth environment 	<ul style="list-style-type: none"> • Deposit-rich universal banks that can extract group synergies • Regional banks that can quickly refocus on their core value proposition • Boutique investment banks and merchant banks that gain share from former global bulge bracket institutions • Non-banks that can attract principal investing and proprietary trading talent
Alternative investment firms	<ul style="list-style-type: none"> • Highly-levered hedge funds with monoline businesses • Hedge funds that have failed to deliver expected returns • Open-ended fund structures • 2006-2007 vintage PE funds • Less established mid-tier private equity and hedge funds being punished by flight to quality 	<ul style="list-style-type: none"> • Top performing funds with proven track records profiting from flight to quality • Funds with longer lock-up periods or closed-end fund structures • Scalable beta indexation providers • Emerging “new beta” providers • Beneficiaries of government stimulus packages (e.g. infrastructure) • PE funds with strong operational value creation capability • “Unconstrained” investors, such as sovereign funds and family offices
Insurance providers	<ul style="list-style-type: none"> • Those exposed to deteriorating credit markets, particularly MBS and CRE loans • Those exposed to equity market declines • Those with significant securities lending operations or who are otherwise vulnerable to liquidity constraints • P&C providers facing large professional liability claims 	<ul style="list-style-type: none"> • Capital-rich insurers that acquire businesses with a strategic fit (domestic scale, regional expansion, product/capability extension) • Innovators of new retirement products

Source: Authors' analysis

Section
3

Long-term scenarios for the future of the global financial system

CONTEXTUAL ENVIRONMENT

TRANSACTIONAL ENVIRONMENT

Financial regionalism



Overview: This is a world in which post-crisis blame-shifting and the threat of further economic contagion have created three major blocs on trade and financial policy, forcing global companies to construct tripartite strategies to operate globally. As the crisis deepens in the US and Europe through 2010, the emerging markets walk away from a series of global talks, reject Western models and ideals, and form their own bloc of domestically focused economies. The US is isolated. With the exception of tourism and energy materials, most trade flows among the blocs decline sharply. Energy security becomes a key issue.

Key indicators and events:

- Global growth is moderate but highly skewed, with emerging economies posting results of 9% while the US and EU remain at only 1.2%. Average global growth is 3.2% (see Figures A1 and A2).
- The US dollar and the euro are no longer the sole reserve currencies, thanks to the advent of a trade and currency regime within the newly created Eastern International Economic Community.
- Global economic power and geopolitical primacy have shifted firmly East, with China acting as the leader in Asia.

Overview: The financial world is split among the three regional blocs—the US-led Democratic Trade Alliance, the expanded EU area and the Eastern International Economic Community led by China.

The global landscape is therefore characterised by old and new champions seeking to operate on a regional basis, with Asian financial institutions dominating the global landscape in terms of size.

Financial regulation and governance:

- Regulation is coordinated at a regional level and varies significantly between the three main trade and economic jurisdictions.
- The US continues to push a "market democracy" paradigm of minimal regulation. Eastern countries adopt a "controlled openness" system.
- The EU turns inward, regulating financial institutions heavily.

Re-engineered Western-centrism



Overview: This is a highly coordinated and financially homogenous world that may yet have to face up to the realities of power shifting to the East and the dangers of regulating for the last crisis rather than the next. With emerging economies severely affected by the global recession, the West maintains economic and moral primacy by playing a leading role in corporate restructuring, driving productivity increases and maintaining free trade globally. Its crowning achievement is the reform of existing international financial institutions—dubbed "Bretton Woods II"—and the creation of a supranational regulatory authority. Unfortunately, Bretton Woods II falls short of the needs of emerging economies and the new regulatory regime fails to consider structural flaws in risk management, leading to renewed fears of an even bigger crisis.

Key indicators and events:

- Global growth is 3.6% overall for the decade, with growth in the advanced economies surging to 3.1% and the emerging nations averaging just over 6% (see Figures B1 and B2).
- With slower growth in emerging economies and rising exports of highly innovative products and services from the US and Europe, global imbalances unwind slightly.

Overview: After being dominated for a short time by politicians and regulators, the financial world is once again a major engine of profitability and growth managed by insiders. With emerging market exchanges marginalized and those in the developed world greatly restructured, the advanced economies drive a new phase of growth.

Financial regulation and governance:

- There is a new, supranational financial regulator, the International Financial Stability Fund, with the majority of the world's countries as members.
- Markets are criticized as being overly homogenized and highly vulnerable to contagion in the event of another major shock.

Fragmented protectionism



Overview: This is a world characterized by division, conflict, currency controls and race-to-the-bottom dynamics that only serve to deepen the long-term effects of the financial crisis. As the global recession bites, a range of other events, including inter-state conflict, domestic unrest and natural disasters, combine to make things worse. Countries try to look after their own economic interests, blaming each other and turning to populist, protectionist policies. Resource conflicts emerge, and security threats and terrorism keep nationalism and protectionism alive despite the high economic costs.

Key indicators and events:

- Global growth averages just 2.3% as debt unwinds in developed markets and almost all markets are negatively affected by economic stagnation and a series of natural disasters (see Figures C1 and C2).
- Capital controls and severe restrictions on the movement of goods and people exacerbate the economic malaise.
- The Eurozone disintegrates in 2014 under the pressure of public debt defaults and fundamental disagreements among members.

Overview: The financial world is extremely localized and highly volatile, with major arbitrage opportunities for those with the ability to execute trades across borders. Unfortunately, capital controls in most jurisdictions make this very difficult, and political risk is high.

Financial regulation and governance:

- Regulation is extremely fragmented by country and often extremely intrusive. The banking sector is nationalized in many jurisdictions.
- Restricted capital flows, the low-trust geopolitical environment and widespread trade protectionism mean very little financial policy cooperation among countries.

Rebalanced multilateralism



Overview: In this world, initial barriers to coordination and disagreement over effective risk management approaches are overcome in the context of rapid shifts in geo-economic power. The global community learns from its mistakes through sharing: As the US goes through successive crises and the emerging economies battle their own problems, the world eventually realizes that meaningful collaboration is the only way forward. Major shifts in international institutions and a new recognition of the meaning of global governance imply that the financial system is better suited to the challenges of a complex, interdependent world in 2020, if not at all perfect.

Key indicators and events:

- Global growth is initially depressed to approximately 2.5%, but recovers to average 3.6% for the decade as emerging economies post particularly strong results. The US and EU continue to struggle with restructuring and deflationary pressures, with average growth around 1.8% (see Figures D1 and D2).
- Severe weather events in 2017 induce a second major financial crisis in the US, creating renewed incentives for international financial cooperation and risk management.

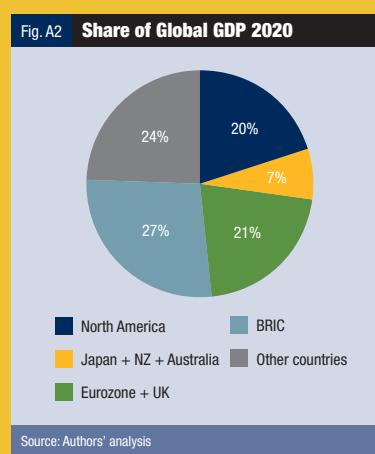
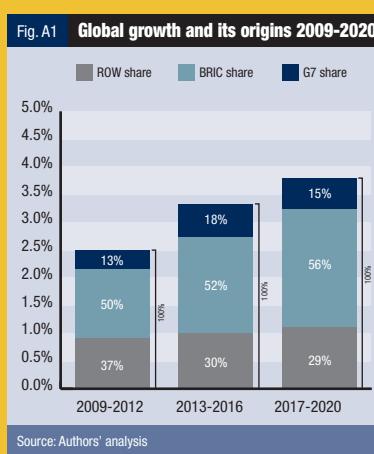
Overview: Emerging markets set the pace for economic growth, cooperation on financial policy and new approaches to systemic financial risk. The financial system is globally integrated but, given the rapid growth in the emerging markets, in many cases dominated by BRIC-focused players.

Financial regulation and governance:

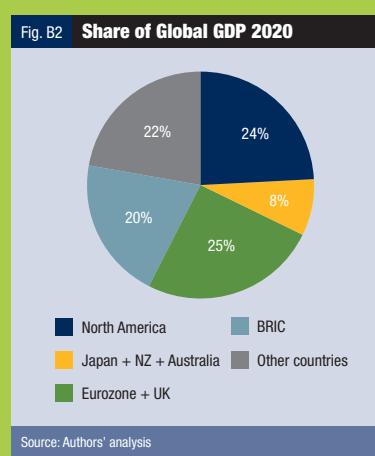
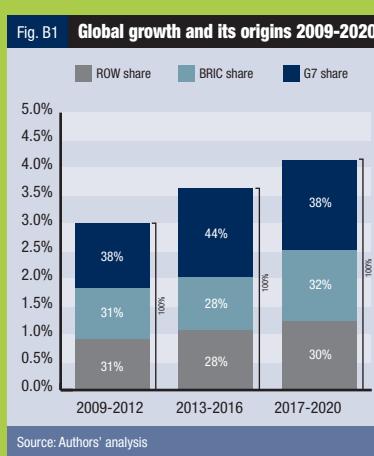
- The new regulatory regime is characterized by a greater focus on systemic risk management through links to macroeconomic policy, confidence-building measures and contingency plans.
- The Bank for International Settlements becomes global lender of last resort.

Industry structure:

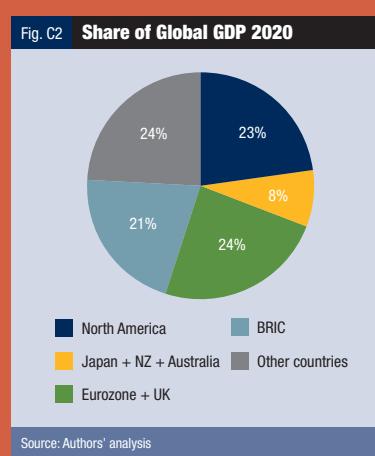
- Separate capital and regulatory requirements in each bloc increase costs for global players.
- Nationalized champions in the EU and Asia distort markets, particularly in insurance.
- Companies look to the East for both stability and yield.

**Industry structure:**

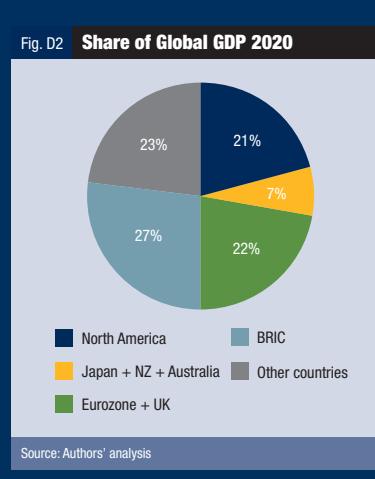
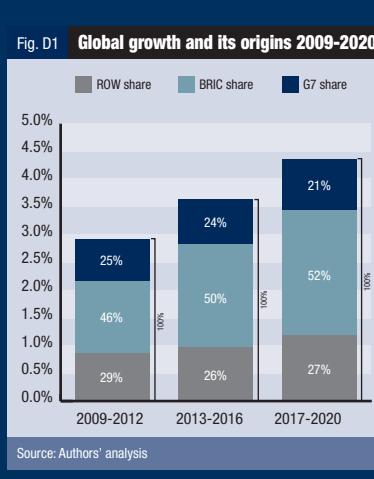
- Significant consolidation occurs thanks to a global level playing field and the after-effects of the 2008-2009 recession. Western companies still dominate financial markets.
- Investors are disappointed by returns in the emerging markets and seek gains in high-technology companies that lead advances in industries such as health care and energy.

**Industry structure:**

- Life insurers face severe pressure, with constraints on investing assets and growing liabilities.
- Global service providers are forced to hold capital locally, greatly reducing capital efficiency and forcing many to reduce their geographic footprint.
- Severe restrictions on capital and liquidity make banking a far less profitable business.

**Industry structure:**

- The Chinese insurance industry matures and successfully enters the US market following the 2017 financial crisis there.
- Increasing levels of global competition drive consolidation and specialization in asset management, leading to strategies such as scale-driven distribution and specialized fund management.



3

Long-term scenarios for the future of the global financial system

Section two described the near-term implications of the present financial crisis on the governance and structure of wholesale financial markets, focusing on the expected short-term impact of recent events. This section addresses the longer term implications for the future development of these markets. It does so not by making a single forecast, but by applying the tool of scenario thinking to create four different visions for the future of the global financial system.

