



THE BOSTON CONSULTING GROUP

Collateral Damage

*Preparing for a Two-Speed World:
Accelerating Out of the Great Recession*

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Collateral Damage

Preparing for a Two-Speed World: Accelerating Out of the Great Recession

“I know the crisis is over,” a senior executive told us a few weeks ago, “because you’ve stopped writing your Collateral Damage papers.” Ruefully, we broke it to him that our silence was due to our writing a book, Accelerating Out of the Great Recession: How to Win in a Slow-Growth Economy (published this month by McGraw-Hill).

As regular readers of this series will recall, we have consistently taken a rather cautious stance regarding the development of the world economy. The problems of global trade imbalances, unsustainably high levels of debt, and a severely damaged banking sector are still not resolved and will take years to unwind. So we expect a sluggish recovery globally, with several hiccups along the way. A double-dip recession remains possible.

Underneath that headline view of slow global growth lies the very real possibility that we are seeing the development of a “two-speed world.” Such a world is characterized by slow growth in developed economies and relatively high growth in many of the so-called rapidly developing economies. Because the developed world still accounts for such a large slice of the pie (the United States plus the European Union and Japan account for around two-thirds of global GDP), the overall global growth numbers will remain depressed for some time to come.

If the world is entering a period of prolonged slower growth, that matters to business leaders. In order to grow, companies will have to gain market share. The management and strategies of all companies—especially poorly run ones—will be placed under enormous stress. This will accelerate industry restructuring. Tough economic times tend to expose structural weaknesses. Poorly grounded business models and excess capacity, among other problems, will force companies—especially those in mature industries—to adjust to or exit the market.

1. No Ordinary Recovery

We believe that the world economy is entering a period of prolonged slow growth. It may be that 2010 will begin quite strongly, as many economies rebound from the depths of the Great Recession. But the underlying fundamentals suggest that once the first phase of recovery has played out, growth will be slow.

Why do we say this?

China (and other exporting nations) bought their high growth in exports by funding both the increasing trade deficit and the high levels of private consumption of the United States. Furthermore, much of this growth in consumption was fueled by huge increases in debt, a problem not restricted to the United States. It is unrealistic to expect this pattern to continue in the coming years.

A. The Empirical Evidence Is Discouraging

The *World Economic Outlook* report published in April 2009 by the International Monetary Fund (IMF) studied the short-term output dynamics of 122 recessions in advanced economies over the last 50 years. It found that two types of recession are particularly long and severe: those preceded by financial crises and those that are globally synchronized. The Great Recession meets *both* criteria. In addition, the report found that recessions combining both characteristics last for seven quarters, on average, from peak to trough—during which time real GDP falls by 4.8 percent. The ensuing recovery is typically slow and weak, with GDP growth recovering by only half (2.8 percent) in the first year. In other words, history suggests that most economies suffering such a recession will essentially stand still for nearly four years.

B. The Deleveraging of the U.S. Consumer Has Barely Begun

In the past, U.S. consumption was the growth engine for the world economy. Today, the U.S. consumer directly accounts for 70 percent of U.S. GDP and about 18.8 percent of world GDP. But U.S. consumers

cannot sustain such high levels of consumption.

Over the course of two decades, personal savings rates in the United States dropped from 9 percent to roughly zero, spiking only over the last few months to about 5 percent. High levels of consumption were driven by easy credit and inflated home prices. The abrupt collapse of both the housing market and the stock market in 2008 significantly reduced the net worth of the highly leveraged U.S. consumer. Moreover, by any measure, the U.S. consumer is burdened by levels of debt not seen since the Great Depression.

To put this in numbers, consumer debt has reached 95 percent of the \$14.3 trillion U.S. GDP. Before the debt-fueled inflation in home prices that began in 1997, consumer indebtedness was approximately 66 percent of GDP—virtually the same as the long-term average for the period from 1980 to 2006. It would take \$4 trillion of deleveraging to get back down to that level of indebtedness. Any such effort by U.S. households to reduce their debt load will inevitably reduce global growth.

U.S. consumer confidence remains fragile. The November Conference Board barometer showed confidence levels remaining at about 50. To put this into perspective, a measure of 90 represents reasonable consumer health.

C. There Is No Alternative Economic Engine Today

The role of U.S. consumers is so important because there is no obvious short-term replacement for this mainstay of the global economy. There may be four times as many consumers in China, but Chinese consumers simply do not have the wealth or spending power of the U.S. consumer. In 2008, total private consumption in China was equivalent to just 15 percent of total U.S. consumer spending.

So we believe that decoupling is not yet a reality: there is still a connection between the economic well-being of the developing countries, in particular, and that of the developed countries (particularly the United States). We remain concerned about the United States because it is still the main economic player on the global stage. Over the next few years, the Indian and Chinese economies may well perform spectacularly, but they will not create sufficient import demand to kick-start high growth in the West. Indeed, China's economic growth, based as it is on a government-supported export sector and infrastructure investment, is not going to power growth in its domestic economy. So for awhile yet, the economic ills of the United States will still matter to the wider world, particularly the mature economies of the West. And we already see that the new, two-speed economic world is driving significant tensions between the "growth haves" and the "growth have-nots."

D. Credit Is Not Flowing Yet

Credit is important as a catalyst for growth. In all but 3 of the last 25 years, some \$3 to \$6 of new credit has been required for every \$1 of GDP growth. So if credit is in short supply, growth will be constrained. In the wake of the crisis, the central banks have pursued a fairly aggressive policy in order to stabilize the banking system and restore credit flow in the economy. Even so, while the core U.S. and EU money aggregates, such as M1 and M2, have been growing at high rates, banks' outstanding loans and leases have started to shrink. This is partly due to a generally greater reluctance by banks to lend, but it is also due to weak demand.

E. The Banks Have Not Been Restored to Health

A total of \$18 trillion worldwide has been earmarked in the form of guarantees, direct capital injections, and asset purchases in order to restore the financial system. But the banking system remains weak, and this problem has not been addressed. In late November 2009, Dominique Strauss-Kahn, the head of the IMF, said that banks worldwide have so far admitted to just half of the \$3.5 trillion of likely damage, leaving large hidden losses lurking in balance sheets. He sees loan loss recognition as a bigger issue in Europe than in the United States.

Supporting this view, Baroness Shriti Vadera, advisor to the G-20, argued on December 8 (at the *Wall Street Journal's* Future of Finance Initiative conference) that continental European lenders still have to come clean about the magnitude of their bad debts. This came hot on the heels of quite a pessimistic Stability Report issued on November 25 by the German Bundesbank. It told German banks to take advantage of (temporary) renewed confidence in order to prepare for likely losses of up to €90 billion. The Bundesbank

warned that delayed shock waves from the economic crisis threatened both the global recovery and bank finance, pointing out that downside risks remain predominant. The Bundesbank's worry is that a long phase of stagnation and rising job losses in the West could trigger increased loan losses both in industry and in real estate markets. This would create a spiral of negative feedback between the real economy and the financial system.

