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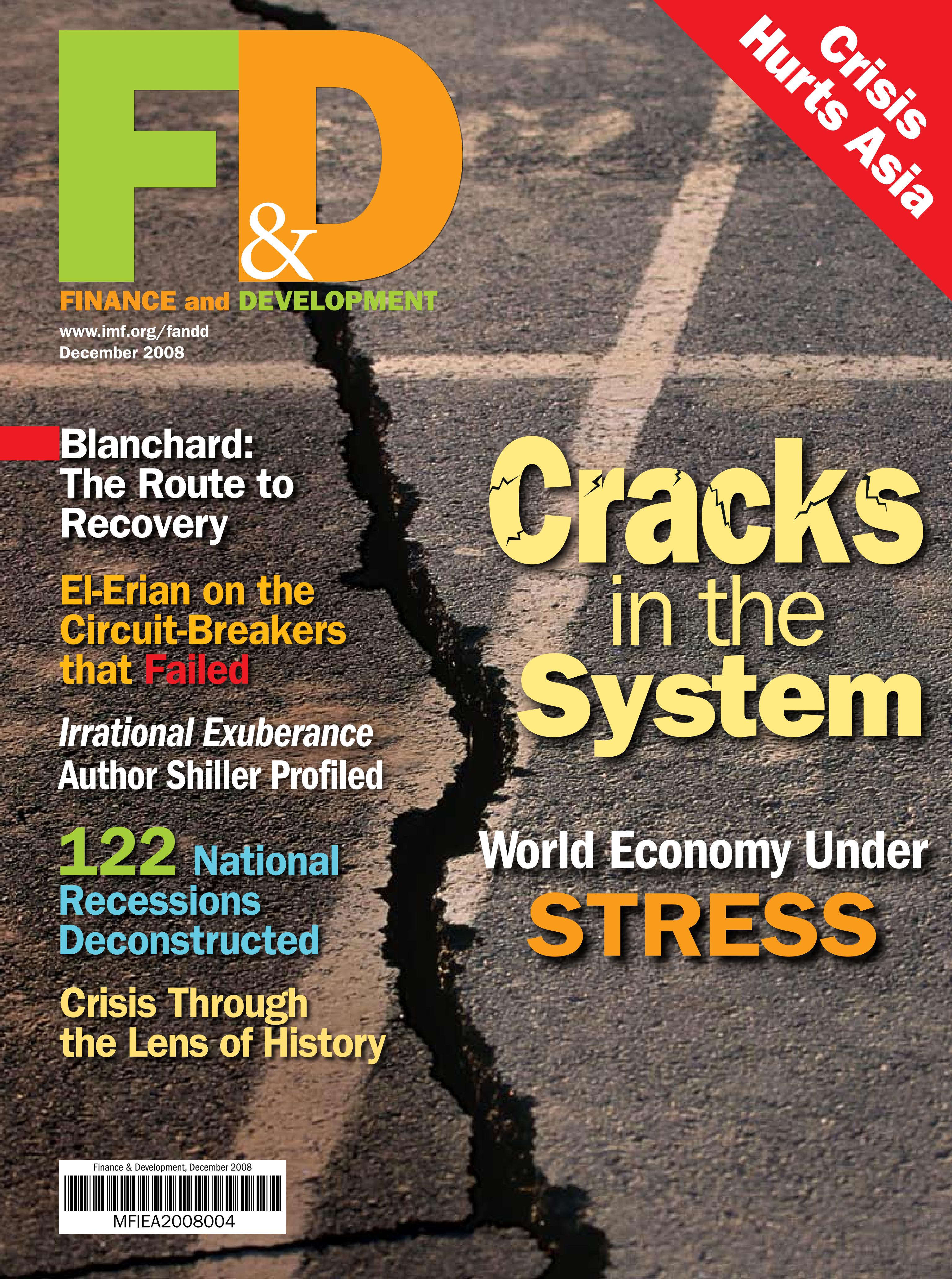

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Cracks in the System

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Crisis Through the Lens of History

Finance & Development, December 2008
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700 Nineteenth Street, NW
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Fax: (202) 623-7201
E-mail: **publications@imf.org**

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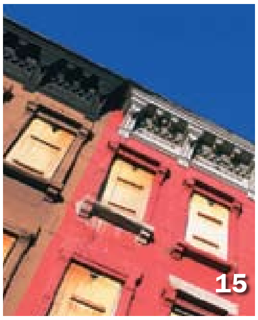

FROM THE EDITOR

Next phase of the crisis

THE financial crisis is threatening a deep and prolonged global recession. In response, monetary and financial authorities are taking unprecedented steps to restore confidence and the flow of credit, as well as attempting to contain the severity of the economic contraction through emergency measures and fiscal stimulus. At the same time, regulators and policymakers are focusing on the urgent need for regulatory and supervisory reforms—an important item on the agenda of this November's G-20 meeting in Washington, which will continue to be addressed through 2009.

In this issue of *F&D*, IMF Chief Economist Olivier Blanchard looks at how the world got into this mess and what to do about it, from both an immediate and a medium-term perspective. He makes a compelling case for countries (that can afford it) to use well-targeted fiscal expansion in the short run to stimulate growth and a more flexible fiscal policy stance in the longer run.

In our June issue, we examined the origins of the crisis. Now we explore the regulatory options, the case for modernizing the multilateral framework, and attempt to draw some lessons from history. We consult with some leading economic thinkers: Robert Shiller on asset price bubbles; Michael Spence and Mahmoud Mohieldin on the crisis and its impact on growth; and Mohamed El-Erian on the repercussions for international regulation. In addition, we look at the fallout from the "other crisis"—related to food and fuel prices—which peaked in mid-2008, highlighting themes of food security, petrodollar investments, and poverty in one of the most packed issues of *F&D* ever!

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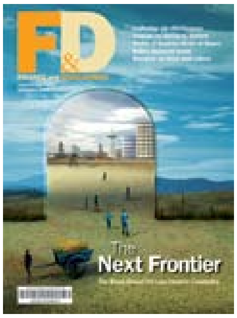
LETTERS TO THE EDITOR

Weder di Mauro on governance



The profile of Swiss-born economic advisor Beatrice Weder di Mauro (September 2008) was compelling reading. Germany's choice of Weder di Mauro for induction into its Council of Economic Experts underscores Germany's openness to a results-driven and public-spirited development model.

I concur with Weder di Mauro that Western countries, the IMF, and the World Bank alike need to start reducing their aid to developing countries with atrocious governance records. I am instead in favor of the multilateral institutions' channeling of financial and manpower development assistance to the private sector, which has shown lately in Africa that it is poised to spur the continent's infrastructure development through groundbreaking initial public offerings in telecommunications and banking.

Robert M. Oyewole
Nigeria

Who's to blame?

F&D
Global Governance:
Who's in Charge?

We find ourselves facing what some commentators refer to as an "earthquake in the markets."

This unexpected problem, which originated in one sector of the U.S. economy and has now become a threat to the global financial system, brings to mind the article "Helping the Global Economy Stay in Shape" by Carlo Cottarelli and Isabelle Mateos y Lago (September 2007). Its opening sentence reads, "From an economic perspective, no country is an island." Today we can attest to the truth of that statement. We are witnessing how the policies—however flawed—of one large country can "transmit shocks across borders at extraordinary speed."

The article states, "Today, the IMF's business model is undergoing a wide-ranging reexamination to ensure that it can continue to fulfill its core mandate of promoting international financial stability." According to the authors, this mandate consists of IMF oversight of the economies of its member countries and, more broadly, of the international monetary system to ensure its effective operation, identifying any synergies or inconsistencies among the policies of the 185 member countries.

I believe that the free market system has been affected by the actions of people making erroneous decisions—either because they are misguided or because they have ulterior motives. Hopefully, the capitalist system will not be undermined by this event, and measures will be taken to overcome the crisis and restore the normal functioning of the global economy. The question remains, however, whether U.S. supervisory agencies or any international organization will conduct an analysis to identify the mistakes made and determine where the responsibility lies.

Carlos Martorell Flores
Umacollo-Arequipa, Peru

We welcome letters. Please send no more than 300 words to *fanddletters@imf.org* or to the Editor-in-Chief, *Finance & Development*, International Monetary Fund, Washington, DC, 20431, USA. Letters will be edited.

Events in 2009

January 28–February 1, Davos, Switzerland
World Economic Forum Annual Meeting
March 10–11, Dar es Salaam, Tanzania
High-Level Conference on Africa's Growth Challenge
March 27–31, Medellín, Colombia
Annual Meeting of the Inter-American Development Bank
April 25–26, Washington, D.C.
Spring Meetings of the IMF and the World Bank
May 15–16, London, United Kingdom
Annual Meeting of the European Bank for Reconstruction and Development
October 6–7, Istanbul, Turkey
Annual Meetings of the IMF and the World Bank

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IMF's new liquidity facility

The IMF has created a new, short-term lending facility for emerging market countries that have strong track records but are facing temporary liquidity problems in capital markets. Under the Short-Term Liquidity Facility, approved on October 29, qualifying countries are eligible for large upfront financing with no follow-up conditions to help them restore confidence and combat financial contagion.

"The Fund is responding quickly and flexibly to requests for financing. We are offering some countries substantial resources, with conditions based only on measures absolutely necessary to get past the crisis and to restore a viable external position," said IMF Managing Director Dominique Strauss-Kahn in a press announcement.

This new lending facility is part of a wider review of the IMF's financing role in member countries, launched earlier in 2008 to make sure the Fund has the right instruments to meet countries' needs in a world characterized by growing—and increasingly complex—cross-border movement of capital.

Steel plant in Ukraine.

Economic firefighter

The IMF moved quickly to help emerging markets battered by the fallout from global financial turmoil and the sharp slowdown in the advanced economies. In Eastern Europe, it has agreed to lend $16.4 billion to Ukraine and $15.7 billion to Hungary. Both agreements were reached through use of the IMF's fast-track emergency lending procedures, which enables rapid approval of IMF lending to its 185 member countries.

Shock absorber

The IMF has revamped its two-year-old Exogenous Shocks Facility (ESF), which is designed to help low-income countries cope with emergencies caused by events beyond their control.

The modified ESF provides assistance more quickly, and in larger amounts, to help low-income IMF members deal with events such as commodity price changes (including for oil), natural disasters, and conflicts and crises in neighboring countries that disrupt trade. The redesign also streamlined the conditions—commitments that borrower governments make on their economic and financial policies—attached to the ESF.

Review of the ESF to make it easier and faster for members to receive the Fund's support was accelerated because of surging food and fuel prices that hit low-income countries particularly hard in mid-2008.

Sharing lessons

An IMF-sponsored conference will take place in Dar es Salaam, Tanzania, on March 10–11, 2009, to discuss how Africa can deal with the global financial crisis and build on its recent economic successes. For more information, go to *www.changes-challenges.org.*

changes
SUCCESSFUL PARTNERSHIPS FOR AFRICA'S GROWTH CHALLENGE

Keeping a closer watch

As part of a review of its oversight role, the IMF has set new priorities for its surveillance of global and national economies—for example, in the areas of risk analysis, linkages between the financial sector and the real economy, and cross-country analysis.

The Statement of Surveillance Priorities lays out *economic priorities* that reflect the key challenges to external stability facing the IMF membership that surveillance should help address. It also sets *operational priorities* that identify concrete actions the IMF should take to address these challenges and provide a clear benchmark to monitor performance. Monitoring will be done in regular reports, supported by periodic full assessments.

Surveillance priorities at a glance

Economic

- Resolve financial market distress
- Strengthen the global financial system
- Adjust to sharp changes in commodity prices
- Promote the orderly resolution of global imbalances

Operational

- Risk assessment
- Financial sector surveillance and real economy–financial sector linkages
- Multilateral perspective
- Analysis of exchange rates and external stability risks

PEOPLE IN ECONOMICS

From Visionary to Innovator

Paolo Mauro profiles ***Robert J. Shiller***

ROBERT J. SHILLER has often been described as a visionary. In some of his best-selling books, *Macro Markets* and *The New Financial Order*, he has made the case for creating new financial markets in which individuals would be able to diversify away the most important risks affecting them, such as income or house prices. He refers to this as the democratization of finance, or making financial markets work for the benefit of the common person.

With two patents for financial innovation to his name, in recent years Shiller has started turning his vision into reality: in 2006, futures on home prices for 10 U.S. metropolitan areas, as well as an average nationwide price, started trading on the Chicago Mercantile Exchange. Shiller's reputation as a visionary in finance and macroeconomics is probably even better established with the general public for his work on irrational behavior in financial markets—especially for his admirable ability to identify "irrational exuberance" and speculative bubbles at an early stage, for both the stock market and housing prices.

Of course Shiller remains, first and foremost, a highly respected academic (he is the Arthur M. Okun Professor of Economics at Yale University and Professor of Finance at the Yale School of Management). But he is as close to a celebrity as it gets within the field of economics: his books on financial markets and the subprime crisis have made him a household name, and he has appeared in a series of full-page retirement-planning advertisements in the U.S. popular press.

Irrational exuberance

First, the facts on Shiller's ability to identify asset price bubbles. In 1996, he noted that the price/earnings ratio on the stock market was at a historical peak, and argued (admittedly, four years too early) that the stock market was overvalued and likely to crash. He articulated this view in the impeccably timed first edition of *Irrational Exuberance*, published in March 2000, just as the dot-com bubble burst: in particular, he provided a cogent analysis of the psychological factors underlying the formation of speculative bubbles.

In a 2003 *Brookings Papers* study with Karl Case and in the second edition of *Irrational Exuberance* (2005), Shiller showed that house prices had begun looking like a "rocket taking off," despite the absence of developments in fundamental factors such as building costs, population, or interest rates that could explain the takeoff. Indeed, using a data series of home prices spanning a century that had not previously been assembled, Shiller showed that home prices were rising faster than ever before as a ratio of housing rents or personal income.

Shiller's view of why bubbles arise is much influenced by psychology. He credits Virginia, his wife of three decades and a PhD clinical psychologist, with introducing him to the field of psychology at an early stage in his career, and adds that "in a healthy marriage, you tend to come to a shared worldview." Thus at the origin of financial bubbles, according to Shiller, is the fact that "humans are social animals, and we influence each other," resulting in "social contagion." In times when asset price bubbles are growing, stock prices rise because of "new era" stories; similarly, sustained house price increases reinforce the collective belief that house prices can only rise, thereby perpetuating a seemingly inevitable upward trend. As Shiller emphasizes, this is not to say that fundamentals don't matter. On the contrary, he considers the efficient markets hypothesis to be essentially valid in the sense that a sufficiently important change in fundamentals will eventually lead to changes in asset prices. But, depending on what people happen to be focusing on, it may take a long time for asset prices to respond to fundamentals.

As everybody knows, home prices in the United States have fallen dramatically since 2006. In this regard, Shiller has been called a Cassandra—unfairly, he thinks, because, although the recent decline in housing prices has imposed massive costs on financial institutions and the economy more generally, under more normal circumstances most people would usually be happy when homes become more affordable.

Box 1

True origins of the term "irrational exuberance"

Shiller did not coin the term "irrational exuberance"—the title of one of his best-selling books—but came pretty close. The term was used by Alan Greenspan, chairman of the Federal Reserve Board, at a black-tie dinner speech in Washington on December 5, 1996. Greenspan asked: "But how do we know when irrational exuberance has unduly escalated asset values, which then become subject to unexpected and prolonged contractions as they have in Japan over the past decade?" He added that "We as central bankers need not be concerned if a collapsing financial asset bubble does not threaten to impair the real economy, its production, jobs, and price stability." Immediately after he said this, the stock market in Tokyo fell sharply and closed down 3 percent. Markets around the world took a hit. Shiller (along with his colleague John Campbell) had testified before the Federal Reserve Board and had lunch with Greenspan only two days earlier. He testified that markets were irrational, but has no recollection of using the word "exuberance." For his part, Greenspan states in his autobiography that "the concept of irrational exuberance came to me in the bathtub one morning as I was writing a speech."

Shiller's most recent book on the problems that originated in the housing and mortgage markets, *The Subprime Solution*, has been criticized by some commentators as a hastily written draft, rushed to the publishers to ensure topical appeal. Nevertheless, the book provides a substantive analysis of why a housing price bubble emerged, a careful history of the major new institutions set up by the U.S. government in the 1930s to get the housing market and the economy out of the Great Depression, and creative proposals to reduce the likelihood of similar bubbles emerging in the future.

Shiller emphasized from an early stage the key role of major bailouts—a necessary if regrettable component of a strategy to get the markets back on their feet. But he is at his most imaginative when putting forward suggestions for the future: providing subsidized financial advice to all; creating standard mortgage contracts that envisage default options under pre-agreed conditions, such as a rapid decline in incomes in the borrower's occupational category; new financial products, such as securities indexed to gross domestic product or housing prices; and new financial markets for home equity insurance and insurance against occupational loss. He also endorses proposals by legal scholar Elizabeth Warren to set up a financial product safety commission.

Indeed, throughout his career, the same Shiller who has argued that financial markets behave irrationally has also proposed more—not less—finance as part of the solution. He asserts that the way forward involves "more finance, more innovative finance, more democratic finance [accessible to all], and finance under an improved institutional setting."

No vision without perspiration

Shiller's vision is grounded in much substantive scholarly research, often including a mix of theory, empirical analysis, and an impressive amount of careful data collection and design of appropriate measures to capture the economic phenomena being studied.

Shiller's early work is decidedly academic and technical. His first publication, in *Econometrica*, was on "a distributed lag estimator derived from smoothness priors." He says that he was very interested in nonparametric econometrics and Bayesian statistics, probably as a result of a physical science orientation in his studies. His first major breakthrough capturing the attention of many colleagues in academia was "Do Stock Prices Move Too Much to Be Justified by Subsequent Changes in Dividends?" (*American Economic Review*, 1981). This was an enormously influential paper (and is still Shiller's most cited article, according to Google Scholar). Under standard finance theory, a company's stock price should equal the sum of the dividends (in net present value) the company is expected to pay out in the future. But, as the title of Shiller's paper suggests, he showed that stock prices fluctuate too much to be justified by any reasonable expectations of what the future dividends are likely to be. Expressed in the jargon of the field, the volatility of stock prices far exceeds the volatility of the expected net present discounted value of all future dividends. An important ingredient in this paper was the collection of long-run historical data on dividends, going back a century, which allowed him to compute the fundamental value of stock prices for a period sufficiently long to conduct his analysis. Shiller's collection of reliable historical series on asset prices, often going back a century, is a theme that would recur throughout his career.