Scenario thinking is a strategic management process used in the private, public and non-profit sectors. Scenarios are plausible yet challenging stories about the future which address a core issue (or “central question”) of importance to a particular set of stakeholders.⁹

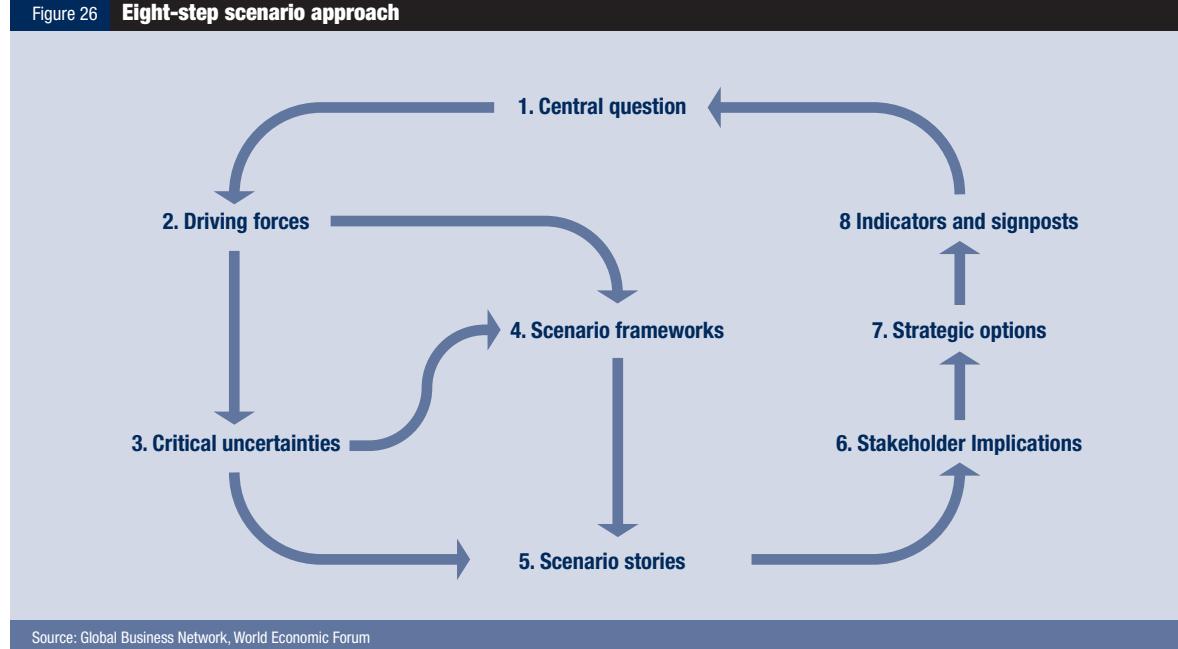
By giving diverse stakeholders a shared basis for discussion, scenarios enable creative thinking about how to shape the future proactively. They also encourage the discussion of extreme events, combinations of risk factors,

and the second- and third-order consequences that may flow from these events and factors. By making uncertainty explicit, they tease out preconceptions and help decision-makers consider how they and others might react to the different ways in which future events could unfold. Once described, scenarios can be used to initiate dynamic conversations about risk management, contingency planning, strategy testing and collaborative action.

Scenario building is primarily a qualitative activity, focused on generating challenging insights from a broad set of interdisciplinary and multistakeholder participants – in this case, financial services providers such as banks, traditional and alternative investors, insurance companies, exchanges, and governments and regulators. For this report, around 250 participants drawn from these stakeholder groups participated in a total of eight workshops.

The scenario process has eight key steps (Figure 26). The first five of these steps are described below.

Figure 26 Eight-step scenario approach



Source: Global Business Network, World Economic Forum

⁹ A detailed description of how your organization can make use of scenario thinking in strategic settings is provided in Appendix B: *How to use scenario thinking inside your organization*.

Step 1. Formulate the central question

In the New Financial Architecture project, the following central question emerged from discussions with workshop participants:

How might the governance and structure of the global financial system evolve over both the near-term and long-term?

Step 2. Identify the driving forces that will influence the development of the central question or issue

An inventory of 34 key driving forces were identified and defined through expert interviews and workshops. Using an online survey of the World Economic Forum's industry partners conducted in the summer of 2008, these 34 driving forces were prioritized and ranked according to their degree of importance for the development of financial markets and the degree of uncertainty about their future development, as well as by the likely timing of their impact (Figure 27).

These driving forces are neither exhaustive nor mutually exclusive. Their role is to inform the scenario-building process by identifying the most important and most

uncertain factors, in the belief that thinking about how they might interact will help stakeholders build a more comprehensive picture of possible future worlds.

A selection of major driving forces are briefly outlined in Table 5. A detailed analysis of key driving forces is available at www.weforum.org/nfa.

Step 3. Consider the critical uncertainties

Critical uncertainties are those driving forces that are both highly important and highly uncertain. Numerous critical uncertainties surround the future development of the global financial system, including changes in energy prices and the speed of global growth. The deductive approach to scenario development used for this project requires a focus on two important and largely independent critical uncertainties. Workshop participants identified the "degree of international coordination on financial policy" and the "pace of geo-economic power shifts" as the two most important critical uncertainties facing the global financial system. The two "macro" critical uncertainties have thus been defined based on a myriad of underlying driving forces, e.g. the evolution of energy and commodity prices, global economic growth, fiscal policies, trade regimes and exchange rate policies.

Figure 27

Survey results: prioritization of key driving forces on the future of wholesale financial markets

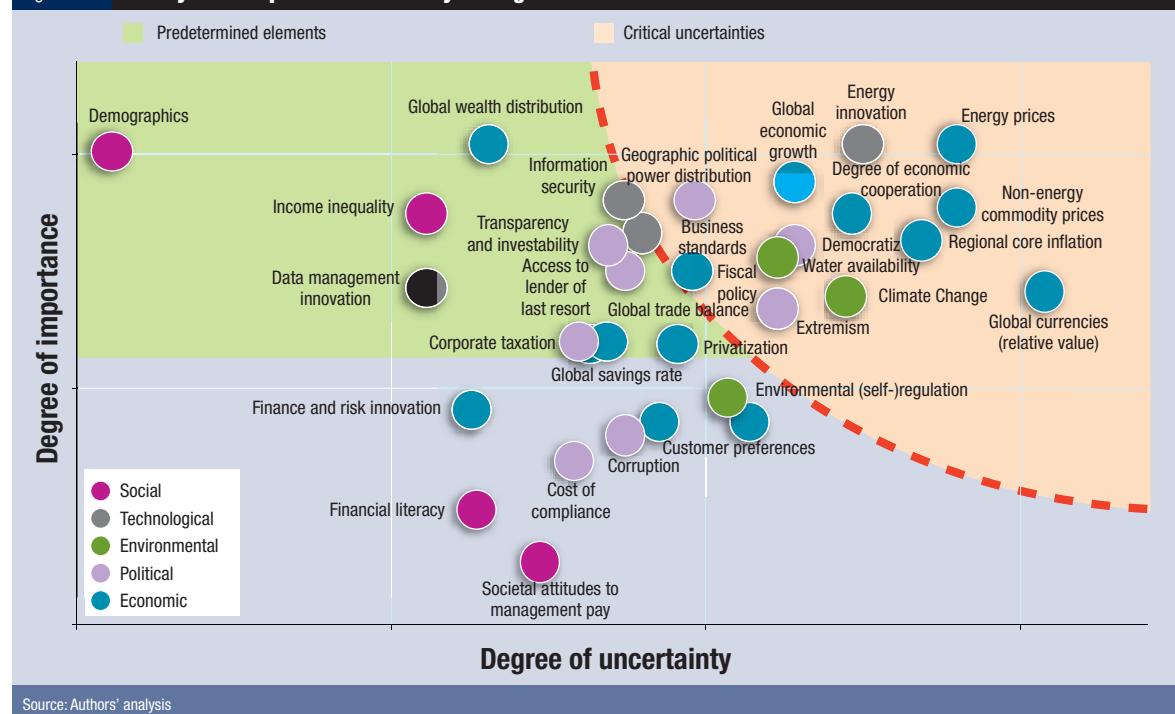


Table 5

Selected key driving forces**Social**

Demographic change is one example of a high-importance, low-uncertainty driver. Its influence on financial markets – through the demand for asset management and insurance products – is significant and its range of possible outcomes is fairly predictable, so it is considered an “inevitable shaper” cutting across all scenarios. An aging population will also influence other drivers, such as GDP growth, fiscal policy and net savings rates.

Economic

Economic variables such as global trade balances, fiscal policies, currency exchange rates and regional core inflation rates were rated as highly important in their capacity to influence changes in the structure and governance of the wholesale financial markets. They directly influence global capital flows and customers' choice of financial instruments.

Political

Political drivers have been high on the agenda in recent months, including nationalization or privatization of parts of the financial services industry and the prospect of new rules governing transparency and investability. Recent events have also served as a reminder that access to a lender of last resort, while rarely thought about in times of stability, becomes crucial in times of crisis.

Energy-related

The development of energy prices will influence the financial services industry notably through the degree of wealth accumulation by fossil fuel exporting countries and the demand for infrastructure investment in both traditional and alternative energies. These trends will be strongly influenced by developments in climate change and environmental regulation, including the pricing of carbon emissions, and by energy innovation.

Source: Authors' analysis

Critical uncertainty 1: Degree of international coordination on financial policy

The degree of international coordination on financial policy is important for a variety of reasons. For example, cross-border cohesion in the overall approach and specific standards for financial regulation could lower transaction costs, and thereby promote competition and growth. The degree of freedom in cross-border capital flows and other investment activities also helps to shape the possible structure and scope of financial institutions and their business models.

International coordination encompasses such areas as trade, cross-border investment, tax policy, monetary and fiscal policy, banking regulation, accounting policies and supervisory institutions. In general, coordination on trade and investment has increased significantly since the middle of the 20th century. Numerous organizations have been established to foster global and regional trade and investments, such as the WTO, NAFTA, Mercosur, ASEAN and the European Union.

Tax policy harmonization has been much slower to progress, given the associated issues of national sovereignty. On regulation of global banking and capital markets, the picture is mixed: the Bank for International Settlements has led the way on developing international rules for capital and risk controls, while capital market regulation and supervision still vary significantly between nations. (For further details, see Appendix A: *Current state of global financial regulation*.)

Looking ahead to 2020, the academic and political debates now underway as a result of the financial crisis could lead to more intense and effective international coordination of financial policy. Factors which could point in the other direction include growing popular fatigue with large bureaucratic solutions – widely evident in the European Union – protectionist tendencies in many countries, and philosophical differences between developed and developing nations about market regulation.

Critical uncertainty 2: Pace of geo-economic power shifts

The phrase “pace of geo-economic power shifts” specifically refers to the real GDP growth differential between today’s advanced and emerging countries. Shifts of geo-economic power towards the emerging economies will affect the structure of financial markets as new financial power centres emerge, potentially with new rules and product needs. Underlying factors here include the terms of trade, relative exchange rates, economic growth rates, and trends in energy and other commodity prices.

The developed nations in North America, Western Europe and Japan shaped the rules of the financial markets in the 20th century. In 2006, the G7 nations had 11% of the world’s population but controlled more than 50% of global GDP in nominal terms. But the gap has been closing steadily since 1990, with the BRIC countries (Brazil, Russia, India, China) growing at an average rate of more

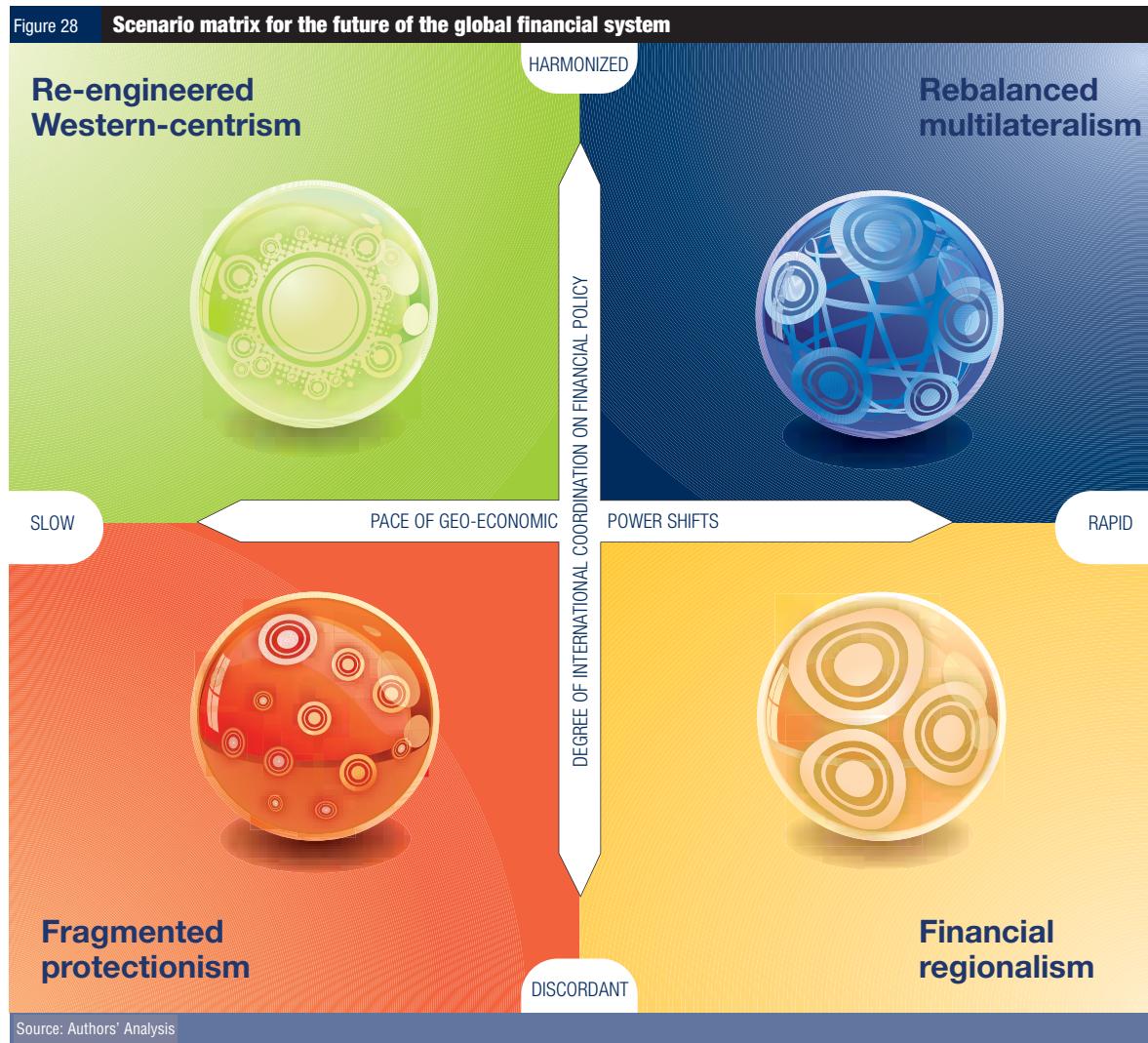
than 5% compared to 2.3% for the G7 nations. This growth differential topped 6% in 2007.