As we have argued in previous papers, the lesson from Japan's banking crisis of the 1990s is that there cannot be healthy economic growth until the banks have been cleaned up.

F. Governments Do Not Have Unlimited Resources

The borrowing capacity of governments is not unlimited—and any doubt about the financial power of governments could undermine the credibility of guarantees for the banking system. Many governments entered the Great Recession with high debt loads and budget deficits; for example, across the EU, many countries are already in breach of the Maastricht criteria for budget deficits and government indebtedness. So when governments begin seriously to stabilize public finances through reduced spending and increased taxes, they could actually push economies back into recession.

2. Beneath the Surface of Green Shoots

Over the last quarter of 2009, the world economy stabilized and we can see widespread signs of recovery. The uncertain indicators of early summer have turned out to be more encouraging as time has passed. (See Appendix 1.) And this has been reflected in stock market performance worldwide since March. However, the jury is still out as to whether this is indeed a solid recovery—or merely one of the biggest bear-market rallies ever.

It is worth taking a deeper look behind the data.

A. The U.S. Economy

In the third quarter of 2009, the United States' impressive annualized GDP growth of 2.8 percent prompted some observers to announce the end of the recession. And in comparison with the economy's dismal last quarter in 2008, they may well see a similar recovery in the fourth quarter of 2009. But how real is it?

Deconstructing the growth of the U.S. economy reveals a different picture. A staggering 110 percent is the direct and indirect result of government intervention. It is not the result of an improvement in the overall business atmosphere or in domestic and foreign demand. For instance, the production and sales of new motor vehicles alone added 1.5 percentage points to third-quarter 2009 real GDP growth. As motor vehicles contributed only 0.2 percent to GDP growth in the second quarter, it is fair to assume that most of the increase was due to the cash-for-clunkers program running during July and August. As Exhibit 1 shows, third-quarter real GDP growth would have been negative without the government stimulus.

According to the U.S. Bureau of Economic Analysis (BEA), its original 3.5 percent third-quarter GDP growth estimate was later revised down owing to “an upward revision to imports and downward revisions to personal consumption expenditures and to nonresidential fixed investment that were partly offset by an upward revision to exports.”¹ This downward revision reinforces perennial questions about data reliability. For example, BEA estimated year-on-year private-consumption growth of 2.9 percent for the third quarter of 2009, while the Rockefeller Institute published preliminary business sales-tax numbers for the same period showing taxes decreasing by 8.2 percent—signaling a drop in consumption.²

B. The Performance of Banks

The way the banking sector's market values have recovered and banks have been generating profits at precrisis—and in some instances even higher—levels also points to a recovery. But the high profits are

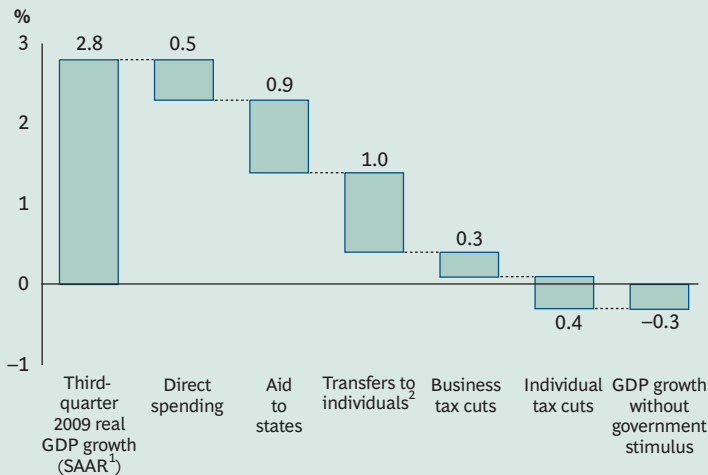
1. BEA, “Gross Domestic Product: Third Quarter 2009 (Second Estimate)/Corporate Profits: Third Quarter 2009 (Preliminary),” National Economic Accounts, November 24, 2009; available at <http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm>.

2. *Ibid.* and Nelson A. Rockefeller Institute of Government, *State Revenue Flash Report*, November 23, 2009; available at http://www.rockinst.org/pdf/government_finance/state_revenue_report/2009-11-23-State_Revenue_Flash.pdf.

Exhibit 1. Without the Government Stimulus, Third-Quarter U.S. GDP Growth Would Have Been Negative

Stimulus spending contributed more than 110 percent of third-quarter 2009 real GDP growth

The stimulus boosted private spending and residential investment



- ◇ Government stimulus contributed 3.1 percentage points to SAAR¹ third-quarter real GDP growth; without the stimulus, GDP would have shrunk
- ◇ The impact of the stimulus was mostly channeled through increased spending on cars and houses

Sources: Recovery.org; Moody's Economy.com; BCG analysis.

Note: To estimate the impact of the stimulus spending, we combined the amount spent with standard empirical economic multipliers.

¹SAAR = seasonally adjusted annual rate.

²Unemployment assistance and food stamps.

partly the result of political intervention. The forced mergers and restructurings reduced competition for the survivors (especially in the area of capital market transactions) and increased fee income. At the same time, central banks' injection of liquidity into the markets lowered financing costs. Borrowing at virtually no cost at a leverage level of 1:20 while investing in government bonds that yield 3 percent represents an attractive return on equity (60 percent). This approach has allowed governments and central banks to support the recapitalizing efforts of the financial sector. But even if the signs of improvement are encouraging, there is more to be done. During the coming months, many banks will raise new equity and further reduce their credit exposure: witness the shrinking volume of loans to the private sector in the United States and Europe (although depressed demand plays a role here, too).

The banks still need to focus on strengthening their balance sheets in order to reduce the pressure to deleverage and be in a position to extend credit to the real economy. Banks generate a high proportion of the total profits in the economy. After a trough in 2008, this share has picked up again, to more than 28 percent, which is above the 1984–2000 average of 23 percent. This share will not be sustainable.