The paper was received with interest, but occasionally also with hostility, because it struck a nerve—it was seen as challenging well-established notions of investor rationality. Given Shiller's early emphasis on the role of psychological factors in finance, should he be considered a founding father of behavioral finance (that is, finance from a broader social science perspective, including psychology and sociology), which is all the rage now in academic circles? Yes and no. Although he clearly established that markets are too volatile for their movement to be entirely driven by fundamentals, his work has not focused on explaining or predicting the *direction* of deviations of asset prices from fundamentals.

That said, from the early stages of his career Shiller did point to the importance of psychological factors, and he now visibly takes pleasure in recalling his role as organizer of two important National Bureau of Economic Research workshops: on behavioral finance, with Richard Thaler, since 1991; and on macroeconomics and individual decision making, with George Akerlof, since 1994. He says that one of his regrets is that although behavioral finance is clearly a happening field, fewer graduate students have thus far been willing to take the risk of deviating from standard utility theory in the context of macroeconomics.

New indices, new markets

The role of careful measurement and data collection—the mark of a truly academic, empirically oriented researcher—that underlies Shiller's more visionary contributions is probably best exemplified by his work on housing prices. Although the total value of houses in the United States is of the same order of magnitude as the total value of companies' stocks, until recently a historical series of housing prices was simply not available. Shiller (with colleague Karl Case) provided an analysis of the properties of price indices, and then went on to collect a historical series for housing prices in the United States and 10 U.S. metropolitan areas.

The price index Shiller developed with Case is a value-weighted arithmetic, repeat-sale index that tracks the sale price of the same houses, so as to avoid changes in average prices that would result from the general upward trend in the size and quality of homes through time. The objective is to provide estimates of the price of a standard, unchanging house, so that the price index would represent the outcome of an investment in a house—not unlike the outcome of investment in stocks tracked through a stock market index that is based on the same, unchanging shares observed when they are bought and sold at different times. Obtaining the prices of the same house bought and sold many years apart, for several thousand houses, involves solving practical challenges—including writing programs to match street addresses, dropping from the sample houses whose owners built large extensions, and so on.

Armed with a reliable, high-quality measure of housing prices, Shiller and his colleagues were then able to persuade the Chicago Mercantile Exchange to start a market for futures in housing prices in May 2006. The volume of trade grew quickly for a year but subsequently sagged with the decline in housing prices. The cumulative volume of trade since the market's inception is now in the hundreds of millions of U.S. dollars—sizable, but far from spectacular for a financial market. Shiller readily admits that, so far, jump-starting new financial markets has not been more lucrative than writing best-selling books, though he adds that he did pretty well out of the sale of his company that collects housing price data and computes the Standard & Poor's Case-Shiller index. Nevertheless, the new markets exist, and it will be interesting to see whether they revive when housing prices eventually stop falling.

Another market spearheaded by Shiller is for "macro-shares," exchange-traded securities that enable investors to express a bullish or bearish view on the value of fundamentally important asset classes and economic interests (anything measured by an index). Macro-shares are fully collateralized with short-term U.S. treasury securities and cash. They are issued for up to 20 years, in pairs: for example, assume that "up oil" and "down oil" are initially issued at $100 each at a time when that is the current market price of oil. A dealer will initially buy both, and sell them separately. Investors betting on an increase in oil prices will purchase "up oil" and those betting on a decline will purchase "down oil." When the price of oil rises to $120, "up oil" is worth $120 and "down oil" is worth $80. The dealer is fully hedged, and neither investor faces a counterparty risk. The cumulative volume of trade here has been well in excess of $1 billion, and Shiller hopes

Box 2

Surveys and inflation indexation

One way to find out about why some innovations are welcome with the public, whereas others are not, is simply to ask people about their attitudes toward the proposed innovations. Shiller did exactly that through a number of surveys of popular attitudes toward inflation indexation in different countries. This work, undertaken prior to 1997, was ultimately aimed at understanding why inflation indexation had not become more prevalent in the United States. The use of surveys—instead of more sophisticated theory or mathematical models—probably did not impress many of Shiller's colleagues in academia. But he felt that "this is what tenure is for: I do not have to do the same things others are doing," and that to understand what motivates people's behavior, sometimes the simplest option may be to ask them why they do what they do. Even if one cannot take survey answers at face value, they may still be informative about people's focus of attention while they were making choices. Over the years, Shiller applied the use of surveys not only to indexation and financial innovation, but also to the factors underlying major changes in asset prices, such as the October 1987 stock market crash.

that macro-shares will be traded also for housing prices, GDP, and other macroeconomic variables.

Mystery of financial innovation

Why do some financial innovations succeed, whereas others do not? This remains a bit of a mystery. As Shiller points out, it was unfortunate that housing prices began declining around the time of the introduction of the new market for futures on housing. Indeed, futures prices on housing were in backwardation (lower than current prices)—thus indicating an expected decline in housing prices—from the early days of the new market. The financial difficulties experienced by a number of players in the sector clearly did not help, nor did the decline in prices itself. Some say that there are too few news items related to housing and that, in particular, data on housing price indices are released only once a month, implying that there is too little action to motivate trades on a market for housing price indices. Shiller disagrees: he points out that there is plenty of news in the form of not only individual houses being bought and sold, but also many factors that ultimately have an impact on housing demand (such as incomes and availability of infrastructure) and supply (interest rates and construction costs).

> “This is what tenure is for: I do not have to do the same things others are doing.”

Beyond special circumstances and an element of luck, however, it is increasingly recognized that attaining large scale or critical mass quickly is an important factor in whether new financial products or markets succeed. Shiller observes that sometimes a market participant expresses interest in taking a large position on the market for house price futures, but is deterred when it turns out that there are no other big players in that market. Indeed, Shiller compares a new financial market to a party: “People want to go to a party only if they know that other people are going to be there, and that it is going to be lively.” So either everybody goes to the party, and it turns out a success, or nobody shows up, and it is often difficult to predict which scenario will materialize. (In the academic literature, the possibility of such sharply different scenarios is referred to as multiple equilibria, and the mutually reinforcing actions by multiple parties that underlie such uncertainty are labeled as strategic complementarities.)

Shiller also believes that policymakers can play a major role in bringing about financial innovation. For example, a long list of famous economists (including Shiller) at various times over the past century argued in favor of inflation-indexed bonds. But the market for treasury inflation-protected securities was introduced in the United States only in 1997 and, according to Shiller (and others), then Deputy Treasury Secretary Larry Summers played a key role in this innovation. Moreover, the ability to measure the value of underlying assets or quantities is also a necessary condition for markets to be able to emerge: without the Standard & Poor’s Case-Shiller index of housing prices, the market for futures on housing would probably not have been possible. This said, good measurement is a necessary, but not a sufficient, condition: although GDP data have long been available for the vast majority of countries, the market for Shiller’s proposed securities based on GDP has not (yet) taken off.

The visionary’s future

What is Shiller’s vision for his own professional future? Well, of course, a new book is in the works, this time on behavioral macroeconomics, written with George Akerlof, in which they highlight the role of “animal spirits” and confidence in determining macroeconomic outcomes. This sounds like an unabashedly more scholarly piece: Does Shiller feel that his recent popular books have been a distraction from contributing to the academic literature? Does he miss undertaking the more technical econometric work that he began his academic career with? Shiller reassures that he “can still do that stuff, can still do the math.”

Indeed, he does not view his books as popular books—they may be popularizations “only in the sense that I left the math out.” But Shiller says that now “other things are asked of me.” In particular, he envisages continuing his activities as an advocate and facilitator for financial innovation. He points out that finance is supposed to work for the people, but many existing financial instruments are still “very 19th century.”

The main economic risks that individuals face today are no longer those for which insurance exists. We have fire insurance but, with improved building codes and better firefighting, fewer and fewer homes are destroyed by fire today. Many people have life insurance, but the median age at death is no longer 45; fewer and fewer parents die at an age when their children are not yet working. Shiller argues that new financial instruments and markets will need to emerge to protect individuals against declines in incomes or housing prices. May the vision continue turning into reality. ■

Paolo Mauro is a Division Chief in the IMF’s Fiscal Affairs Department

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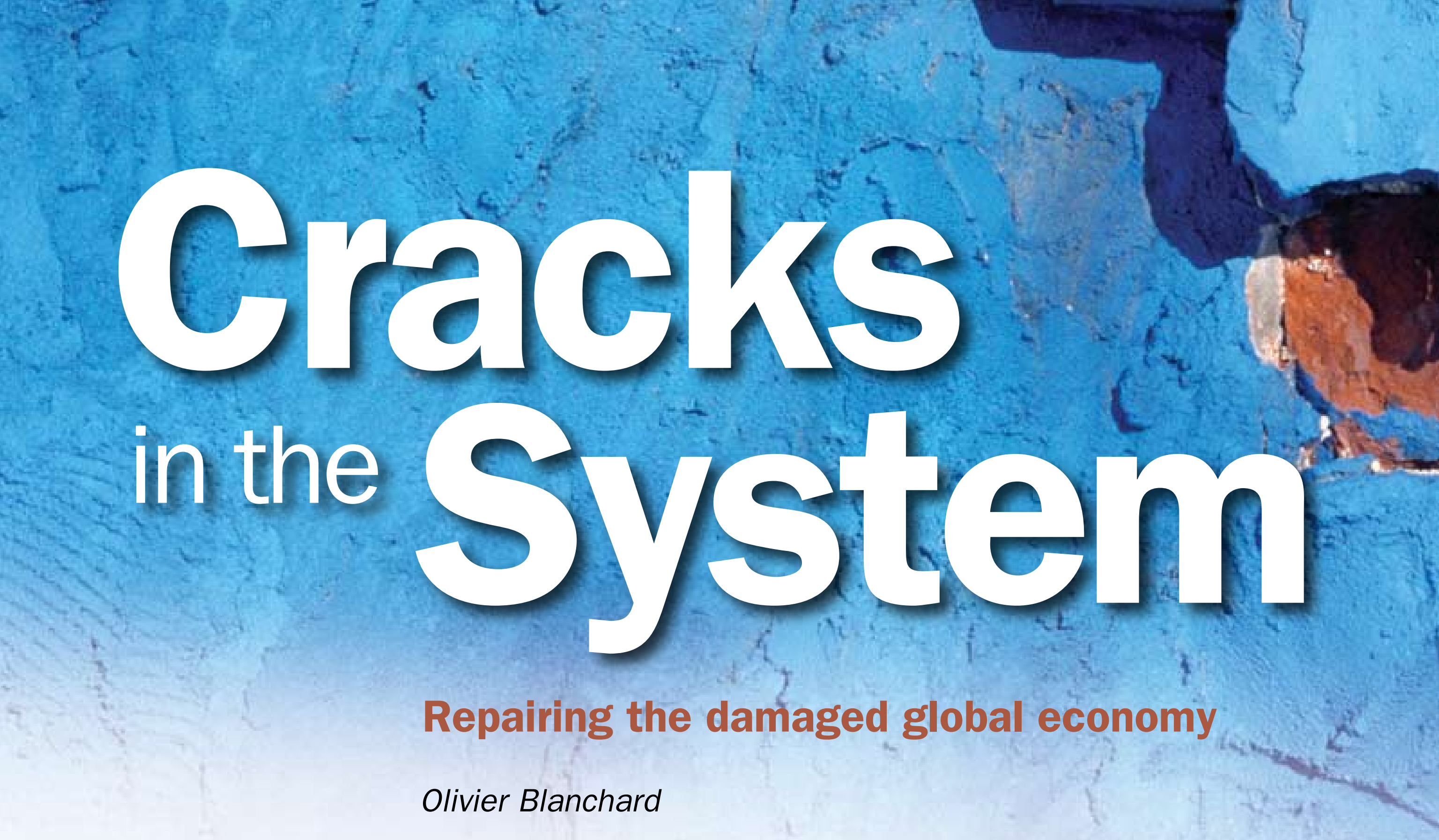


Cracks in the System

Repairing the damaged global economy

Olivier Blanchard

THE global economy is facing its worst crisis in 60 years. In the first half of the 2000s, a benign environment led investors, firms, and consumers to expect a permanently bright future and to underestimate risk. Housing and other asset prices shot up, risky assets were created and sold as being nearly riskless, and leverage increased. So when housing prices turned around, and subprime mortgages and the securities based on them turned sour, the stage was set for the crisis. In the context of rapid global integration and deep and complex interconnections between financial institutions, the crisis quickly moved across assets, markets, and economies. The rest is history, or, more precisely, history in the making.

Looking at where we are today, the good news, if any, is that we have probably stepped back from the brink of financial catastrophe. In October, faced with what looked like an imminent implosion of the financial system, major advanced economies announced a coherent set of measures to deal with the problem. In addition to continuing the provision of liquidity, governments initiated programs to buy bad assets, recapitalize financial institutions, and provide comprehensive guarantees. To be sure, these are extremely complex measures to implement, and implementation has been far from perfect, with governments feeling their way through the right combination of measures as they go along. The message from the financial markets at this point is that progress has been made, but it is much too early to declare victory. Indeed, while the financial crisis has moderated somewhat in advanced economies, it has increasingly engulfed emerging economies. Through no fault of their own, many countries are facing sudden stops, pressure on the exchange rate, and the danger of financial disruptions.

The bad news, however, is that, as policymakers in advanced economies were adopting appropriate measures on the financial front, the financial crisis began to have a sharper and deeper impact on the real economy. Deleveraging by financial institutions has now translated into more expensive credit for households and firms, and difficulties in financing even normal business operations. And, more importantly (at least in terms of its quantitative effects), consumers and firms across the globe have lost confidence. Fears of a long and deep recession, similar to the experience of the 1930s, have triggered worries about job security, savings, and credit. As a result, consumer spending has slumped, business investment has shrunk, and unemployment is rising rapidly.

These developments, notably the collapse of confidence over the past two months, led the IMF to revise its forecast substantially down from the October *World Economic Outlook*. We are now projecting output to decline in advanced economies by ¼ percent

on an annual basis in 2009, marking the first annual contraction in the post-war period for this group of countries. Based on the expectation that house prices will turn around sometime in 2009 and deleveraging will slow going forward, we predict growth in advanced economies to become positive in 2010. We also expect growth in emerging and low-income economies to moderate, because of weakening global growth prospects, plunging commodity prices, and tight financial conditions. Any hope of decoupling is now long gone.

How confident are we about these forecasts? Not very. On the upside, it could be that the decline in spending is not due to pessimism per se, but is a result of uncertainty—consumers and firms may be delaying spending until there is greater clarity concerning economic prospects. A decrease in uncertainty may then lead to greater consumption and investment demand, allowing output to recover faster than projected. On the downside, there is a clear risk that the fall in output could worsen the balance sheets of financial institutions more than expected, leading to a further contraction in credit, causing further bankruptcies and further worsening economic activity.

This is the environment in which the G-20 meeting took place in Washington in November. The agenda for policymakers in general, and for the IMF in particular, is simple: first, extinguish the current fires—identify and adopt policies that will limit economic damage in advanced, emerging, and low-income countries. Second, be proactive in thinking about how best to avoid a repeat of what we are now going through. Let me take both parts in turn.

Policies for now

What needs to be done in the short run is clear, if not easy. Governments must attack the crisis on two fronts. They must implement and refine the policies adopted in the past few months to deal with the financial crisis. And they must take strong measures to sustain demand, limit the fall in output, and restore confidence and private spending.

On the first front, I argued earlier that the policy framework—organized around liquidity provision, asset purchases, recapitalization, and guarantees—was largely in place. The implementation, which is inherently complex, is however proving difficult. Changes in policy and ambiguities about future policy are in some cases making things worse rather than better. Until the programs are clarified, and rules of the game more clearly established, private investors are unlikely to be enthused, worsening the crisis and delaying the adjustment in the financial system.

On the second front, it is clear that the onus will have to be on fiscal policy. While some countries, notably in Europe, still have some room to ease monetary policy further, others—especially the United States and Japan—have already decreased interest rates to very low levels, and real rates are rising as inflation falls.

Fiscal expansion must, therefore, now play the central role. What should be the size of the expansion and which countries should provide the stimulus? We have come to the conclusion that, at this point, the goal should be a fiscal boost of about 2 percent of global GDP. Assuming a multiplier of one—a conservative assumption if the fiscal stimulus is well targeted—this would translate into 2 percent higher global growth, reducing substantially the risk of a deep recession. To avoid spillover effects, however, it is essential that fiscal expansion is, if not explicitly coordinated, undertaken by all countries where low debt and disciplined policies in the past have provided sufficient policy space. A caveat is important here: if the decrease in output turned out to be even worse than we currently forecast, the fiscal expansion would have to be even larger than we currently recommend. The reason: what is essential at this juncture is to eliminate the risk of a full-fledged depression, and its adverse effects on spending today.

Preparing for the after-crisis

Let's now turn to the future. When the crisis abates (if we can imagine such a time), governments will have to tackle two main issues.

First, they will face a dramatically different fiscal position. The fiscal deficits needed to increase demand in the short run will result in higher debt in the long run, often by significant amounts. In most countries, the scale of public interventions in troubled institutions and the purchase of assets will lead to much higher gross debt. However, as the value of the assets they will have acquired may be substantial, the increase in net debt is likely to be much smaller. Still, the fiscal position of the government will be significantly leveraged, and will require the adoption of a more flexible fiscal policy stance.

Second, in several countries, the financial landscape will look dramatically different, comprising a significantly consolidated financial sector, with a large public presence. Governments will face a number of questions about how to manage their presence in the financial sector. The goal here should be to maintain a level playing field with privately owned institutions, and to steadily allow the return of the financial sector to private hands. Experience from many past banking crises provides a useful guide on how best to do this.

Avoiding a repeat through better regulation

The crisis has shown the limits of the current regulatory and supervisory frameworks at both the domestic and international levels. The challenge is, therefore, to design new rules and institutions that reduce systemic risks, without imposing unnecessary burdens and stifling innovation. Implementation will take time; the design has already started, and will be further explored by the working groups created at the G-20 meetings. The contours of reform are however already clear.

Measuring systemic risk will require better information. This implies the need for reviewing transparency, disclosure, and reporting rules, and the collection of information from a much larger set of institutions, including insurance companies, hedge funds, and off-balance-sheet entities, than is currently the case. Limiting systemic risk will also imply a broader perimeter of regulation than what we have now, in exchange for broader access to liquidity provision.