Key uncertainties in this area include the rate of power shifts under different global growth paths, which directly influence the volume of financial services transactions, as well as the ability of developing nations to keep pace with economic growth in terms of supporting infrastructure, education systems and social standards.

Step 4. Constructing scenario frameworks

To develop scenario stories, the two most important critical uncertainties are charted on two axes (Figure 28). In this particular case, the horizontal axis is defined by the pace of geo-economic power shifts between the current advanced economies and the emerging economies. The key uncertainty plotted on the vertical axis is the degree of international coordination on financial policy.

Figure 28 Scenario matrix for the future of the global financial system



Step 5. Developing scenario stories / reading the scenarios

Each quadrant of the framework represents a different possible future world, which we have named:

- financial regionalism (*rapid power shifts and discordant financial policy*)
- re-engineered Western-centrism (*slow power shifts and harmonized financial policy*)
- fragmented protectionism (*slow power shifts, discordant financial policy*)
- rebalanced multilateralism (*rapid power shifts, harmonized financial policy*)

To construct a series of vivid descriptions of possible futures that both engage and challenge readers, the scenarios here are presented as articles in a respected international affairs publication reflecting on the period 2008-2020 from the perspective of the year 2020. We now invite you to turn the page, immerse yourself in each future world and, in turn, consider four possible visions for the evolution of the governance and structure of the global financial system.

Financial regionalism





Capital flows and trade in a trilateral world



The three-way polarization of trade and finance looks set to continue

Another trilateral trade summit, another acrimonious breakdown in negotiations. Prospects for meaningful collaboration between the three global economic blocs – the Eastern International Economic Community (EIEC), the US-led Democratic Trade Alliance (DTA) and the EU – seem bleaker than ever. Ostensibly, the issue that derailed last week's meeting in Rio de Janeiro was Canadian chief negotiator Stephanie Lee's refusal to compromise on the controversial mandatory border health screening program for travellers and livestock from the Eastern bloc. But a new book by highly respected financial blogger

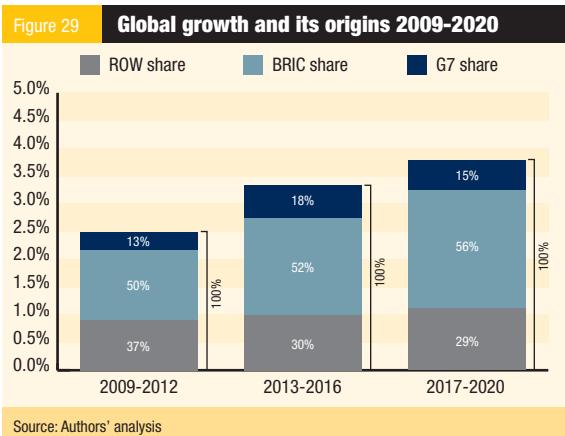
Alan Hagelsohn, *Why Financial Tri-vision Benefits Nobody*, makes a detailed case that the current impasse has its roots in the West's continued denial of how profoundly geo-economic power has shifted since the recession of 2008-2010.

"Just look at the backdrop to this summit," Hagelsohn told *The Strategist*. "You have the three regional blocs engaged in a new scramble for Africa – supposedly a battle of ideas about development but in reality a blatant bid to coerce natural resources from fragile states. And there's no doubt which bloc is

winning. In the last month alone, South Africa has given up its associate membership in the EU to become a full member of the EIEC, while Kenya has risked losing preferential tariffs through the Democratic Trade Alliance by formally applying for associate membership in the Eastern trade regime. As the latest Silverman Sachs report says, there's no point any longer in asking when the emerging economies will catch up with the more established powers, because their bloc – the EIEC – is the only one growing strongly in today's global economy."

At a glance: 12 years after the financial crisis, how has financial regulation changed?

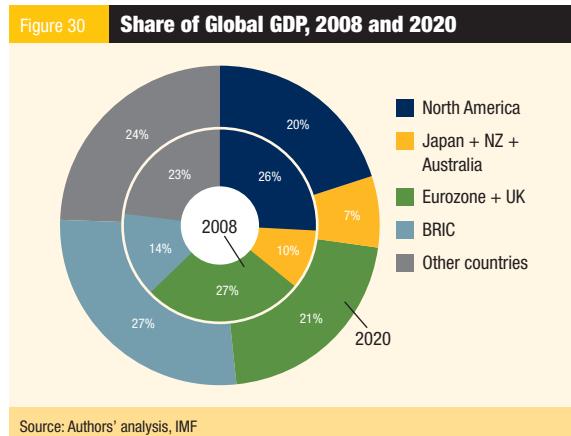
	Then – 2008	Now – 2020
Who leads?	Western countries, i.e. the US and EU, lead the development of standards for accounting, reporting and supervision, and export their regulatory structures to the rest of the world.	Without any central coordination, regulation is led at a regional level and varies significantly between the three main trade and economic jurisdictions.
What is regulated?	Old regime consisting of a relatively "light touch" approach in most countries with self-regulation from industry, pro-cyclical capital requirements, considerable arbitrage opportunities and a wide range of unregulated entities.	The US and allies continue to push a "market democracy" paradigm of minimal regulation. Eastern countries adopt a "controlled openness" system characterized by strong state intervention throughout market cycles and a focus on tight capital adequacy ratios. The EU turns inward, regulating financial institutions heavily while retaining state ownership, and instituting protectionist policies towards the Eastern bloc.
What cooperation exists?	Financial regulation is domestically driven with much international dialogue but little coordinated agreement, except on the broadest of ideas.	In a tripartite world, there is some regulatory and monetary policy convergence within the three regional blocs, but little coordination among them. Global financial services companies are split into three entities, both legally and operationally, across the US, the EU and the new Asian-led EIEC bloc.
What bodies dominate?	The Bretton Woods institutions (World Bank, IMF) seem increasingly irrelevant until the financial crisis forces them to play a brief, high-profile role in crisis management.	The Bretton Woods institutions are effectively defunct since 2018, as the last vestiges of multilateral cooperation across regions has dissipated. They have been replaced by regional development bodies, trade agreements and central bank accords. WTO membership is effectively divided in three by the regional groupings, and the UN remains an afterthought in global governance.



The decline of empire: squabbling euros, introspective dollars

Hagelsohn points the finger at the recession of 2008-2010 as a significant event in expediting the economic power shift towards the East. French President Prudhomme seems to agree: In a speech to the European Parliament last week arguing for closer engagement with emerging economies, he branded the 2010s as “Europe’s lost decade”, and lamented that “petty national rivalries” had derailed the push for a pan-European constitution. Those rivalries were exacerbated, many believe, by the reluctance of politicians to relinquish control of the banks that many countries nationalized during the liquidity crisis and subsequent deleveraging, instead promoting them as national champions and using them – to little obvious benefit – as tools of government policy. The EU’s economic woes have since been compounded by worsening pension crises, with public finances cracking and private funds suffering from tough new regulations on alternative investments and derivative instruments.

Hampered by increasingly introspective economic policies, the US fared little better in its struggle to return to a trajectory of growth. Despite high hopes by the US public, the so-called “Green New Deal” – which imposed higher taxes on high earners to fund a program of public works – ultimately failed to revitalize America’s industrial roots, or, for that matter, make much progress in reducing carbon emissions. But the inward turn



prompted by the 2008-2010 recession bequeathed a lasting legacy. As the American public became more aware of the long-term implications of China’s stronger economic performance, a nationalist backlash found expression in the “patriotic purchasing” movement, which channelled consumer pressure to shun trade with countries perceived to be inimical to US interests. Companies vied to qualify for the “PP” mark, assuring consumers their goods were either produced wholly in the US or obtained through trade with the “friendly market democracies”, which featured so heavily in US political rhetoric and ultimately formed the basis of the Democratic Trade Alliance.

China’s economic and military primacy in Asia

In contrast, cash-rich China handled the fallout of the financial crisis adroitly – increasing domestic investment and using its excess foreign reserves to seal shrewd long-term deals with resource-rich countries suffering from a lack of liquidity. Ironically, as the US closed down, China liberalized by opening to controlled forms of investment from “trusted partners” including Singapore and Malaysia. While the US Congress endlessly debated how to reconcile the Green New Deal with the demands of auto industry lobbyists, China’s leaders cannily expedited a push towards next-generation bio-fuel standards after securing access to Brazilian agricultural land. Says Hagelsohn: “China’s authoritarian structure allowed it to progress much

more rapidly in reorienting its economy to seize the leadership role in today’s fastest-growing economic sectors, like solar energy.”

US resentment of China’s accelerating success ran so high by 2014 that a minor disagreement over Taiwanese trade escalated into a major diplomatic incident. In response, the US perhaps rashly overplayed its hand by announcing the creation of the Democratic Trade Alliance. This was widely perceived as an aggressive attempt to isolate China, but only succeeded in making many developing nations more inclined to cleave politically to Beijing.

EIEC unites emerging markets to create a prosperous bloc

When the EIEC was launched in 2015, Chinese Prime Minister Xing famously described it as “the logical expression of the desire of strong eastern economies to insulate their growth from the destabilizing influences of the declining post-industrial West”. By 2016, Russia, most oil-rich Middle Eastern states, Australia and much of Asia had signed up to a host of EIEC trade and financial agreements, including coordinated monetary policy. The latter agreement also included a financial regulatory regime emphasizing transparency, prudential controls, tight capital requirements and government intervention throughout the market cycle. EIEC membership gave the world’s fastest growing markets a further boost by easing their access to other strong economies from a base of

stability and deep liquidity. After only two years of the EIEC's existence, outgoing Federal Reserve chairman Nelson Bocelli declared that "the dollar's reign as the global reserve currency is over".

As more and more DTA members reassess the attraction of being a "friendly market democracy", the EIEC is now considering seven new applications for associate membership from Africa and four from Latin America. President Prudhomme's recent speech reflects a growing chorus of support in the EU for forging closer links with the EIEC. Prospects for re-engagement with the US

remain remote, however, given that newly-elected President Jim Crombell is a long-standing opponent of tighter regulation of US financial institutions, which any deal would necessitate.

A return to multilateralism would boost the old economies

Alan Hagelsohn fervently hopes the ideological stumbling blocks keeping the world "trived" can be overcome. "Capital flows among the three blocs are severely impeded. Financial service firms have to compete as regional entities, holding separate balance sheets in each bloc. Insurers

can't efficiently diversify risk across regions. The only Western investors doing well are the offshore hedge fund arbitrage specialists nimble enough to fly under the regulatory radar, though this is getting increasingly difficult as EIEC regulators grow more sophisticated." There is no fundamental reason, Hagelsohn argues, why the blocs couldn't agree on crisis management measures that would free up capital flows while allowing for special controls on cross-bloc holdings. "When you have emerging markets averaging 9% growth compared to 1.5% in the old economies," he says, "it should be clear that something has to give."

Executive interviews: What is it like working in a world of 'financial regionalism'?

Sakuriko Studley, Asset manager, New York "To retain our worldwide reach we've rebranded from 'global' to 'multi-regional' as rules differ so much between the three regions and the pension industry has remained regionally focused. The biggest problem has been access to growth opportunities – our European entities, in particular, have faced major problems finding sufficient yield to provide adequate retirement income to private clients."	Anna Skellern, CEO, North American Insurance Corp., Toronto "I'm concerned that the regional blocs are tending towards effectively creating national champions in the insurance industry. Since the financial crisis, more and more insurance firms are owned or sponsored by government, hampering competition and creating distortions in the risk markets."	Lang Chiu, CEO, Sino-International Banking Corporation, Shanghai "Although it has been harder for capital to flow between regions, we have established a strong presence across the EIEC and the EU by reinvesting our earnings to acquire expertise in multiple regions. Western banks have struggled to make it out of their rut, while our government's conservative approach has allowed us to come out of the crisis more swiftly and leapfrog our international competitors, picking up banks at discount rates."
Guy Hassett, Hedge fund manager, Dubai "I chose to relocate from Geneva during the recession ten years ago and now work from Dubai. My colleagues who remained in continental Europe have struggled due to a heavier regulatory burden and difficulty operating across what has become three distinct blocs."	Syed Singh, Trader, Mumbai Stock Exchange "The public equity market in Mumbai, as in many EIEC financial centres, no longer closely tracks western markets – it has decoupled. Many corporations that previously had dual listings on a Western exchange are now listed only here because sufficient liquidity is available locally."	

Re-engineered Western-centrism





Revisiting the restructuring of the global financial system



Less than a decade after Bretton Woods II, it may already be time for Bretton Woods III

The publication last week of *Towards Bretton Woods III: A Roadmap for Reforming Institutions and Policies* has caused a considerable stir in financial circles. Already, the finance ministers of five of the seven developing countries on the G4's advisory panel have referred approvingly to the proposals, whose lead author is the new Nobel Laureate in Economics, Charlton Sanders. And yet it has been less than a decade since the Bretton Woods II (BW2) process reached agreements that were acclaimed as breakthroughs by world leaders from rich and poor countries

alike. BW2 was supposed to have written the rules of international finance for the 21st century. So why are we already seeing calls for a BW3?