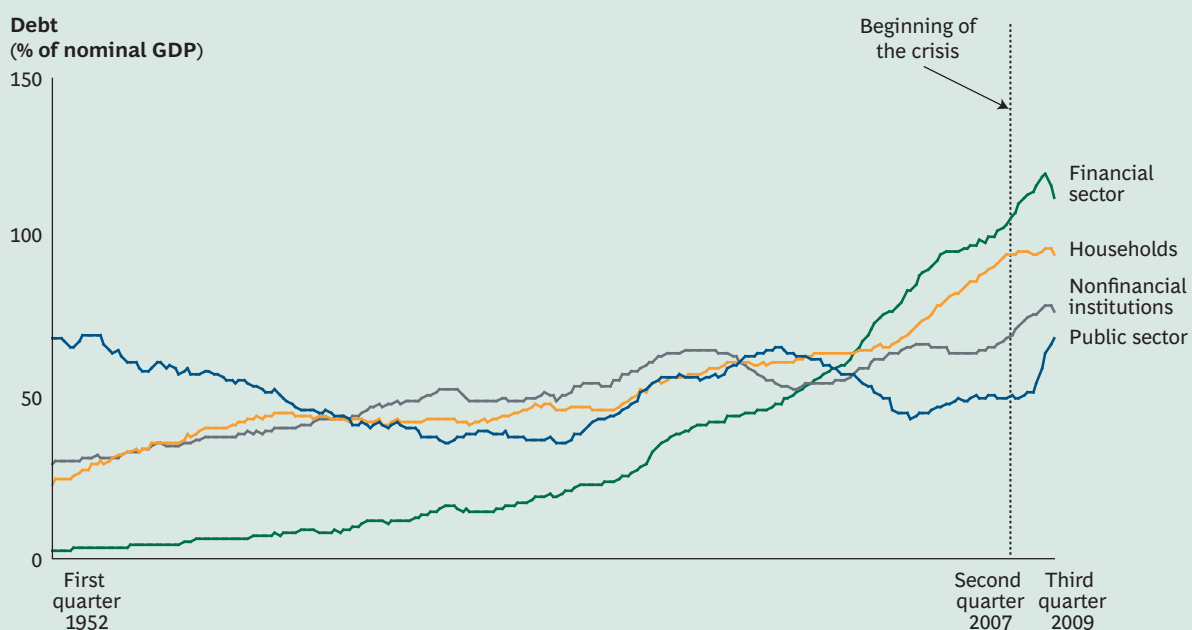
The banking sector is too important to the growth of the real economy to be overregulated—but for the same reason, it cannot be unregulated. The additional regulation much touted by politicians and regulators—from higher capital requirements to limits on the size of banking institutions—will support the trend toward smaller balance sheets, lower profits, and, by implication, less credit extended to the real economy.

C. After the Stimulus

The massive government intervention in the United States comes at a cost. Since the end of the second quarter of 2007, U.S. federal, state, and local government debt has grown from 50 percent to 69 percent of GDP. While consumers and nonfinancial institutions started to deleverage, state and local government debt grew by a seasonally adjusted annual rate (SAAR) of 5.1 percent in the third quarter of 2009, and federal government debt increased by 20.6 percent (SAAR)—the fifth consecutive quarter increase of more than 20 percent. (See Exhibit 2.)

Such an explosion of public debt cannot continue indefinitely. The important role of governments and

Exhibit 2. U.S. Debt Is Higher Now Than in Summer 2007



Sources: Federal Reserve Board; Bureau of Economic Analysis.

central banks in the stabilization of the real economy and the banking sector poses a fundamental question: What happens when their stimulus programs come to an end?

In 1937, the decision to reduce the stimulus packages was one reason why the U.S. economy dropped back into recession. Governments around the globe are fully aware of this and will try to delay the moment when they reduce their stimulus programs. Likewise, central banks, while acknowledging the need to reduce liquidity injections in order to keep inflation under control, are choosing to stay their hands. After all, if the central banks put the brakes on liquidity too quickly, interest rates will rise and, combined with the consequent reduction in credit, slow down the recovery.

But in the end, governments and central banks will have to bite the bullet and reduce their stimulus programs. The financial markets are starting to question the sustainability of government debt levels and to fear an increase in inflation. Both will lead to an increase in interest rates. The markets will require a premium on government debt if doubts rise about the ability and willingness of governments to restore fiscal health. Increased inflationary expectations have a similar effect. So governments and central banks are facing a daunting challenge: to proactively reduce the stimulus efforts and accept higher interest rates, or see a probably much stronger increase in interest rates as a result of their efforts to continue the stimulus programs. And any increase in interest rates could send the economy back into recession.

3. Heading Toward a Two-Speed World

So what kind of growth can we expect? In its last *World Economic Outlook* report, the IMF extended its analysis of the short-term development of recessions in advanced economies to the medium-term implications of 88 financial crises in developed, emerging, and developing countries.³ The picture it draws is pretty gloomy. Seven years after a crisis, economies tend to have a significant *output gap*—that is, a

3. IMF, *World Economic Outlook: Crisis and Recovery*, October 2009.

deviation of actual output from the extrapolated precrisis trend growth. On average, this gap is –10 percent.⁴

Building on the empirical data of the IMF, we have developed a simplified model to project growth rates until 2015. (See Appendix 2 for details on the methodology used.) The results confirm the expectation of overall lower growth over the coming years, with significant regional differences. (See Exhibit 3.) Our model projects that China, India, and Brazil will soon approach their original trend-growth paths. By contrast, Europe, the United States, Japan, and Russia may see structurally subdued growth for some years. The surge in GDP in 2010, which is consistent with most forecasts, is mainly the result of ongoing stimulus programs, the rebuilding of depleted industries, and—particularly in the case of Brazil—a surge in (commodity) export demand. As stimulus and catch-up effects taper off, we expect generally more subdued growth in the medium term.

Of course, the world economy will not develop exactly as projected by the model. There is the risk of additional external shocks and the likelihood that politicians in Western economies will not accept sluggish growth and rising unemployment as the price for letting China supply the world with goods at an artificially low exchange rate. Either we will see greater willingness to address trade imbalances or we will see lower growth rates spreading to all regions as more governments turn to intervention and protectionism.

We turn now to a brief summary of the results of our simulation.

Our model projects growth rates of less than 2 percent per annum for the United States, Europe, and Japan—although in 2010, the United States will enjoy growth of 2.3 percent on the back of the need to restock inventories and the continuing government-sponsored stimulus. The output gaps highlighted by our simulation (described below) may seem frighteningly high, but our perspective is shared by some reputable forecasters. Deutsche Bank, for example, using a different methodology, forecasts an output gap

4. The dispersion of postcrisis output gaps is very high. For example, the middle 50 percent of observations show output gaps ranging from –26 percent to 6 percent. It is perhaps best to rely on standard econometrics and take the estimated mean path, which indicates an average –10 percent output gap seven years after a crisis.

