# The Unfolding Financial Crisis and Economic Downturn: Managing Under Uncertainty

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The credit crunch that initially sprang from the troubled US mortgage market has mushroomed into a much broader, global financial and economic crisis. Credit markets have frozen up or become severely strained. Securities markets, except for the highest-quality industrial credit, have essentially shut down. Banks can't meet the demand for loans. The credit crunch has been transmitted through the global capital market to Europe and is expanding to Asia. Consumers are trimming their spending while businesses pull back on investments, slowing economic growth. The US and eurozone economies are already in a mild recession that is spreading globally through trade and capital flows, and which could worsen significantly. Despite massive government efforts to stabilize the financial system, the crisis is still unfolding: it remains unclear when global capital markets will operate smoothly again, and uncertain how long the economic downturn will last and how deep it will be.

Even in normal times, most companies are prone to thinking about too narrow a range of possible outcomes. Many of our clients ask if they should be planning for a two- to three-quarter downturn or for a recession that lasts a few years—assuming it's just a matter of time before precrisis conditions return. However, these are extraordinary times. Conditions may not return to "normal" anytime soon. Indeed, for many companies and industries, the game may change in significant ways, both negative and positive. New risks are emerging, as are new opportunities. Many executives have not considered how their companies would fare if global capital markets remain stressed indefinitely, making it harder to raise funds, hedge risk, or source from abroad. Alternatively, they may not have considered that the turmoil may eliminate competitors and create openings for new products, new services, and industry reorganization. We are not saying these outcomes are likely. We are saying executives must broaden their thinking about what is possible and plan accordingly.

In this paper, we seek to assist that process by discussing what has changed, what is still evolving, and what remains uncertain—financially, economically, and governmentally. We also examine several plausible financial and economic scenarios and identify concrete ways companies should plan to manage through uncertainty.

This perspective draws on the work of scores of McKinsey & Company consultants and experts around the world. We do not try here to estimate how long the crisis will last; no one can. Instead, we seek to answer questions about how the world is changing, and how to look ahead.

## SPARK: THE FINANCIAL CRISIS

The financial crisis is still unfolding. It has been manifested in some countries primarily as a major credit crunch, in others as a serious disruption of trade and capital flows, and in some as a combination of the two (see sidebar, “How the crisis was set in motion”). While liquidity has been improved by government actions, changes in funding and in the very structure of domestic and global capital markets are still to come. A widening variety of toxic assets—not just mortgages, but more complex collateralized debt obligations, credit default swaps, and now souring consumer debt and related asset-backed securities—will need to be stabilized and priced appropriately. Banks will need to restructure their balance sheets and risk management capabilities. Exactly how these issues are resolved is far from certain, but will shape the financial landscape for a long time to come.

The full impact and resolution of the credit and global capital market crisis is an ongoing dynamic and will play out over three time frames, affecting financial and nonfinancial companies in different ways.

*In the short term,* many companies may continue to face liquidity constraints in both their domestic and international operations. Many companies will have difficulty raising short-maturity financing and rolling over debt and will be able to do so only at a significantly higher cost. Although the Federal Reserve’s new commercial paper facility is helping to ease these constraints for the highest-rated companies, others will continue to struggle. Moreover, companies should expect asset prices and exchange rates to continue to be volatile as hedge funds and other investors unwind cross-border trading positions and as investors react to uncertainty (Exhibit 1). Companies may find it difficult to adequately hedge these risks, and the cost of hedging risk through derivatives, when available, will be much higher.

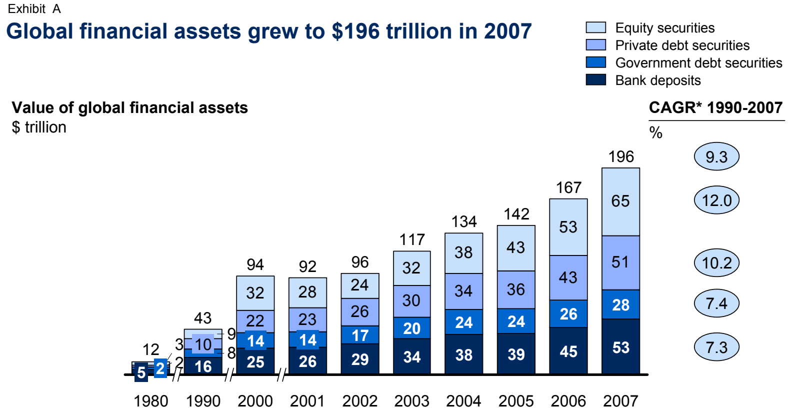
*In the medium term,* even after financial markets stabilize and liquidity improves, companies will face a different funding and risk hedging environment compared with precrisis levels. The average cost of debt was far below historic average levels from 2002 to 2007, but it has since overshot its ten-year average for all credit ratings, with credit spreads widening sharply (Exhibit 2). The lowest-rated issuers have seen credit spreads rise the most. When markets stabilize, companies should not expect that funding costs will revert to precrisis levels; they might revert to long-term averages or remain higher than those averages. Companies should also plan for more potential volatility around their cost of funding by building in a wider range of the cost of capital around investment plans. Volatility may also continue in exchange rates, even as cross-border transactions resume in some areas. Risk hedging, particularly for cross-border transactions, will be both much more limited and more costly.

## HOW THE CRISIS WAS SET IN MOTION

To understand how home foreclosures in Florida could trigger a global capital market crisis stretching from the United States to Iceland, the rest of Europe, and Pakistan, it helps to trace the explosive growth of global capital markets in recent decades. Since the demise of the postwar Bretton Woods currency regime in the 1970s, capital has surged around the globe more freely, fueling rapid growth in financial assets—including equities, private and public debt, and deposits. The McKinsey Global Institute (MGI) calculates that the total value of global financial assets rose from just $12 trillion in 1980 to $196 trillion by the end of 2007 (Exhibit A).[1]

Exhibit A

**Global financial assets grew to $196 trillion in 2007**




| | 1980 | 1990 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | CAGR* 1990-2007 % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Nominal GDP** $ trillion | 10 | 22 | 32 | 32 | 33 | 37 | 42 | 45 | 49 | 55 | 6.0 |
| **Financial depth** % of GDP | 109 | 201 | 294 | 290 | 292 | 315 | 321 | 314 | 342 | 359 | |

* Compound annual growth rate.

Note: Some numbers do not add up due to rounding.

Source: McKinsey Global Institute Global Financial Stock Database

At the same time, global financial depth—the ratio of assets to GDP—rose from 109 percent to 359 percent. Cross-border capital flows surged to $11.2 trillion in 2007, and the total value of cross-border

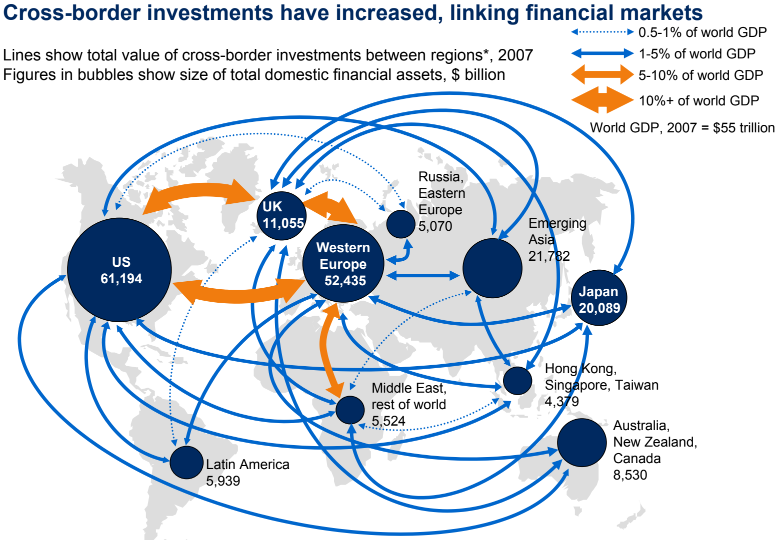
1 For more detail, see "Mapping global capital markets: Fifth annual report," October 2008, available at http://www.mckinsey.com/mgi/.

investments rose as well. The world's capital markets have become more intertwined than ever before (Exhibit B).