The 2009 recession concentrates minds and spurs global leaders to ambitious solutions

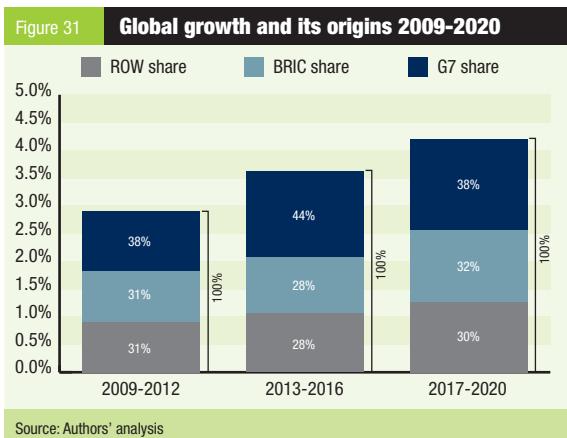
It is easy now to take for granted the international financial regulatory structures put in place by BW2, but it would be folly to underestimate the extraordinary challenges political leaders had to overcome. As the glob-

al recession hit emerging economies particularly hard in 2009, the series of G20 summits that began in Washington in 2008 thrashed out a response to the crisis that included coordinated monetary policy, generous fiscal stimulus and carefully choreographed financial guarantees. These efforts succeeded in restoring confidence and liquidity to markets, which by 2011 were again stable.

However, the second aim of the summiteers – to prevent future crises – proved more challenging. In the

At a glance: 12 years after the financial crisis, how has financial regulation changed?

Then – 2008		Now – 2020
Who leads?	Western countries, i.e. the US and EU, lead the development of standards for accounting, reporting and supervision, and export their regulatory structures to the rest of the world.	The G4, comprising the US, China, EU and Japan, has led the formation of a new set of rules on international coordination known as Bretton Woods II, but emerging economies still feel excluded. They are calling for new rules on the adaptability of both composition and function.
What is regulated?	Old regime consisting of a relatively “light touch” approach in most countries with self-regulation from industry, pro-cyclical capital requirements, considerable arbitrage opportunities and a wide range of unregulated entities.	New liquidity rules and stricter controls on capital ratios, transparency and risk management are in force. However, the widespread fear that markets remain overly homogenized and exposed to contagion in the event of another major shock implies that considerable systemic risk remains.
What cooperation exists?	Financial regulation is domestically driven with much international dialogue but little coordinated agreement, except on the broadest of ideas.	A supranational regulator, the International Financial Stability Fund (IFSF), facilitates coordination among regulators based on the principles of risk management, transparency and stronger frameworks for crisis resolution. There is closer macroeconomic coordination between advanced and emerging economies on monetary and fiscal policies, including interest rates and a degree of tax harmonization. As an international overseer of regulators, the IFSF has also helped supervisory authorities become more consolidated at the national level.
What bodies dominate?	The Bretton Woods institutions (World Bank, IMF) seem increasingly irrelevant until the financial crisis forces them to play a brief, high-profile role in crisis management.	The International Financial Stability Fund was created in 2014 through the merger of the Bank for International Settlements, the Financial Stability Forum and the IMF. The IFSF acts as global regulator, a crisis management body and a global lender of last resort.

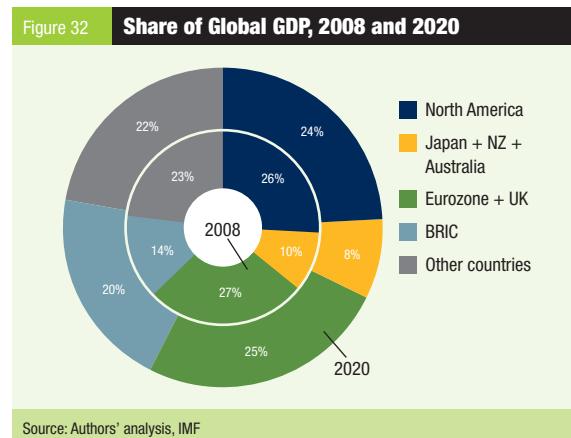


words of one adviser: “The G20 was just too large a committee to design a new system.” Arguing that effectiveness and efficiency trumped representation, the US invited China, Japan and the EU to collaborate on the details of a new system of global financial governance, known as the G4.

Although the global leaders involved are now criticized for not having gone far enough, at the time their efforts to involve emerging markets in global financial mechanisms were hailed as relatively magnanimous and foresighted. What emerged from their discussions were the series of agreements known as BW2 – a catch-all phrase that refers not only to the agreement symbolically (if hastily) signed at Bretton Woods in 2010, which marginally reformed voting rights at the IMF and World Bank. This agreement also ratified the merger in 2014 of the Bank for International Settlements, the IMF and the Financial Stability Forum to create the International Financial Stability Fund (IFSF), an international regulatory enforcer, crisis management body and global lender of last resort, which now has 152 member states.

US and EU reinvent themselves as emerging economies struggle

The fact that the BW2 process was primarily led by the US and EU seemed reasonable given that the advanced economies emerged more quickly from recession than their developing and transitional brethren. Financial institutions nationalized



during the financial crisis were quickly re-privatized, while a weaker dollar favoured US exports. The EU applied itself with renewed vigour to the Lisbon Agenda of becoming the world’s most ‘dynamic and competitive knowledge-based economy’, while the US grew even faster as political leaders talked up the country’s ‘can do’ mentality. Both the US and EU poured investment and research into the drive for energy independence, with generous green incentives from the public sector spurring entrepreneurship and innovation.

While emerging markets continued to expand more rapidly than the advanced economies, the growth differential between the two was far lower than it had been in previous decades. Sanders identifies many reasons; high on his list are volatile capital flows, inflation, infrastructure bottlenecks and water and resource shortages being high on his list. In addition, China struggled to cope with social unrest caused by the recession and its environmental problems, and was further held back by the appreciation of the renminbi, the full floating of which had been a condition of BW2 reform. The trade surpluses of Russia and the Middle Eastern countries declined along with China’s, as oil prices – initially subdued by the 2011 breakdown of OPEC – remained stable around US\$ 70 a barrel, and the push for renewables in the US and Europe gradually dampened their demand for fossil fuels.

Equity and stability: two major concerns for the new decade

So what’s the big problem? Concerns about BW2 come from two angles. The first is equity, with a new generation of leaders in the emerging markets increasingly questioning whether their expanded role in global financial institutions is merely ceremonial, as frustration grows that their practical ability to shape the policy priorities of these institutions remains limited.

In Towards Bretton Woods III, the authors argue that the BW2 process actually came at an opportune time for the developed nations: “The emerging markets were badly affected by the recession, which temporarily disguised the inevitable and ongoing shift of economic power away from the advanced economies towards those countries destined sooner or later to be the new global powers, and so afforded the established powers one last opportunity to entrench global financial rules in their favour”. Indian President Chakrabarti, a fierce critic of the BW2 settlement, puts it more bluntly: “They stitched us up”.

The second issue is stability. A growing number of experts express concern that the BW2 institutions provide wholly inadequate safeguards against the possibility of a new financial crisis. Nicholas Gupta of the University of Sydney argues that “international agreements may have tightened the supervision of financial institutions, introduced links to macroeconomic policy and increased



transparency by ensuring elements of Basel II are better enforced across borders, but there are serious fears that they overlook potential points of contagion and have not adequately addressed behavioural elements of the markets". Gupta's primary concern is that BW2 has actually exacerbated risk by creating "a single point of failure and increased homogenization, meaning the potential downside is higher than ever."

Time for a third Bretton Woods – or another financial crisis?

That downside scenario is causing considerable concern. Economists

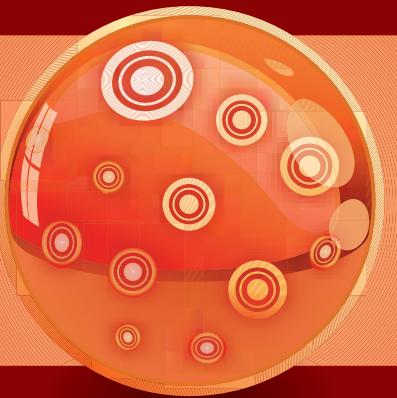
point to the rise in prices of various assets and abnormally low levels of risk pricing in swaps and derivative trades as worrying signs that another financial crisis is imminent, perhaps fuelled by the concerted efforts of governments to keep the global economy growing at all costs. Sanders worries that there are converging factors in regulatory systems that could exacerbate the severity of another shock: "With the increased transparency of information and electronic trading systems now linking almost all markets, it is possible that a negative price shock combined with converging objectives, sizable cross-holdings and herding behaviour could

result in a pro-cyclical trend and an almost instantaneous loss of confidence across the entire global system." Given that the international crisis management agreements established by BW2 have not yet been seriously tested, this prospect is scary indeed. Perhaps it is not too soon to revisit Bretton Woods yet again, this time with a commitment to greater inclusion and a renewed appreciation of the threats to our global financial system.

Executive interviews: What is it like working in a world of 're-engineered Western-centrism'?

Jean-Paul Blanc, <i>Pension fund manager, Paris</i>	Frances Doublet, <i>CEO, Global Exchanges Inc., Abu Dhabi</i>	Parag Pulavarti, <i>Maxwell-Blanchard Insurance Corp. (India), Mumbai</i>
"With so much progress in cross-border regulatory harmonization, there has been a good deal of consolidation in pension asset management – especially in the growth area of macro-swaps and in public-private partnerships on infrastructure and healthcare."	"We're starting to see a selective memory of even recent historical events – leverage has made it back into the system and firms are holding mismatched instruments in terms of liquidity. We're monitoring this closely along with our regulators."	"Regulatory harmonization has lowered barriers to international mergers in the insurance industry. Perhaps surprisingly, western leaders are still the industry shapers. After the global investment liberalization in 2012 we were acquired by a German-American conglomerate. However, investors have been disappointed by returns in the emerging markets and we have seen an increasing specialization by risk category."
Jin Hongmei, <i>Alternative investment firm, Hong Kong</i>	Jim Wardwell, <i>CEO, Globobank, New York</i>	
"The rationalization of regulation has been a boon for global players in our industry. Scale advantages have led to widespread consolidation. For those of us that survived the crisis, the re-privatisations of banks in the early 2010s created some fantastic opportunities."	"Industry concentration in banking is remarkably high for two reasons – the acquisition spree after the financial crisis, coupled with a migration of customers to institutions with the least counterparty risk. Interestingly, while emerging market players make up half a dozen of the world's top 20 financial institutions, most global players are still of Western origin."	

Fragmented protectionism



Finance and global fragmentation



Twelve difficult years later, the big global freeze shows few signs of thawing

A symposium convening 20 academic economists in Dresden last week under the title “Prospects for global financial regulation” garnered almost no media attention. And with good reason: Such prospects are today almost laughably remote. Yet this week marks only the twelfth year since the leaders of the G20 economies converged on Washington DC to discuss much the same subject, amid much publicity and high hopes that the international community could coordinate an effective response to the seizing up of credit markets and create a stable framework for renewed global growth.

However, 12 years later the global freeze that began in the credit markets

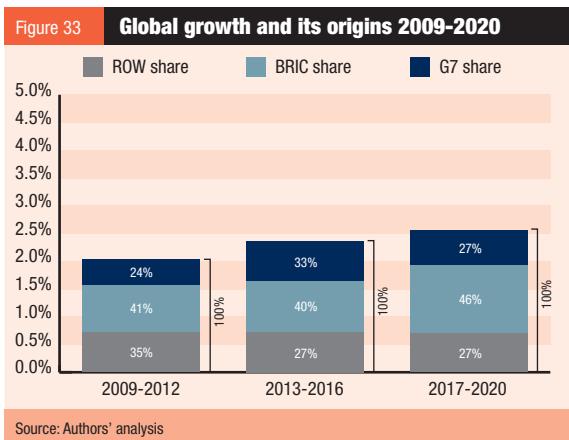
and spread to real economies before profoundly affecting the geopolitical climate shows few signs of thawing. Aggregate demand remains stubbornly depressed. Multilateral institutions have broken down. And while the problems that afflict the world have grown greater, from the flu pandemic of 2015 to the refugee crisis, the fragmentation of the global community has progressively robbed us of the ability to respond collectively to shocks that affect us all. The Strategist believes it is time to stop the race-to-the-bottom behaviour that has defined the 2010s and face up to the economic, environmental and social challenges of our time – together. To do so, we must understand what went wrong.

Globalization retrenches around the world

It was last century’s superpower, the US, that was the first to raise the drawbridge on the global community. With recession biting deeply, the congressional elections of 2010 swept to power a wave of candidates who had campaigned on an “America first” platform of opposition to outsourcing, free trade and foreign engagement. The US promptly withdrew from the proposed new round of WTO talks and imposed new trade barriers on manufactured goods from developing countries – ostensibly because, as Rep. Zelma Moose famously expressed it, “low-income countries have an unfair advantage in global trade”.

At a glance: 12 years after the financial crisis, how has financial regulation changed?