New and better national rules will be necessary, both at the individual institution and at the macroeconomic level. Countercyclical macro-prudential rules appear to be a promising way to reduce the buildup of systemic risk. These measures need to be complemented with improvements in the robustness of the financial infrastructure to counterparty failure—a central element of the current crisis—including through the increased use of centralized clearing houses and organized exchanges, and the development of stronger frameworks for the resolution of individual institutions.

The international dimension and the IMF's potential role

The crisis has made clear that the financial system is a global system, with strong interconnections across countries. What was initially a U.S. crisis is now affecting the entire world. National policymakers cannot do the job alone: what happens to them depends not only on their own regulatory structure, but also on the regulatory structure of other countries; not only on systemic risk at the national level, but also on the buildup of systemic risk elsewhere. Monitoring systemic risk at the global level is essential. The IMF seems best equipped to do the job, in collaboration with central banks and other international organizations. This will imply expanding our global surveillance role, and this is something on which we have to start working right now.

The crisis has also made clear the need for international liquidity provision. In the context of the current crisis, the need for such support has been addressed through ad-hoc bilateral swap arrangements involving a small subset of countries. Going forward, global liquidity provision can be improved either by increasing the resources that backstop the IMF's new Short-Term Liquidity Facility or by establishing a multilateral structure that would enable co-financing of liquidity provision by the IMF by other member countries and official creditors.

Finally, the crisis has made clear that in a world of large and volatile capital flows, countries in crisis will need access to larger pools of funds than in the past, and larger pools than the IMF can currently provide. An increase in the resources available to the Fund will thus be necessary, so that it can fulfill better its key mandate of helping ensure global financial stability. ■

Olivier Blanchard is Economic Counsellor and Chief Economist of the IMF.

Preventing Future Crises

Priorities for regulatory reform after the meltdown

Noel Sacasa

THE financial crisis has exposed weaknesses in the current regulatory and supervisory frameworks. The recent developments have made it clear that action is needed in at least four areas to reduce the risk of crises and address them when they occur. These are (*a*) finding a better way to assess systemic risk and prevent its buildup in good times; (*b*) improving transparency and disclosure of risks being taken by various market participants; (*c*) expanding the cross-institutional and cross-border scope of regulation while safeguarding constructive diversity; and (*d*) putting in place mechanisms for more effective, coordinated actions.

Effective regulation is needed to realize the potential of open financial markets. How to improve regulation was central to the discussion at the November G-20 Summit on Financial Markets and the World Economy. Financial innovation and integration have increased the speed and extent to which shocks are transmitted across asset classes and countries, blurring boundaries between systemic and nonsystemic institutions. But regulation and supervision have remained geared toward individual financial institutions. The regulatory mechanisms do not adequately consider the systemic and international implications of domestic institutions' actions.

This article takes a look at substantive issues in the current debates on reforming the financial sector. The first section identifies crucial weaknesses that the reforms need to address, and the second outlines key areas for policy action.

What went wrong

Reform proposals should address destabilizing failures in markets and regulation. Although the jury is still out, three groups of mutually reinforcing factors that did not receive adequate attention from regulators and monetary authorities arguably contributed to increased systemic risk. First, global macroeconomic imbalances resulted in lower interest rates during the past decade, inducing more risk-taking and contributing to the creation of asset price bubbles worldwide. Second, changes in financial sector structure and the failure of risk management to keep up with financial innovation during the past two decades rendered the system more prone to instability. And, third, leveraged financial institutions have inherent incentives to take on excessive risks without internalizing systemic risk, which is the main reason they need to be regulated.

Global imbalances and housing bubbles

Regulators and central banks failed to adequately acknowledge and deal with the systemic risks attached to fast credit growth and asset price bubbles. During this decade, some economies ran persistent large current account surpluses, which generated a huge demand for financial assets issued in deficit countries—notably for U.S. assets. This, together with an accommodative U.S. monetary policy, contributed to low real interest rates worldwide, which in turn induced considerable risk-taking and fed fast credit growth. In the United States, the credit market debt of households and nonfinancial businesses grew from 118 to 173 percent of GDP between 1994 and 2007 (see chart). The growth of the credit debt of households accelerated even more since 2000, jumping in seven years from 98 to 136 percent of disposable personal income. During the same period, similar ratios grew from about 120 to 180 percent in the United Kingdom and from 72 to 91 percent in the euro area. At the same time, an unprecedented home price increase in the United States was accompanied by similar booms in many developed economies.

Innovation and structural changes

In their April 2008 analysis of the causes behind the current crisis, both the IMF and the Financial Stability Forum (FSF) highlighted the striking nature of shortcomings in risk management practices, as well as the collective failure to assess and address the extent of leverage—the ratio of debt to equity—taken on by a wide range of institutions and the associated risks of a disorderly unwinding (IMF, 2008; and FSF, 2008). Risk management, disclosure, regulation, and supervision did not keep up with rapid innovation, leaving scope for excessive risk-taking and asset price inflation.

Four sets of innovations and structural changes in particular have contributed to weakening risk management and rendering the system more prone to instability: the originate-to-distribute business model and reliance on wholesale funding markets; procyclical capital and accounting practices and regulations; excessive reliance on backward-looking, market-based risk management models and systems; and a more complex and opaque configuration of players.

The originate-to-distribute model and wholesale funding. Securitization and the development of private-label com-

The U.S. Federal Reserve in Washington, D.C.

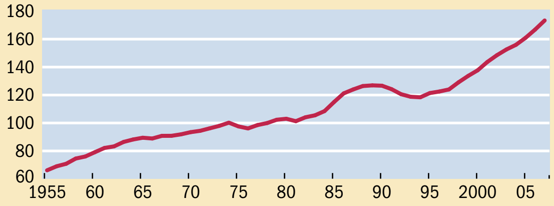
plex structured credit instruments have undeniably improved access to credit. However, they may also have contributed to greater aggregate risk-taking and, instead of resulting in an efficient dispersion of risks, have led to a destabilizing shift of risks toward institutions that could not adequately manage them, to the reversion of some of these risks to banks that had supposedly offloaded them, and to much more uncertainty about the actual distribution of risks among market participants. In addition, both banks and the off-balance-sheet special-purpose vehicles created in the securitization process have come to rely excessively on wholesale funding markets, thus incurring maturity mismatches without adequate consideration of the risks of such funding drying up. Although the originating and arranging entities lacked appropriate credit screening and monitoring incentives, many investors failed to sufficiently question such incentives or to examine the quality of the loans underlying structured products. Instead, they relied excessively on the reputation of the institutions involved and on the credit ratings of the instruments (FSF, 2008).

Credit rating agencies, in turn, assigned high ratings to complex structured subprime debt based on limited historical data; in some cases, on flawed models; and on inadequate due diligence of underlying collateral. They also failed to adequately disclose assumptions, criteria, and methodologies; clarify the meaning and risk characteristics of structured finance ratings; and address conflicts of interest (FSF, 2008). Finally, financial institutions did not always sufficiently disclose the type and magnitude of their on- and off-balance-sheet risk exposures, particularly those related to structured products.

Soaring debt

Lower interest rates worldwide led to fast credit growth in many countries, including the United States.

(U.S. credit debt of households and nonfinancial businesses as percent of GDP)



Source: IMF staff calculations based on data from the Flow of Funds Accounts of the United States and the U.S. Bureau of Economic Analysis.

Procyclical capital requirements and accounting. During upswings, the value of marked-to-market assets and collateral increases, while loan-loss allowances decrease because default rates are expected to decline in the short run. This raises the value of reported equity and lowers the typically shortsighted probability of default estimates for both borrowers and lenders. At the same time, risk-based capital requirements can be eroded in good times because risk measures tend to ignore risk buildup during upswings. This underestimation of risks allows lenders to increase leverage and credit, which in turn reinforces asset price increases, generating a self-feeding spiral between leverage and asset prices (Adrian and Shin, 2008).

Conversely, when risk measures mount during a downswing and losses materialize, capital buffers insufficiently built up in good times are eroded and cannot be easily replenished, since external capital becomes more scarce in bad times. Interactions between capital, credit, and asset markets can then magnify the intensity of the turmoil by forcing broad-based chain reactions of asset fire sales, and a self-reinforcing credit crunch and contraction of economic activity can ensue.

Excessively market-based, backward-looking risk management. Too much reliance on market prices and on oversimplified, backward-looking models to manage risks, while neglecting due diligence and analysis of fundamentals, appears to have resulted in grossly underestimating risks, inducing complacency, and decreasing monitoring. Moreover, when many market participants use similar models, they may be induced to take similarly oriented market positions, thus exacerbating systemic risk.

A more complex but less differentiated configuration of players. Compared with 30 years ago, the current financial system shows more blurred distinctions between different types of players, greater consolidation, many new types of players, and tighter but more opaque interconnections between them (Borio, 2007). Although these developments may have come about as a result of innovations aimed at improving the efficiency of financial intermediation, they also created opportunities for increasing leverage and for shifting risks among players in opaque ways. This made it more difficult for the market and for regulators to assess risks at any given level, while reduced diversity may have increased the likelihood of coordinated movements that could destabilize the system.

Destabilizing incentives

The recent events suggest that some regulators have relied excessively on the ability of financial institutions to manage risk and to regulate themselves. At the same time, they have allowed the erosion of capital buffers through securitization and opaque off-balance-sheet structures, and through insufficiently supported risk mitigation techniques (such as credit default swaps issued by institutions without sufficient assets or capital). Regulators could instead have better acknowledged and countered the inherent incentives of leveraged financial institutions to take on excessive risks without internalizing systemic risk, through more effective use of available supervisory tools and stronger enforcement.

Leverage and risk. Shareholders and managers of leveraged financial institutions have incentives to increase returns upfront by taking on excessive longer-term tail risks—they can exploit information asymmetries to shift those risks to the future or to less-informed market participants. In particular, they can be driven to boost the short-run return on equity by increasing leverage, even though this raises the risk of default, as long as creditors do not price this risk into the cost of debt (for example, because of deposit insurance or lack of transparency), and as long as the shareholders' and managers' own exposure to downside risks is small (Dewatripont and Tirole, 1994; and Rajan, 2005).

Disregard of systemic risk. In past financial crises, incentives for financial institutions to internalize systemic risk have also proven to be weak. The following are examples of behavior that can create systemic risk when many financial institutions act similarly: (*a*) increasing leverage during an upswing, without regard for the potential creation of unsustainable asset price bubbles; (*b*) replacing core deposit funding and liquid asset reserves with volatile wholesale financing and backup liquidity facilities that can suddenly dry up in a crisis; and (*c*) excessively increasing the supply of credit to certain sectors when interest rates are abnormally low, thereby disregarding risks to loan portfolios when interest rates eventually rebound and hit highly leveraged borrowers. Financial institutions and their managers also have incentives to follow the herd and increase risks together, because of competitive pressure to retain market shares, compensation schemes based on relative performance, or the expectation that losses from systemic risks will be socialized.

Regulatory reform priorities

Although a consensus is emerging on some measures that can address the shortcomings outlined above, an intense debate continues on other issues related to improving financial sector regulation. Four areas of regulatory reform stand out in these discussions: better addressing systemic risk and procyclical risk-taking; enhancing transparency and disclosure; changing the role of credit rating agencies; and adequately balancing comprehensiveness and diversity in the scope of regulation, along with providing for better international coordination.

Systemic risk and procyclical risk-taking

Making both capital requirements and macroeconomic policy more countercyclical. There is growing support among policymakers for at least mitigating procyclicality (G-20, 2008), but implementation is challenging. On the prudential side, one idea is that capital and/or provisioning requirements, and perhaps minimum haircuts on collateral, should recognize upfront mounting risks during booms and allow for the buildup of adequate capital buffers in good times. But macroeconomic policies may also need to play a complementary role in preventing booms and long periods of low interest rates, because the latter distort incentives and breed speculative excesses that are very difficult to counter solely through prudential regulations.

Reassessing mark-to-market accounting. The discussion on this topic is more heated. On the one hand, maintaining adequate transparency is important. On the other, market prices tend to delink from fundamentals during both speculative booms and panic situations. Mark-to-market accounting could therefore unrealistically exaggerate procyclical swings in equity and regulatory capital, potentially contributing to financial instability, as discussed above. Transparency criteria, as well as prudential and systemic stability concerns, thus lend support to the suggestion that the effect on capital of adjustments to market values may need to be slowed down or limited—especially when market prices go up—for a range of assets beyond those held to maturity (excluding assets held for immediate liquidity). The intended dampening effect, as well as the desired transparency, may be obtained through appropriately disclosed provisions or reserves that are built up when prices rise above some threshold and drawn down as prices recede.

"Portfolio diversification is not enough to manage credit risk, and it cannot fully replace due diligence."

Making securitization more compatible with incentives. Portfolio diversification is not enough to manage credit risk, and it cannot fully replace due diligence. Securitization contracts should make sure that originating and sponsoring institutions retain sufficient risks on the securitized assets, so that these institutions have an incentive to adequately screen and monitor individual loans. In addition, the Basel Committee on Banking Supervision recently (BCBS, 2008b and 2008c) issued proposals to raise capital requirements for certain complex structured credit products; to introduce additional capital charges for incremental risks in the trading book due to factors such as default, credit migration, or changes in credit spread or in equity price; and to strengthen the capital treatment of liquidity facilities to off-balance-sheet conduits.

Strengthening liquidity management. An updated set of principles for sound liquidity risk management and supervision were issued by the Basel Committee in September 2008 (BCBS, 2008a), addressing weaknesses identified in the recent turmoil. The importance of maintaining adequate liquid asset buffers may need to be stressed more in the future.

Reassessing risk management models and systems. Pillar 2 of the Basel II framework can be used by supervisors to strengthen risk management practices by banks, sharpen banks' control of tail risks, and mitigate the buildup of excessive exposures and risk concentrations (Caruana and Narain, 2008). This could help ensure that risk management, capital buffers, and estimates of potential credit losses are appropriately forward looking and take account of uncertainties associated with models, valuations, concentration risks, and expected variations through the business cycle. Regulators and supervisors could work with market participants to mitigate the risks arising from perverse incentives in remuneration policies (FSF, 2008).

Transparency and disclosure

Risk disclosure and valuation. To prevent the use of off-balance-sheet entities from misleading market participants about the actual risk exposures retained by the arranger, accounting and disclosure standards for derecognition and consolidation are being improved. Also, finding ways to highlight the uncertainty that inevitably surrounds the point estimates of accounting valuations of financial instruments is important so as to not give a false impression of precision, especially when markets have ceased to be active (FSF, 2008).

Securitization processes and markets. Information on securitized products and their underlying assets at each stage could be expanded. In particular, transparency by originators and issuers of securitized products about underwriting standards for, and the results of due diligence on, the underlying assets could be strengthened (FSF, 2008).

Role of credit ratings

Quality of the rating process and conflicts of interest. Credit rating agencies have revised rating methodologies for structured products and are taking steps to separate rating activities from other business activities; delink rating managers' compensation from the financial performance of their business unit; enhance the surveillance of the rating process; and strengthen internal oversight of rating methodologies. The International Organization of Securities Commissions revised its *Code of Conduct Fundamentals for Credit Rating Agencies* in May 2008 (IOSCO, 2008) to further improve the quality of the rating process, address conflicts of interest, and provide investors with more data on the historical performance of ratings and with more information on rating methodologies and criteria and on how data limitations are addressed.

Uses of ratings. Investors should not use ratings to replace strong risk analysis and management, appropriate to the complexity of the instruments they buy and the importance of their holding. In this context, supervisory authorities might consider reviewing the use of ratings in regulations, to ensure that such use does not induce uncritical reliance on credit ratings as a substitute for independent evaluation.

Balancing comprehensiveness and diversity

Expanding regulatory scope to contain regulatory arbitrage. All leveraged financial institutions, as well as any entities significantly linked to them, may need to be put under the same regulatory umbrella. Regulators could also be more careful not to allow the circumvention or erosion of capital requirements through the buildup of opaque market structures, through the nontransparent shift of risks to nonconsolidated entities or any other transactions in which the resulting assignment of risks is in any way doubtful, or through risk management models and techniques that may not adequately measure or hedge actual underlying risks.

Improving cross-border information exchange and cooperation. The use of international colleges of supervisors has proved helpful in developing good practices, diagnosing large and complex financial institutions, and addressing cross-border issues. Such arrangements should be established in the short run for each of the largest global financial institutions (FSF, 2008; and G-20, 2008).

Safeguarding diversity to promote systemic complementarities. The degree to which financial institutions with long-maturing liabilities (for example, pension funds and life insurance companies) should be subject to mark-to-market requirements or to risk management standards based on risk models focused on short-run price volatility in managing their assets could be reconsidered. Regulations could increase the scope for such institutions to play the role of long-term, hold-to-maturity investors. But low-leverage financial institutions with limited systemic importance may need only light, if any, regulation, thus allowing them to play a potentially stabilizing role in taking more risky or contrarian positions compared with other market participants (Nugée and Persaud, 2006). ■

Noel Sacasa is a Senior Financial Sector Expert in the IMF's Monetary and Capital Markets Department.