Exhibit B

**Cross-border investments have increased, linking financial markets**

Lines show total value of cross-border investments between regions*, 2007
Figures in bubbles show size of total domestic financial assets, $ billion




* Includes total value of cross-border investments in equity and debt securities, lending and deposits, and foreign direct investment.
Source: McKinsey Global Institute analysis

Deeper financial markets have proven generally beneficial because they provide borrowers with broader access to capital, offer more efficient pricing, and increase opportunities for portfolio diversification and risk sharing, all of which enable economic growth. But the system may have been a victim of its own success. Capital markets became so efficient that many policy makers came to believe they were essentially self-regulating and failed to erect the necessary safeguards.

These deeper, interconnected capital markets helped power the US housing boom, and then helped spread the pain of the bust. From 2000 through mid-2006, US housing prices rose by more than 126 percent, fueled by the rapid growth in mortgage availability.[2] Part of this increased availability reflected the expansion of lending to borrowers who didn't qualify based on traditional criteria such as the ability to

2 Increase in value as measured by the Case-Shiller 10-MSA composite index, a commonly used barometer of US home prices.

make substantial down payments, verification of income, or minimum credit scores.

The forces that drove the abundance of cheap credit during this period were numerous and interrelated. They include low central bank lending rates; a global savings surplus that fueled a rising demand for financial assets; government subsidies to borrowers and financers of mortgage debt; and the growth of private-label (non-agency) securitizations and “structured” financial products that rebundled and distributed the risks of individual loan defaults across many different investors. In addition, the environment spurred the creation and growth of credit-default swaps and other derivative instruments that gave the appearance of hedging risks or shifting them onto other parties. This ultimately, however, intertwined financial institutions in complicated ways that became very difficult to see clearly or disentangle easily.

The environment created a self-reinforcing upwards cycle from 2002 to 2006. Rising home prices and increasing mortgage availability meant that few borrowers defaulted and mortgage losses were low. Lenders concluded that risks of loss on these mortgages were very low and assumed they would remain so. With an increasingly easy ability to repackage and shift the risk of loss onto others, lenders and investors continued to loosen mortgage standards.

Once the self-fulfilling cycle slowed, US home prices started to fall and borrowers quickly began defaulting on mortgages underlying the securities. As defaults rose, the securities started losing their value, and the crisis was set in motion:

*Insufficient transparency and accountability.* When mortgages began to default, no one knew who ultimately owned the risk or where the losses would be taken because of the dizzying complexity of the securitized instruments containing them. Additionally, it remains unclear how to value mortgage-related assets as long as home prices keep declining. US housing prices have fallen more than 20 percent from their peak in 2006 by some measures, with declines of 30 to 35 percent in the hardest-hit US cities through August 2008. No one knows how much more prices may fall or for how long. Until this uncertainty is resolved, it will be nearly impossible to estimate a fair value for mortgage-backed securities and more complex related assets such as collateralized debt obligations and credit default swaps. The plunging market value of the assets has hurt the balance sheets of financial intermediaries such as investment banks, hedge funds, pension funds, and insurance companies. Thus, many securities whose values are linked to home prices and mortgage default rates are now referred to as toxic assets.

*Freeze in short-term lending.* The lack of transparency led to a freeze in some types of lending, especially after the failure in September of Lehman Brothers, a major player in commercial paper and credit default swaps. The result was an unprecedented credit crunch. By the end of September 2008, in the US market, issuance of mortgage-backed securities by banks had virtually collapsed—having dropped 99 percent from precrisis levels; likewise with the issuance of high-yield corporate bonds, which declined by 91 percent.[3] New issuance of asset-backed securities and asset-backed commercial paper had also declined significantly, and the cost of such debt has increased sharply.

*Breakdown of institutions.* Massive write-downs on mortgage-related securities have eroded banks' equity faster than they could raise new capital. Subsequent aggressive short selling prompted the crises that led to the US government's takeover of AIG, and the conversion of Morgan Stanley and Goldman Sachs into bank holding companies. Numerous banks around the world have failed, merged, or been nationalized. The magnitude of the losses and failures is unprecedented. Credit losses from US assets that have been realized so far by banks, insurers, and government-sponsored enterprises now total almost $1 trillion. These losses are likely to increase. This is because most losses to date came from mortgage-backed securities and syndicated loans, which are marked to their present market values. There are, however, trillions of other assets on bank balance sheets (commercial mortgages, auto loans, credit cards, corporate loans) that are likely to experience significant losses in the future. Thus, losses may ultimately reach $1.3 trillion to $2.2 trillion by our estimates, dwarfing the effects of the US savings and loan crisis. Losses on loans in Europe, which had a similar credit boom in some markets, may reach $600 billion to $1 trillion.

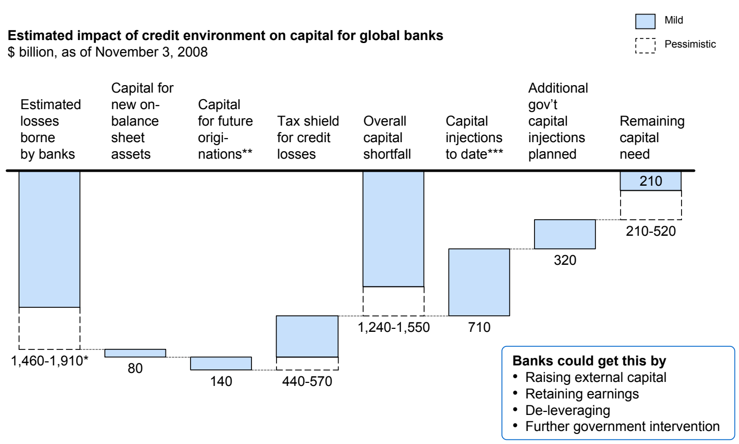
3 "Mapping global capital markets: Fifth annual report."

These losses have required a huge recapitalization of the financial sector, which may not yet be completed. Although almost $1 trillion in new capital has been raised from private investors and the massive government equity investments in September through November 2008, the capital infusions so far will be enough only if banks have relatively few additional losses going forward. If the economic downturn continues or worsens, or if credit markets remain stressed, banks could require additional capital injections to restore their balance sheets to health (Exhibit C).

Exhibit C

**Through government intervention institutions have replaced significant portions of capital, although additional capital raising is likely needed**

**Estimated impact of credit environment on capital for global banks**
$ billion, as of November 3, 2008




* Estimated total cumulative losses for US, UK, and EU assets that are borne by banks globally (which is ~50-65% of total overall losses).
** Reflects additional bank balance sheets assets due to reduction in securitization.
*** Includes government capital injections made prior to November 3, 2008.
Source: Bank of England; Bloomberg WDCI; McKinsey analysis

*Amplification.* The crisis continues to reverberate through markets that have become tightly interconnected through cross-border capital flows, intertwined and leveraged balance sheets, expanding trade flows, and ubiquitous information. The entire cross-border capital market—essential to the process of global economic integration—has seized up, potentially destabilizing the global economic system that relies on it.

*Risk management failures.* Among the many factors that contributed to the crisis were fundamental failures in risk management at financial institutions. These stemmed from several mistakes, including:

- An overreliance on flawed mathematical models. Financial institutions relied too heavily on mathematical sophistication without a balance of experienced judgment to pressure-test assumptions and conclusions. Models were based on very limited historical data, which didn't represent the possible range of outcomes in the future. Models made implicit assumptions, such as continued home price appreciation, that turned out to be unreasonable.

- A failure to make decisions on a risk-return basis. Risks during the credit boom were priced for near-perfection. Under circumstances worse than the conditions that prevailed during the boom, banks could not make reasonable rates of return on capital. Nonetheless, they continued to maintain and grow market share and take risks in pursuit of short-term profits. Some bankers recognized this before the crisis began; to paraphrase one former bank executive, you can't leave the dance floor while the music is still playing. Better management would forgo short-term profits that reflect poor long-term risk-return trade-offs.