Then – 2008		Now – 2020
Who leads?	Western countries, i.e. the US and EU, lead the development of standards for accounting, reporting and supervision, and export their regulatory structures to the rest of the world.	International financial institutions and supranational regulatory bodies have fallen into disuse as nations assert greater control over financial policy, often promoting nationalized banks as champions.
What is regulated?	Old regime consisting of a relatively “light touch” approach in most countries with self-regulation from industry, pro-cyclical capital requirements, considerable arbitrage opportunities and a wide range of unregulated entities.	Currency controls have re-emerged in response to cross-border volatility and country defaults, and there are tight restrictions on cross-border investment. Most nations have imposed tight rules on risk and capital adequacy—hence arbitrage possibilities exist for institutions that can trade under the radar of regulators.
What cooperation exists?	Financial regulation is domestically driven with much international dialogue but little coordinated agreement, except on the broadest of ideas.	Restricted capital flows, the low-trust geopolitical environment and widespread trade protectionism mean very little financial policy cooperation between countries, with the exception of certain bilateral agreements for natural resources, food and medical products.
What bodies dominate?	The Bretton Woods institutions (World Bank, IMF) seem increasingly irrelevant until the financial crisis forces them to play a brief, high-profile role in crisis management.	The Bretton Woods institutions exist only as museums in Geneva, New York and Washington DC. Monetary policy is fragmented, not only internationally but within the EU as the Eurozone has splintered.



Reflecting a growing backlash against foreign ownership, the EU followed suit by imposing retaliatory tariffs and strict controls on investment from sovereign wealth funds – with some countries nationalizing “newly strategic” assets in which foreign investors had invested, with minimal compensation. Faced with the preponderance of trade barriers, emerging economies mounted several attempts to form their own trading blocs to make up for lost export markets, but none achieved significant reach or longevity.

UN overwhelmed in an increasingly conflict-ridden world

The withdrawal of many Western economies from global trade regimes came at the worst possible time for the developing countries, already reeling from the capital losses of the financial crisis and multiple currency crises. The downturn exposed the fragility of democratic regimes across Latin America, where a succession of military coups and counter-coups were widely perceived to have been driven by drug cartels and logging interests. India developed a siege mentality as terrorist attacks grew in frequency and the conflict in Kashmir escalated, while China struggled to contain mounting rural unrest and separatist uprisings as its domestic growth stalled. Only a few emerging markets in South-East Asia maintained their positive growth trends.

The fragmentation of markets has increased the risk of a major conflict. The nuclear arms race in the Middle



East has seen frequent instances of frightening brinksmanship from all sides; the water crisis in the Urals has severely strained relations between China and Russia, while the pan-Asian naval build-up has done nothing to improve security in seas increasingly bedevilled by organized piracy. The world’s avoidance to date of a conflict between major powers is scant comfort, given the many localized conflicts that have scarred the decade. With the US making it clear it will intervene militarily only to protect its own access to natural resources, the United Nations has quickly become overwhelmed as festering disputes have erupted into open conflict. At least 30 million sub-Saharan Africans are estimated to have died over the last decade in six major inter- and intra-state conflicts; these have been blamed variously on disputes over access to agricultural land, water and mining opportunities. At least another 100 million people have been displaced.

Global finance in tatters as international institutions break down

The refugee flows caused by conflict, water shortages and economic contraction on almost every continent has added to the pressures on rich countries and created a global backlash against immigration. Citing overstressed infrastructure and social disintegration as reasons, most Western European countries revoked the free movement of people and re-established strict border controls in November 2011. This proved to be only the beginning of the European

Union’s unravelling. Hopes of saving the severely pressured euro by creating a two-speed Eurozone, or “Deuxro”, broke down in 2012 as the common currency rapidly fragmented. Only France, Germany and the Benelux countries now retain the euro, which is under renewed threat from rumours of the return of the Deutschmark.

Speculators took the blame for the demise of the euro, as well as for the currency runs that forced seven nations into default in 2013, exposing the impotence of the IMF, which was unable to raise sufficient backing to intervene. With global markets once again in cardiac arrest, countries turned inwards and in January 2014 the United Kingdom was the first major power to reintroduce capital controls in an attempt to stem a run on the pound and prevent foreign investment from fleeing the country – an event that shocked the world at the time, but that has since become commonplace.

Military might and independence: the dollar and Swiss franc the primary safe havens

Looking at today’s global economy, we can find few reasons to be optimistic. Stock markets remain volatile, with highly fragmented and ever-changing regulations creating an atmosphere of profound investor confusion in which wild market swings appear to bear little relation to real economic fundamentals. International trade is increasingly linked to military alliances – not surprising, given the threat to

supply chains from state conflicts, ideological terrorism and organized crime. One of the few countries which appears to be benefiting from continued chaos is Switzerland, whose reputation for neutrality, reliability and discretion has seen it once again become an attractive destination for money fleeing conflict zones, while the Swiss franc and gold challenging the US dollar as the global safe havens of choice.

From despair to hope: an unrealistic outlook for international coordination?

Indeed, the only small hope we perceive for returning the global

economy to a path of integration and prosperity lies with the nascent “New Globalism” movement exemplified by the symposium this week in Dresden. The grim reality of the 2010s at least appears to have liberated the imaginations of thinkers, and this paper hopes such summits will soon again attract serious attention from both policy-makers and politicians. One paper, authored by Chloe Grant from the University of Oxford, proposes the reintroduction of WTO-like mechanisms for the progressive reopening of capital markets, which could alleviate the distrust that currently exists among national regulators and central banks alike.

For now, however, the realistic prospects of advancing such agendas appear slim. It has recently become fashionable to remark that it took not just the Great Depression of the 1930s but World War II to spark the creation of the United Nations and reignite global growth. Perhaps, then, the aftermath of this recent depression has not been quite apocalyptic enough to realize the promise of global economic and political cooperation.

Executive interviews: What is it like working in a world of ‘fragmented protectionism’?

Carlos Monarrez, Pacific Insurance Group, Canberra

“A number of life insurers have failed in the industrialized economies because of the constraints on asset management imposed by global investment restrictions, and the worsening liability situation due to ageing populations. We are a small, Australia-based insurer, so the growing difficulty of managing risk internationally has forced us to wind up our international operations and focus on household risk in the Australian and New Zealand markets.”

Elaine Ping, Head of corporate banking, America’s Bank, Chicago

“Banking is certainly a duller occupation than it used to be since the re-regulation of the industry after the financial crisis. The effect of higher capital and liquidity ratios has been reduced corporate lending, which has perpetuated a low-growth environment both for banks and for their customers.”

Natalia Petrova, Sovereign wealth fund analyst, Moscow

“These have been difficult times, with unstable energy prices, a volatile rouble and the growing difficulty of making overseas investments. Because of political pressure, Russian SWFs have concentrated on domestic infrastructure investment.”

Matt Fauntleroy, Hedge fund trader, London

“As a hedge fund trader I’ve personally done well out of the turbulent economic times. We’ve suffered less than traditional asset managers from the low-confidence environment and the tight restrictions on cross-border investments. There is much more country risk and repatriating funds is complicated, but this just creates opportunities for bold players. There are opportunities for small and agile hedge funds to develop multiregional strategies and exploit arbitrage potential.”



Rebalanced multilateralism





Singing from the same supervisory sheet



Global regulators finally achieve harmony, with new powers striking the dominant note

Fresh from her successful re-election campaign, US President Fallon flew to Singapore last week to attend the official opening of the IMF's new headquarters and formalize the new treaty that has shifted the institution's remit and voting structure dramatically. The pact gives the emerged countries far more power to influence the policies and direction of the fund, signifying a fundamental rethink of the IMF's approach to loan conditionality and dealing perhaps the final blow to Western leadership of global economic policy. With both the US and EU fully engaged with the gamut of Eastern-led financial initiatives – including the expanded Bank for International Settlements' new role as

global lender of last resort – it is easy to forget that a mere four years ago President Fallon swept to power on stirring rhetoric about restoring America's global leadership in a truly multilateral world.

According to Peter Phillips, Professor of Financial History at the London and Dubai School of Economics, the roots of the current profound realignment lie over a decade ago. "When G20 leaders met in November 2008, just over a year into the first financial crisis, there were high hopes of fast-tracking the kind of evolution in the global financial ecosystem that we have only seen come to fruition in the last couple of years. It is unfortunate

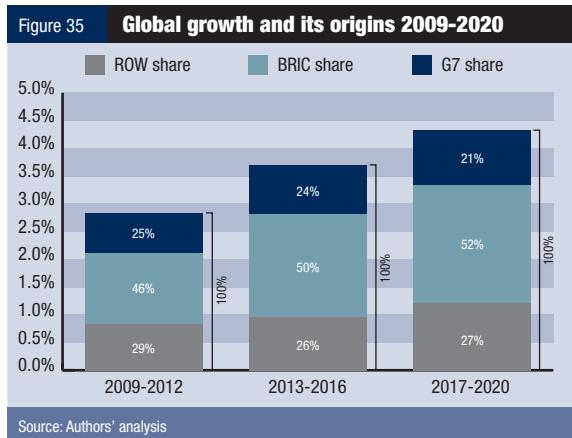
that it has taken a decade of relative economic stagnation and volatile markets to concentrate the minds of Western leaders to the extent that an effective global solution can be implemented."

Only the emerging economies learned the right lessons

The emerging powers were the ones who finally pulled the plug on the disappointing series of G20 financial crisis summits, which dragged into 2011 and degenerated into endless debate and finger-pointing regarding the actions required to stabilize the financial system. But the blame, Phillips says, lies with the West for

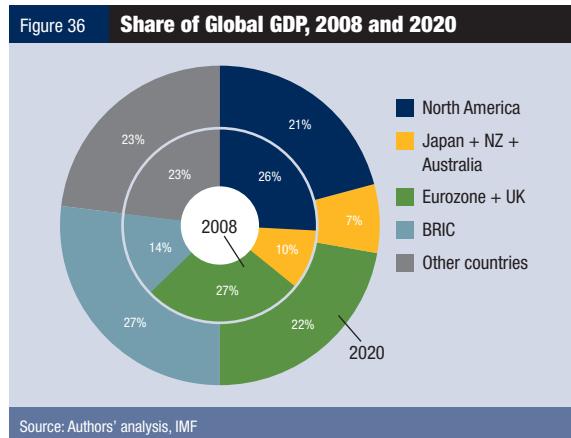
At a glance: 12 years after the financial crisis, how has financial regulation changed?

Then – 2008		Now – 2020
Who leads?	Western countries, i.e. the US and EU, lead the development of standards for accounting, reporting and supervision, and export their regulatory structures to the rest of the world.	"Emerged" markets set the pace for international coordination by focusing on macro-prudential risk management, exchange rate movements and capital flows, derivative instrument regulation, and innovative approaches to systemic and country risk.
What is regulated?	Old regime consisting of a relatively "light touch" approach in most countries with self-regulation from industry, pro-cyclical capital requirements, considerable arbitrage opportunities and a wide range of unregulated entities.	The new regulatory regime is characterised by heavier regulation in general, with greater powers for direct government intervention, liquidity provisions, incentives to focus on long-term plain vanilla lending, strict counter-cyclical capital requirements and diversification of risk.
What cooperation exists?	Financial regulation is domestically driven with much international dialogue but little coordinated agreement, except on the broadest of ideas.	The new regime of global harmonization features an "ecosystem approach" where domestic regulators strive for transparency and ease of inter-operability, while international institutions drive mandatory minimum standards in return for access to global stabilization mechanisms. The most significant cooperation is on crisis prevention.
What bodies dominate?	The Bretton Woods institutions (World Bank, IMF) seem increasingly irrelevant until the financial crisis forces them to play a brief, high-profile role in crisis management.	The Bretton Woods institutions have been fundamentally reformed and now reflect the power and policy priorities of the emerged countries. The Bank for International Settlements has become global lender of last resort.



refusing to accept the possibility that their aggressive reflationary policies and focus on industry-led risk management efforts could once again prove to be counterproductive. It was true that the emerging markets recovered more slowly at first, as they focused on developing regional and domestic markets. But it soon became clear that the economies with less-developed financial markets – with their “plain vanilla” corporate lending and on-balance-sheet transactions – had the most resilient bases upon which to build renewed growth.

The financial policy framework within which the emerging markets powered ahead economically was clearly set out in the Singapore Accord of 2012, which attracted 37 signatories from Asia, Latin America, Africa and the Middle East. Based on core principles of “leaning against the wind” and “running against the herd”, the agreement established common liquidity and capital requirements as well as risk management measures, including the mandatory increase of capital in boom times and mechanisms to identify and deflate asset price bubbles. It also put in place various incentives for favouring long-term corporate lending and investment over short-term speculation, including a version of the “Tobin tax”, a small transaction cost on currency transfers that proved successful in deterring speculators and reducing volatility. In short, it included all of the essential principles that President Fallon endorsed last week when the revamped IMF started to work from its Singapore headquarters.



Successive crises lay bare Western fragility

The Singapore Accord attracted cautious praise from many in Europe, but with the US focused on keeping its limping economy on life support, there were only half-hearted attempts at global engagement. Throughout 2012, EU leaders were preoccupied with using their nationalized banks as financial policy tools and dealing with threats to the Eurozone as Italy, Portugal and Ireland edged closer to default due to a combination of interest rate and public pension pressures. The IMF rescue package for Southern Europe in 2014 caused lasting damage to the Eurozone’s image of economic stability, and further blurred the line between the Fund’s donor and recipient countries.

Fiscal pressures in the West caused by slow growth and expanding liabilities were further compounded by the devastating climate-related events of 2017. When natural disasters simultaneously threatened the ability of numerous countries – most notably the Philippines and Malaysia – to meet their debt obligations, and with the IMF too undercapitalized to cope, an informal alliance of Eastern powers decisively stepped in to provide emergency assistance and restore stability. In the US, the 2017 hurricane season necessitated government bailouts of a number of insurance companies, while global reinsurers were also badly hit. As a result, Western markets plummeted.

Second financial crisis sparks renewed multilateralism

With the world exposed to another correction in global asset values, attention turned once again to the need for better risk management in the financial markets. This time the emerged markets seemed to possess a viable alternative paradigm to US- and European-led models. Countries such as China and fast-industrializing India and Vietnam had greatly outstripped the West’s stubbornly low growth rates. Further afield, African and Latin American signatories to the Singapore Accord had seen their economies boosted by strategic investments from Asian and Middle Eastern investors, largely shielding them from the destabilizing effects of “hot money”.