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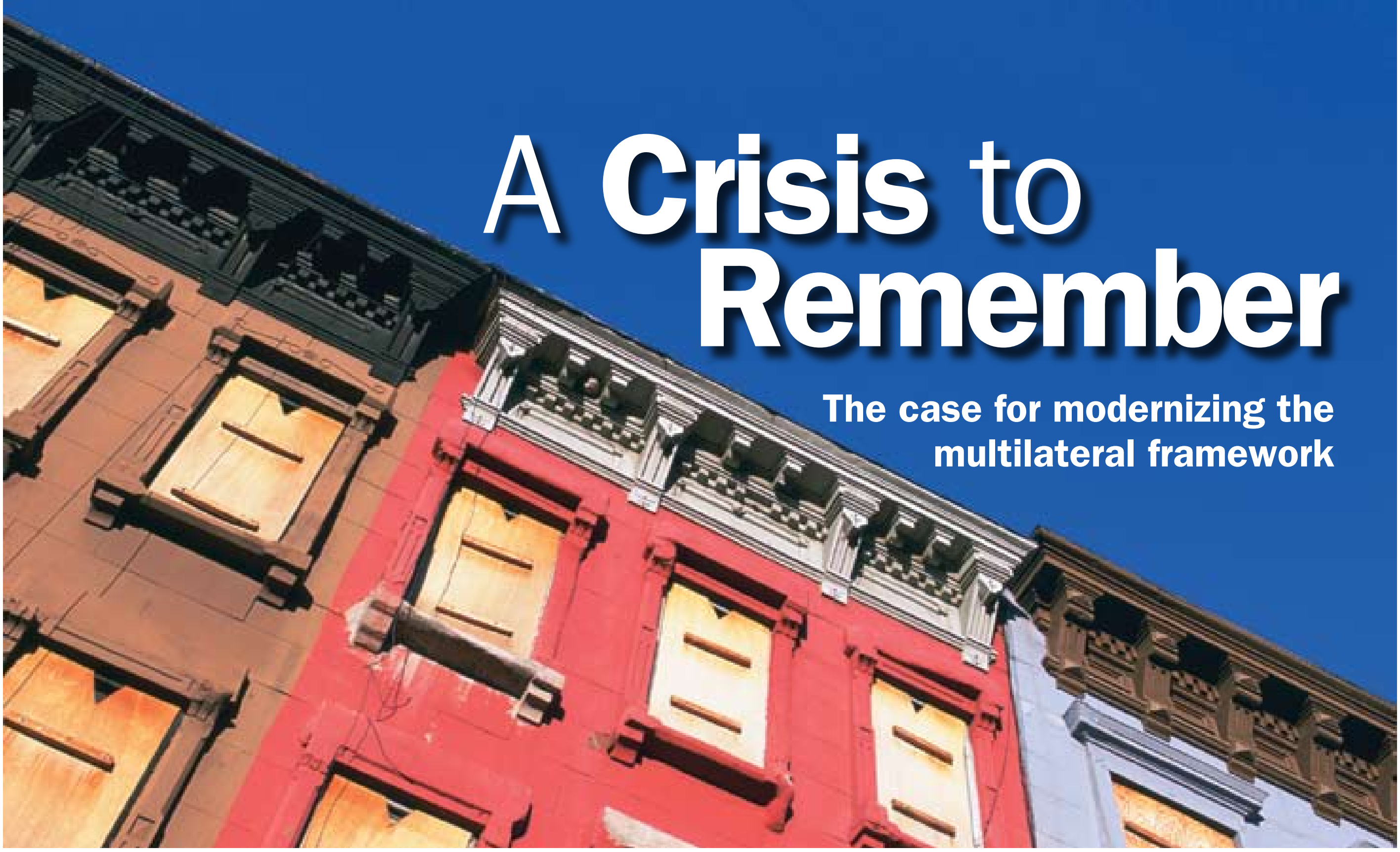
A Crisis to Remember

The case for modernizing the multilateral framework



Boarded-up row houses in New York City.

Mohamed A. El-Erian

THIS is a defining moment for the global financial system and, by implication, for relationships between countries. The institutional and policymaking landscape is changing in a rapid and unpredictable manner. The changes are not being driven by a master plan but by a series of separate reactions to the global financial crisis. As a result, market accidents and policy mistakes have become largely inevitable. In the process, the inadequacy of today's multilateral coordination is there for everyone to see.

Looking ahead, there is a need for introspection in the countries worst affected by the crisis and for a vision on how to move forward. The financial system will not reset to what it looked like just a year ago, and the longer-term impact of the crisis on the real economy—including on productivity and employment trends—will change the fundamentals of the world economy. All this accentuates the need for urgent and bold modernization of the multilateral framework.

A crisis in the making

How did we get here and who is to blame? At the risk of oversimplifying, the crisis was caused by two factors amid long-standing structural weaknesses: first, the simultaneous and large deleveraging of three major segments of the global economy—the housing sector, the financial sector, and consumer demand in the United States; and, second, the inability of both markets and policies to quickly accommodate such intense deleveraging at both the national and the international levels.

The housing sector. The first major segment to experience a downturn was housing, starting in 2006 (see Chart 1). The immediate damage was felt in the most highly leveraged sector of the economy, a sector that also had the weakest capital support, least transparency, and poorest due diligence: subprime mortgages in the United States.

Initially, the majority of policymakers and market participants felt that the damage could be isolated and contained. This partly reflected unfounded confidence in the host of modern risk management techniques that had been enabled by the proliferation of derivative and structured products. And it partly reflected inadequate information about the extent to which subprime exposure had infected a number of balance sheets.

The financial sector. The financial sector was the second major segment to experience a downturn, starting in 2007 (see Chart 2). At first the process was orderly. Institutions sought, and largely succeeded in mobilizing, new capital to support their strained balance sheets. And as they raised capital, they recognized their losses and looked to move forward.

But with the housing downturn accelerating and its impact spreading, banks had to run faster just to stay in place. The resulting repeated dilution of shareholders became apparent to all, and was quite costly. As a result, most providers of capital ended up saying "no more" and retreated to the sidelines.

In such circumstances, and notwithstanding attempts to curtail credit elsewhere, banks were left with two strategic options: sell assets and/or dispose of businesses. But what made sense for an individual institution overwhelmed the system as a whole. In a classic example of a vicious "fallacy of composition," the system could not even come close to accommodating everyone's desire to sell without fueling further asset price deflation. This, in turn, accentuated the initial problems.

Consumer demand in the United States. These negative developments were amplified by the third segment that started to weaken in 2008: consumers in the United States. After a prolonged period during which consumers spent well in excess of their income, they started to succumb to the combined pressures of higher prices, employment losses, and reduced availability of credit. With housing values declining, mortgage refinancing no longer provided an easy way to monetize residual equity in homes. As a result, consumers could no longer use their homes as cash machines.

Weakening consumer demand also served as an important reminder of a largely hidden but equally disruptive feature of the crisis: the operation of negative feedback loops. Weakening consumer demand has further depressed the demand for housing. The robustness of car loans and credit card receivables has also been undermined, increasing the pressure on the balance sheets of financial institutions. And as banks have retreated further from the business of lending, the pressure on consumers has intensified.

The circuit breakers

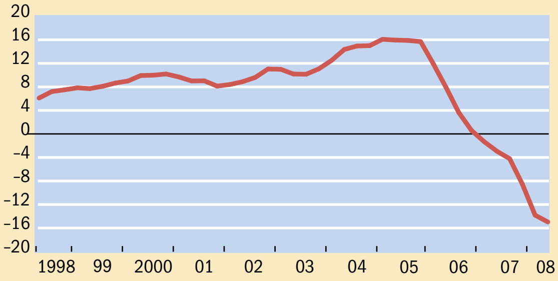
The global system entered this phase of deleveraging with a number of "circuit breakers" in place. These took the form of relatively clean balance sheets, including the considerable capital accumulated by emerging markets (a significant part of which resides in long-established and new sovereign wealth funds, or SWFs). Moreover, at the outset of the crisis, the corporate sector was cash rich and emerging market growth was buoyant, driven by historically high catching-up growth in systemically important economies, such as China and India.

Chart 1

Huge drop

U.S. housing prices, which had reached growth rates of up to 16 percent, began to decline in 2006.

(Case-Shiller home price index, year-on-year percent change)



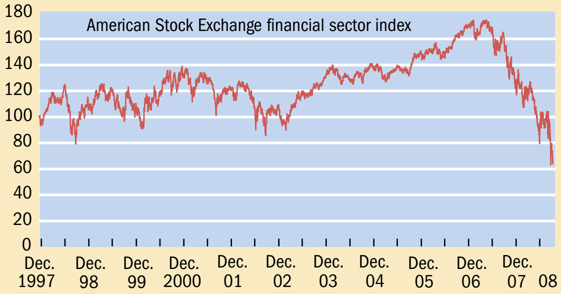
Sources: Standard & Poor's; Fiserv; and MacroMarkets LLC/Haver Analytics.

Chart 2

Bear market

Financial sector stocks have experienced a precipitous drop since June 2007.

(December 1997 = 100)



Source: Bloomberg.

But the accelerating and generalized nature of deleveraging has blunted these stabilizing forces. SWFs have retreated to the sidelines, waiting for markets to settle down and abiding by the time-tested wisdom of disrupted markets: "There are times when you worry about the return *on* your capital, and there are times when you worry about the return *of* your capital."

The SWF pause has been accompanied by an increasing tendency on the part of the U.S. corporate sector to eat into cash reserves. This process accelerated as lower demand dampened earnings, and as various segments of the funding markets, such as commercial paper, shut down. This has led firms, where they have flexibility, to draw on contingent financing lines previously arranged with banks—further aggravating the balance sheet problems there, too.

The decoupling angle

As these various circuit breakers have weakened, the focus has shifted to the global economy's ability to use economic growth to partially offset the damage caused by deleveraging. Naturally, the attention has focused on emerging economies, which have been the most dynamic drivers of global growth in recent years (see Chart 3).

The most recent evidence shows that growth in emerging economies has started to moderate—partly in response to lower U.S. demand for their exports, and partly in response to the 2008 second-quarter tightening in monetary policy, designed to offset higher inflation pressures. This slowing has served to crystallize what, to date, has been an oversimplification of the debate about the evolving relationship between emerging and industrial economies. The debate should be framed not in terms of decoupling versus recoupling, but whether the decoupling is "strong" or "weak."

The strong form of the decoupling hypothesis calls for growth in emerging economies to increase while that in industrial countries declines. This is highly unlikely in today's interconnected world, especially when the United States—the world's largest economy and the issuer of the reserve currency—is facing strong headwinds.

The weak variant calls for growth in emerging economies to slow less than it has historically, given developments in industrial countries. In the process, emerging economies would benefit from offsetting factors such as pent-up local consumer demand, high domestic savings, large international reserves, and considerable room for maneuvering when it comes to countercyclical macroeconomic policies.

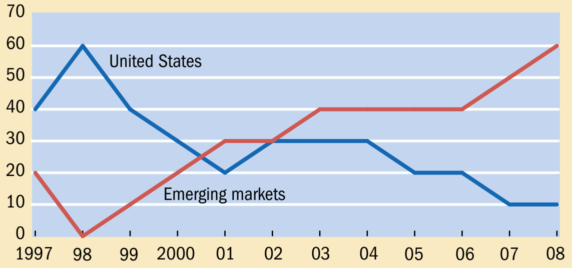
Yet even if the weak variant of the decoupling hypothesis proves true, it is unlikely to counter the adverse impact of deleveraging on global growth, poverty reduction, and wel-

Chart 3

A new locomotive?

Emerging market countries have become the key drivers of global economic growth.

(contribution to global GDP growth, percent)



Sources: International Monetary Fund; and PIMCO.

fare in any meaningful way. That explains recent bold policy actions around the world aimed at

- restoring the smooth flow of cash and collateral, including by renewing faith in the payments and settlement system,
- injecting capital into banks and other financial institutions,
- removing the overhang associated with nontransparent and complex assets, and
- changing the impact of certain regulatory policies to ensure greater countercyclicality.

While these policy actions went into effect, the deleveraging dynamics fundamentally redefined the U.S. financial landscape. Just think: in 2008, the differences between commercial and investment banks have been eliminated; some icons of investment banking, such as Bear Stearns and Lehman Brothers, no longer exist; Merrill Lynch is now part of Bank of America; two high-profile banks, Wachovia and Washington Mutual, were absorbed by healthier institutions; and the world's largest insurance company, AIG, received an emergency capital injection from the Federal Reserve.

The IMF: initially missing in action

As the storm recedes in the months ahead, the debate over how the system got into this mess and why will intensify. Indeed, as I write this article, there is talk of a new Bretton Woods conference. I suspect the discussions will encompass a wide range of entities, including banks, investors, ratings agencies, regulators and, most important, risk managers in both the public and private sectors. The discussions will also consider whether policymakers had the right policy instruments at their disposal once they recognized the challenges facing the financial system.

No doubt many conclusions will be drawn—some valid, and others less so. I believe the one that will resonate most is that global financial activities ended up far outpacing the system's ability to accommodate those activities in an orderly manner. Simply put, the system's infrastructure—at both the national and global levels—failed us.

At the global level, the debate will undoubtedly focus on the IMF's lack of active involvement—until now, at least, when it is supporting vulnerable emerging economies. After all, the deleveraging was nothing short of a systemic crisis that struck at the heart of the global financial system. It affected "global public goods" that are critical to the well-being of a large number of countries (such as the reserve currency status of the dollar, the predictability of the most liquid government market in the world, and the smooth functioning of the payments and settlement system used by most countries).

Ironically, there was no lack of analysis at the IMF. The institution identified early the shared national responsibility for correcting the growing global imbalances. Moreover, there was general buy-in to the policy responses advocated by the IMF and others. And while the IMF was retooling and enhancing its financial sector analyses, its work identified some of the key policy issues.

But the IMF's views and advice were largely ignored, and it did not fulfill the role of "knowledgeable trusted advisor." Meanwhile, the global system reached the point of debt exhaustion before embarking on the messy deleveraging process we find ourselves in now.

By initially eschewing the superior policy solution—coming up with a coordinated multilateral response—the global system has incurred significant costs. These include forgone income growth, financial instability, and unemployment. And let us not forget that the most vulnerable segments of our society are most at risk.

Prisoners' dilemma

At the end of the day, the orderly global policy solution failed because of national weaknesses and the inability of the IMF and other multilateral mechanisms (such as the Group of Seven major industrial countries) to overcome international coordination problems. Every major economy in the global system had an interest in a smooth outcome. Yet, in what is known in game theory literature as a "prisoners' dilemma," first movers on the policy front risked being worse off if others did not follow on a timely basis.

Lacking sufficient legitimacy and representation, the multilateral framework was too weak to provide the necessary assurances that an individual country's preventive policies would be accompanied by supportive action on the part of others. As a result, no country moved decisively and in a timely manner to fix the imbalances.

This lesson should be held front and center as the global system embarks on what is likely to be a prolonged period of rehabilitation and reform. An interconnected world requires more than timely national policies if it is to achieve high growth, poverty reduction, and financial stability. It needs national policies that pay greater attention to a range of cross-border effects. None of this will happen without a bold modernization of the system of international policy coordination. If we do not update our global financial architecture now, we are destined to repeat the mistakes of the past. ■

Mohamed A. El-Erian is co-Chief Executive Officer and co-Chief Investment Officer of PIMCO. He served on the IMF staff from 1983 to 1997.

The Crisis through the Lens of History

The current financial crisis is ferocious, but history shows the way to avoid another Great Depression

Charles Collyns

ECONOMIC history is back in vogue. In the first half of 2008, surging prices of oil and other commodities revived unhappy memories of the stagflation of the 1970s. More recently, the extraordinary intensification of the global financial crisis since the mid-September collapse of Lehman Brothers has brought back an even more ominous specter from the past—the Great Depression of the 1930s.

Comparing the present financial crisis to the deepest and most devastating economic cataclysm in modern history may seem a stretch, but there is now no question that the ongoing crisis has become the most dangerous of the post–World War II era. It is not so much the depth of the downturn in individual countries—devastating financial collapses have occurred before in advanced as well as in emerging economies—but its pervasive reach into all corners of the world economy that has created a threat to global prosperity not experienced in 70 years.

But how large is the present financial crisis by past standards? And, crucially, what will be its likely economic impact and what can be done to contain the damage and pave the way for economic revival? Economic history can help answer these questions, offering both a useful perspective for understanding the relative magnitude and seriousness of the current crisis and invaluable lessons that can be applied to resolving it.

Not quite the Great Depression

One metric that gives a sense of the current crisis is the scale of the financial losses involved. The IMF's latest *Global Financial Stability Report* (IMF, 2008) estimates that losses on U.S.-based mortgage-related and other credits will add up to $1.4 trillion, based on market prices in mid-September. Such losses would be the largest experienced in dollar terms of any post-war financial crisis. Moreover, they are likely to end up considerably higher after taking account of the intensification of the financial crisis across global markets since mid-September. Nonetheless, the losses are not as high in percent of GDP as those suffered by some individual countries during deep crises in the past (see Chart 1).

Another measure is the degree of market stress. The IMF's October 2008 *World Economic Outlook* (Lall, Cardarelli, and Elekdag, 2008) calculates an index of financial stress, calibrated for 17 advanced economies since 1980. This index—available through September 2008 and covering variables such as interbank spreads and equity and bond market performance—has reached a level comparable to previous peak periods of stress across the range of countries. What is even more striking is that the stress has already been sustained at very high levels for almost a year and has affected all the countries in the sample (see Chart 2). And, since September, the strains have spread dramatically to emerging economies, including many of those that were initially seen as being more resilient to external factors than in the past because of strengthened balance sheets and huge international reserves.

So certainly this is a crisis of extraordinary depth, extent, and ferocity. But does it match the financial collapse seen in the

Photo shows a bread line in New York City during the Great Depression.

1930s? Not quite. Between 1929 and 1933, 2,500 banks closed in the United States, and bank credit contracted by one-third. The stock market was down by 75 percent from its peak and unemployment rose to over 25 percent. Moreover, the impact of the Great Depression was felt in deep recessions worldwide. What we have seen so far still seems contained by these standards. Bank closures have been quite limited, and losses on deposits and other claims on banks have been minimal, as regulators have acted swiftly to deal with failing institutions. So far at least, bank credit has been sustained as country authorities have worked long hours to prevent a deeply disruptive collapse of bank capital, even if this has required digging deep into the unorthodox emergency tool kit of nationalization and public capital injections.

Complex linkages

What will be the impact of this financial crisis on the global economy? The effects are complex and work across multiple channels. First, and most important, access to bank credit is likely to be highly restrained for a considerable period, as banks seek to reduce leverage and rebuild capital bases. Bank lending standards have already been ramped up sharply, and they are likely to tighten further as weakening economies further magnify bank losses, even while governments are providing public funds to help boost capital bases. Second, access to debt securities markets has tightened dramatically, not just for riskier low-grade borrowers but even for top-rated issuers and short-term securities, such as commercial paper, that are normally immune from such risks. Third, the drop in equity prices and residential property values has eroded household net wealth. For example, household net wealth in the United States has fallen by an estimated 15 percent over the past year. Fourth, emerging economies are also facing much tighter limits on external financing, as global deleveraging and increasing risk aversion have curtailed investor interest in these markets.