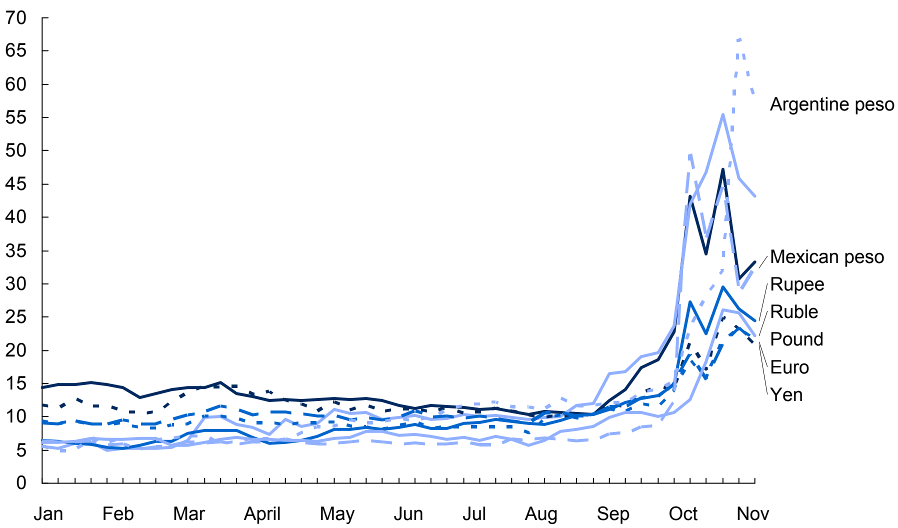
- A lack of effective risk culture. Most fundamentally, an effective risk culture places the responsibility for managing risk and return primarily with the CEO and senior line of business management. In the best performing companies, the risk management organizations and chief risk officer serve as an important second line of defense.

*In the longer term,* the crisis will reshape the competitive landscape in many industries and influence key global trends. Certain business models, ill-adapted to the new, higher-cost funding environment, may become obsolete. Already we are seeing the distress of Detroit automakers that relied on low-cost financing to woo customers, consumer electronics retailers whose sales were largely funded with credit cards, and leveraged buyouts that are foundering under heavy debt burdens. As the crisis highlights firms' relative strengths and weaknesses, activity in mergers and acquisitions may lead to considerable shifts in industry structure. In addition, the role of government in financial markets and the economy as a whole is likely to evolve significantly. Limited access to cross-border financing and hedging instruments could threaten many international operations. Finally, policy makers and business executives face the potential for heightened backlash against globalization as the crisis affects other countries.

Exhibit 1

## Currency risk has surged, with higher volatility making cross-border transactions riskier

**Implied volatility in currency exchange rates**
Volatility of price against US dollar,%




Source: Bloomberg; McKinsey Global Institute analysis

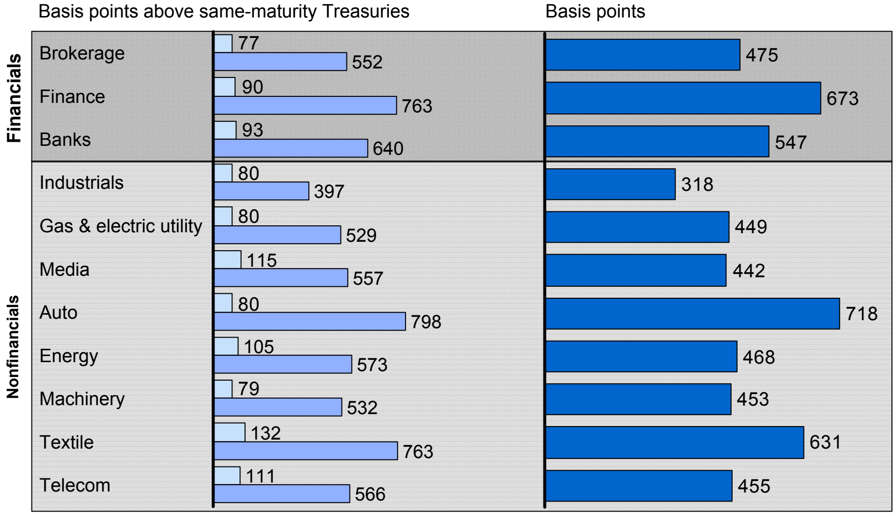
Exhibit 2

## US bond spreads have increased dramatically across all sectors

May 1, 2007
Nov. 14, 2008
Difference

**Options-adjusted US corporate bond spreads (OAS)***
Basis points above same-maturity Treasuries

**Increase in OAS***
Basis points




* Options-adjusted spreads are calculated as a single figure for all maturities and all ratings; in this case, finance, banks, industrials, and gas & electric utilities are taken as a straight average OAS of AAA, AA, A, and BBB bonds.

Source: Merrill Lynch Indices; McKinsey Global Institute analysis

## ENSUING ECONOMIC EFFECTS

Historically, and especially since 1980, credit growth has been correlated with faster GDP growth: Consumer borrowing fuels sales of homes, autos, personal electronics, and more, while companies issue debt and equity to expand operations and finance new plants and equipment. Cross-border capital flows and financial integration have enabled international expansion and spurred growth through investment and trade across global industries.

In recent years, this process had been supercharged by a global abundance of cheap, easy credit. In the United States, for example, total borrowing by government, households, businesses, and financial institutions, measured as a percentage of GDP, rose at a 2.4 percent annual rate from 2000 through mid-2008—more than double the rate of the previous three decades and fast enough to pull the economy out of the mild, brief recession that followed the tech bust (Exhibit 3). European borrowing also increased over the period, growing at a 3 percent annual rate (Exhibit 4). But, in contrast to the United States, most of the European increase was in borrowing by financial institutions and corporations, rather than by households. Even Asia, an historically strong saver, experienced notable increases in borrowing as well.

Now, the credit crunch has thrown this process into reverse. As credit tightens, many businesses are curtailing investment, cutting jobs, and hoarding cash. Consumers are reining in spending, which exacerbates the drop in business confidence. Companies retrench further, which causes consumer confidence to fall more, in a mutually reinforcing cycle.

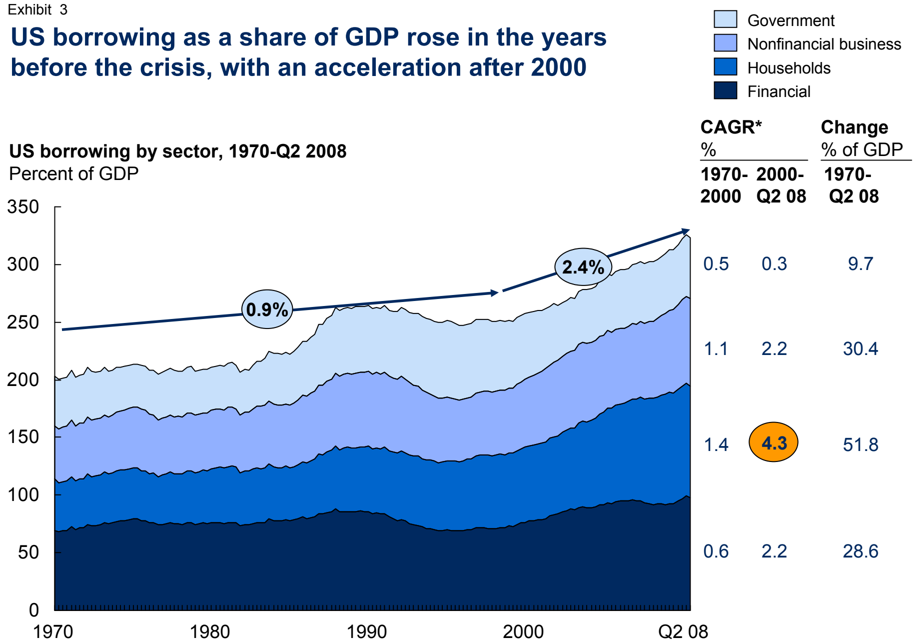
Moreover, the spillover into the global capital markets is threatening the smooth operation of international trade and global industries and the associated economic growth.

The Organisation for Economic Co-operation and Development said in mid-November that its 30 members, which include the world's major developed economies, are already collectively in recession. The question now is how bad will it get? Is the economy headed for a relatively mild contraction like those of the early 1990s and early 2000s, when US GDP fell slightly more than 1 percent from peak to trough? Or a more painful downturn akin to those of the mid-1970s and early 1980s, with peak-to-trough declines of nearly 3 percent? Could it be even worse, like the Great Depression, when US GDP declined by 27 percent from 1929 to 1933? We are not forecasters. But we know the answer will turn, in large part, on the evolution of five interlinked risks.