Exhibit 3. Our Analysis Suggests Significant Regional Differences in GDP Growth in the Coming Years

Brazil, India, and China Will Recover Swiftly, While Russia and the Developed Economies Will Have Sizable Output Gaps

Real GDP growth per annum (%)	Average pre-crisis trend									Output gap (%)
		2009	2010	2011	2012	2013	2014	2015		
Euro zone	1.9	–3.8	1.1	0.8	1.0	1.1	1.2	1.3	–10.4	Cushioned by positive output gap in 2008
France	1.8	–2.1	1.3	0.6	1.0	1.2	1.2	1.2	–8.7	
Germany	1.6	–4.9	1.5	0.5	0.7	0.6	0.9	1.1	–11.7	
Italy	1.6	–4.8	0.9	0.8	0.6	0.7	0.7	0.6	–13.9	
United Kingdom	2.6	–4.3	1.2	0.9	0.8	0.8	1.1	1.2	–16.7	
United States	2.6	–2.5	2.3	0.6	1.1	1.2	1.6	1.8	–12.8	
Japan	1.6	–5.7	1.2	0.3	0.3	0.3	0.3	0.4	–15.7	
Brazil	3.3	–0.2	3.9	3.5	3.5	3.2	3.2	3.0	1.3	
Russia	6.6	–7.8	3.0	2.3	2.9	2.7	2.9	3.0	–29.7	
India	7.3	5.8	6.3	7.2	7.1	6.9	6.6	6.3	–2.5	
China	9.5	8.4	9.4	8.4	8.4	8.1	8.1	7.1	–4.3	

Sources: Economist Intelligence Unit; Bloomberg; IMF; BCG analysis.

Note: For 2009 and 2010, we used the mean forecasts of a wide sample of institutions; for 2011 through 2015, we used our own forecasts based on the IMF's analysis of medium-term output dynamics following financial crises. The trend is calculated as a various-length OLS regression spanning at least ten years before the crisis; output gap is postcrisis GDP as a percentage of GDP calculated as an extrapolation of precrisis trend growth.

in the United States of –11 percent in 2015—compared with our simulation of –13 percent.

A. The BRIC Markets

In contrast to the developed economies, we expect the emerging markets (with the exception of Russia) to return to their trend-growth levels.

Brazil. South America's largest economy is highly dependent on the development of the commodity markets and, by extension, on economic development in China. Between 2000 and 2008, the share of commodities and fuel in Brazil's total exports increased from 39 percent to 53 percent. At the same time, the correlation of its GDP per capita growth with China's shot up from 0.32 in the period 1991–2000 to 0.62 in 1999–2008.⁵ With our simulation projecting Chinese economic growth at more than 8 percent, it is plausible for Brazil to grow at a rate close to its precrisis trend of 3.3 percent.

Brazil's successful move to inflation targeting has resulted in consistent single-digit inflation since the late 1990s. Before the crisis hit, it was the only Latin American economy that kept within its inflation target. Throughout the crisis, Brazil's inflation never moved far from its 4.5 percent target, peaking at 6.4 percent. Inflation has now returned to the target range. Brazil's flexible exchange-rate regime, as well as the credibility of its central bank, helped the country to weather the crisis with only small public deficits. For 2009, the deficit is estimated to be 3.2 percent—and it is predicted to fall further in the years to come.

Any downside risk lies in the country's dependence on Chinese commodity demand and on exports to the United States and the euro zone (which account for 38 percent of exports). Should these encounter slower growth down the road, as our model suggests, Brazil's recovery may prove to be a bit weaker.

Russia. Our low 2 to 3 percent annual growth expectation for Russia is clearly below the 6.6 percent precrisis trend and will result in a massive 2015 output gap of –30 percent. This might come as a surprise to many. It will be driven by structurally subdued domestic consumption, which, in turn, will be fueled by high and rising unemployment, unfavorable demographics, and depressed disposable income. Russia's GDP growth correlation with China's is much lower than Brazil's.

Inflation, already in the double digits before the crisis, picked up during the crisis. This forced a \$200 billion state intervention in the foreign-exchange markets in order to stem an uncontrolled depreciation of the ruble. All this points to the possibility that Russia could suffer a period of stagflation. The hyperinflation of 1998 and 1999 and the subsequent period of double-digit price growth mean that the Central Bank of the Russian Federation does not have a reputation for holding a resolute anti-inflationary stance. If we combine expectations of high inflation in Russia with the major exogenous shock of the global recession, we get a situation reminiscent of the oil shocks of the 1970s.

India. With growth for India estimated at 6 to 7 percent, our simulation suggests that the subcontinent will have a small 2015 output gap of –2.5 percent. This high growth reflects continuing improvements in infrastructure, education, and the standard of living. Even during the crisis, unemployment in India did not increase. After a short-lived dip, real wages are set to recover, supporting domestic consumption. A young and growing population and an average savings rate of 26 percent provide significant leeway for additional consumption growth.

Many of India's banks are owned by the state, are conservatively managed, and maintain prudent risk practices. The combination of public ownership, prudence, and high deposit-to-loan ratios gave India the political and fiscal means to supply credit during the crisis. This translated into a swift recovery in lending conditions. The downside for India lies mainly in its high budget deficits, estimated at 8 percent for 2009, combined with already high inflation. This can be kept in check, though, if the Reserve Bank of India, the country's central bank, sticks to its intention to raise interest rates in 2010 and if the phasing out of the stimulus is timed correctly.

China: Too Good to Believe? Our simulation predicts that China could approach its precrisis growth trend of more than 9 percent per year. China protected its growth by means of a stimulus package of

5. IMF, *World Economic Outlook: Crisis and Recovery*, October 2009.

nearly \$600 billion (equal to 15 percent of 2008 GDP) and monetary easing (which resulted in M2 growing by 31.1 percent and private credit by 24 percent in the first half of 2009). After a rocky start to 2009, China's GDP growth was ultimately only slightly hit by the crisis as the massive fiscal stimulus took hold: 2009 GDP growth is estimated at 8.4 percent, and the forecasts look good for 2010 (8.7 percent, according to the Economist Intelligence Unit; 9.4 percent, according to the consensus view we use in our model; and 10.2 percent, according to the Organisation for Economic Co-operation and Development [OECD]). All this in spite of a 9 percent drop in exports in 2009. Although there are some doubts about the reliability of the Chinese data, the country has clearly dealt successfully with the challenges. It looks well positioned to reach the healthy growth rates of the past—but it is not yet in a position to pull the world economy along with it.