How big will the aggregate impact be? Some insights can be gained by looking at the historical record of what has happened to economic activity following financial crises in the past. At first glance, the evidence is mixed. The recent *World Economic Outlook* study found that only about half of 113 episodes of financial stress over the past 30 years were followed by economic slowdowns or recessions. However, the characteristics of a stress episode are a key determinant of the scale of its macroeconomic impact. Episodes associated with banking crises tend to have a much more severe macroeconomic impact. In fact, recessions associated with banking crises tend to last twice as long and to be twice as intense, and thus to imply four times the cumulative output losses. Also, episodes in which the financial stress lasts for a longer period are likely to be more damaging.

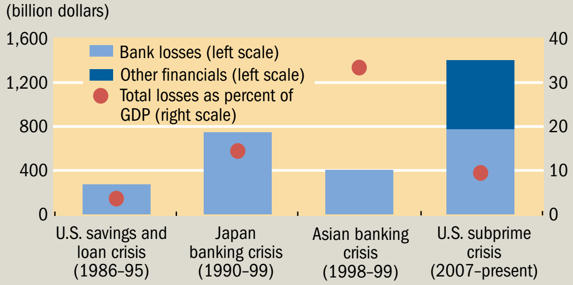
Prior conditions are also critical in determining the macroeconomic impact of financial stress. One source of resilience for the global economy is that corporate balance sheets were generally strong going into this episode, given the major restructuring efforts that followed the 2001–02 dot-com bubble collapse. On the whole, corporate leverage had been reduced, and profitability had been raised to high levels, both of which should provide buffers in the face of tightening financing conditions. But what is less reassuring is that household balance sheets do not look nearly so solid, particularly in the United States, where saving rates dropped and borrowing soared during the housing boom years through 2006, and recent equity and house price declines have eroded net assets.

What about the emerging economies? Again, the story must be nuanced. Their public sector balance sheets are much stronger than they were during the 2001–02 downturn, and the major emerging economies have accumulated large war chests of international reserves and reduced public-debt-to-GDP ratios during years of strong growth, providing more room for maneuver in the face of external pressures (see Chart 3). But these improved conditions are by no means uniform. Many countries, particularly in emerging Europe but also elsewhere, allowed large current account deficits to build up, financed in part through portfolio and banking inflows that are now being cut back sharply amid global deleveraging. And even countries with strong public balance sheets are showing vulnerabilities stemming from rapid private bank credit growth and overextended corporate and household borrowers, all of which are now contributing to sharp pullbacks from emerging markets. The sharp drop in commodity prices—a familiar pattern dur-

Chart 1

Historic losses

Some countries suffered larger individual losses during past crises than seen so far during the current crisis.

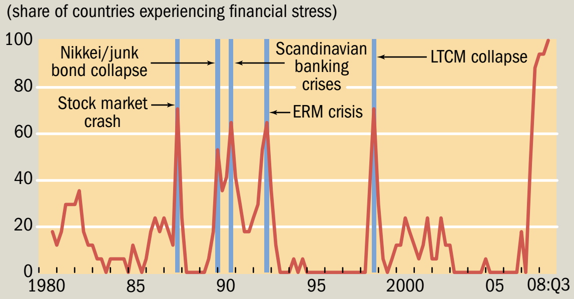


Sources: World Bank; and IMF staff estimates.
Note: U.S. subprime costs represent IMF staff estimates of losses on banks and other financial institutions. All costs are in real 2007 dollars. Asian crisis countries are Indonesia, Malaysia, Korea, the Philippines, and Thailand.

Chart 2

High stress

The current crisis has led to considerable stress across virtually all mature markets for almost a year now.

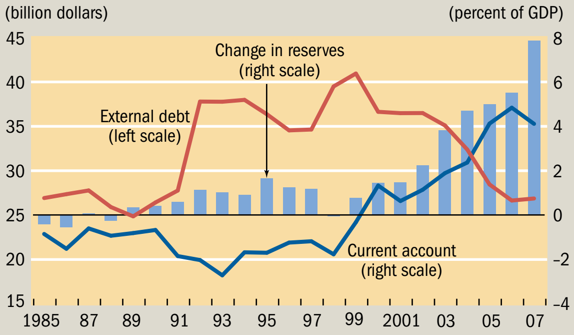


Sources: Haver Analytics; OECD, Analytic Database; OECD, *Economic Outlook* (2008); and IMF staff calculations.
Note: ERM = exchange rate mechanism; LTCM = Long-Term Capital Management.

Chart 3

In better shape

Higher foreign reserves and lower debt are providing a cushion for many but not all emerging and developing economies during the current downturn.



Source: IMF staff calculations.

Note: Aggregate data for emerging and developing economies as classified in the IMF's World Economic Outlook database.

ing global downturns—is adding to pressures on commodity exporters, especially on those that had spent a high proportion of the earlier buildup in revenues.

Drawing on this historical record, the global economy is clearly set for a major downturn. Indeed, activity has already slowed, and both business and consumer confidence have plunged. In 2009, activity in the advanced economies is projected in the IMF's latest global forecast to contract on an annual basis for the first time in the post–World War II era. The emerging economies are also set to slow substantially in the aggregate, and more severely in the more vulnerable countries, although resilience in large economies like China will provide some support for the global economy.

Lessons from history

So what can history teach us about containing the damage and minimizing downside risks to the global economy? The first and most important lesson from every financial crisis since the Great Depression is to act early, to act aggressively, and to act comprehensively to deal with financial strains. The priority must be to quench the fire, even if unorthodox measures are needed that would not be applied other than in the context of a systemic event. As former U.S. Treasury Secretary Larry Summers said, when markets overshoot, policymakers must overshoot too. Thus, the Great Depression became so great in part because for four years after the stock market crash of 1929, policymakers followed orthodox policies that allowed credit to shrink, banks to collapse, and the crisis to feed on itself. Policymakers today are very aware of this chilling precedent, including Federal Reserve Chairman Ben Bernanke, who has studied the period closely to help strengthen understanding of how financial and real sectors of the economy interlink (Bernanke, 1983).

A more recent cautionary tale is provided by Japan in the 1990s, where the impact on bank and corporate balance sheets of the collapse of the house and equity price bubbles was allowed to go unaddressed for many years, contributing to a decade of weak growth (see "The Road to Recovery: A View from Japan," pp. 24–25, in this issue). A more positive case was the vigorous response to the Nordic banking crises of the early 1990s, which created the conditions for strong economic revival after a sharp downturn (see "Stockholm Solutions," pp. 21–23, in this issue).

A second important lesson is the value of providing macroeconomic support in parallel with financial actions. With the effectiveness of monetary policy limited by financial disruptions, fiscal stimulus must play an important role to help maintain the momentum of the real economy and curtail negative feedbacks between the financial and real sectors. Indeed, increasing interest is now being paid to boosting infrastructure spending, akin to the public work programs of the Depression era. But, as the Japanese example makes clear, macroeconomic support by itself provides only breathing room, not a cure; it is essential to use the space provided to address the underlying financial problems or the outcome will be a series of fiscal packages with diminishing impact. And it should also be recognized that there will be limited space for macroeconomic responses in countries where the weakness of public sector management has been an integral source of the problem, as has often been the case in emerging market crises.

The third lesson is the need for policy solutions that work at the global level. Again, the Great Depression provides a classic example of what not to do: the "beggar-thy-neighbor" tariff hikes following the Smoot-Hawley Tariff Act in the United States, which contributed to the international transmission of the crisis around the world. Other examples of the negative contagion effects of one country's policy decisions on other countries can be drawn from the Latin American debt crises since the 1980s and from the Asian crisis.

More positively, recent months have clearly demonstrated the benefits of internationally coordinated efforts, including to ensure liquidity support, enhance protection of deposits and interbank exposures, resolve failing institutions, and ease monetary policy. Actions are also in the works to ensure the adequacy of external financing for countries that have been affected by contagion from the crisis, including steps to increase the availability of IMF credits.

The bottom line is that by learning lessons from experience, we can avoid the worst of the past. The global economy is being battered by a massive financial crisis, but the damage can be contained by strong and coordinated actions that repair the financial damage, support activity, and ensure continued access to external financing. ■

Charles Collyns is Deputy Director in the IMF's Research Department.

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Stockholm Solutions

A crucial lesson from the Nordic experience is the need for prominent state involvement in crisis resolution

Stefan Ingves and Göran Lind

SINCE the onset of the current financial turmoil that began in the United States, policymakers have been looking at previous financial and banking crises to learn lessons about how to deal successfully with the fallout. Many have looked to the case of Sweden and other Nordic countries that went through financial crises during the early 1990s.

The Nordic upheavals of the early 1990s were the first systemic crises in industrialized countries since the 1930s, not counting the banking problems directly related to World War II. The Nordic crises were preceded by the widely studied U.S. savings and loan (S&L) crisis, which was not truly systemic, but affected a subsector within an otherwise functioning large financial market.

The Nordic banking crises were thus eye-openers. How could such problems occur in otherwise well-organized and managed economies and financial systems? The reason we are still thinking about them is that the Nordic countries showed how to effectively deal with such crises.

The Nordic countries taught the world powerful lessons about the need for prominent state involvement in the resolution process: it was the state rather than the private sector that led the systemic restructuring exercise, seeking to bring in private sector owners and investors as much as possible. The Nordic responses also showed the role of the state in the protection of asset values of banks when private asset markets collapse and how to use special asset management companies and loan workout units, which have to be government owned, if no private investors are available—as they seldom are in a systemic crisis. Such bodies can protect value through careful management and avoid the losses brought about by fire sales.

The authors were deeply involved in resolving the Swedish crisis of 1991–93, so this article focuses on the Swedish experience and how it relates to the present turmoil.

Patterns of crises

The present international financial turmoil has led many involved in the financial markets to reconsider long-held beliefs about how markets operate. Nevertheless, we have seen much of this before—albeit on a smaller scale.

Each banking crisis shows a different combination of causes, but the main ingredients are most always there, as they were in the Nordic countries: bad banking, inadequate market discipline, weak banking regulation and supervision, and inadequate macroeconomic policies related to financial liberalization.

Once under way, financial crises follow a common pattern:

- Underlying weaknesses become apparent.
- An acute crisis is triggered by a particular event.
- The crisis is propagated and aggravated.
- Steps are taken to mitigate and resolve the crisis.

Our analysis looks at some of the similarities and differences between the Swedish crisis and the present crisis and proposes ways to tackle the current situation.

Underlying weaknesses—some similarities

The underlying cause of most crises is loose granting of loans, often related to real estate, based on overly optimistic risk assessments in conjunction with easy money and macroeconomic imbalances. The cycles in real estate are fairly long, so investors and credit providers seem to neglect the likelihood of future downturns. They underestimate the risk and extend too much credit, thus supporting speculative bubbles.

The situation is often exacerbated by politicians' well-meaning eagerness to promote housing construction. Expanding and modernizing the housing stock is a highly cherished objective. Public incentives support demand for residential real estate, particularly for less creditworthy buyers. Before the liberalization of the Swedish credit market, legislation forced banks to allocate a substantial share of their resources to fund housing and other real estate projects. De facto public guarantees were provided for mortgage loans and for investment in residential real estate, similar to those of the U.S. mortgage giants Fannie Mae and Freddie Mac. In the Swedish crisis, large sums of taxpayers' money had to be spent to rescue municipally owned companies that owned apartment blocks.

Sometimes bank groups, other market participants, and even the authorities do not sufficiently take into account the implications of off-balance-sheet and other potential risks. In the present crisis, for example, financial and reputational risks emanate from structured investment vehicles (SIVs) and other credit instruments, as well as from demands on bank liquidity from off-balance-sheet commitments. In the Swedish crisis, finance companies played a role similar to that of SIVs. The companies were less regulated than banks and had picked up many of the riskier loans. When finance companies ran into liquidity problems, banks found they had to keep funding the companies—to which they were actually closely linked, even though the companies were legally independent.

Although this was not a decisive issue in the Swedish crisis, financial insurance is a common component in many crises. Insurance providers seem to take on too many commitments in good times. In a crisis situation, highly leveraged insurance providers add to the systemic problem.

The buildup of weaknesses is sometimes due to gaps in financial regulation and supervision. Financial development generally improves the effectiveness of financial intermediation and provides better and more varied services to customers. But it also entails new risks, which may not be fully understood by markets and authorities. In the Swedish case, the concentration of risk when lending too much to the real estate sector was not adequately taken into account. In addition, banks and authorities did not realize the potential dangers of providing loans in foreign currencies to Swedish borrowers whose earnings and assets were denominated in the local currency. In the present international crisis, it is obvious that neither banks nor regulators fully considered the implications of the originate-to-sell business model and in particular the use of SIVs and other derivatives-based funds.

Some key differences

The S&L crisis in the United States involved mainly commercial real estate, and the Swedish crisis a mix of commercial and residential; today's subprime crisis is mostly residential. But the one fundamental difference between the present crisis and that in Sweden is that today the underlying credit issues are exacerbated by the existence of highly complex instruments and closely linked markets—both domestically and internationally.

Although international links existed in earlier crises—for instance, foreign investors held bonds issued in crisis countries—the international repercussions are today more substantial and immediate. Failures of U.S. subprime loans and instruments leveraged on these loans have affected banks in many countries, including France, Germany, and the United Kingdom. Even remote municipalities north of the Arctic Circle in Norway suffered substantial losses on instruments based on U.S. subprime loans.

Likewise, the links between different domestic financial markets are much more apparent this time. Apart from the effects on the credit markets, funding for commercial paper, asset-backed securities, and interbank markets and for U.S. municipalities has been strongly affected. Markets for stocks and securities have clearly taken a hit both on prices and liquidity.

The most acute problem is the squeeze on liquidity. Lacking confidence, those holding excess liquidity are not willing to transfer it to where it is needed. The authorities can, and do, handle this problem in the absence of a market solution, which would be less costly and disruptive and thus preferred. Consequently, restoring confidence quickly must be the top priority. But it's harder now because the complex instruments, valuation issues, and institutional arrangements make it more difficult for analysts and counterparties to banks to understand a bank's true financial position. They are asking, "Who is in fact ultimately exposed to the dud assets?"

Crisis resolution Swedish-style

Compared with the present turmoil, the Swedish crisis was more of a "pure" credit crisis and hence more straightforward to analyze and handle. The true extent of the credit losses and other damage done to the banks was assessed on a forward-looking basis. The bank owners were then invited to infuse the needed additional capital, or let the Swedish authorities deal with the situation—which implied financial support on strict terms, or even government intervention and restructuring of banks.

The Swedish authorities recognized the need to restore confidence in the financial system quickly. There were no significant depositor runs on banks, but Swedish banks' foreign creditors started to cut their credit lines. The creditors found it difficult to assess the situation of individual banks and thus reduced their risk. Banks and authorities had to do their utmost to restore confidence. Words were not enough; action was required.

> "Crisis resolution is mainly about restoring confidence. Transparency is key."

Transparency played an important role in restoring confidence. The authorities forced banks to disclose their true financial situation. The authorities were also prepared to inform the public about their plans and actions. Senior Ministry of Finance officials traveled to New York and London to meet with bankers and market analysts. This proved successful, and credit lines to Swedish banks were soon restored.

An important part of transparency is the ability to determine the value of banks' portfolios, which is difficult when the underlying asset markets are illiquid and do not provide robust price information. The Swedish authorities forced the banks to value their assets conservatively, in particular their real estate exposure. Consequently, the immediate financial situation of the banks appeared perhaps more grave, while at the same time a low floor was established. Price expectations were stabilized and the market turned upward again. In some crises, when the authorities have tried to smooth out price movements, the resulting uncertainty has lasted longer, thus delaying an upturn.

Political consensus is a prerequisite for creating confidence. In Sweden, all the main political parties agreed on the framework for crisis resolution. The framework included a structure to expedite and coordinate responses between the relevant authorities while preserving the integrity of each authority. A new authority was created—the Bank Support Authority (BSA). Before making a decision, the BSA had to obtain the approval of the Riksbank (central bank), the Swedish Financial Services Authority, and the National Debt Office. If agreement was not achieved—this happened only rarely—the issue was referred to the Ministry of Finance. Countries without political consensus or where the authorities have not acted in concert have found it more difficult to take quick remedial action.

Experience shows the importance of adequate legislation and institutions to tackle weak banks. Lacking these tools, Sweden had to improvise. The United Kingdom also lacked a dedicated bank resolution framework, which delayed the resolution of Northern Rock. The United States has a well-oiled structure of laws, institutions, and expertise that has gradually developed since the large-scale banking defaults of the 1930s. Nonetheless, the United States had to apply this framework in a flexible, nontraditional manner in order to accommodate solutions for institutions other than commercial banks, for example, Bear Stearns and Fannie/Freddie. The concept of "systemic threats" was broadened to formally acknowledge, for example, that investment banks could also pose such threats.

Countering risk aversion

Inadequate methods for granting credit in the real estate sector were clearly an underlying weakness in both the Swedish and the present crisis. The acute phase of both crises was triggered by a weakening of the overall economy, in particular the housing sector. Investors became more risk averse so risk premiums increased.

Both crises were propagated by liquidity squeezes and contagion to other institutions and markets. However, the present turmoil is more severe, since more markets are affected. It is also exacerbated by difficult-to-assess complex financial instruments, off-balance-sheet commitments, and bank-related vehicles (SIVs and other conduits).

The approaches to crisis mitigation are also generally similar. Liquidity has been provided on a broad scale—by concerted international action in the recent crisis and nationally in the Swedish crisis. In both cases, banks were nationalized, merged, or sold (sometimes with financial support from the authorities).

Indeed, one of the principal lessons from the Nordic experience is that policymakers cannot rely on the private sector or markets alone to solve systemic banking problems. Similar to the need for a lender of last resort to deal with systemic liquidity shortfalls, there is need for an investor or owner of last resort when all other sources of capital have dried up—and closing down an entire banking system is not a feasible option. There is also a role for a blanket government guarantee to restore confidence and prevent bank runs and a potential financial meltdown—with the wholesale destruction of value that such a scenario would imply.

Restoring confidence

To summarize, the present crisis contains many features recognizable from earlier crises, but they are compounded by the high degree of complexity in financial instruments and institutional arrangements and by close links between markets, both domestically and across borders.

The two crises, supported by experience from other crises, suggest that a crisis cannot be resolved until confidence is restored. Providing more transparency reduces uncertainty. Transparency implies more disclosure about which institutions are holding the risky assets and the realistic value of those assets. The authorities themselves must also be open, as far as possible, about the crisis situation and about their plans. ■

Stefan Ingves is Governor of the Sveriges Riksbank and Göran Lind is an Advisor to the bank's Executive Board.