Exhibit 3

## US borrowing as a share of GDP rose in the years before the crisis, with an acceleration after 2000

**US borrowing by sector, 1970-Q2 2008**
Percent of GDP




| CAGR* % 1970-2000 | CAGR* % 2000-Q2 08 | Change % of GDP 1970-Q2 08 |
|---|---|---|
| 0.5 | 0.3 | 9.7 |
| 1.1 | 2.2 | 30.4 |
| 1.4 | 4.3 | 51.8 |
| 0.6 | 2.2 | 28.6 |

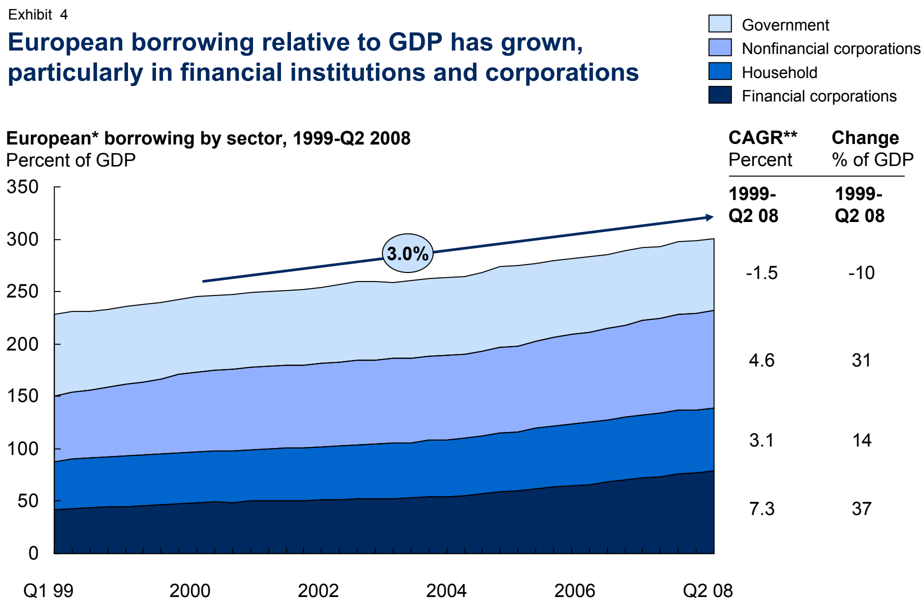
* Compound annual growth rate

Source: Federal Reserve Flow of Funds; McKinsey Global Institute

Exhibit 4

## European borrowing relative to GDP has grown, particularly in financial institutions and corporations

**European* borrowing by sector, 1999-Q2 2008**
Percent of GDP




| CAGR** Percent 1999-Q2 08 | Change % of GDP 1999-Q2 08 |
|---|---|
| -1.5 | -10 |
| 4.6 | 31 |
| 3.1 | 14 |
| 7.3 | 37 |

* Euro area 15 (fixed composition): Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovenia, Spain.
** Compound annual growth rate

Source: European Central Bank Flow of Funds; McKinsey Global Institute analysis

*Credit and deleveraging.* The first risk is the full extent and orderliness of the massive deleveraging process underway in the global economy. By mid-2008, net new borrowing by US households and companies was $1.4 trillion lower than a year earlier, a 65 percent drop. And the decline in new credit is continuing.

To estimate how much more US household and business borrowing could decrease over the next two years, the McKinsey Global Institute (MGI) assessed the trends at work in each of the channels through which households and businesses obtain credit: bank loans; lending by non-bank intermediaries such as insurance companies and pension funds; debt owned or securitized by government-sponsored enterprises such as Fannie Mae and Freddie Mac; the corporate bond and commercial paper markets; and the securitization markets. Adding up the potential reduction of credit through each of these channels, we estimate US household and corporate borrowing could decline by an additional $1.6 trillion to $3.7 trillion over the coming two years (Exhibit 5).

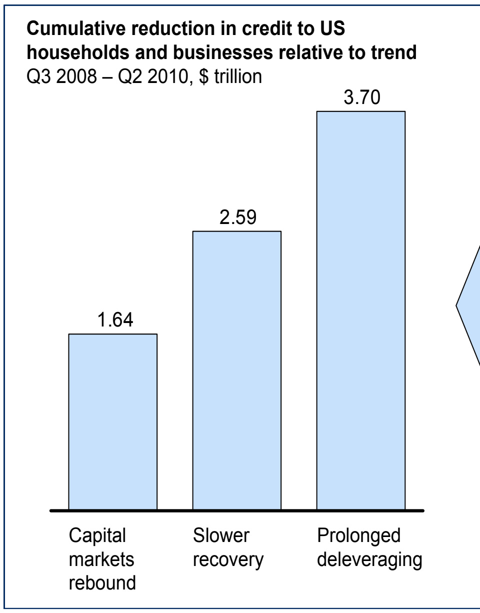
MGI estimates of how credit declines of this magnitude could reduce US economic growth over the next two years indicate that the mildest case of a $1.6 trillion decline in credit could result in a cumulative decline of 2.9 percentage points of GDP from trend by the middle of 2010 (Exhibit 6). This impact is the best-case scenario, and it assumes that US credit losses amount to $1.3 trillion and that credit markets normalize by the second quarter of 2009. It would be less severe than the lost GDP that followed the US savings and loan crisis from 1988 to 1991. In the moderate scenario, with credit losses of $1.9 trillion and a somewhat slower thaw in credit markets, US GDP would be 4.6 percentage points lower than trend in two years. In our most severe credit loss scenario, the US economy would lose 6.7 percentage points of GDP growth compared to trend, about a third of the size of Japan's lost decade.

These scenarios are not meant to provide a GDP forecast and are subject to numerous variables. For example, the actual GDP loss might be lower and fall in the mildest scenario if the government's policy responses are effective. Or the results could be worse if house prices keep falling and reductions in household wealth cause a steeper decline in consumer spending, if US business confidence erodes more sharply than in previous recessions, or if a global recession hits US exports severely. But all else being equal, these scenarios help ground conversations about the potential effect of the credit crisis on the economy. They help put bounds on the size of its impact.

While this analysis focused on the US economy, many other major developed economies are also suffering credit crunches. European banks, for example,

Exhibit 5

## US household and corporate borrowing could decline by an additional $1.6 trillion to $3.7 trillion over the next 2 years



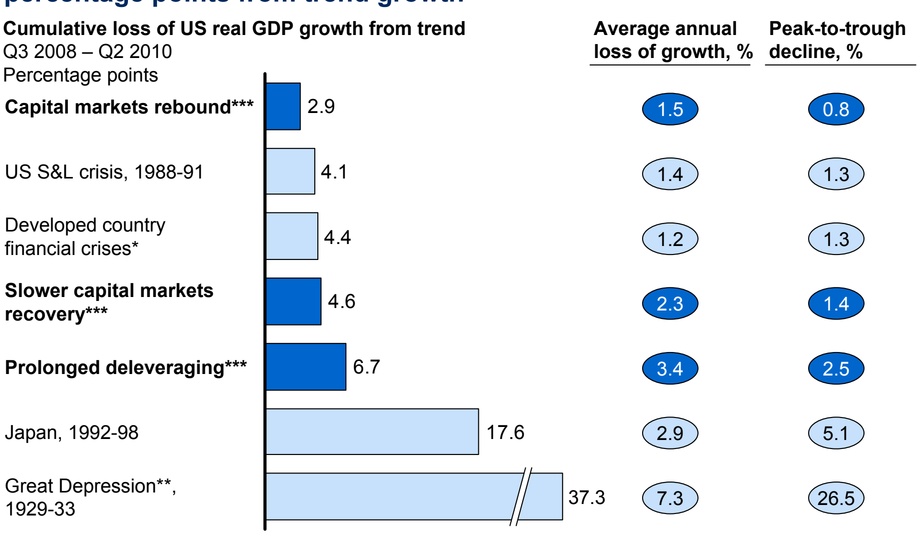

**Key assumptions**

- **Capital markets rebound:** Asset prices stabilize and credit constraints begin to ease in the economy by Q2 2009
- **Slower recovery of capital markets:** Credit losses on US loans are larger and spread to other forms of consumer debt; credit markets remain tight through Q3 2009, improving after that
- **Prolonged deleveraging:** Credit losses mount and banks reduce lending through end of 2009. Corporate bond and commercial paper issuance is well below pre-crisis levels through 2010, and securitization is negligible

Source: McKinsey Global Institute analysis

Exhibit 6

## This reduction in credit could lower US GDP growth by 2.9 to 6.7 percentage points from trend growth




* Median cumulative GDP loss of crises in Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom and the United States S&L.
** Estimated using annual data. The trend growth rate was estimated using the Hodrick-Prescott filter.
*** Peak-to-trough declines are estimated by replicating the typical growth path of external forecasts.
Source: IMF, Global Insight, McKinsey Global Institute analysis