As the Dow Jones remained rooted below 8000 throughout 2018, even the most bullish and patriotic American commentators were forced to conclude that the country’s glory days had passed for good. When President Fallon announced that global regulatory harmonization was firmly back on the agenda in 2019, leaders looked to Asia for guidance. During the global finance summits in Beijing last year, German Chancellor Andreas Feulner supported China’s view of a “harmonious world” marked by a better understanding of the strengths and weaknesses of different systems. Alongside leaders from Australia, Iran and Thailand, the chancellor agreed that a middle ground existed between heterogeneity and homogeneity of regulatory



approaches and that such a balance could assist stability, prevent contagion and ensure that risk factors were allowed to emerge without endangering the entire system. Or, in his own words: “To be in harmony does not require that we all have to play exactly the same notes.”

Towards a harmonious financial world

The last two years have seen this maxim adopted in a push for a “harmonious world” of financial policy. The goal is not to craft a unified set of regulations – although many academics argue for this in the medium term – but to facilitate cross-jurisdictional coordination and operations by

emphasizing, first, commitment to the broad principles of stability and crisis management and, second, transparency in setting out how national rules and regulations differ in detail. Progress has been remarkably rapid, with signs of greater stability and renewed growth in the Eurozone and the US – a fact which many analysts credit partly to the fact that so many Western financial institutions are now majority owned by BRIC-based shareholders, who have spent the last decade steadily imposing their own business culture and reorienting their strategic vision towards the East.

As Professor Phillips puts it: “Today’s financial ecosystem is an interesting

mixture of segmented institutions with international cross-holdings, held together by high levels of transparency and basic agreement on underlying philosophy. The challenge for the BIS and IMF is to find the right balance between tightening cooperation and retaining heterogeneity to safeguard against contagion in the event of problems.” It is early days, and the expanded BIS in particular – now with 151 members – will surely face serious tests in its new role as global lender of last resort. But there is finally reason for optimism that the world has both the political will and the practical institutions to tackle systemic financial crises. The “harmonious world” is striking up a promising tune.

Executive interviews: What is it like working in a world of ‘rebalanced multilateralism’?

<p>Harriet Kukowski, Asset manager, London</p> <p>“The last 12 years have seen a lot of competition, consolidation and specialization in asset management, as people have explicitly concentrated on core competencies, such as scale-driven distribution or specialized fund management. Administration of pension schemes has been increasingly decoupled from their fund management.”</p>	<p>Jimmy Pradeep, Private equity manager, Rio de Janiero</p> <p>“More unified regulation has levelled the playing field, allowing new players to emerge and the best firms to thrive. We’ve seen a growing trend of the best talent in private equity management being poached by new players from the emerged markets.”</p>
<p>Mia Schacht, International operations manager, Europbank, Frankfurt</p> <p>“Like many European banks we benefited from the increased savings rate during the 2010s and grew as a more deposit-rich institution, which reduced our reliance on wholesale funding sources, lowered our overall cost of funding and allowed us to invest in less liquid assets. This enabled us to sustain what has been termed the new carry trade, as stable sources of funding in our home markets have allowed us to invest at a higher rate than we otherwise would have in the emerged markets.”</p>	<p>Chen Fucheng, CEO, China Personal Insurance Corp., Hong Kong</p> <p>“There has been massive development of the insurance industry in China, to cater to the dramatic increase in private demand for life, private health insurance as well as property and casualty coverage. Foreign companies have taken only a small slice of the market here in China as our domestic champions have grown rapidly and established global presence, most notably in the US. Lower valuations on US life insurers struggling to recover from the 2008 financial crisis gave us the opportunity to open new subsidiaries and thus access the retiring baby boomer market. Big global companies from the emerging markets now look to dominate the insurance industry, with their value chains completely in-house.”</p>

Section

4

Conclusions and next steps

With the global financial system at an historical turning point, this report has sought to provide insight into the future governance and structure of wholesale financial markets. Predicting the future is a challenge, not only from a long-term perspective, but sometimes from a near-term perspective as well – as the recent financial crisis has demonstrated. The current financial storm was foreseen by some, but came as a surprise to many others (in timing and/or magnitude). To extend the analogy, what started as a squall has developed into a hurricane (with the winds having changed direction and force dramatically over the past 12 months). As good sailors, decision-makers need to know how to ride out a potential storm and to understand how the winds may change in the future.

Weathering the storm

In the near-term section of this report, we described a range of impending structural changes and provided in-depth analysis of how these changes are impacting the shape of the global financial industry. In particular, we outlined three major macroeconomic shifts:

- **Deleveraging and global economic slowdown:** The global economy is in the midst of a multi-year process of deleveraging bank and household balance sheets; this “great unwind” has reduced expectations for near-term global economic growth.
- **Increased government intervention:** The scale of industry losses and the interconnectedness of global financial institutions have necessitated broad-based government intervention in financial markets. These actions have transferred a material portion of the world’s financial risk onto national balance sheets, causing policy-makers to consider new, more international measures for industry regulation.
- **A threat to the pace of globalization:** The risk of greater nationalism coupled with an expected slowdown in cross-border trade and capital flows further threatens the growth prospects of many financial institutions that benefited from the recent globalization of financial markets.

These shifts will have profound implications for the global financial industry in the near-term. This report concludes that the primary near-term impact will be felt in four key areas:

- **Interventionist regulatory framework:** Increased global regulatory coordination and expanded financial regulation and oversight will likely curtail the growth of many in the financial industry.
- **Back to basics in banking:** The convergence between banking strategies will reverse, as survivors increasingly reorient their business models around client needs and reassessed core competencies.
- **Restructuring in alternatives:** Challenging conditions will result in structural changes in the hedge fund industry, reassessed strategies within private equity, and the emergence of new actors, such as low cost indexation providers and “unconstrained” owners of capital.
- **A tale of two insurers:** While some insurers will be forced to focus on survival, many will be able to capitalize on the emergence of new acquisition opportunities and continuing strength in their underlying business.

When the financial storm recedes, the near-term winners will primarily be those who entered the crisis with stronger balance sheet fundamentals, had more flexible liquidity arrangements, and who could capitalize on near-term acquisition opportunities. The near-term losers are likely to be those who had high exposure to credit, counterparty, market and/or liquidity risk, who were encumbered with devalued assets, or who were forced to liquidate assets at multi-year lows.

Scanning the horizon

Acknowledging an old investor’s maxim that even in the short term, long-term expectations may change dramatically, this report also has described four scenarios for how the prevailing wind patterns in wholesale financial markets may shift in the coming decade. These scenarios are designed as

a tool for imagining a variety of possible paths for the future of the global financial system. They are not intended to be precise forecasts or likely outcomes but instead serve as challenging stories against which to test the resilience of both industry players and the system as a whole.

More specifically, these scenarios are meant to advance discussions at both the systemic and the stakeholder level, aiding in the development of both industry-wide plans of collaborative action and individual corporate strategies.

At a systemic level, each scenario gives rise to a number of critical questions about the evolution of key risks, for example:

- **Financial regionalism:** Are the advanced economies underestimating the risks of regionalization and the possibility of isolation in a world of rapidly shifting power?
- **Re-engineered Western-centrism:** Are global regulators and politicians in danger of regulating only for the last crisis, and thereby failing to recognize the risks inherent in financial homogenization (e.g. a single point of failure, herding behaviour)?
- **Fragmented protectionism:** Is the world too focused on pure financial and economic risks to the detriment of other factors? Should we be paying more attention to a set of exogenous risks that could further compound the current financial turmoil, such as armed conflict, adverse weather events and pandemics?
- **Rebalanced multilateralism:** Will it take yet another crisis to force the advanced economies to comprehensively tackle systemic risk? If so, will it be the new players who drive solutions?

At a stakeholder level, this report will have had its desired effect if it succeeds in teasing out some underlying issues, if it helps shape your vision of what might happen, and if it causes you to reflect on how you and/or your organization might respond as particular scenarios evolve. They should prompt you to consider the following key questions:

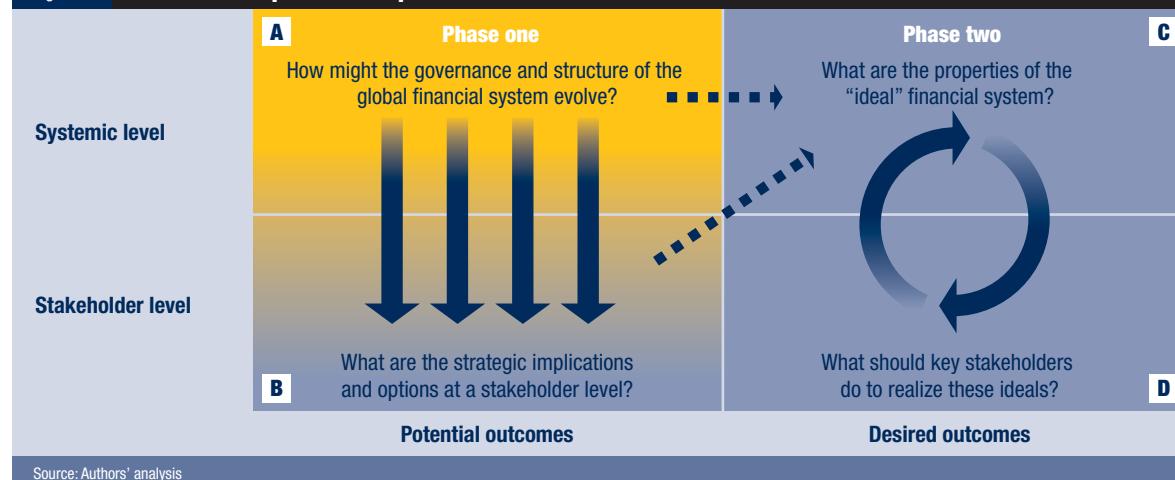
- If these worlds came about, what would it mean for my organization?
- What would my organization need to do to fare well in each world?
- Which of our current strategies are most resilient to discontinuities, and what contingency plans would help us hedge against key risks?
- Which world would I most prefer to live in and how might I help bring it into existence?

Phase two: From scenarios to robust strategies at systemic and stakeholder level

In phase two, the World Economic Forum aims to build on the insights of this report and explore opportunities for collaboration to help strengthen the global financial system. This will involve an examination of potential future sources of systemic risk as well as opportunities to reposition the industry for sustainable long-term growth, to ensure economic stability and prosperity of both the financial and real economies. Phase two will also explore strategies at the stakeholder level.

The change in scope from phase one to phase two is illustrated in Figure 37.

Figure 37 Transition from phase one to phase two



Phase one was primarily focused on quadrant A and partly on quadrant B of this matrix. In phase two, the strategic implications and options of the scenarios ("potential outcomes") will be further explored in quadrant B, i.e. at the stakeholder level (banking, insurance, asset management, etc.). In addition, phase two will aim to explore strategic options on how to redesign the global financial system in a way that it promotes the stability and prosperity of both the financial and real economies, i.e. the desired outcome (quadrants C and D).

One of the explicit goals of the next phase will be to continue to facilitate the debate among key stakeholders: leaders from financial institutions, regulators, senior academics and policy-makers. Phase two will consist of a range of workshops and consultations over the course of 2009, and will lead to the publication of a second major report in the second half of 2009.

We would welcome your involvement in the second phase of this project. If you are interested in participating and/or have comments or questions about this report, please do not hesitate to contact us at nfa@weforum.org. For additional information or to download this report, you can also visit our website at www.weforum.org/nfa.

Appendix A: Current state of global financial regulation

Global regulatory structures may be considered as a matrix of sector, national and international bodies.

International regulation

In broad terms, each sector has a global coordinating body. However, for members of the European Union, the work of these coordinating bodies is implemented through the EU and, in particular, through what are known as "level three" committees established to coordinate policy across the EU in the various sectors. Table 6 illustrates the position as regards the US and the United Kingdom.

Bank regulation

The major driver for the development of bank regulation over the last decade has been the revised Basel Accord on bank capital adequacy, generally known as Basel II. The Basel Accord is promulgated by the Basel Committee on Banking Supervision (BCBS), a committee of the bank

supervisors of the G10 nations that meets under the auspices of the Bank for International Settlements. The BCBS has no formal status and is not a regulatory body – consequently the accord itself is in theory nothing more than a recommendation. However, supervisors in the G10 countries are committed to enforcing it, and it is generally regarded as the gold standard for international bank regulation. The accord deals only with the calculation of the required minimum capital to be maintained by banks – it does not prescribe rules dealing with liquidity, management, administration or other aspects of bank regulation.

Basel II has been adopted around the world with local variations. In the EU, in particular, it has been made mandatory for EU member states to implement a slightly amended version of the directive. The US currently proposes to adopt part of Basel II in the near future.