SHINSEI BANK

A bank customer uses a high-tech ATM in Tokyo.

The Road to Recovery A View from Japan

Strategy for addressing both liquidity and solvency issues is needed

Kenneth Kang and Murtaza Syed

THROUGH most of the 1990s and early 2000s, Japan grappled with a financial crisis whose origins were in some ways similar to the turmoil afflicting the United States today. The storyline from a decade and a half ago in the world's second largest economy evokes an unmistakable sense of déjà vu: the bursting of a property bubble fueled by excess liquidity, lax financial regulation, and over-optimistic projections of asset prices precipitating a real estate and banking crisis.

Compared with the fallout and policy response over the past year, events were considerably more drawn out in Japan. Although the bursting of the bubble in Japan left the financial system saddled with large nonperforming loans (NPLs) and weakened the economy significantly, it took a while before the full scale of the problems became evident.

In 1997, six years into Japan's problems, mounting losses on failed real estate loans and falling share prices led to the interbank market freezing up and a wave of failures in the financial sector, featuring some of the country's largest banks. Faced with a financial system paralysis that threatened to undermine the entire economy, the Bank of Japan (BoJ) scrambled to unlock credit markets. The government also orchestrated large-scale interventions with public funds, struggling with a now-familiar dilemma: how to promote orderly deleveraging while minimizing costs to the taxpayer and limiting moral hazard. In Japan's case, the crisis was successfully resolved, but not before a "lost decade" of economic stagnation and a prolonged bout of deflation.

If anything, today's crisis appears more daunting, given its global scope, the complexity of the distressed instruments involved, and the much weaker international setting. Highly leveraged financial institutions have been joined by highly indebted households this time around, compounding the weakness in domestic balance sheets. Nevertheless, both crises were grounded in broadly common ills, so that Japan's eventual success—and early difficulties—in overcoming its challenges are likely to provide useful insights.

Reflecting the breadth and gradual unfolding of the crisis, Japan's strategy evolved over a number of years, at first centering on innovative and exceptional measures by the BoJ to provide liquidity, including expanding the range of collateral, direct purchases of assets, and quantitative easing under a zero-interest-rate policy. While necessary, this liquidity provision proved insufficient for fixing the financial system. When the crisis intensified, the authorities turned to restructuring banks, pushing them to recognize problem loans and raise new capital, and in some cases seek out public funds or exit the sector. In the end, tighter supervision, judicious use of public funds, and a sound framework for restructuring distressed assets helped restore health to the financial system. At over ¥100 trillion (about $1 trillion), bank losses were much larger than first envisioned, and about ¥47 trillion in public funds was eventually needed to dispose of NPLs and recapitalize banks. However, nearly three-fourths of these funds have since been recovered.

Encouragingly, the initial reaction to the current crisis has been swift and forceful, featuring several steps to address liquidity stresses in interbank markets and the passage of a publicly funded bailout package. All in all, the United States has so far moved with commendable alacrity: in Japan, it was not until 1999—eight years into the real estate bust—that a full-scale injection of taxpayer funds was committed to a comprehensive financial overhaul.

But where do we go from here? U.S. financial markets remain severely strained and fears of a grim recession loom. If Japanese history is any guide, some of the most difficult steps may be yet to come. Although much energy has so far been devoted to bank liabilities (protecting deposits and supporting borrowing), a comprehensive strategy to address the broader challenges—restructuring troubled assets and facilitating consolidation—has yet to be fully fleshed out.

For a sustained recovery, nothing short of a systemic solution that addresses both sides of the balance sheet will do. In Japan's case, a comprehensive approach that addressed both solvency and liquidity issues in the banking system proved to be most effective in resolving the crisis. Measures included recapitalizing the banks and restructuring the debts of the corporate sector. Some potentially useful lessons are suggested by Japan's strategy.

- ***Liquidity provision helped forestall an immediate systemic crisis, but did not adequately address the fundamental problem of an undercapitalized banking system.*** Ample liquidity is part of the solution, but without steps to fully recognize losses and address the capital shortage, the functioning of the markets can be distorted and delay needed restructuring. Weak accounting practices and regulatory forbearance masked the NPL problem for many years and limited incentives for action, such as seeking out new capital or merging with other institutions. The delay in recognizing the losses proved extremely costly, allowing insolvent "zombie" companies to linger. Today, global losses on securitized debt originating in the United States are estimated by the IMF at about $1.4 trillion. Only about half have so far been written down. More transparent regulatory structures based on fair market valuation that encourage banks to repair their balance sheets could assist. At a minimum, early action to recognize losses and raise adequate provisioning could help nail down capital shortages and kick-start the process of restructuring.

- ***Public funds to recapitalize banks were conditional on equity write-downs and strict performance criteria to limit moral hazard.*** Injecting capital into viable institutions, together with the orderly resolution of nonviable ones, helped support credit and bolster capital ratios in Japan. In exchange for public funds, however, banks were required to write down the capital of existing shareholders, replace senior management, and submit a reorganization plan that would be reviewed regularly by the Financial Services Agency. After less stringent approaches failed, public funds were also strategically aimed at promoting financial sector consolidation, with several large banks and many smaller institutions either closed or merged. In order to strengthen market discipline and minimize the risk of moral hazard, governments should also consider an appropriate exit strategy for divesting their shares in the banking system after stability is restored.

- ***Restructuring of distressed assets was needed to clean up bank balance sheets.*** Japan's strategy called for major banks to accelerate the disposal of NPLs from their balance sheets within two to three years by selling them directly to the market, pursuing bankruptcy procedures, or rehabilitating borrowers through out-of-court workouts. Remaining loans were sold to the Resolution and Collection Corporation, which was charged with disposing of failed banks' bad assets, and to the Industrial Revitalization Corporation of Japan (IRCJ), established in 2003 to purchase distressed loans from banks and work with creditors in restructuring. Government purchases through such asset management companies (AMCs) helped provide legal clarity and accountability. If asset prices recover, such interventions could end up costing taxpayers far less than their original price tag—in Japan, the IRCJ even managed to generate a small profit before it shut down in 2007.

- ***A sound private-sector-led framework can help in such restructuring.*** Although a public AMC can quickly remove distressed assets from banks, recovery values are likely to depend on the private sector taking a lead in restructuring. In Japan, the private sector played an important role, including foreign funds that were allowed to take over two troubled banks and help restructure distressed companies. Getting the incentives right hinged on proper valuation of distressed assets and a sound framework for restructuring.

- ***Debtor balance sheets also had to be adjusted.*** In Japan, large NPL write-offs and debt restructuring helped facilitate necessary deleveraging of the corporate sector. More important, the insolvency system was overhauled, with the 2000 Civil Rehabilitation Law allowing faster and more diverse bankruptcy disposal methods and the establishment of the IRCJ. Cleaning up housing mortgage debt in the United States would likely require somewhat different methods, but it would keep people in their homes and stem the precipitous decline in property prices at the root of today's crisis.

- ***Supportive macroeconomic policies, although not a panacea, complemented financial sector measures.*** In response to the crisis, Japan's policymakers slashed interest rates and boosted fiscal spending. Between mid-1991 and end-1993, the BoJ cut the discount rate from 6 percent to 1¾ percent. However, this ultimately failed to revive the economy as the crisis disrupted the normal transmission channels of monetary policy, requiring a deep and comprehensive fix of the banking system. Overall, Japan's experience suggests that macroeconomic policies can support the adjustment process and provide some breathing room, but they are no substitute for direct steps to address underlying financial sector weaknesses that led to the crisis.

Finally, there is a comforting lesson: despite the initial enormous dislocation, there is nothing like a crisis to bring to light—and build popular support for—much-needed reforms. In Japan, measures to develop capital markets and banking capital adequacy rules under the Basel II framework helped establish a more competitive financial system, one that has fared relatively well amid the current global turmoil. With a more strategic focus, today's crisis could also herald positive reforms that enhance the efficiency, but also the resilience and transparency, of the global financial architecture. ■

Kenneth Kang is a Deputy Division Chief and Murtaza Syed is an Economist in the IMF's Asia and Pacific Department.

When Crises Collide

Stijn Claessens, M. Ayhan Kose, and Marco E. Terrones

Recessions accompanied by credit crunches or asset price busts are deeper and longer lasting

THE financial turmoil that started in the United States has already affected the real economy in countries around the globe. But how severe the impact will be and how prolonged the resulting recession is a matter of intense debate among economists.

This debate has highlighted a number of questions about the linkages between the financial sector and the real economy during recessions. For example, how do macroeconomic and financial variables behave during recessions, credit crunches, and asset (house and equity) price busts? And are recessions associated with credit crunches and asset price busts different from other recessions?

To shed light on these questions, we undertook a comprehensive analysis of the linkages between key macroeconomic and financial variables around business and financial cycles for 21 Organization for Economic Cooperation and Development countries between 1960 and 2007 (Claessens, Kose, and Terrones, 2008). This is the first detailed, cross-country empirical study addressing the implications of recessions when they coincide with financial market difficulties, including credit crunches, house price busts, and equity price busts.

Recessions, crunches, and busts

Before analyzing recessions and their interactions with credit crunches and asset price busts, it is necessary to determine the dates of those events. The methodology we employed for this purpose focused on changes in the levels of variables to identify cycles. Consistent with the guiding principles of the National Bureau of Economic Research, the unofficial arbiter of U.S. business cycles, this methodology assumes that a recession begins just after the economy hits a peak of activity and ends as the economy reaches its trough. With the help of this methodology, we identified cycles in output (GDP) and financial variables, including credit, house prices, and equity prices. After identifying cyclical turning points, we examined the main features of recessions, credit crunches, house price busts, and equity price busts.

There have been 122 recessions between 1960 and 2007. Recessions on average lasted about four quarters, with substantial variation across episodes—the shortest was 2 quarters and the longest 13 quarters (see Chart 1). The typical decline in output from its peak to its trough—the recession's amplitude—tended to be about 2 percent. We also computed a measure of cumulative loss that combined information about both the duration and amplitude of a recession to estimate its overall cost. The cumulative loss from a recession

A closed General Motors plant in Lansing, Michigan.

was typically about 3 percent. Severe recessions—those in which the peak-to-trough decline in output was in the top quartile of all recession-related output declines—were more than three months longer than the average recession and much more costly.

We identified 28 credit crunches, 28 house price busts, and 58 equity price busts. Credit crunches and asset price busts correspond to peak-to-trough declines in credit and asset prices that are in the top 25 percent of all episodes of credit and asset price declines, respectively. Credit crunches and housing busts are often long and deep. For example, a credit crunch episode typically lasted two and a half years and was associated with a nearly 20 percent decline in credit, which is measured by the volume of claims on the private sector (see Chart 2). A housing bust tended to last even longer—four and a half years, with a 30 percent fall in real house prices. An equity price bust lasted more than 10 quarters, and when it was over, the real value of equities had dropped by half.

If they were not followed by recessions, the episodes of crunches and busts were not necessarily associated with declines in output. In fact, although output growth slowed—especially during the early stages of credit crunches and house price busts—it often expanded at the end of these episodes. The eventual increase in output during crunches and busts is not surprising, because these episodes did not always fully overlap with recessions and lasted twice as long as the recessions. Still, the average growth rate of output during crunches and busts was much lower than during more tranquil periods in credit and housing markets.

Both credit crunches and house price busts were, however, associated with significant declines in investment. Credit crunches tended to coincide with a decline in residential investment of about 6 percent, whereas house price busts were accompanied by about twice as large a drop. The unemployment rate increased significantly, especially during the early stages of these episodes, as economic activity started to soften.

Cycles move in step across countries

Some observers see the global nature of the current crisis as unprecedented, with several advanced economies simultaneously experiencing declines in house and equity prices and difficulties in their credit markets. However, historical evidence shows this is not unusual. Recessions, crunches, and busts have often occurred at the same time across countries. Recessions in many advanced economies were clustered in four periods over the past 40 years—the mid-70s, the early 80s, the early 90s, and the early 2000s—and often coincided with global shocks.

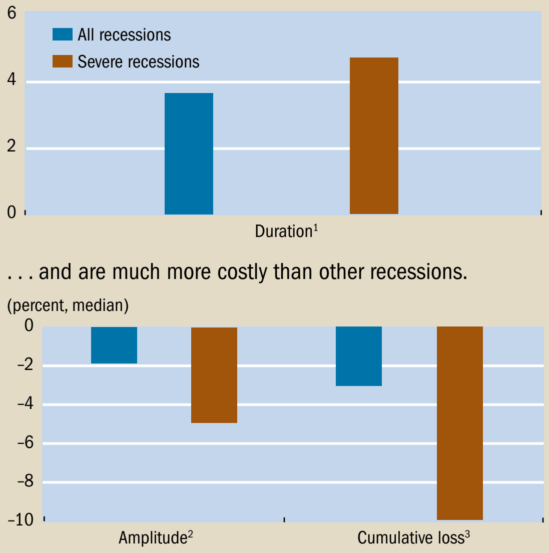
Just as many countries experience synchronized recessions, countries also go through simultaneous episodes of credit contraction. Moreover, declines in house and equity prices tend to occur at the same time. For example, house price declines are highly synchronized across countries—reflecting the importance of global financial factors, including common movements in national interest rates, in driving house price fluctuations. Equity prices exhibit the

Chart 1

A long and painful road

Severe recessions last longer . . .

(quarters, average)



. . . and are much more costly than other recessions.

(percent, median)

Source: Claessens, Kose, and Terrones (2008).

[1]Duration is the number of quarters between the peak and trough of a recession.

[2]Amplitude is the change in gross domestic product (GDP) between the peak and trough.

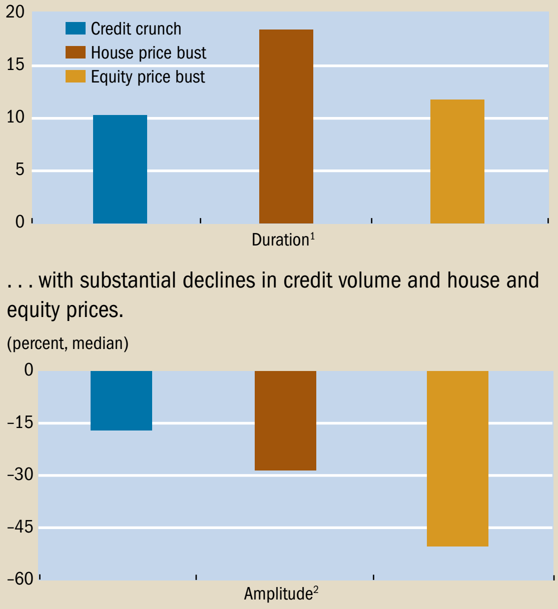
[3]Cumulative loss is the total amount of GDP lost between the peak and trough of a recession.

Chart 2

Extended and more costly

Credit crunches and asset price busts are often protracted events . . .

(quarters, average)



. . . with substantial declines in credit volume and house and equity prices.

(percent, median)

Source: Claessens, Kose, and Terrones (2008).

[1]Duration refers to the number of quarters between the peak and trough of a credit crunch or an asset (house and equity) price bust.

[2]Amplitude is the change in credit volume or asset price between the peak and trough of a credit crunch or an asset price bust, respectively.

highest degree of synchronization, likely because of the high financial integration of equity markets. But the number of countries experiencing bear equity markets frequently exceeds the number experiencing a recession. As the popular saying goes, "Wall Street has predicted nine of the last five recessions."

Double whammy

Are recessions associated with crunches and busts indeed worse than other recessions? To answer this question, we first used a simple "dating" rule to determine whether a specific recession is associated with a credit crunch or asset price bust. In particular, if a recession started at the same time as, or after the beginning of, an ongoing credit crunch or asset price bust, we considered that recession to be associated with the respective crunch or bust. This rule describes a "timing" association between the two events but does not imply a causal link.

Many recessions were indeed associated with credit crunches or asset price busts. In one out of six recessions, there was also a credit crunch under way, and in one out of four recessions a house price bust. Equity price busts overlapped for one-third of recession episodes. There can also be considerable lags between financial market disturbances and real activity. A recession, if one occurs, can start as late as four to five quarters after the onset of a credit crunch or housing bust.

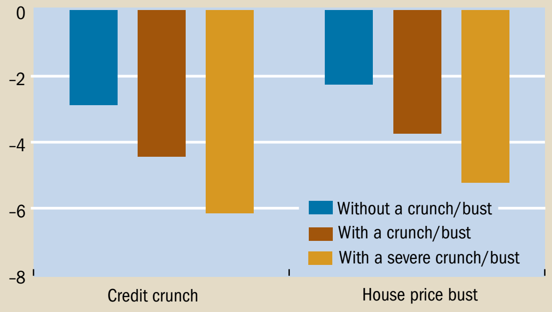
One of the key questions surrounding the current financial crisis is whether recessions associated with crunches and busts are worse than other recessions. Here, the international evidence is clear: these types of recessions are not only longer, but also are associated with much greater output losses than others. In particular, although recessions accompanied by severe credit crunches or house price busts last only three months longer on average, they typically result in output losses two to three times greater than recessions without such financial stresses (see Chart 3).

Chart 3

Battered by severe crunches and busts

Recessions that coincide with severe credit crunches or house price busts exhibit larger cumulative GDP losses.

(cumulative loss, percent, median)



Source: Claessens, Kose, and Terrones (2008).

Notes: Cumulative loss is the total amount of GDP lost between the peak and trough of a recession. Severe credit crunches and house price busts are those that are in the top half of all crunch and bust episodes.

Why are recessions associated with crunches and busts longer and deeper? Financial market problems stemming from credit crunches and asset price busts can prolong and deepen recessions through a variety of channels. For example, sharp declines in asset prices can reduce the net worth of firms and households, limiting their capacity to borrow, invest, and spend. This in turn leads to further drops in asset prices. Banks and other financial institutions might restrict lending as their capital bases diminish during credit crunches, resulting in protracted and deeper recessions.

A somewhat mechanical examination of changes in the main components of output during recessions reinforces that conclusion. Consumption and investment usually register much sharper declines, leading to more pronounced drops in overall output and employment during recessions coinciding with financial problems. For instance, the decline in consumption during recessions associated with house price busts was typically twice that of recessions without busts, likely reflecting the effects of the substantial loss of housing wealth. Moreover, the rate of unemployment typically registered a larger increase during recessions accompanied by crunches and busts.