Some risks do remain:

- ◇ If Western economies develop in line with forecasts based on the IMF study, we see a significant risk of protectionist measures. It will be hard to explain to Western electorates that measures to stabilize the economy will benefit Chinese exporters rather than the unemployed at home. Any ensuing protectionism could well be to China's detriment.
- ◇ So far, China has not shown a willingness to contribute to a rebalancing of global trade flows. Most of the Chinese stimulus effort is directed at improving infrastructure and strengthening export industries. This has already led to criticism by the European Union Chamber of Commerce in China, which stated that "the government's massive stimulus measures to revive the economy have exacerbated the already serious problem of manufacturing overcapacity" and warned of more dumping cases.⁶ The recent spats between the United States and China over tires and tubular steel are evidence of this problem.
- ◇ China's reluctance to allow a revaluation of the yuan relative to the U.S. dollar is another indicator that China will not support world growth at the expense of its own economic development. But even if the yuan remains fixed, Chinese exports will still suffer from their dependence on U.S. demand—in 2008, the United States was the destination for 24 percent of Chinese exports. The combination of an artificially low currency and a stimulus program that supports export industries means that China is effectively creating a labor arbitrage versus the rest of the world.
- ◇ A few observers even fear that China could become "the next Japan," pointing to the risks of bubbles in the stock and real estate markets.⁷ Indeed, there are some parallels between Japan in the 1980s and China today. First, nearly everyone today believes in the impending economic supremacy of China (just as everyone believed in Japan's 30 years ago). Second, just as the Japanese population grew very slowly in the 1980s and recently started shrinking, the Chinese population is currently growing at only 0.4 percent per annum and might start to shrink in roughly ten years' time. Finally, both China and Japan built their economies on exports, unusually high savings, and investments—risking trade tensions with other countries.
- ◇ There has been a strong rally in the Chinese stock market and some signs of overheating in the real estate market (Beijing land-lease prices have doubled in the last year).⁸ Some observers, pointing to empty office blocks and residential developments, argue that China already has asset bubbles that endanger not only its own economic development but also the recovery of the world economy. In keeping with this picture, the Chinese central bank is warning of a wave of credit losses and is requiring banks to significantly recapitalize.⁹

6. Geoff Dyer, "China Warned on Threat of Trade Backlash," *Financial Times*, November 27, 2009.

7. Société Générale Group, "Popular Delusions: The lessons from Japan? China will be the biggest bubble the world has seen," September 15, 2009.

8. OECD, *Economic Outlook*, No. 86, Vol. 2009/2, preliminary ed., November 2009.

9. China Banking Regulatory Commission, "The CBRC issued three specific requirements for prudential credit risk management by commercial banks till year-end," no date; available at <http://www.cbrc.gov.cn/english/home/jsp/docView.jsp?docID=20091126745230A8D7DA0195FF6466B4E5F47000>.

- ◇ It is not always easy to interpret Chinese data on industrial production and commodity flows. The October drop in imports of commodities and data suggesting overcapacity in both steel and cement suggest that China has been both stockpiling commodities and overproducing to keep employment up. The former strategy may have been intended to take advantage of relatively favorable prices over the last few months; the latter may be an indication of the economic stimulus at work. Either way, the data imply a lower underlying level of economic activity.

B. The Commodities Conundrum

Like stocks, commodities have significantly recovered from the lows of February 2009. The Rogers International Commodity Index (RICI) had increased 40 percent by December 10, with the S&P GSCI Commodity Index growing 59 percent. As of December 10, the RICI stood at 53 percent of its peak value in 2008, while the GSCI was at 55 percent.

Today's rising prices of many commodities are difficult to explain in light of a shrinking world economy and underutilized capacity. Three drivers lie behind this rally:

- ◇ China is the world's biggest consumer of many commodities, and the successful effort of the Chinese authorities to stimulate the economy has contributed significantly to increased demand. Production increased by 79 percent year-over-year to October 2009. But demand from China seems to have reached a peak owing to increased domestic production of raw materials (for example, copper and steel) and increased inventories. According to Capital Economics, China's commodity imports fell sharply in October, "reinforcing our scepticism about the current strength of commodity prices."¹⁰
- ◇ Given the weakness of the dollar and the risk of further devaluation, China and other countries with export surpluses are said to be building up raw-material reserves in order to hedge. And some exporting countries, such as oil exporters in the Middle East, aim to generate a stable income in terms of global purchasing power by increasing prices in the face of a weak dollar.
- ◇ The massive liquidity injection by central banks also flowed into commodities on the back of speculation. As much as 75 percent of the 4.5-million-ton surplus stock in aluminum residing at the London Metal Exchange is driven by speculative demand. Several million tons of metals are unaccounted for, and some argue that they are stockpiled for speculative purposes in cheap, largely Russian warehouses.¹¹ Nouriel Roubini (the famously bearish New York economist) explains the current rally in nearly all asset classes by pointing to cheap U.S. dollar credit, arguing that the realistic price for oil is \$50 per barrel given the state of the world economy.¹² Many argue that the current situation is hugely speculative and is leading to the risk of another bubble that would put the economic recovery at risk were it to burst.

It is impossible to define the "right" level for commodity prices. Nevertheless, should the forecasts be correct, it is safe to assume that China will continue to absorb a large amount of global commodity production, benefiting commodity exporters like Brazil and Australia. Any further downward movement of the dollar is likely to put further upward pressure on commodities, since most commodity trades are quoted in dollars and holders of dollar-denominated debt would seek to diversify their risks.

Those who see rising commodity prices as a good sign for the development of the world economy should be wary. Besides creating inflationary pressure—and with it the risk of rising interest rates—higher commodity prices are bad news for consumers and businesses. Higher prices will feel like a tax on consumers. Moreover, businesses will be constrained in their ability to use the pricing lever: given overcapacity and sluggish demand, companies may not be able to pass on higher raw-material costs to customers. This could result in more pressure to achieve cost savings in other areas—which, in turn, would reduce the growth of the world economy.

10. Capital Economics, "China Economics Update," November 26, 2009.

11. Hugh Hendry, "Fund Manager Commentary," The Eclectica Fund, November 2009.

12. "Nouriel Roubini: Big Crash Coming," IndexUniverse, October 23, 2009; available at <http://www.indexuniverse.com/sections/features/6777-nouriel-roubini-big-crash-coming.html>.

4. Preparing for a Two-Speed World

Much of the developing world may have dodged the economic bullet—at least for now. But much of the developed world has entered a period of slow growth—sometimes called the “new normal.”¹³ Skeptics may question the need to prepare their companies for this new regime. But although it may seem counterintuitive, the difference between competing in an economy that is growing at a rate of, say, 1.8 percent, as opposed to 3.6 percent before the crisis, is very profound. And the consequences of not preparing—if the skeptics are wrong—are too serious to risk.

Over much of the last 20 years, it was possible to be successful simply by riding market growth. For many companies, future prosperity will require gaining share in the face of significantly increased competition, triggered by slow growth—a challenge that many executives will not have faced hitherto. For other companies, success will come because their business models allow them to share in the prosperity of the growth havens in the two-speed world.

Either way, good strategies will stand out, and poor ones will result in a weakened business model, leading to a possibly irrecoverable loss of competitive position. Empirical evidence from past recessions shows that companies that outperform during a downturn tend to accelerate ahead of their competitors during the recovery. And outperformance is necessary if a company is to offer talented people an opportunity for personal development.