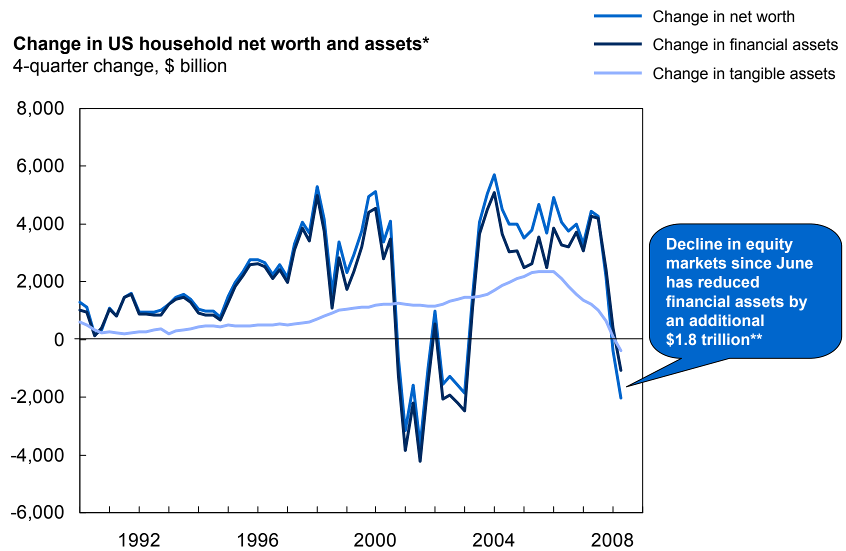
increased their assets (often as medium-term loans to corporate borrowers) by $3 trillion more than they raised in deposits from the first quarter of 2007 through the second quarter of 2008. They funded the gap with commercial paper and asset-backed securities raised in dollars and yen, accounting for some 40 percent of the entire issuance of US dollar commercial paper and asset-backed securities. With European banks no longer able to access these funding sources, their lending has been severely constrained. In addition, European banks were even more leveraged than their US counterparts and will therefore have greater need for capital than US banks, further constraining credit. Several Asian countries, though less directly connected through capital markets, are also now facing asset write-downs and credit constraints.

*Consumer and business behavior.* A second and very substantial risk is the unleashing of a reinforcing downward cycle of falling consumer spending and business investment. Consumer confidence and spending have been shaken by a significant loss of wealth from real estate and financial assets as well as from loss of income from growing unemployment (Exhibit 7). US auto sales dropped in October to levels not seen since World War II. US same-store sales fell in October, yielding the worst results for that month in decades. And amid rising job losses, the prospects for a rebound are not encouraging. US employers shed 240,000 nonfarm payroll jobs in October, bringing the total lost this year to 1.2 million and pushing the unemployment rate to 6.5 percent, the highest level since 1994. Investment plans of all sorts are being curtailed, further contributing to weak job growth and consumer confidence. This spiral is typical in recessions, but there is substantial risk that very high levels of uncertainty could lead to a more vicious downward cycle than has occurred during prior recessions.

*Housing prices.* A third risk to the economy is the potential for continued decline in home values. This includes not just the US market, but also markets in the United Kingdom, Spain, China, and even the Middle East, many of which have deteriorated after rapid price increases (Exhibit 8). For the real estate market, the credit markets, and the economy to stabilize, home prices must stop falling. In the United States, there have been some encouraging signs. The nationalization of Freddie and Fannie and an aggressive stance to sustain mortgage markets has helped stabilize home prices to some extent. But there is also a risk that rising mortgage delinquencies and foreclosures will push prices lower, which would cause more foreclosures, and so on. Given that many homeowners in the United States and other markets now owe more on their mortgages than their homes are worth, this risk remains.

Exhibit 7

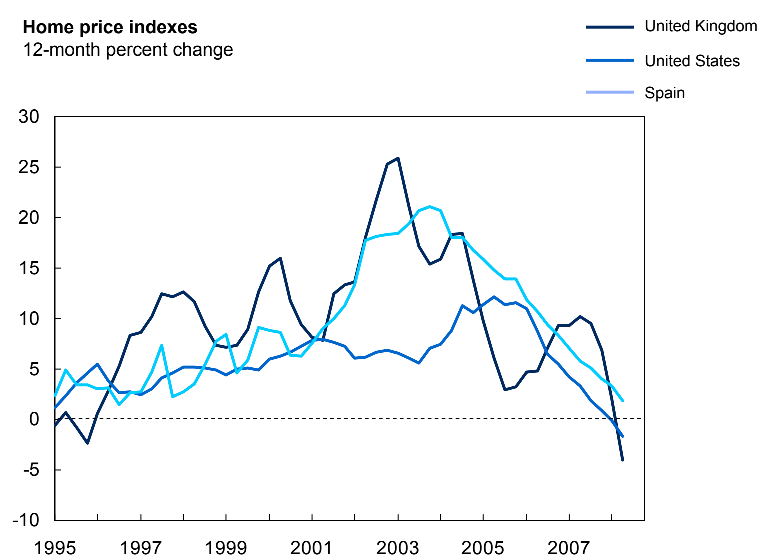
## US household net worth fell $2.7 trillion through first half of 2008 as housing and equity markets plunged




* Includes households and nonprofit organizations.
** Based on decline in Wilshire 5000, June 27-November 7, 2008.
Source: Haver Analytics; McKinsey Global Institute analysis

Exhibit 8

## Housing prices continue to fall in many markets




Source: IMF, Haver Analytics

*Commodity prices.* A fourth risk is commodity prices. As we write this paper in mid-November 2008, oil prices are below $60 per barrel, well off their July peak of $147, reflecting the economic slowdown. The steep fall in oil prices this year helps the energy-consuming economies but also hurts many petroleum-exporting economies, at least in the short term. In the longer term, the factors that had previously driven oil and other commodity prices sky-high—robust demand from growing emerging economies and supply constraints on aging oil fields—haven't disappeared and could well reassert themselves as the global economy regains strength. The risk is that oil prices would climb again just as consuming economies are in a fragile recovery, thwarting that process.

*Trade and exports.* A fifth risk to the global economy is weakening exports, which many countries rely on as an engine of growth. Even the United States, which is well known for trade deficits, relied heavily on US exports as a contributor to growth in the first half of 2008 (Exhibit 9). Without exports, the US economy probably would have been in a recession even earlier. Now, with investors flocking to the safety of US Treasuries and other assets, the dollar is appreciating. And the rest of the world economy is slowing. This does not bode well for US exports. Many other markets, notably Germany and China, are even more dependent on exports to drive growth and will be hurt from sluggish demand around the world (Exhibit 10).

For now, according to leading forecasters, the baseline expectation is for a moderate US and European recession and significant slowdown in Asia. But there are clear downside risks—at least the five listed above—that it could be more severe and prolonged.

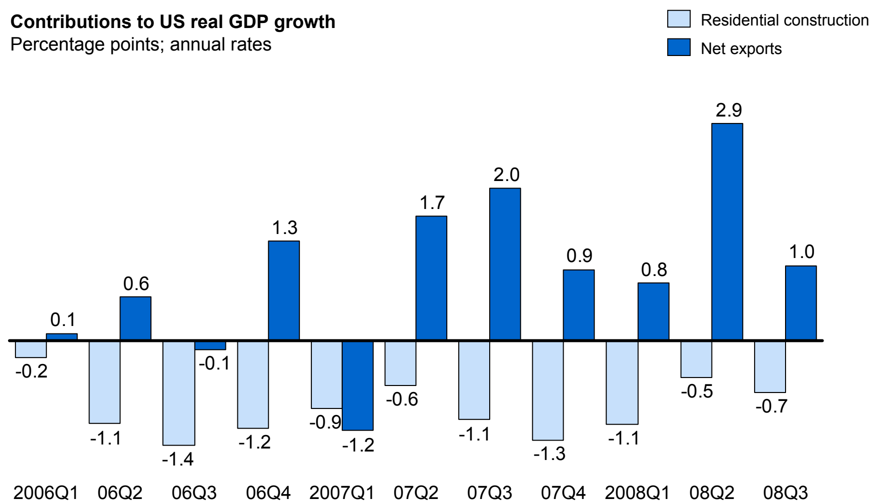
## THE PIVOTAL ROLE OF GOVERNMENT

With capital markets frozen up, it's as if someone has turned off the electricity powering the global economy. Governments are the only actors on the world stage with the scale and resources to repair the grid and get the lights back on. Their success or failure will shape the financial world and economic outcomes for years to come. Yet they are also another major source of uncertainty in the current environment. It is hard to know what governments will do: Several have taken unprecedented actions, or announced plans for action that were subsequently altered dramatically. The US Treasury, for example, won congressional approval in early October for a plan to buy toxic assets from financial institutions, and then announced in mid-November it would do something else. It is still unknown whether the various governments' efforts will succeed. And it's difficult to