Table 6 United States and United Kingdom regulatory structure				
International cross-sector		Financial Stability Forum, Joint Forum, Colleges of Supervisors		
International sector	Insurance	Banking	Securities	
	International Association of Insurance Supervisors	Basel Committee on Banking Supervision	International Organization of Securities Commissions	
United States	Federal	Federal Reserve Office of the Comptroller of the Currency (OCC) Office of Thrift Supervision (OTS) Federal Deposit Insurance Corp. (FDIC)	Securities and Exchange Commission (SEC) Commodity Futures Trading Commission (CFTC)	
	State	State insurance supervisors	State banking supervisors	State securities regulators
United Kingdom	EU	Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS)	Committee of European Banking Supervisors (CEBS)	Committee of European Securities Regulators (CESR)
	National	Financial Services Authority (FSA)	FSA	FSA

Source: Authors' analysis

The essence of Basel II is that it is intended to be significantly more risk sensitive than the original Basel Accord, and in particular permits more sophisticated credit models to be used to estimate risk and therefore risk capital requirements. The major issue raised regarding Basel II is that since it is based on risk models, its results (and therefore capital requirements) are heavily dependent on the loss data used in those models. Until late 2007, this data reflected a decade of almost uninterrupted growth (it is difficult to translate older data into Basel-compliant measures), and it was argued that the effect of the Basel system would be to reduce capital requirements in good years and increase them in bad ones – an effect known as pro-cyclicality, since it would stimulate banks to expand loan books in good years and shrink them in bad ones. It is not yet known what effect the recent turmoil will have on Basel-compliant banks.

Securities regulation

Securities regulation has traditionally focused on conduct-of-business issues (commission disclosure, best execution, timely execution and suitability of advice) rather than prudential issues. One consequence of this is that in many jurisdictions securities firms have been subject to significantly lower supervisory and regulatory requirements than banks. However, the trend has been to move levels of supervision towards bank levels – in the EU, for example, securities firms were subjected in 1993 to capital regulation that was broadly equivalent to bank regulation under the Capital Adequacy Directive. Interestingly, the primary reason for this step was not exclusively to enhance supervision, but also to provide a basis for mutual recognition of authorization of investments firms across the EU.

In the past, regulators tended to take the view that traditional securities firms, whose businesses involved executing transactions for clients, did not pose the same level of threat to the system as banks. However the development of prime brokerage activities (involving financing of client positions) and substantial proprietary dealing has increased the focus on securities firms. EU securities firms are now regulated under the same rules as those applied to banks, while the US retains (in the form of the SEC CSE regime) a regulatory system that will subject the largest securities firms to what is substantially equivalent to consolidated banking supervision.

The IOSCO has not been as active as the BCBS in developing international models for securities regulation, and there is considerably less harmonization in the regulation of securities firms than there is in the regulation of banks. IOSCO has produced a set of core principles for securities regulation and oversight which, although uncontroversial, do not enjoy the same level of adhesion as the BCBS accord. However IOSCO has been active in extending the boundaries of regulation to entities which fall outside the mainstream of securities regulation. In particular it has produced:

- regulatory principles designed to improve auditor independence and auditor oversight
- regulatory principles for corporate financial disclosure and transparency
- a code of conduct for credit rating agencies
- recommendations for governance and transparency of hedge funds

Insurance regulation

Insurance regulation is less harmonized around the world than securities regulation. Harmonization is hampered by the fact that the US does not have a single federal insurance regulator (although one was proposed by the outgoing Bush Administration in the Treasury Secretary's "blueprint"), and the umbrella organization for US state insurance supervisors (the NAIC) cannot speak with authority for its members. In Europe, also, there is considerable controversy over the current policy of the EU, which is seeking to remodel EU insurance regulation on a model based on Basel II.

National regulation

Regulatory structures

There is a relatively well-established taxonomy of regulatory structures that we have adopted for the purposes of this study (Table 7). This is the fivefold division into:

- an institutional approach
- a functional approach
- an integrated approach
- a twin peaks approach¹⁰
- a fragmented approach

¹⁰ This classification is also used in *The Structure of Financial Supervision—Approaches and Challenges in a Global Marketplace*, October, 2008. Washington DC: Group of 30.

Examples of regulatory models					
Type	Institutional	Functional	Integrated	Twin peaks	Fragmented
National examples	China Mexico	Italy France	United Kingdom Germany	Australia Netherlands	United States

Source: Authors' analysis

The **institutional** approach is in some respects a legacy approach. It is based on the idea that different types of firms engage in different types of activities. Consequently firms are classified according to their primary business, and regulated by a regulator focused on that business. The most prominent example of this was the United Kingdom under the Financial Services Act of 1986, when firms were allocated to self-regulatory organizations (SROs) based on classifications of activities. The problem with this approach is that when an institution of one classification wishes to expand into a different business, it is either prevented from doing so or is subjected to different rules invented by its regulator.

The institutional approach is justified in circumstances where it is felt to be important that firms engaged in one business should be required to remain solely engaged in that business and should not be allowed to diversify. Examples include insurance regulation in general and fund management under the EU's Undertakings for Collective Investment in Transferable Securities (UCITS). However, at its worst it can result in situations where banks engaged in the securities business do so under different rules and on different terms from securities firms engaging in the same business.

The **functional** approach is similar to the institutional approach, in that it looks at function as the basis for regulation. However in the functional approach a regulator is allocated a particular activity (say securities trading), and any participant in that activity within the regulator's jurisdiction is subject to its rules, regardless of whatever other types of business it engages in. This approach ensures that all of the participants in a particular activity are regulated in the same way by the same regulator, but results in a single institution being regulated by multiple regulators in the course of its business. This approach may create operational efficiency in individual aspects of regulation but at the cost of increasing systemic inefficiency.

The **integrated** model, typified by the FSA in the United Kingdom, resolves the issues that arise out of the two

previous models by integrating all regulation within a single organization. In practice this is a slightly artificial exercise, since individual streams of expertise regarding different activities continue within the regulator. However, over time the integrated model has demonstrated (at least in the United Kingdom) the ability to integrate different industry paradigms. It should be noted that even in the United Kingdom regulation is not completely integrated, since both the Bank of England and the Treasury perform regulatory roles in certain circumstances.

The “**twin peaks**” model divides regulation into two broad functions. One is prudential (i.e. capital) supervision, which has the primary goal of ensuring safety and soundness. The second is market and business conduct, which has the goal of consumer protection. The idea is that since these are incompatible goals, the task of the supervisor is divided into two, with different organizations pursuing each goal. The proposal for US regulation put forward in the regulatory “blueprint” proposed by the Bush Administration’s Treasury Secretary, Hank Paulson, is broadly a twin peaks proposal, save that a third supervisor is added with a focus on market stability.

The **fragmented** approach involves multiple overlapping regulators in all of the main sectors. Although this can appear to be the result of a simple failure to update legislation to account for market changes, it should be noted that there is a theoretical justification for it based on the idea that competition among regulators will promote more efficient regulatory practices. This theory is widely disputed, with many EU governments in particular firmly of the belief that regulatory competition minimizes regulatory effectiveness, in that market participants will engage in a “race to the bottom”, deliberately seeking out the lowest applicable regulatory standards. Secretary Paulson’s regulatory blueprint proposed a wholesale reform and defragmentation of the US system aimed at reproducing broadly the “twin peaks” model in the US. However, at the time of this writing the attitude of the incoming Obama administration to these proposals is not known.

Regulatory effectiveness

There is no single measure of regulatory effectiveness, and metrics such as resources available or time spent in inspection activities are notoriously unreliable in terms of gauging actual impact. Further complicating the issue, it may be argued that because an active regulator is required in an unruly market but a reasonably quiescent one may be sufficient in an orderly one, measures of regulatory activity may actually be measuring inefficiency (in having allowed the disorderly market in the first place) rather than efficiency.

It is also important to distinguish between regulation and supervision. Regulation is broadly the set of rules that apply to a particular sector – a highly regulated business is one that faces numerous restrictions on its activities. Supervision is the process whereby regulators inform themselves of the activities of regulated firms and express views on those activities.

In a highly supervised industry, a firm may have a number of supervisory staff from its regulator permanently present on its premises. In highly regulated industries, the tendency is to stress enforcement and to reduce supervision – this is broadly the SEC model. In highly supervised industries, the regulator has the opportunity to express views at an early stage on proposed developments, and can affect industry development through informal persuasion rather than formal rules. This is the old (pre-2000) Bank of England model.

There is a great deal of debate at the moment over the question of whether regulatory resources are best employed in changing regulations or in increasing supervisory capacity.

Appendix B: How to use scenario thinking inside your organization

Beyond the Forum context, the scenarios outlined in this report may be useful tools to aid strategic decision-making within your organization. This section briefly overviews the process of using scenarios to catalyse strategic conversations, enhance decision-making and better understand uncertainties in the external environment that could impact your organization.

From scenario planning to strategic action

As mentioned previously in this report, scenarios are not ends in themselves, nor do they provide answers to future uncertainties. But they are a powerful management tool that can improve the quality of executive decision-making. Many leading global companies use scenario thinking to help formulate their business and investment strategies.

Moving from the scenarios themselves to strategy development and action is one of the most critical phases of the scenario-thinking process. If a scenario project fails, it is typically because the scenario planning process is not sufficiently integrated into the executive decision-making process, rather than because the scenarios themselves were poorly designed or lacked creativity. Scenarios are useful because they bring an additional dimension to the understanding and interpretation of the data upon which strategic decisions depend. By clarifying future uncertainties, scenarios can bring into sharper focus a range of seemingly distant forces that have the potential to evolve and affect the overall environment.

The scenario stories in this report have a very broad scope and are intended to increase our understanding of the various uncertainties regarding the future of the global financial architecture. Such high-level scenarios can provide a useful framework for positing more detail about an organization's specific external environment at the country, industry or even product-line level.

Used purposefully, scenarios can:

- **enhance a strategy's robustness** by identifying and challenging underlying assumptions
- **allow better strategic decisions** by discovering and framing uncertainties, leading to a more informed understanding of the risks involved with substantial and irreversible commitments and promoting strong and pre-emptive corporate positioning
- **improve awareness of change** by shedding light on the complex interplay of underlying drivers and critical uncertainties, and enhancing sensitivity to weak and/or early signals of significant changes ahead
- **increase preparedness and agility** in coping with the unexpected by making it possible to visualize possible futures and mentally rehearse responses
- **facilitate collaborative action** by providing different stakeholders with common languages and concepts in a non-threatening context

How to make the most of scenarios

The main danger in moving from scenarios to strategic action is that discussions may degenerate into broad generalizations. For this reason it is wise to clarify at an early stage the objectives and strategic decisions to which the scenarios are intended to contribute. The following points suggest some practical ways to translate the scenario process and the materials provided in this report into action.

1. Strategic decision-making

If you have a known set of strategic options for future implementation, it is possible to use scenarios to evaluate both their resilience and their vulnerability to future factors in the external environment. In this case, the need for the decision is known beforehand, and the aim is to assess the decision's resilience under different external conditions. This process includes the following steps:

- identifying the key criteria and assumptions about the external environment that would have to be met in the future to support a “go” decision for each of your known strategic options (e.g. the required growth rate, technological developments, regulatory environment etc.)
- assessing the state of these criteria or assumptions in each scenario to decide on the overall resilience of the strategies to different, plausible futures
- ascertaining which options fit best in which scenarios, and which ones are robust across multiple scenarios
- considering the need to hedge or modify the original set of options to increase their resilience to future uncertainties, and adding these factors to the data set you consider before taking a final decision on strategy implementation

2. Strategy evaluation

If you have an existing strategy, scenarios can be used to evaluate its viability and identify any need for modifications and/or contingency plans. The main steps in this process are:

- identifying specific elements of the current strategy and spelling out its goals and objectives
- assessing the likely success of the strategy in each scenario
- based on this analysis, identifying opportunities addressed or missed, risks foreseen or overlooked, and comparative competitive successes or failures
- identifying options for changes in strategy and the need for contingency planning

3. Strategic option development

Developing strategic options is probably the most interesting and challenging phase in a scenario planning exercise. The goal here is to develop and then evaluate a range of options for consideration as either robust or scenario-specific strategies. The former may be useful for immediate implementation, while the latter may be considered either as a potential gamble that the future will most resemble that scenario or as a potential hedge against it. The main steps in this process are:

- for each scenario, considering the main implications for your organization in terms of new challenges, opportunities or major shifts in the operating environment (e.g. regulations, market forces, key risk events, shifts in cultural attitudes, geopolitical shifts)
- for each challenge, opportunity or major shift in a given scenario, considering how your organization might respond so as to overcome challenges, take advantage of opportunities and maximize the benefits from change
- using other resources, such as a list of strategic options or an analysis of previous occurrences in history, to ensure you have identified a broad spread of relevant options
- considering the total set of strategic options to identify those that would create value across multiple scenarios and therefore may be particularly robust to the future set of outcomes
- considering the integration of the most pertinent strategic options into an overall, coordinated business strategy

When using scenarios to engage in strategic analysis of this kind, it is most useful to convene a small group of diverse participants with expertise in the relevant areas and organizational responsibilities. We have found that working with someone with scenario experience who can help design and facilitate this type of workshop is very useful in enhancing the value of subsequent discussions.

Phase two of the **New Financial Architecture** project will explore the strategic options for the various stakeholder groups in further detail. This phase may help you to develop your specific strategic options at the organizational level.