As we say in our book, managing a company successfully in this new era will depend on whether executives are willing to challenge their existing managerial mindset. The remainder of this paper provides a very brief overview of just a few of the ideas discussed in the final chapter of *Accelerating Out of the Great Recession: How to Win in a Slow-Growth Economy*.

A. Mobilizing for Growth

The increased pressure that comes with constrained economic growth reinforces defensive tendencies. It promotes a tendency to explain why growth is hard to achieve rather than an attitude of actively seeking growth and a disproportionate share of the market.

The crisis mode reinforces normal obstacles to growth. A risk-averse culture increases in parallel with the increasing cost of individual failure; decision making slows down as managers seek extra reassurance before taking action, and leaders become more reluctant to empower their management teams.

In the face of such uncertainty, it becomes harder to build clarity about direction and focus—and there is a bias toward the short term. So investment programs are often the first to get cut back.

Strong leadership—creating a climate in which the risk of failure does not overwhelm real opportunities—obviously helps. Even when funds are short, it is important to allow experiments and pilot projects to flourish. Every dollar invested has even more impact as the competition scales back. Success needs to be celebrated, and even heroic failure needs appropriate rewarding.

Mobilizing for growth requires investment. It requires challenging conventional wisdom. How well does the company understand the potential of new markets for existing products? Have the recession and the company's response to its aftermath created new compromises for customers? And which elements of the business economics can be fundamentally challenged in order to change the competitive rules of the game?

B. Rethinking Globalization

The liberalization or rapid development of many economies drove buoyant global growth. Although we expect increased protectionism, the trend toward global integration will not be reversed. But it might slow down, and it will change. Already countries previously seen only as sources of cheap labor are themselves emerging as markets—with plenty of consumers. The emergence of a two-speed world reinforces the urgency of fresh thinking.

13. See *Collateral Damage, Part 5: Confronting the New Realities of a World in Crisis*, BCG White Paper, March 2009.

Rapidly developing economies are host to a new generation of competitors—the so-called global challengers. These companies are emerging stronger from the crisis. They have the advantage of being based in comparatively fast-growing markets with relatively undamaged economies. Building on their cost advantage and growing technological competence, they will increase the competitive pressure on established companies.

In the October 2009 issue of *Harvard Business Review*, Jeff Immelt and others discuss GE's focus on *reverse innovation*—innovation that is led by GE units located in emerging markets and is then disseminated to other markets.¹⁴ This differs from the old globalization model, whereby innovation is driven by companies in developed markets and is then distributed worldwide.

The old globalization model belongs to an era when developing countries didn't offer much, either as innovators or as consumers. The authors also say that the centralized, scale-driven, product-focused structures and practices that underpin globalization get in the way of reverse innovation; the new approach requires that resources be based and managed in the local market. Local teams decide which products to develop for their markets (because they understand them best), drawing on the global company's resources as necessary.

In short, long-standing prejudices about business models should be jettisoned, and a flexible mindset should be developed that can devise quick responses to the challenges of rapidly transforming global markets.

C. Honing Political Skills

One of the new realities of doing business in the aftermath of the Great Recession is the heightened involvement of governments in day-to-day business affairs. So executives will have to think more carefully about how to deal with politicians. Governments not only will intervene in trade and regulation, they will also represent a big and growing part of the economy. In some industries—such as infrastructure, health care, and energy—good government relations have always been critical. But this will intensify and spread to other sectors, requiring more executives to put more emphasis on government relations in order to influence both regulation and the scope of future stimulus programs.

D. Revisiting the Social Contract

Workers and unions may regain some of their lost influence. The threat of globalizing production helped companies to reduce unions' power and put pressure on wages and working conditions. Rising protectionist tendencies may now push this trend into reverse. If so, the pressure on companies to redefine the social contract with workers may grow.

During the Great Depression, some companies developed imaginative approaches to job protection, mobility, skills preservation, and loyalty building. Today, new approaches to risk sharing and workforce relations could become a decisive source of competitive advantage, as more people leave the workforce (through retirement) than join it in much of the developed world.

Making bold moves gives employees a rallying cry. If employees believe that management has guts, perseverance, skill, and the right plan, they will be willing to hang in.

E. Challenging the Shareholder Value Mantra

If, as we expect, politicians and workers grow in influence, this will cause executives to reassess managing for shareholder value. They will need to find a better balance among shareholders, customers, and employees. Even Jack Welch, former chairman and CEO of GE and historically a proponent of managing for shareholder value, told the *Financial Times* that “on the face of it, shareholder value is the dumbest idea in the world.”¹⁵

If Welch's view becomes more prevalent, it would underline a relative loss of influence by investors. Such a view would signify a broader shift in management priorities away from the tyranny of a short-term

14. Jeffrey R. Immelt, *et al.*, “How GE Is Disrupting Itself,” *Harvard Business Review*, October 2009.

15. Francesco Guerrera, “Welch Denounces Corporate Obsessions,” *Financial Times*, March 13, 2009.

orientation geared toward quarterly results in favor of a medium- to long-term focus. And as experience shows, this is how true and lasting advantage is developed and value is created—even for shareholders.

F. Redesigning Compensation Systems

In a politically combustible climate, figuring out how to retain and reward talent is not easy. Politicians, economists, and a dissatisfied public have blamed bonus systems for encouraging extreme risk taking. This may be simplistic; nevertheless, the level and basis of bonus payments are likely to come under far more scrutiny. Given that a slow-growth environment may well lead to lower equity returns, stock options could lose some of their appeal. Compensation systems need to do the following:¹⁶

1. *Emphasize the long term.* Investors (and politicians) want managers to focus on creating sustainable long-term value, not just beating this year's plan. Incentive compensation plans should have a bias toward the long term (with longer vesting periods, multiyear performance targets, and clawbacks, for example).
2. *Reward relative performance.* Equity-based incentive compensation, such as stock options and restricted stock grants, should reward executives when the company outperforms its peers, not just when it rises with the stock market.
3. *Measure performance that executives can influence directly.* Overall company performance may be an appropriate metric for top executives. But in general, business-unit executives should be evaluated according to financial and operational performance metrics relevant to their individual businesses.
4. *Focus on value creation, not just earnings or the profit-and-loss statement.* Take into account how executives use the capital entrusted to them. This means holding executives accountable for the size and sustainability of the cash flows they generate after reinvestment and for the capital bets they make.
5. *Minimize the asymmetries of risk.* For executives truly to act like owners, they should experience the same risks that normal investors do. An effective incentive system will ensure that they suffer from any potential downside.

G. Redefining Corporate Governance

The failure of large parts of the banking system was due, to a significant degree, to serious failures in risk management, control, executive oversight, and independent scrutiny. Some banks have strengthened their boards, replacing worthy—but not financially proficient—nonexecutive directors with seasoned former bankers.