Exhibit 9

## The decline in US housing construction has been partially offset by rising net exports, but slowing world growth could diminish exports

**Contributions to US real GDP growth**
Percentage points; annual rates

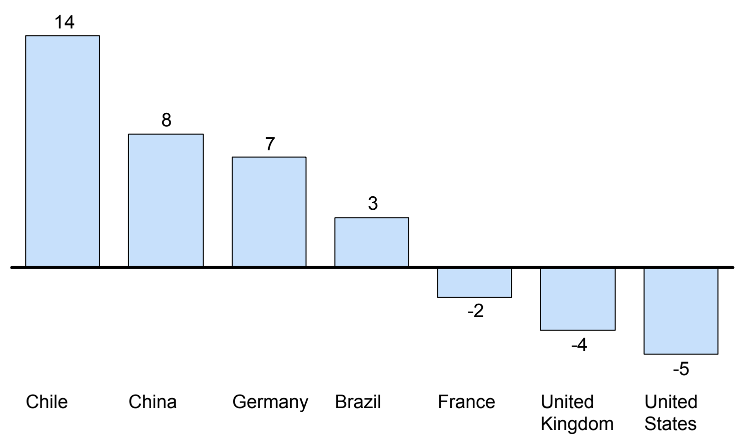



Source: Bureau of Economic Analysis, Haver Analytics

Exhibit 10

## The slowdown in global growth will hurt net exporters but may offer some relief to net importers

**Net exports as a share of GDP, 2007**
Percent




Source: Global Insight, McKinsey Global Institute foresee the unintended consequences of government actions, or inactions, as they ricochet through the system. Take, for example, the far-reaching effects of allowing Lehman Brothers to collapse, which triggered a sharp escalation of the credit crunch.

What is clear is that government actions to date have been numerous and massive and that still more action is likely. Some examples:

*Capital injections:* The United Kingdom, France, Saudi Arabia, Switzerland, the United States, and many other governments have injected capital into their banks. The US Treasury, for example, now plans to use most of the first tranche of the $350 billion deployed under the Troubled Asset Relief Program, or TARP, for direct capital injections into a broad range fo financial institutions, starting with the nine biggest banks and AIG. Globally, some $7.6 trillion of government capital has been injected into the global financial system so far, and more is expected (Exhibit 11).

*Bank stabilization:* Many governments have increased deposit insurance limits, guaranteed bank-issued debt, and nationalized failing banks.

*Monetary policy:* The US Federal Reserve has been cutting interest rates for more than a year. The European Central Bank, the Bank of England, Bank of Japan, and many other central banks around the world have also slashed rates in recent months. In addition, central banks have found other innovative ways of injecting liquidity into the system through new loan programs. The Fed, for example, began buying commercial paper to support that market. Additional unilateral or coordinated monetary interventions in several markets are more likely than not.

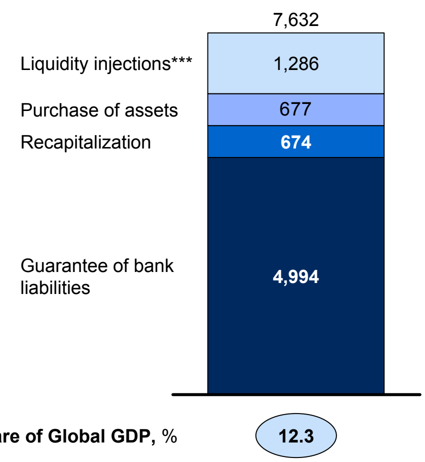
*Fiscal stimulus:* Now that the financial system's stresses are rippling through the real economy, governments are responding with major stimulus measures. The US started in February of 2008 with a $152 billion package of tax rebates to households and tax incentives for business. In October, Japan announced a $275 billion stimulus plan, followed in November by China's announcement of its staggering $586 billion spending plan. Plans are already underway in many countries to provide further fiscal stimuli.

*Trade policy:* Much has been made in political debates around the world about trade. Popular commitment to open trade and markets, never strong, is eroding further. Changes in trade policy and select treaties are at least nominally on the agenda of some major countries around the world.

Exhibit 11

## Globally, governments have provided $7.6 trillion in support to financial markets, equivalent to 12% of global GDP

**Estimated global value of government support packages***
$ billion**




* Including announcements up until October 24, 2008.
** Converted into USD from source using the October 22, 2008 exchange rate of 1.71 USD/GBP.
*** Includes some other actions, such as loans to banks.
Source: Bank of England, IMF, McKinsey Global Institute analysis

One open question is how much farther will governments go? Clearly, stabilizing the financial industry is a priority. But what about providing direct financial injections into other troubled sectors? The US government, for example, is exploring whether to do more for the domestic auto industry. If it does, other industries are sure to seek more direct aid as well. Other governments will feel similar pressures. It's also unknown whether governments will work together in the best interest of the global community or pursue narrower, national interests through their trade or regulatory policies. At their meeting in Washington in November, leaders of the Group of 20 economic powers agreed on several broad principles and goals but left the details to be worked out by lower-level aides before another gathering in April.

And while governments' efforts to date have focused on the short-term priorities of stabilizing the financial system—such as maintaining liquidity, reopening credit markets, preventing bank runs, and stimulating economic growth—they eventually will have to turn to addressing numerous, looming long-term challenges. These include overhauling national and international regulatory regimes; involving more emerging market voices in international policy debates; and developing more effective ways to work with new financial actors, such as sovereign wealth funds, hedge funds, and private equity.

The role that governments choose to play will materially help or hinder any financial and economic recovery in the short term and will shape global capital markets for years to come.

## IMPLICATIONS FOR COMPANIES

The evolution of the financial crisis, the economic effects, and the outcome of unprecedented government intervention all portend a highly dynamic environment for some time. This is all the more true given that the crisis is truly a global phenomenon and that additional players compound the complexity of possible outcomes. So it is important to distinguish between what we can reasonably expect to happen and what, given the situation, is necessarily uncertain.

Even amid such financial, economic, and governmental uncertainty, there are some things we already know about how the world has changed. We are already seeing governments assuming a greater role in developed markets and economies; changing circumstances forcing a recalibration of business and economic benchmarks; tighter capital challenging many business models; a new urgency to strengthen risk management systems; and an emerging new global financial economic order involving new players. By grasping these changes, executives can adjust their own thinking to meet the challenges ahead. And they must also accept what is unknowable for now and make the necessary strategic shift to successfully manage under uncertainty.

### What we know

Although the landscape continues to evolve, we already know the ground has moved in several significant ways. Looking ahead, we can identify five key developments to be aware of:

*A much higher level of government involvement in markets and business practices in the developed world.* Since the crisis escalated in September 2008, Western governments have dramatically expanded their role in financial markets. Looking forward, we can expect higher tax rates to pay for these efforts. And we can expect reregulation, not just of finance but of many other sectors as well. Government is likely to play an even greater role in trade management. While this may constrain some business activities, it also opens the door to new ventures that depend on collaboration across the public and private sectors.

For businesses, this requires a significant shift in thinking. They need to recognize the government as a critical stakeholder in mature markets and economies, just as they already do in many emerging markets. This also means developing strategies to cope with the evolving regulatory, tax, and trade environment.

*A resetting of business and economic benchmarks.* Expectations of baseline profitability and shareholder returns and of baseline economic growth will all need serious recalibration. Defining “normal” conditions will be challenging. Inflation and deflation will be less predictable. Volatility is likely to continue, and even increase, in many markets. The high returns and economic growth of recent years resulted from very cheap credit, which is unlikely to return for a long time.

Companies will need to expand their knowledge capabilities, problem-solving efforts, databases, and methods to derive real insight into the new appropriate benchmarks. Managers also will have to rethink the value that talent creates when it is not so easily leveraged.