Although recessions associated with equity price busts also tended to be longer and deeper than recessions without, the differences across these episodes were not statistically significant. This confirms that equity price busts have a less tight relationship with developments in the real economy than do credit crunches and house price busts.

Lessons for today

The global economy has been experiencing a financial storm of historic proportions. The lessons from the earlier episodes of recessions, crunches, and busts are sobering, suggesting that recessions following this storm may be more costly, because they are likely to take place alongside simultaneous credit crunches and asset price busts. Furthermore, although the effects of the current crisis have already been felt gradually around the world, past evidence suggests that its global dimensions are likely to intensify in the coming months. Nevertheless, the nature of a recession in a particular country can be shaped by many factors—including the financial health of its firms, banks, and households prior to the recession, and the policy measures that authorities employ to mitigate its adverse effects. Continued decisive policy actions at both the national and global levels could help meet the evolving challenges of the crisis. ■

Stijn Claessens is an Assistant Director, and M. Ayhan Kose and Marco Terrones are Senior Economists in the IMF's Research Department.

Reference:

Claessens, Stijn, M. Ayhan Kose, and Marco Terrones, 2008, "What Happens During Recessions, Crunches, and Busts?" forthcoming IMF Working Paper.

The Catch-Up Game

An academic and a policymaker share insights on what makes countries grow, in good times and bad

THE current financial crisis has brought the issue of growth and stimulus back into sharp focus. To gain insights into this issue, Archana Kumar from *Finance and Development* magazine turned to two experts: Michael Spence, a Nobel Prize–winning economist, and Mahmoud Mohieldin, Minister of Investment of the Arab Republic of Egypt. Both have served on the Commission on Growth and Development—a group of policymakers and academics that came together for two years to explore the causes, consequences, and internal dynamics of sustained high growth. The commission, which completed its work well before the financial crisis took such a severe turn, recently published its findings in *The Growth Report: Strategies for Sustained Growth and Inclusive Development.*

***F&D:* What are the critical actions needed in advanced economies to lessen the impact of the financial crisis on the real economy?**

Spence: We face two scenarios in the developed economies. One, if we don't effectively solve the credit crunch problem, it will cause extraordinary and widespread damage to the economy outside the financial sector. And that scenario will be worse than anything we've seen in the post-war period. There is a reasonable chance that with a focused global effort—I mean an internationally coordinated one—we can avoid that scenario. It will not immediately settle the stock markets because they are operating on a completely different dynamic that has to do with fear, but it is still important and policymakers should focus on that. So I would put that at the top of the list.

"We need both a well-thought-out fiscal stimulus and a plan to restore fiscal balance in the long run."

Spence

The second scenario is a little harder to get people to focus on, but because we have already seen tremendous growth slowdown, we need both a well-thought-out fiscal stimulus that has a time dimension to it and a plan to restore fiscal balance in the long run that can prevent further chaos in the financial markets. Larry Summers, among others, has talked about this at some length.

So those would be my two candidates: deal with the real effects of the financial crisis and, to the extent possible, recapitalize the financial system; and then focus on the fiscal side. Of course, the financial system cannot be recapitalized fast enough to solve the credit lockup problem, so it has to be solved with direct interventions of various kinds: guarantees for transactions that are being cleared in the interbank transaction system, the U.S. Federal Reserve buying commercial and municipal paper, and so on.

Mohieldin: The first thing is restoring confidence, and the second thing is restoring confidence. The issue of trust and confidence in, and the credibility of, the financial system is very crucial today. Whatever we can do to restore confidence is going to be beneficial, not just for the developed countries but also for the developing countries.

As Professor Spence just mentioned, we need to think of some shortcuts—some supportive measures—until we can get the financial institutions back in order. To fund crucial development projects, and for trade and investment, countries need adequate finance. And the issue of finance, along with the issue of confidence, means that the mechanics of support should be put in place very quickly to restore the normal functioning of the financial system.

***F&D:* How about emerging markets? What are the critical actions they can take to protect their growth rates at this time?**

Mohieldin: You cannot put all developing countries and emerging markets in one category, especially now, because they are exposed in different ways to current crises. So particular policies are likely to be more relevant to some countries than others. Take the rising commodity prices, for example. Some countries have benefited, and others were harmed.

But nobody is benefiting from the financial crisis. It's not a zero-sum game. For small open economies, including say a country like Egypt, it feels like being on a boat in a very turbulent sea. What we need to do is keep that boat safe by making some sort of precautionary arrangements and enhancing the safeguards. And we need to continue to use commonsense approaches in doing business.

Also, achieving and maintaining growth through more investment is crucial. Take the case of Egypt and many other countries in the rest of Africa. They could rely on private sector investment, especially on productive sectors such as infrastructure. It takes time to see the outcome of such beneficial projects, but they pave the road for future prosperity.

Another important area to think about now is the way economic performance, including growth performance, is measured. We are, at the moment, dependent on "lagging indicators." It is like driving a car without even a clean rearview mirror. Things on the road ahead don't appear to be very clear. To accurately assess the impact of the financial crisis on the performance of developing countries, we need clear and leading indicators that show the symptoms of trouble. And that is not always possible because many of the developing countries do not have sophisticated financial systems, including active stock markets.

Mohieldin: Achieving growth through more investment is crucial.

So whatever is happening or is going to happen in developing economies as a result of the financial crisis is not being clearly revealed, and I fear these countries will be hit directly in the bone. Without any buffer or financial shelter, growth, unemployment, the welfare of people, and—unfortunately—poverty would be directly affected.

Spence: I agree with Minister Mohieldin—stabilizing and keeping the boat afloat are key priorities. For the countries that can afford it, domestic investment—including domestic public sector investment and employment—makes a lot of sense at time when the global economy has created a bit of a vacuum. And for poor countries that are commodity importers at the 10 percent of GDP level with high portions of household budgets going to food, the right response is for the global community to get together and help them.

***F&D: The Growth Report* says that "sustainable high growth is catch-up growth and the global economy is the essential resource." What do you mean by that?**

Spence: We called it catch-up growth because of the global economy's contribution to growth—which we found was an essential element after looking at the dynamics of the successful high-growth cases. It is pretty well understood from trade theory and modern growth theory that global markets are big and a country can grow pretty fast without expanding its market share much—and if it has the terms of trade. But the other part, which is emphasized by Paul Romer and other distinguished leaders in the area of growth theory, is that catch-up growth is really about learning. It's about knowledge transfer. It's expanding your potential output based on what the economy—both the private and public sector sides—comes to have expertise in doing, and that is the catch phrase, no pun intended, for catch-up growth. This is what, we believe, more than anything else enables countries to grow at rates in the 7–10 percent range, and nobody else can do that. You can't do it in isolation and you can't do it as an advanced country with no counterexamples because you have to invent all the technology that moves the production possibility out, whereas developing economies can, at least for a period of time, import it. You have to import it and adapt it so it takes a considerable amount of ingenuity, innovation, and adaptation.

Mohieldin: The 13 successful cases [in *The Growth Report*] of sustained high growth since the Second World War used their integration with the world in a very successful way through the vehicles of knowledge—obtaining it either directly by sending people to get educated abroad, or getting them through training programs—or even through foreign direct investment.

I am from a generation that was taught that the three pillars of any economic activity were land, labor, and capital, and when you added them together with an entrepreneur, you would see the marvels of economic activity. Today those three pillars have been replaced. In an interesting piece of work, Professor Romer discusses endogenous growth, and—according to him—the three new aspects of development are, first, learning, innovation, and the transfer of ideas. Second, labor has been replaced by "people," not just those who are in the workplace but those who *could be* in the workplace as well as those who are communicating with them. Third, to be safe, they added "other things," which could be anything such as capital, additional resources, etc. So today the three pillars are ideas, people, and other things.

"Globalization is going to remain relevant, even though I'm saying so at a time when people might be questioning the very merits of globalization."

Mohieldin

The success stories of Singapore, Malaysia, Korea, China, and, more recently, India and Vietnam are based on these new pillars, rather than the traditional ones. And further integration with the rest of the world can benefit countries even more. This means globalization is going to remain relevant, even though I'm saying so at a time when people might be questioning the very merits of globalization.

***F&D:* But the global economy itself is in severe distress. Do you still think that engaging with the global economy is a prerequisite for achieving high growth?**

Mohieldin: As I just mentioned—even at a time when the global markets have seen some very negative developments and when the Doha Round is continually failing—I still believe in the merits of the global economy for small, open economies, such as Egypt and others in the region. The global economy has also benefited larger countries, such as China and India. I still believe in the value of expanding demand through exports, enhancing capacity to finance growth by foreign investments, developing our knowledge by learning from others. We can not do any of these without globalizing.

Spence: Catch-up growth is about learning.

Spence: I will only add one thing. There are approximately 4 billion-plus people in parts of the world that are pretty well off, or growing rapidly, and that number has been expanding, and now there is a great deal of hope. Hope being the right word. And if we allow the global economy to shut down and truncate the opportunities that all of these people—the ones in the successful economies and the ones that are probably in the process of entering that group: that is, a good chunk of the rest of the world's population—we will (*a*) do something that is deeply unfair by taking away one of the principal underpinnings of that growth and prosperity, and (*b*) it will have consequences in the way people think about their relationship with each other in the world. It is worth a big effort therefore to protect some version of the open global economy.

***F&D:* Have you identified a "model" for growth in the post–World War II era? Or, if you had written *The Growth Report* in 2008, it may have offered different policy prescriptions for high growth?**

Spence: It may not be the only model, but it was the only one we were able to find. In a sense, it's an empirical statement—others may invent different ones for particular circumstances. For instance, Dubai may go from a natural resources economy to a global service economy, and India has certainly done things in an odd order, by developing the [highly educated] service industries. Having said that, in some sense, it is the only model that we know of. If we wrote the report in late 2008, we would have emphasized the volatility and insurance aspects more, because when they get out of control they produce crises. Also, we already know that such crises are debilitating for progress and growth, and do not adequately support growth policies.

Mohieldin: For policymakers, the report is particularly useful because it highlights the *list of don'ts*. It is especially relevant for countries that are not geographically close to the 13 high-growth countries we identified in the report—most of which are in Asia. The closest country to us is Oman, which is a very particular case, at least in terms of the relatively small population size. This is not to undermine what Oman has achieved, which is a great deal, especially in areas related to investment in human capital and to equity. But the East Asian countries, such as Singapore, China, Malaysia, Korea, and Japan, are learning from each other's experiences. The proximity helps, not just geographic proximity, but also cultural proximity.

***F&D:* What is the one key policy ingredient critical for achieving sustained high growth—notwithstanding your caveat of "individual country conditions"?**

Mohieldin: Investment in human capital. Investing in education and health, and the provision of public goods, is a crucial but neglected issue—neglected because the investment will not be reflected in outcomes today or tomorrow. It will take a generation, or more, to see a return on good investments in human capital, or even the investment in infrastructure in a wider sense so you can support the human capital development.

Spence: I am very tempted by that view—high levels of investment in long-term horizons are very important for future generations and would seem to deserve to be at least near the top of the list, but I would pick openness to the global economy. I think it is the other potential candidate.

***F&D:* What is the least understood thing about growth?**

Spence: This is very hard to answer, because it depends a little bit on who one's talking to or about what; but I would pick the crucial contribution that is made by political leadership, consensus building, building communication, giving people a vision of what's going to happen that allows them to participate over time enthusiastically in a process that involves short-run sacrifices. If you take it away, the chances of achieving high growth are very low, and I think many, many people don't understand that very well. I certainly didn't at first.

Mohieldin: It depends on the audience, but generally the idea that growth is a proxy for many other things, a reflection of all of the good things that society has been managing to do to achieve something, is not very well understood. Growth stands for the aspiration of people from an economic and social perspective—and it has the beauty of being measurable. It is a summary of the progress of a nation. ■

Archana Kumar is a Senior Editor on the staff of Finance & Development. *This is an edited version of the interview. In-depth coverage of the Growth Commission's work and ideas can be found at* www.growthcommission.org.

The Ingredients of

SINCE 1950, 13 economies have managed to grow at an average rate of 7 percent or more for at least 25 years in a row. How did they do it? And, more important, can such high growth be repeated in other countries on a sustained basis? For over two years, these were the questions that guided the work of the Commission on Growth and Development, comprising leaders from business, government, and academia, including two Nobel laureates.

Diversified and engaged

Sustained fast growth is not a miracle—it is possible for developing countries, as long as their leaders are committed to it and take advantage of the opportunities provided by the global economy. The 13 successes identified by the Commission (see table) include the familiar Asian examples, but the list is otherwise well diversified in terms of size, resource endowment, and political regime.

Since economies can learn faster than they can invent, developing countries can catch up through much faster growth than was experienced by today's industrialized countries when they were creating their own growth levers. Even with high rates, catching up is a long-term process that takes two generations or more.

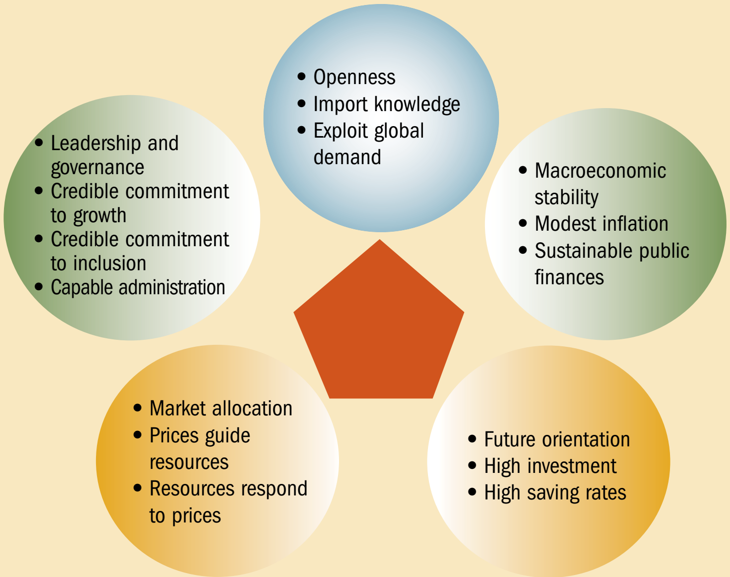
Critical to success is engagement with the global economy that enables developing countries to import knowledge and technology, to access markets, and to generate a strong export sector, which is especially important in the early stages of growth.

Sustained high growth in developing economies is a post–World War II phenomenon.

Economy	Period of high growth	Per capita income At start of growth period	 2005[1]
Botswana	1960–2005	210	3,800
Brazil	1950–1980	960	4,000
China	1961–2005	105	1,400
Hong Kong SAR	1960–1997	3,100	29,900
Indonesia	1966–1997	200	900
Japan	1950–1983	3,500	39,600
Korea	1960–2001	1,100	13,200
Malaysia	1967–1997	790	4,400
Malta	1963–1994	1,100	9,600
Oman	1960–1999	950	9,000
Singapore	1967–2002	2,200	25,400
Taiwan Province of China	1965–2002	1,500	16,400
Thailand	1960–1997	330	2,400

Source: World Bank, *World Development Indicators 2007*.
Note: A 7 percent cutoff was chosen because growth at these rates produces very substantial changes in incomes and wealth: income doubles every decade at 7 percent.
[1] In constant 2000 U.S. dollars.

The five common characteristics of sustained high growth


• Openness
• Import knowledge
• Exploit global demand
• Leadership and governance
• Credible commitment to growth
• Credible commitment to inclusion
• Capable administration
• Macroeconomic stability
• Modest inflation
• Sustainable public finances
• Market allocation
• Prices guide resources
• Resources respond to prices
• Future orientation
• High investment
• High saving rates

In addition to engaging with the global economy, these high-growth countries share other important characteristics. Macroeconomic stability—which includes relatively low inflation and avoidance of excessive debt—helped them ride out economic shocks and uncertain investment horizons. Their economic policies and collective choices were oriented toward the future, helping them achieve high investment and saving rates.

These 13 countries also relied on markets, including mobility of labor, to allocate resources. And strong leadership—in the form of individuals, parties, or political systems—forged a consensus around the goals of growth and development, and ensured the process was inclusive and fair in terms of opportunities.

Sustained High Growth

How did they do it?

Six of the economies—Hong Kong SAR, Japan, Korea, Malta, Singapore, and Taiwan Province of China—continued to grow all the way to high-income levels. But several lost momentum before catching up with industrialized nations. The most striking example is Brazil (see next box).

It is not easy—or common—for middle-income countries to reach high income. The first priority for policymakers is to anticipate this transition and the new demands it will make of them.

Korea, for example, changed its policies and public investments in the 1980s and the 1990s to help the economy's evolution from labor-intensive manufacturing to a more knowledge- and capital-intensive economy.

The second priority is for countries to let go of some of their earlier policies, even the successful ones. Singapore, for example, responded to evolving economic conditions at home and abroad by allowing labor-intensive manufacturing to migrate elsewhere in the region, where labor was cheaper. It even ran special economic zones in China and India.

Brazil's slowdown

Brazil, one of the first countries to achieve sustained high growth, began to slow down in 1980. The country suffered inflation and debt overhang from the 1973 oil shock.

Instead of seeking to expand exports, it turned inward in 1974 and extended a policy of protecting light manufacturing domestic industries to heavy industries and capital goods production.

Brazil's exchange rate appreciated dramatically and its exporters lost much of the ground they had gained in previous decades. When dollar interest rates spiked in 1979, Brazil was plunged into a debt crisis from which it took more than a decade to emerge.

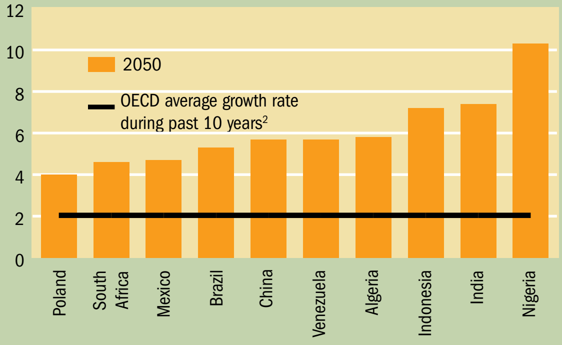
New global challenges

Countries embarking on a high-growth strategy today must overcome some global trends their predecessors did not face. These include global warming; the falling relative price of manufactured goods and rising relative price of commodities, including energy; swelling discontent with globalization in advanced and some developing economies; the aging of the world's population, even as poorer countries struggle to cope with a "youth bulge"; and a growing mismatch between global problems—in economics, health, climate change, and other areas—and weakly coordinated international responses.