The logic is clear. The most senior overseer of a bank (the board) needs to be fully familiar with the technical workings of the business in order to be able to assess the risks that management is taking.

This approach to corporate governance can be applied beyond the financial services sector. Boards should become much more familiar with the strategies of their enterprises—and particularly with the risks being undertaken. Management will find it increasingly difficult to bluff the board if the directors are well versed in the business.

There is no single board model; boards need to reflect the companies they are governing. In general, though, boards (and board committees) need to address explicitly the complex issues of their structures, the representation of necessary skills and industry knowledge, and their relationship with management.

H. A Different Perspective on Ethics

The financial crisis—and the resulting Great Recession—have precipitated extensive debate about ethics in the world of business. Some of this debate is a thinly veiled attack on Anglo-Saxon market-based capitalism. For such critics, the crisis was proof that free-market capitalism had failed.

But apart from the political rhetoric, the debate about what constitutes fair capitalist behavior is a serious

16. See *Fixing What's Wrong with Executive Compensation*, BCG White Paper, June 2009.

one. Although most business leaders did, of course, adhere to strict ethical principles, there is pressure to redefine good and bad behavior—and, by inference, what is ethical. And while the G-20 certainly find it convenient to deflect all blame for economic mismanagement onto the unconstrained behavior of the business system, they are also reflecting significant public anger and a widespread desire to rein in the excesses of some parts of the business community.

While it is too early to say how far the rhetoric will translate into a decisive break from the past, it is unlikely to be business as usual.

I. Leadership

What are the secrets of leaders who responded effectively to past crises? There are several, but none should be surprising.¹⁷

1. *Walk the floor.* Successful business leaders in the Great Depression put significant emphasis on being visible. In tough times, all employees are hungry for information and leadership.
2. *Set clear expectations.* Employees respond more positively if what is expected of them is well defined. Leaders need to establish the measures of success, providing clarity about priorities.
3. *Mobilize the extended leadership team.* The broader management team provides complementary skills and multiplies the brainpower available. Middle managers are often longer serving and are generally closer to rank-and-file employees than more senior leaders.
4. *Keep it real.* Leaders should be prepared to openly share what the new realities mean for them personally. This requires a willingness to let down their guard.
5. *Drive results.* Review the facts, debate, but then take a clear position. This is a timeless feature of great leadership. Initiatives need clearly established milestones and metrics—and unambiguous ownership. Leaders need to track progress rigorously, intervening when necessary. They need to celebrate success, recognizing the contributions of individual team members.
6. *Invest in affiliation and retention.* Slow growth means fewer opportunities to create a satisfying career path. So it is important to actively manage the attrition of lower-performing employees to create career opportunities for the most talented. Job sharing, sabbaticals, part-time work, and other measures can help to retain skills.

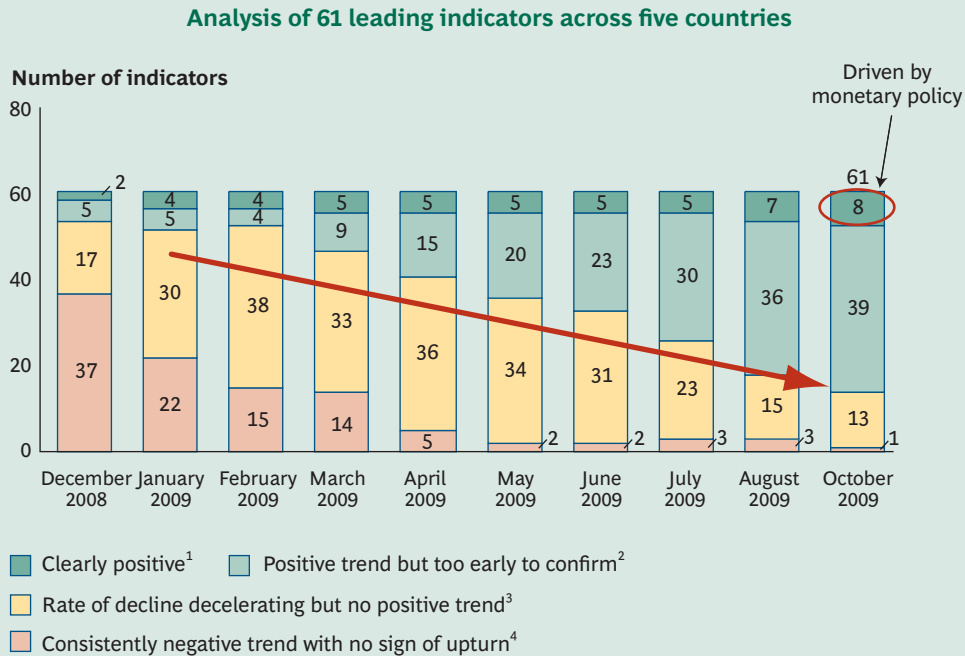
5. Taking Advantage of 2010

The coming year may turn out to be one of relative calm. Economies will bounce back from the deepest drop since the Second World War. But as we have described, major risks remain. Companies and executives should use a better environment that may prove to be only temporary to prepare themselves and their organizations for the bumpy road ahead.

17. *Collateral Damage: Function Focus—Leaders Have Made the Quick Cuts—Now What?* BCG White Paper, May 2009.

6. Appendix 1: Economic Indicators

Most Indicators Have Now Turned Positive



Sources: Thomson Reuters Datastream; BCG analysis.

Note: Based on data available as of November 20, 2009.

¹Indicator has recovered to last year's level.

²Indicator has had positive month-on-month growth for the last three months, and there is a high probability of its having bottomed out.

³No consistent trend in the last three months.

⁴Indicator has had negative month-on-month growth for the last three months.