If you would like more information on developing strategic options for your organization, please contact us at scenarios@weforum.org

Terms used in this report¹¹

ASEAN:	Association of Southeast Asian Nations
AUM:	assets under management
Basel II:	Initially published in 2004, the Basel II Accord represents recommendations on banking laws and regulation issued by the Basel Committee on Banking Supervision. It aims to set international standards that national banking regulators can use. The underlying principles are to set a risk-based capital allocation methodology, to separate and quantify operational risk and credit risk, and to align economic and regulatory capital to avoid arbitrage situations.
BCBS:	Basel Committee on Banking Supervision
BIS:	Bank for International Settlements
BoE:	Bank of England
Bretton Woods institutions:	the IMF and the World Bank
BRIC:	Brazil, Russia, India, China
CB:	central bank
CDO:	Collateralized Debt Obligation
CDS:	Credit Default Swap
CRD:	Capital Requirement Directive
CRE:	Commercial Real Estate
CSE:	Consolidated Supervised Entities
EIU:	Economist Intelligence Unit
EU:	European Union
FDI:	foreign direct investment
FIG:	Financial Institution Group
Financial Stability Forum:	The Financial Stability Forum brings together senior representatives of national financial authorities (e.g. central banks, supervisory authorities and treasury departments), international financial institutions, international regulatory and supervisory groupings, committees of central bank experts and the European Central Bank. It promotes international financial stability through information exchange and international co-operation in financial supervision and surveillance.
FSA:	United Kingdom Financial Services Authority
G7:	The G7 is the meeting of finance ministers from a group of seven industrialized nations: Canada, France, Germany, Italy, Japan, the United Kingdom and the US.
G8:	The G8 is a forum for governments of eight major industrialized countries: Canada, France, Germany, Italy, Japan, Russia, the United Kingdom and the US. The European Union is represented within the G8, but cannot host or chair its meetings.
G10:	The G10 is a group of the ten major industrialized countries: Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom and the US.
G20:	The G20 is a group of finance ministers and central bank governors from 20 economies, including 19 of the world's 25 largest national economies and the European Union.
G30:	The Group of 30 is a private, non-profit, international body composed of representatives of the private and public sectors and academia.
GDP:	gross domestic product
Glass-Steagall Act:	Passed in the US in response to the wave of bank failures following the 1929 stock market crash, the Glass-Steagall Act established the Federal Deposit Insurance Corporation and triggered banking reforms to stabilize the financial system.

The Great Depression:	The Great Depression was a worldwide economic downturn originated in the US by the 1929 stock market crash and ending at different times in the 1930s or early 1940s, depending on the country.
HM:	Her Majesty's
IASB:	International Accounting Standards Board
ICBC:	Industrial and Commercial Bank of China
IFRS:	international financial reporting standards
IIF:	Institute of International Finance
IMF:	International Monetary Fund
IOSCO:	International Organization of Securities Commissions
lender of last resort:	A financial institution – often a central bank or government treasury – willing to extend credit when no one else will.
M&A:	mergers and acquisitions
MBS:	mortgage backed securities
MDB:	Multilateral Development Bank
ME:	Middle East
Mercosur:	Regional trade agreement among Argentina, Brazil, Paraguay and Uruguay.
MTM:	mark to market
NAFTA:	North American Free Trade Agreement
OECD:	Organisation for Economic Co-operation and Development
OPEC:	Organization of the Petroleum Exporting Countries
OTC:	over the counter
PE multiple / PE Ratio:	price-to-earnings ratio
PIPEs:	private investments in public enterprises
PPP:	purchasing power parity
public-private partnerships:	A project funded and/or operated through a partnership between a government and one or more private companies.
RMBS:	residential mortgage backed securities
S&P:	Standard & Poor's
SEC:	US Securities and Exchange Commission
SPF:	sovereign pension fund
SRO:	self-regulatory organization
SWF:	sovereign wealth fund
TARP:	US Troubled Asset Relief Program
Tobin tax:	The Tobin tax, a proposal developed by the late US economist James Tobin, is a suggested tax on foreign exchange transactions. It's intended to penalize short-term speculation in currencies.
UCITS:	Undertakings for Collective Investments of Transferable Securities
UN:	United Nations
UNICITRAC:	United Nations Commission on International Trade Law
US\$:	US dollar
WTO:	World Trade Organization

Key references

Over the course of this project the team consulted hundreds of different written sources, a short selection of which are listed here for reference. However the vast majority of ideas and insights in this report were generated in conversation during the numerous interviews, scenarios workshops, brainstorms and other interactions the team had with industry participants, senior academics and policy-makers. A full list of contributors is available on page 82.

- *Merrill Lynch Corporate Spreads: Global Broad Market Corporate Index*. November, 2008. New York: Bloomberg.
- *Outlook for the Alternative Investment Industry*. December, 2008. New York: Oliver Wyman.
- *2008 Sovereign Funds Survey*. May, 2008. New York: Oliver Wyman.
- *BIS Quarterly Review: Statistical Annex*. September, 2008. Basel: Bank for International Settlements.
- *World Market Capitalization: Global Stock Markets Factbook*. 2008. New York: Standard and Poor's.
- *International Financial Statistics*. 2008. Washington: IMF.
- *United States: Economic Indicators*. November, 2008. New York: JPMorgan Economic Research.
- *World Economic Outlook Database*. October, 2008. Washington: IMF.
- *World Economic Outlook Update*. November, 2008. Washington: IMF.
- "Government Interventions". *The Financial Times Online*. October 17, 2008.
<http://www.ft.com/indepth/global-financial-crisis>.
- *US Department of Commerce: Bureau of Economic Analysis*. November, 2008. Washington: Federal Reserve Board of Governors.
- *Capital Flows to Emerging Market Economies*. October 12, 2008. Washington: Institute of International Finance.
- *The G20 Summit*. November, 2008. Washington: US Executive Office of the President.
- *WDCI: Write-downs & credit losses versus capital raised*. November, 2008. New York: Bloomberg LLP.
- *World Market Indicators*. 2008. London: The Economist Intelligence Unit.
- *HFR Global Hedge Industry Report Q3 2008*. 2008. Chicago: Hedge Fund Research Inc.
- "How to remain a top performing private equity firm during the global economic crisis". Romeo, J. In *Oliver Wyman Point of View Series*, 3, 2008.
- *The 2008 Preqin Global Private Equity Review*. 2008. London: Preqin.
- *The impact of the financial services meltdown on the global economy and the private equity industry*. October, 2008. Washington: The Carlyle Group.
- *The 2008 Multifamily Office Study*. 2008. Wheaton: The Family Wealth Alliance.
- *Fund Rankings: Largest Funds by Assets Under Management*. October, 2008. Roseville: Sovereign Wealth Fund Institute.
- *Sovereign Wealth Fund Investment Behavior*. 2008. McLean: The Monitor Group.
- *Welcome to the tail: Transferring coverage of the life insurers with a bearish view*. November, 2008. New York: Goldman Sachs Global Investment Research.
- *Goldman Sachs Presentation to 2008 Merrill Lynch Financial Services Conference*. November 11, 2008. New York: Goldman Sachs.

Acknowledgements

This publication reflects the ideas and contributions of many individuals through workshops, interviews, conference calls and document reviews. The **New Financial Architecture** project team thanks everyone involved for sharing so generously of their time, energy and insights.

The project team would also like to offer its special gratitude to the members of the Steering Committee, the Senior Advisers, and the members of the Expert Group. Their devotion has been critical to the successful development of this report.

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Special thanks to Andrew Turnbull, Project Manager, for ably soliciting input from the Steering Committee.

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- David A. Novak, Clayton, Dubilier & Rice
- Nader Shenouda, Coutts & Co.

In addition, the project team would like to thank all survey, workshop and interview participants for sharing their time and insights. These individuals were (in alphabetical order):

- Ramzi T. Abdel Jaber, Investcorp
- Bruno Aceto, Indicod-Ecr
- James W. Adams, The World Bank
- Nick Adamus, Credit Suisse
- Abdul Rahman Al-Baker, Central Bank of Bahrain

- Zaid F. Al Sulaiman, Azwaad International Group of Companies
- Sarah Alexander, Emerging Markets Private Equity Association
- Matthew Austen, Oliver Wyman
- Cesar Aya, Saïd Business School, University of Oxford
- Makram Azar, Lehman Brothers
- Shaukat Aziz, Government of Pakistan
- Henry Azzam, Deutsche Bank
- Joseph Bae, KKR Asia Ltd
- David M. Barse, Third Avenue Management LLC
- Denis Bastin, Oliver Wyman
- Andrew Bateman, SunGard Asia Pacific
- Chris Bates, Clifford Chance LLP
- Sven Behrendt, Carnegie Endowment For International Peace
- Joanna Benjamin, London School of Economics
- Andreas Beroutsos, Eton Park Capital Management LLC
- David G. Booth, Dimensional Fund Advisors
- Omar Bouhadiba, Mashreqbank PSC
- Whitney Bower, 3i Group Plc
- Frank Brosens, Taconic Capital Advisors LP
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- Martin Cardoe, 3i Group Plc
- Susannah Carrier, Silver Lake
- Jaime Carvajal, Grupo Arcano
- Johnson Chng, Bain & Company China Inc.
- John Colas, Oliver Wyman
- Timothy C. Collins, Commercial International Bank (Egypt) SAE
- Napier Collyns, Global Business Network
- Carlos Conceicao, Clifford Chance LLP
- Cristóbal Conde, SunGard
- David Cook, Financial Services Authority
- Peter Cornelius, AlpInvest Partners Ltd
- John Coyle, Permira Advisers Ltd
- Christian Crews, Pitney Bowes
- Jocelyn Cunningham, Deloitte Consulting LLP
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- Steven J. Davis, The University of Chicago Graduate School of Business (GSB)
- Tony de Nicola, Welsh, Carson, Anderson & Stowe
- Marc Del Bene, MasterCard Worldwide
- Alain Demarolle, Eton Park International
- Francis X. Diebold, Wharton Financial Institutions Center
- Stuart Dunlop, Thomson Reuters Middle East Ltd
- Brian Duperreault, Marsh & McLennan Companies Inc. (MMC)
- Nobuyoshi John Ehara, Unison Capital Inc.
- Mohamed El Kettani El Hamidi, Attijariwafa Bank
- Hisham El Khazindar, Citadel Capital
- Yasser El Mallawany, EFG-Hermes Holding
- Ahmed R. El Sharkawy, Ramw Group
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- Sergio Ermotti, UniCredit Group
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- Adena Friedman, The NASDAQ OMX Group
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- Isabel Garcia, Banco Santander
- Percy P. Geicke, VinaCapital Group
- Hendrik H. Gienow, Eurohypo AG
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- Simon Gleeson, Clifford Chance LLP
- Dan Gold, QVT Financial LP
- Ian Goldin, James Martin 21st Century School, University of Oxford
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- Noam Gottesman, GLG Partners
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- Christopher Harvey, Deloitte
- Yasuchika Hasegawa, Takeda Pharmaceutical Company Ltd
- Irina Hemmers, Apax Partners Worldwide LLP

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- Daniel M. Hofmann, Zurich Financial Services
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- Stefan Jaecklin, Oliver Wyman
- Benjamin Jenkins, The Blackstone Group (HK) Limited
- So Jin-Woo, SK Telecom Co. Ltd
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- Choi Jungkiu, Standard Chartered Bank
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- Michael Menhart, Munich Re (Münchener Rück)
- David Miles, Aviva Plc
- Eric Mindich, Eton Park Capital Management LLC
- Samir Misra, Oliver Wyman
- Basil Moftah, Thomson Reuters Middle East Ltd
- Azman Mokhtar, Khazanah Nasional Berhad
- Albert Momdjian, Calyon-Credit Agricole CIB
- Garrett Moran, The Blackstone Group
- Christian Mouchbahani, Jefferies International Limited
- Teddy Moynihan, Oliver Wyman
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- Nigel Phipps, Moody's Investors Service
- Toby Pittaway, Oliver Wyman
- Michael Poulos, Oliver Wyman
- Russell Pullan, Nomura International Plc
- Rafael Ramirez, Saïd Business School, University of Oxford
- Kevin Rao, Olayan America Corporation
- Bruno Raschle, Adveq Management AG
- Andrew Rear, Oliver Wyman
- Scott Robinson, Oliver Wyman
- Joseph L. Rice III, Clayton, Dubilier & Rice Inc.
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- Michael J. Roux, Roux International Pty Ltd
- Camile G. Saba, Olayan America Corporation
- Ahmed M. Saeed, Cerberus Capital Management LP
- Sari M. Sahyoun, Olayan Group
- Clare Salmon, Royal & Sun Alliance Insurance Group Plc
- Anthony Scaramucci, Skybridge Capital
- Omar Selim, Barclays Capital
- Jeffrey Shafer, Citi
- Hazem Shawki, EFG - Hermes UAE
- Andrew Sheng, China Banking Regulatory Commission
- Michael Smith, Oliver Wyman
- Terry Smith, Tullett Prebon Group Ltd
- Prof. Michael Spence, Stanford University
- Cordell Spencer, Morgan Stanley
- Chris Stadler, CVC Capital Partners Advisory (US) Inc.
- David Strachan, Financial Services Authority
- Per Strömberg, Swedish Institute for Financial Research

- Nick Studer, Oliver Wyman
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- Ramy Tadros, Oliver Wyman
- John Tattersall, PricewaterhouseCoopers LLP
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- Einar Telnes, Kolibri Group
- Abdel Hamid Temmar, Ministry of Industry and Investment Promotion of Algeria
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- Robert Urtheil, Oliver Wyman
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- Levent Veziroglu, Dogus Group
- Peter Vipond, Association of British Insurers
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- Angela Wilkinson, James Martin Institute for Science and Civilization, University of Oxford
- John O. Wolcott, Olayan America Corporation
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- Shinji Yamauchi, SBI Holdings Inc.
- Barbara Yu, Eton Park Asia Limited
- Giuseppe Zammarchi, UniCredit Group
- Eric Zinterhofer, Apollo Management LP

In addition, the project team expresses its gratitude to the following colleagues from the World Economic Forum for their advice and support throughout the project:

Financial Institutions Team

- Kevin Steinberg
- Giancarlo Bruno
- Bryan Stone
- James Bilodeau
- Lisa Donegan
- Takae Ishizuka
- Michal Richardson
- Kerry Wellman Jaggi

Strategic Insight Teams

- Fiona Paua
- Chiemie Hayashi
- Miguel Perez

Finally, the project team also thanks Mark Adams, Matthias Lüfkens and Sebastian Buckup for their support.

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