*Tighter capital will challenge many corporate business models, likely resulting in more bankruptcies and industry consolidation.* It also will provide openings for new business models and create opportunities for some companies to gain strength as their competitors weaken. Even aside from the economic slowdown, business models that depended on abundant, cheap capital will no longer be viable or will have to adjust significantly. Executives and managers may face higher funding costs, through both debt and equity, and less access to capital at any cost. They will find a lower appetite for risk taking, reduced ability to hedge risks, and higher volatility in funding markets. Hardest-hit will be business models premised on high leverage, those reliant on indirect consumer credit, those with large customer-financing operations, and those with high working capital needs. Businesses with long or inflexible production cycles or very long-term investment requirements will find managing their funding to be especially challenging. Some won’t make it, but others may thrive.

*Risk management has taken on new urgency.* Risk management failures at financial institutions were a key contributor to the crisis. Now all companies must evaluate their risk management systems and upgrade them as necessary. In many cases, this starts with changing the culture so the CEO acts as the chief risk manager and holds business units accountable for both risks and returns. Another key focus should be on a company’s owning only those risks that are to its competitive advantage.[4]

For financial institutions, this means both immediately addressing the short-comings that threaten their survival and looking ahead to more fundamentally transform their risk management approach for the future. For nonfinancial

4 Kevin Buehler, Andrew Freeman, and Ron Hulme, “Owning the right risks,” *Harvard Business Review*, September 2008.

companies, we see three risk management priorities: managing liquidity positions and balance sheet risks to survive; upgrading enterprise risk management; and capturing opportunities created by this environment (see sidebar, “Strengthening risk management”).

*A new global financial and economic order with more players.* The crisis is causing shifts in the power and roles of various players on the world economic stage, including national governments, multilateral organizations, regions, industries, individual businesses, and others. We won’t know how it all shakes out until the current chaos subsides. Nonetheless, several trends were identified before the crisis that are likely to continue, and at an accelerated pace. These include the “rise of the rest,” or the ascendance of new national and regional economic powers—notably China, India, the Middle East, and possibly Russia. And while much of the discussion focuses on governments and businesses, we see a growing role for other types of financial actors—sovereign wealth funds, government holding companies, pension funds, private equity, and new hybrids that mix public and private funds and goals.

These developments heighten the need to construct a new global financial architecture of regulations, practices, and institutions better suited for a global economy and global players. No longer will the financial world be dominated solely by national governments and corporations. No longer can finance be controlled within borders. No longer is trade the primary financial linkage between economies. And to chart a course through this changing landscape, executives will have to adjust not only their practices, but their thinking as well.

### Managing under uncertainty

Managing through this still-evolving environment will require a major shift in mind-set. No longer can companies focus solely on the next quarter, or even the next year. For the foreseeable future, they must prepare to operate through uncertainty —financial, economic, governmental. But they must ready themselves now.

The actions a company takes in the days, weeks, and months ahead will be critical to its ability to survive and to prosper, not just this year but also beyond. Some businesses will fail. The winners will be the companies that get ahead of the challenges and work to make informed, rational, and effective choices. They will step back and make tough-minded, dispassionate, thoughtful assessments of alternative scenarios and consider the implications of those alternatives on their revenue, costs, profits, risks, and balance sheets. They will adapt their strategies and organizations to the uncertainty of the moment. More specifically, the winners will develop multipronged game plans for navigating the uncertainty they face.

## STRENGTHENING RISK MANAGEMENT

The financial crisis has made stronger risk management an imperative for both financial institutions and nonfinancial companies. Their very survival in the short-term, and prosperity in the long-term, depend on rethinking and transforming their approach.

### Banks face specific challenges

First, banks need to address any shortcomings that currently put their survival at risk. This includes fixing the fundamentals, such as understanding the unstated assumptions underlying their risk and return decisions (e.g., continued house price appreciation); improving risk transparency across silos (e.g., counterparty credit exposures that span market and credit risk); much more thoroughly evaluating the liquidity risks posed by their businesses; and optimizing their capital and liquidity deployment to reflect the current scarcity of these resources.

Second, banks need to more fundamentally transform the way they manage risks in the long term (Exhibit D). We see at least five requirements:

1. *Ensure that key emerging risks are monitored and made transparent.* Understand true risk exposures under the potential stress scenarios that can jeopardize financial institutions. Assess the impact on cash flows, credit rating, and liquidity position under various scenarios. Don't rely on value-at-risk metrics that sometimes provide false comfort. Develop insight and foresight into potential structural and systemic risks and develop trigger points and "off-the-shelf" contingency plans.

2. *Make risk inseparable from strategic decision making.* Seek to own only the risks that the bank fully understands and has a true competitive advantage in understanding, mitigating, or bearing.[5]

3. *Leverage enhanced risk capabilities to drive business value.* Instead of viewing risk management as a regulatory compliance

5 Buehler, et al, "Owning the right risks."

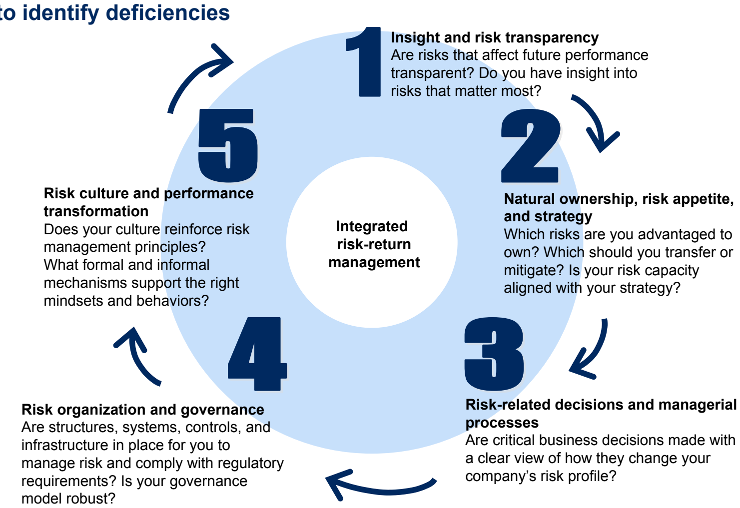
exercise, seek to capture value from it. For example, investing in collections and workout strategies can reduce losses and improve profitability.

4. *Hold senior management and business unit management accountable for risk*. The CEO should act as head risk manager, holding business units responsible for both risks and returns. The company's risk organization should act as a partner with business units in making risk-return decisions and should act as a second line of defense.

5. *Align risk-based incentives and make risk culture explicit.* In too many organizations, compensation structures encourage excessive risk-taking. Companies should reset these incentives appropriately. Increase risk awareness across the bank through education, training, and cultural change programs.

Exhibit D

**Reviewing integrated risk management framework helps to identify deficiencies**




## Nonfinancial companies must tackle broader challenges

For other companies, we see three risk management priorities: managing liquidity positions and balance sheet risks to survive;

upgrading enterprise risk management; and capturing opportunities created by this environment.

*Manage liquidity position and balance sheet risks to survive.* Over the past several months, management teams around the world have taken numerous steps to address short-term liquidity needs. These include securing bank lines, commercial paper, and other funding vehicles; reviewing capital expenses and eliminating all noncritical maintenance capital; stretching payables and accelerating receivables; and suspending share buybacks and dividends.

Now, the continuing severity of the credit crunch requires companies to consider more closely a range of other initiatives. Among them:

1. Ensuring ongoing access to capital. This includes reviewing maturities and working with legal teams to understand terms and potential liquidity pinch points. Companies should consider drawing down their revolving credit facilities and bank line of credit commitments, which may become unavailable. Companies should define specific contingency plans and initiate contact in advance with potential lifelines, such as governments, private equity, pension funds, and merger partners.

2. Reviewing working capital beyond stretching accounts payable and accelerating accounts receivable. For example, companies must avoid implicitly extending credit to counterparties by retaining existing commercial terms without compensation. Companies can benefit by identifying customers on the brink early and by cutting deals —for example, by discounting the amount owed but accelerating payment.

3. Revisiting the dividend policy. While many companies traditionally resist cutting dividends to avoid alienating investors, the current crisis may provide helpful cover to suspend dividends and build the war chest for current needs and future acquisitions.

4. Considering repatriation of foreign cash. Many US multinational corporations have sought to avoid repatriating earnings to the United States to preserve cash and defer taxes. But this practice is rooted

in the presumption of ready access to financing. Now may be the time to rethink that strategy.

*Upgrade enterprise risk management.* The crisis can help build momentum for implementing an integrated approach to risk and return management along with the right organization, processes, controls, and governance. Players will have to address the following questions:

- Do you have transparency across the range of risks that will affect your company's future performance and deep insight into the risks that matter the most? This means identifying the underlying fundamental risks and being able to understand, quantify, and explain why and how a risk affects your company.