There Are Signs of Recovery

	Group 1 Clearly positive ¹	Group 2 Positive trend but too early to confirm ²	Group 3 Rate of decline decelerating but no positive trend ³	Group 4 Consistently negative trend with no sign of upturn ⁴
United States	<ul style="list-style-type: none"> ◇ Spread between long and short interest rates ◇ Index of vendor performance (speed of delivery) ◇ Index of new orders (manufacturing survey) ◇ Manufacturing PMI 	<ul style="list-style-type: none"> ◇ Money supply (M2) ◇ S&P 500 stock market index ◇ Nominal auto sales ◇ Average weekly hours in manufacturing ◇ New home sales ◇ Consumer confidence index ◇ Net new orders for durable goods ◇ Nominal retail sales ◇ New building permits (residential) 	<ul style="list-style-type: none"> ◇ Inventories-to-sales ratio ◇ Dwellings started 	
Germany	<ul style="list-style-type: none"> ◇ Spread between long and short interest rates 	<ul style="list-style-type: none"> ◇ Consumer confidence index ◇ DAX stock market index ◇ Business climate index ◇ Orders inflow index (manufacturing survey) ◇ Export order books index (manufacturing survey) ◇ New orders (manufacturing) ◇ Finished goods stocks index (manufacturing survey) ◇ Money supply (M2) 	<ul style="list-style-type: none"> ◇ Retail sales ◇ New orders for residential construction ◇ New car registrations 	
Japan	<ul style="list-style-type: none"> ◇ New car registrations 	<ul style="list-style-type: none"> ◇ Money supply (M2) ◇ Consumer confidence index ◇ Inventories-to-shipment ratio ◇ Hours worked overtime in manufacturing ◇ Retail sales 	<ul style="list-style-type: none"> ◇ Ratio of imports to exports ◇ Index of sales tendency (small-business survey) ◇ Spread between long and short interest rates ◇ TOPIX stock market index 	<ul style="list-style-type: none"> ◇ Dwellings started
France	<ul style="list-style-type: none"> ◇ Spread between long and short interest rates 	<ul style="list-style-type: none"> ◇ Money supply (M2) ◇ Consumer confidence index ◇ SBF 250 stock market index ◇ Future expectation of own production (manufacturing) ◇ Future expectation of overall industrial production ◇ Index of finished goods inventories (manufacturing survey) ◇ Retail sales ◇ Dwellings authorized 	<ul style="list-style-type: none"> ◇ Index of order book level (manufacturing survey) ◇ New car registrations 	
United Kingdom	<ul style="list-style-type: none"> ◇ Spread between long and short interest rates 	<ul style="list-style-type: none"> ◇ Consumer confidence index ◇ Mortgage approvals for house purchases ◇ FTSE-A (nonfinancial index) ◇ Business climate indicator ◇ Money supply (M2) ◇ Future output expectation (manufacturing) ◇ Finished goods (past 4 months) ◇ Retail sales ◇ Index of order book level (manufacturing survey) 	<ul style="list-style-type: none"> ◇ Unemployment benefits claimant count ◇ New car registrations 	
Number of Indicators	8	39	13	1

Sources: Thomson Reuters Datastream; BCG analysis.

Note: Stock indices are placed in group 2 if they show positive growth for six weeks. Based on data available as of September 25, 2009.

¹Indicator has recovered to last year's level.

²Indicator has had positive month-on-month growth for the last three months, and there is a high probability of its having bottomed out.

³No consistent trend in the last three months.

⁴Indicator has had negative month-on-month growth for the last three months.

7. Appendix 2: GDP Growth Model Methodology

We developed a three-part approach to forecasting GDP growth for ten major global economies and the euro zone.

1. Consensus of Short-Term GDP Growth Forecasts for 2009 and 2010

Given the plethora of existing short-term forecasts, we used the mean of a wide sample of these forecasts, selected on the basis of the reliability of the forecasting institutions, to predict 2009 and 2010 growth. For instance, for the United States, we used the mean forecast of 59 institutions.

2. Medium-Term Simulation Using the Solow Growth Model for 2011 to 2015

We determined medium-term GDP growth by using the standard Solow growth model with a Cobb-Douglas production function, a widely used approach that is employed by the OECD and Goldman Sachs, among others.

Thus, we modeled GDP, Y , as depending on total factor productivity, A ; capital, K ; and the labor force, L :

$$Y = AK^\alpha L^{1-\alpha}$$

We estimated GDP growth by log-linearizing this equation and using historical averages of parameters α , the income share accruing to capital, and the depreciation rate. For the growth of productivity, capital, and labor, we employed consensus forecasts.

We tested the robustness of the model by comparing how it would have fared historically with actual GDP growth. The results were very encouraging, with the deviation from actual GDP generally smaller than 1 percent per annum.

3. IMF Study on Output Gaps Following Historic Banking Crises

We particularly wanted to examine the effect of the Great Recession on GDP and therefore applied to our Solow forecasts the IMF's empirical results on the responses to 88 historical banking crises.¹⁸ Thus, we determined the medium-term 2015 output gap (2015 GDP as a percentage of the extrapolated precrisis trend) resulting from three major postcrisis variables that the IMF found to be historically highly significant:¹⁹

- ◇ *Crisis severity measured by the first-year output-growth loss after the crisis.* A very severe crisis would cause disinvestments, fire sales, and layoffs and thus would be propagated significantly in the medium term and would strongly raise the 2015 output gap.
- ◇ *Fiscal stimulus measured by the change in government consumption three years after the onset of the crisis compared with the precrisis level.* We used government consumption as a proxy for the stimulus because it neglects mostly output-neutral redistribution payments. The stimulus cushions the crisis and hence decreases the medium-term output gap.
- ◇ *Trade rebalancing measured by the appreciation of the real exchange rate three years after the crisis compared with the precrisis level.* A higher real exchange rate depresses GDP and increases the output gap as it raises demand for imports, while foreign demand for exports decreases.

To establish the 2015 output gap, we determined the precrisis GDP trend per country using an OLS regression of log-GDP over a time horizon of 10 to 15 years before the crisis, depending on country-specific factors. For instance, for Brazil or Russia, which experienced major crises in 1997 and 1998, we calculated the trend starting in 1999 to remove crisis effects.

18. IMF, *World Economic Outlook: Crisis and Recovery*, October 2009.

19. We used the results that were significant in the IMF's multifactor OLS regression with 11 input variables. Apart from the three variables that we used, the IMF also found that a changing financial liberalization and government efficiency index were weakly significant. We did not use the former because of potential measurement error bias and discarded the latter because it becomes only slightly significant after the sample size is reduced.

The results of the model, presented in Exhibit 3, show a sluggish recovery and sizable 2015 output gaps for Russia and the developed countries in our sample.²⁰

20. Studies using different methodologies obtain different results. For example, Stephen G. Cecchetti *et al.*, in “Financial Crises and Economic Activity” (2009), include transitional economies in their sample and find that the dispersion between historical crises and the current crisis is too large, and hence one must not infer from historical crises how the current one will develop. Yet in the IMF study, transitional economies are excluded to increase comparability. Besides, as we have argued in this series, the current crisis is, if anything, worse than any crisis since the Second World War and hence it is in fact conservative to apply historical averages. In its November 2009 *Economic Outlook*, the OECD argues that the average 2011 output gap for OECD countries will be 3.1 percent. Yet the organization uses a different measure to determine the output gap by calculating the difference between potential and actual output. Potential output growth can thus decrease from year to year, resulting in a lower output gap. This is not the case when extrapolating the precrisis GDP trend. Besides, in our view, the calculation of the GDP trend is laden with a lot of heroic assumptions and has a large margin of error. (Details on these errors can be found in *Financial Times*, “Output Gaps,” Lex Column, November 23, 2009.)

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