- Do you understand which risks your company is competitively advantaged to own and which ones you should seek to transfer or mitigate to meet your strategic corporate objectives?

- Is your overall risk capacity aligned with your strategy? Do you have processes to ensure that you avoid being overextended or over-insured?

- Are critical business decisions taken with a clear view of how they change your company's risk profile?

- Are the structures, systems, controls, and infrastructure in place for you to manage risk and comply with regulatory requirements? Is your governance model robust?

*Capture high-risk-adjusted return opportunities.* The crisis has weakened many companies, creating opportunities for strong players to take advantage. As in any downturn, these include openings to acquire undervalued assets and distressed companies, to make investments to position better for the upturn, and to attract top talent. However, the current turmoil also has created other opportunities. Credit has become a valuable competitive "weapon" as the value of credit is higher than ever and the spread between good credit and bad credit is wider than ever.

Potential actions include exploiting relative creditworthiness and the "flight to quality" in the value chain. In this market, suppliers and customers will prefer to transact with creditworthy and well-capitalized players. There may be opportunities for a company to selectively support a base of 10 to 20 percent of suppliers and customers for strategic purposes. One could maintain or even extend terms in exchange for supplier commitments to cost reductions and customer commitments to additional market share.

For both financial and nonfinancial companies, change will not come easily. The benefits, however, are compelling. Even after the crisis passes, we believe best-in-class risk management will be a key contributor to preserving and growing shareholder value and earning extraordinary risk-adjusted returns.

Most companies are prone to thinking about too narrow a range of outcomes. The assumptions used for budgeting and business planning are often modest variations on baseline projections that do not even make explicit many of the inherent assumptions. Now, however, the range of potential outcomes is so large that the very survival of many companies is at risk. The best way to cope with the current uncertainties is for executives to broaden the set of macroeconomic outcomes and strategic responses they are evaluating. A simple way to do this is to combine the spectrum of ways the global credit crisis could play out (from a case in which the government successfully restores the global credit system to one in which global capital markets remain dysfunctional), against the spectrum of ways the global recession could play out (from a relatively mild downturn to one far more severe). This yields four very different scenarios (Exhibit 12):

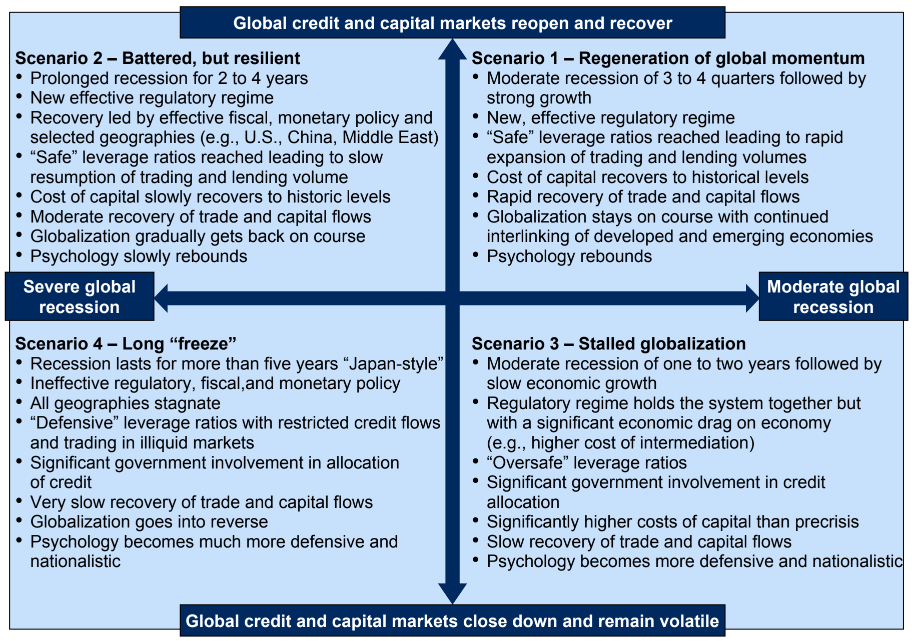
*Regeneration of global momentum:* This “best case” scenario reflects a world in which government actions revive the global credit system and keep the global recession from lasting too long or being too deep. Globalization stays on course with a rapid resumption of trade and capital flows, and continued linking of the developed and emerging economies as global psychology quickly rebounds.

*Battered, but resilient:* This scenario reflects a world in which improvements in the global credit and capital market due to government action are more than offset for the next 18 months or more by the negative impact of the global recession, which yields further credit losses and distrust of cross-border counterparties. The global recession is longer and deeper than anything we’ve seen in 70 years. However, the actions by governments do work and the global capital and credit

Exhibit 12

**Companies must plan for 4 very different scenarios**

ILLUSTRATIVE




markets gradually regain health. Although shaken, global psychology rebounds and there is a moderate recovery of trade and capital flows. Globalization gradually gets back on course.

*Stalled globalization:* Under this scenario, the global recession is significant but varies greatly in its intensity from nation to nation. In particular, the US and Chinese economies prove surprisingly resilient. However, globalization stalls as the global capital markets become less integrated due to continuing counterparty fear. Trade flows, and capital flows, first decline and then stagnate. The regulatory regime holds the system together, but the various governments overregulate lending and risk, making the world's banking system "oversafe." Credit stays both expensive and hard to get, and cross-border trading is restrained because of counterparty fears. We enter a period of relatively slow global growth as global psychology becomes more defensive and nationalistic.

*Long freeze:* Under this scenario, the global recession lasts for more than five years (similar to Japan's recession in the 1990s) due to ineffective regulatory, fiscal, and monetary policy. The economies of all nations throughout the world stagnate. The global credit and capital markets remain closed due to overregulation, combined with fear. Trade and capital flows continue to decline for years as globalization goes into reverse. Global psychology becomes much more defensive and nationalistic.

Clearly, these descriptions are stylized in an effort to bring them to life; many other permutations are possible. And, of course, scenarios for any given company and industry need to be made far more robust and tailored to individual circumstances. What we hope to illustrate with these examples is the importance for strategists to broaden their minds to consider outcomes, such as the rollback of globalization, that were previously unthinkable but now are plausible. Unappealing as three of these four scenarios are, companies setting strategy today without taking them into account are flying blind.

To manage through uncertainty, companies will have to make decisions dynamically. We suggest that decisions be made through a process akin to natural selection, in which many initiatives are launched, each with the potential to deliver rewards disproportionate to the risks involved. As these initiatives succeed or fail, they are expanded or ended, and the strategy evolves. Dynamic management then involves the pursuit of a "portfolio of initiatives."

At this time of extreme uncertainty, a safe harbor for all companies is to pursue a portfolio of initiatives aimed at improving a company's resiliency, awareness, and flexibility.

Improved resiliency means the company will be better able to absorb shocks. Immediate actions include cutting discretionary spending, slowing investment, aggressively managing cash flows, laying off workers, shoring up financing resources, and building capital. For most companies, these steps will not be enough in anything other than the best-case scenario. Additional actions to consider include dramatic restructuring of line organizations and support functions to boost productivity by streamlining decision making, reducing costs, and improving effectiveness.

Improved awareness means the company will be better at gathering the business intelligence needed to understand what is happening and what it means. Internally, companies must understand much better how revenue, costs, profits, cash flows, risks, and balance sheets would fare under different scenarios. Externally, companies obviously have to keep on top of the evolution of the financial and economic crises. And as time passes, the internal and external information needs to be integrated so the company can move fast once outcomes become certain. In a crisis, lead times disappear rapidly. Acting quickly is critical.

Greater flexibility means the company will be better at creating real options that can be exercised as needed. If it becomes clear that the crisis has made your global sourcing approach too risky, for example, you will be in better shape if you have acquired in advance the option to restructure the supply chain. Or if it becomes clear that a business no longer makes sense because of changes in the global economy, it's important to have done all the advance work needed to sell that business before everyone arrives at the same conclusion. It is critical to have thought through your options in advance lest you have to make a sudden, important decision without sufficient information or preparation.

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In this environment of financial, economic, and governmental uncertainty, the business landscape will continue to evolve. The companies that survive and thrive will be those that recognize change and prepare for many possible futures. A company needs to have not just one strategic plan but several different, coherent, multipronged action plans that it is ready to pursue as events unfold.

**About the authors:** Lowell Bryan and Kevin Buehler are directors in McKinsey's New York office, and Diana Farrell is director of the McKinsey Global Institute.
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