But whatever the challenges, the strength of the global economy remains central for rapid growth in developing countries.

Developing countries will need strong growth to catch up with OECD countries.

(growth rate needed to achieve OECD per capita GDP level by 2050[1])



Source: World Bank, *World Development Indicators 2007*.

[1] Per capita income in the OECD countries was $30,897 in 2006. Assuming it continues to grow at the historical trend of 2.04 percent a year, it would become $75,130 in 50 years.

[2] OECD=Organization for Economic Cooperation and Development.

Prepared by Natalie Ramirez-Djumena and Jair Rodriguez. Based on The Growth Report: Strategies for Sustained Growth and Inclusive Development *published by the World Bank in 2008, on behalf of the Commission on Growth and Development. The report is available at www.growthcommission.org.*

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A shopkeeper arranges prices of pulses in Delhi, India.

Global Financial Turmoil Tests Asia

Kenneth Kang and Jacques Miniane

As the global financial crisis spreads, how will Asia weather the storm?

COMPARED with other regions, Asia appeared at first better positioned to weather the storm created by the global fiancial crisis, thanks to its substantial official reserves cushion, improved policy frameworks, and generally robust corporate balance sheets and banking sectors.

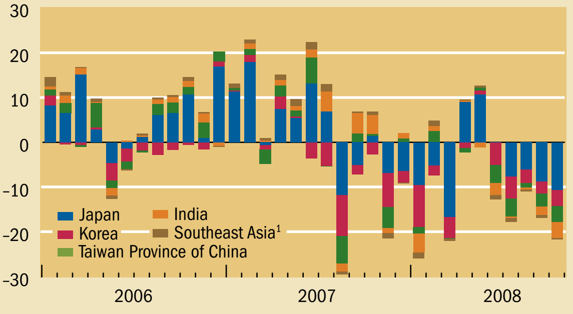
However, after the collapse of Lehman Brothers in mid-September and the ensuing rise in global risk aversion, the crisis spread to Asia and rattled many of its markets. Any hope that the region would escape the crisis unscathed has by now evaporated. With global growth expected to slow markedly next year and deleveraging to continue, Asia will likely face a difficult period ahead. How Asia withstands the shock of both slower global growth and a spreading financial crisis is critical not only for the region, but for the world as a whole.

Chart 1

Fleeing foreign capital

Since the start of the global credit crisis, risk-averse investors have been pulling their money out of Asian equity markets.

(net equity flows, billion dollars)



Source: Bloomberg LP.

[1] Indonesia, Philippines, Thailand, and Vietnam.

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Asia's financial systems

Some important characteristics of Asia's financial systems protected them early on from the worst of the crisis. These systems tend to be bank dominated and generally have not engaged in the off-balance-sheet activities or invested in the illiquid securitized assets at the heart of the current crisis in advanced economies. Asian financial institutions overall have limited exposure to U.S. subprime mortgages and structured credit products from overseas, attributable in part to the more cautious risk management and the strengthening of the regulatory structure that resulted both from Japan's banking crisis in the late 1990s and the 1997 financial crisis in emerging Asia. Moreover, the region's derivative and structured products remain for the most part in relative infancy.

But given the region's large trade and financial integration with the rest of the world, investors' views of Asia soured as the global turmoil intensified and perceptions grew that the global economy was in for a major slowdown. Large net equity outflows have driven down stock prices sharply (see Chart 1). Asia-focused hedge funds have been among the worst performers worldwide, with their returns consistently below those of other emerging market funds.

Capital outflows have also significantly weakened currencies in some countries, notably India, Korea, New Zealand, and Vietnam. And several countries have responded by intervening to support their currencies, in stark contrast to the past several years, when most Asian countries were concerned about the rapid *appreciation* of their currencies.

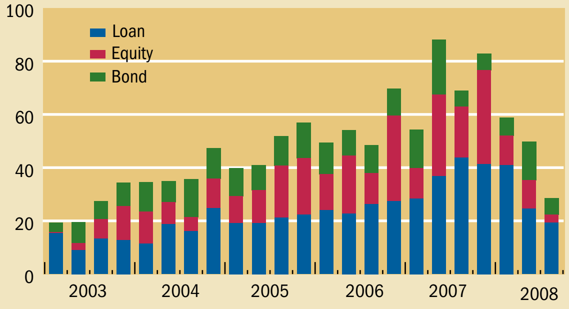
With the rise in global risk aversion, Asian governments, corporations, and financial institutions have found it more difficult to access the global financial markets (see Chart 2).

Chart 2

Frozen out

Asian borrowers—sovereign and private—are finding it ever harder to tap global financial markets.

(billion dollars)



Source: Bond, equity and loan database of the IMF through Dealogic.

Countries with banking systems that rely more on wholesale financing and less on retail deposits (Australia, India, Korea, New Zealand) have experienced a higher rise in borrowing costs, partly because of concerns they will face difficulties rolling over their debts. As a result of these tightened conditions, the region's private external financing has fallen sharply.

Domestic interbank and money markets have also come under stress from the global turmoil. In financial centers (Hong Kong SAR, Singapore, and Tokyo), interbank spreads over comparable government yields (so-called TED spreads) have risen, reflecting concerns about counterparty risk with foreign banks as well as a flight to quality. Spreads on credit default swaps for Asia—the cost of insurance against default on corporate bonds—have widened substantially (see Chart 3). The cash market for domestic structured products also remains effectively shut down as investors continue to turn away from securitized instruments. Most worrisome for a region highly dependent on external trade is the mounting evidence that trade financing is drying up. Finally, the global shortage of dollar liquidity is spilling over to affect local currency markets, such as those for swaps and repurchase agreements, leading to some market dysfunction and higher domestic funding rates.

A range of policy responses

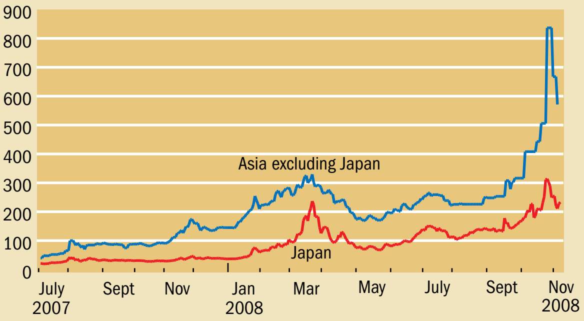
Policymakers have responded with a range of measures to stabilize financial conditions. For example, in addition to providing exceptional short-term liquidity, the Hong Kong Monetary Authority has taken steps to broaden the types of collateral it will accept and increase the attractiveness and maturity of its liquidity support. In India, the Reserve Bank sharply reduced the cash reserve requirement it imposes on banks to relieve pressures in the interbank market. Central

Chart 3

Credit risk rises

Spreads on credit default swaps for Asia, essentially the cost of credit default insurance, have risen dramatically since mid-2008.

(basis points)



Sources: Bloomberg; and IMF staff calculations.
Notes: Measured by iTraxx Indices. Spreads are the annual amount that an entity seeking protection must pay, expressed as a percentage of the value of the debt being protected. A basis point is 1/100th of a percentage point.

banks in Australia, India, and Korea have also tapped their official reserves to supply U.S. dollar liquidity through local markets for foreign exchange swaps (instruments that institutions use to insure against exchange risks when using funds in one currency to meet demands in another currency). Various central banks in the region have been assisted in their efforts by a swap arrangement with the U.S. Federal Reserve. Moreover, many countries have announced deposit guarantees and/or guarantees on banks' foreign debts.

What the region faces

With global financial conditions worsening, much depends on the ability of the domestic banking sector to provide sufficient and timely credit in an environment of slowing growth and rising market risk. So far, despite the financial stresses, conventional bank lending has held up reasonably well. Private credit growth has come down across the region, but remains robust—except in Vietnam, where credit expansion has decelerated in response to policy tightening. Although Asian banks have the benefit of relatively sound capital positions, the economic slowdown is likely to raise credit costs and could also scale back lending growth. Corporate default rates have risen in countries where domestic demand has weakened, pointing to a possible rise in bad loans ahead. Cooling housing markets in some countries could also affect bank asset quality. While a major deterioration in regional banking conditions is not expected, it cannot be excluded at this stage. In particular, there is a risk that the global slowdown will be deeper and more protracted than expected, leading to a large number of corporate defaults in the region.

Preparing for the worst

What can supervisors and regulators do to limit the risk of contagion from the global slowdown and credit turmoil? There is merit in a multipronged approach for Asia.

- ***Managing exposure to large leveraged institutions.*** The failures of several large distressed institutions in the advanced economies have raised concerns about potential exposure to other highly leveraged players, including those in Asia. Early disclosure of exposure can help ease market concerns and allow investors to differentiate across institutions and countries. (For example, the Japanese Financial Services Agency publishes holdings of subprime and other structured products by deposit-taking institutions.) Further defaults can be expected, and policymakers should review contingency plans, including addressing possible fallout on the interbank market and ensuring the adequacy of deposit insurance (or guarantees) and public recapitalization programs. In addition, greater cross-border collaboration among supervisors would help strengthen monitoring of financial distress from overseas and, where financial systems are interconnected, lay the groundwork for more effective coordinated actions.
- ***Enhancing liquidity risk management.*** Supervisors must ensure that banks follow proper regulatory standards for liquidity risk management—for example, through avoiding maturity mismatches. They also must ensure that banks perform stress testing and contingency planning that incorporate extreme events such as cutoffs of foreign financing. Central banks should also consider reviewing the range of available liquidity instruments, including in foreign currency, and the possibility of extending liquidity provision to a broader set of institutions and against a wider range of collateral.
- ***Safeguarding access to cross-border funding, including trade financing.*** Domestic banks depend heavily on foreign bank subsidiaries for U.S. dollar liquidity, as well as on foreign exchange swap markets, which have come under stress during periods of high risk aversion and, in turn, affected other local funding markets. To ensure smooth cross-border funding, regulators should examine counterparty risks in these markets and ensure that local banks have alternatives to foreign funding if they are temporarily cut off from these markets. Extending guarantees to cover trade finance in the event of a cutoff should also be considered.

"Much depends on the ability of the domestic banking sector to provide sufficient and timely credit in an environment of slowing growth."

- ***Strengthening risk management.*** With slowing growth, corporate default rates and nonperforming loans can be expected to rise. Regional banks with exposure to sectors that are especially vulnerable to a domestic slowdown, such as housing and small and medium-sized enterprises, may be at greater risk. Supervisors will need to ensure that local banks properly classify loans and set aside adequate provisions for problem loans.
- ***Standing ready to recapitalize banking systems, if needed.*** At this stage, the possibility of a larger than expected wave of corporate defaults leading to bank failures cannot be ruled out. Authorities should thus consider contingency plans, if public funds are required to prop up the capital base of financial institutions.
- ***Implementing longer-term financial reforms.*** Although the crisis is still unfolding and lessons are still being learned, policymakers may take this opportunity to implement longer-term reforms to strengthen their financial systems. These might include strengthening risk-based supervision, addressing the procyclical risks from leverage, further developing local bond markets, and enhancing the monitoring of systemically important institutions, including those outside the banking system. ■

Kenneth Kang is a Deputy Division Chief and Jacques Miniane is an Economist in the IMF's Asia and Pacific Department.

Stacks of wheat near Al Qamishli, Syria.

Ensuring Food Security

Maros Ivanic and Will Martin

PRICES of key agricultural staples rose sharply in late 2007 and early 2008 and, despite recent declines, remain well above the average levels of the past two decades. Many analysts suggest that factors such as the new demand for food to produce biofuels will keep prices high. That would be bad news for the poor, and near-poor, who spend a very large share of their incomes on staple foods. Our estimates suggest that food price increases between 2005 and the first quarter of 2008 raised the number of poor by more than 100 million, even while improving the overall lot of some poor people who are net sellers of food (Ivanic and Martin, 2008).

Some analysts and officials say that high food prices, and shortages in some poor countries, are rooted—at least in part—in the liberalization of global trade in agricultural products, which encouraged countries to substitute domestic production of basic foodstuffs for higher-value export crops. To improve food security—to ensure that a country's people are fed—should governments adopt trade and other policies to encourage domestic production of staples and raise self-sufficiency?

Nobel Prize winner Amartya Sen argues that food security and self-sufficiency are not the same. Food security is not determined by where the food is produced, but by whether individuals have access to it (Sen, 1981). His study of major 20th century famines found that acute food insecurity can occur even when ample food is available in a country. He also noted that authorities can enhance security by allowing imports of food when prices would otherwise have risen.

Food security is influenced by trade policy—both domestic and global. And trade policies are but one type of measure that affects the access that poor people have to food. As the

Trade policy must be complemented by other measures to ensure food is available to all

world tries to revive trade negotiations to lower global trade barriers, we look at food security in developing countries in the short and the long term and its links with trade policy.

Short-run food security issues

Even temporary problems of food affordability can seriously threaten poor people, who have few discretionary nonfood expenses to cut when food prices rise and frequently lack savings or access to credit to tide them over in a crisis. To deal with short-run food affordability problems, governments generally have available three broad approaches: providing social safety nets, intervening to reduce food prices, and ensuring supply by maintaining stockpiles.

> “Sustainable improvements in long-run food security depend largely on the ability to bring about sustained increases in the real incomes of the poor.”

Social-safety-net approaches, such as provision of emergency food aid or transfers to the poor, can—in principle—be targeted to those most in need. As a result, safety nets have fewer side effects than policies that result in lower prices for all. Further, safety nets can help whether or not the problem arises from changes in food prices. By contrast, policies that seek to lower food prices are often ineffective in dealing with many food security problems, such as those resulting from drought-induced declines in farm output, for example.

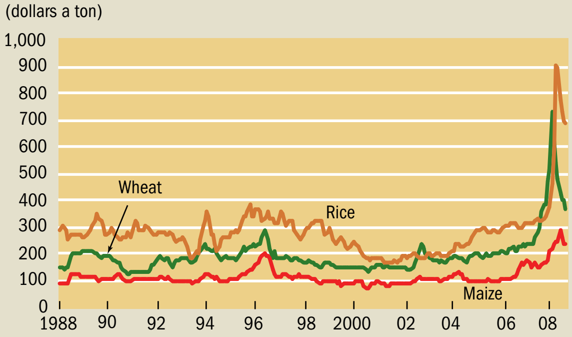
Policy actions to lower domestic food prices—such as the imposition of export taxes or reductions in import tariffs—are administratively easy to implement. When world prices of staple foods rose dramatically in late 2007 and early 2008 (see Chart 1), about 45 percent of developing countries reduced tariffs and/or consumption taxes on food, whereas almost 30 percent imposed export taxes or other restrictions on food exports (Wodon and Zaman, 2008). But these approaches can have unintended consequences. For example, an export restriction that lowers the domestic price of rice also will result in lower production and increased demand at a time of shortage, will hurt poor farmers who sell rice, and will provide benefits to consumers far above the poverty line.

Policies that seek to insulate domestic food markets from changes in world market prices also tend to fuel the fire of the price increases they seek to quell. The imposition of export restrictions by key exporters in late 2007 and early 2008 contributed to the sharp increases in world prices during this period. Removal or relaxation of these restrictions can help reduce the pressure on world prices. For example, when Ukraine announced that it would relax its export restrictions in April 2008, wheat prices immediately declined by 18 percent (Chauffour, 2008).

Chart 1

Here to stay?

Prices of major staple foods increased sharply in late 2007 and early 2008.



Source: World Bank, *Commodity Price Data.*

Public stockpiles can be used to cope with short-run food-security challenges, but they are costly and involve difficult management issues. There is pervasive uncertainty about the quantity of stocks required and the amount to release at any stage. Moreover, stock management policies can be destabilizing if, as seems to have happened in 2008, governments attempt to create or expand stocks when food prices are high. Most important, food stocks in the granary are not by themselves enough to ensure food security. Whether or not public stocks are used, the key to food security is ensuring that poor people have access to food.

Food security in the long run

Sustainable improvements in long-run food security depend largely on the ability to bring about sustained increases in the real incomes of the poor. Development policies that raise the productivity of poor people’s assets are essential to achieving such sustained income increases. Broad-based trade liberalization can help raise productivity and income by ensuring that investment goes into the right activities and by promoting technological change. But trade liberalization must go hand in hand with development policies—beginning with the provision of an adequate legal framework and proceeding through investments in public goods, such as research and development, public health, infrastructure, education, and basic safety nets to help poor households recover from shocks. Investments in rural research and development appear not only to have particularly high rates of return, but also to have the potential to raise returns to farmers while lowering prices to consumers.

Trade liberalization by individual countries usually can be expected to lower domestic prices, except where those actions involve reductions in export taxes or import subsidies. The effects of global trade liberalization are more complex. How an individual country is affected depends on the balance of offsetting factors—global price increases and reductions in a country's own trade barriers.

Historically, developing countries taxed their agricultural sectors to benefit urban sectors—taxing exportable goods more heavily than imports to keep prices down. But in the past 50 years that pattern has shifted, according to a recent World Bank project. Imports that compete with domestic products were subsidized very little in the 1950s, but now have average protection of nearly 30 percent. On the other hand, exportable products have moved from being strongly taxed to selling at close to world prices (Anderson, forthcoming). This finding raises serious questions about the claim that liberalization of staple foods in developing countries has caused the current problems of food security—protection of these commodities has been increasing rather than decreasing.

> "Agricultural trade reform in developing countries can help improve food security by reducing the cost of food to poor people, and hence increase the security of their access to food."

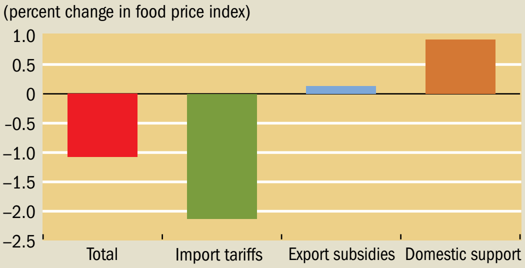
Will global trade reforms help or hurt?

Because global trade reform is expected to raise world food prices and because higher prices for staple foods could raise poverty in poor countries, global reform has the potential to reduce food security for poor people in developing countries. Worldwide tariff reductions stimulate demand for, and therefore prices of, staples on global markets. Most studies estimate that global agricultural trade reform would raise world prices by amounts that are very modest relative to the changes seen in recent years—between 2 and 7 percent for most staple foods (Anderson, Martin, and van der Mensbrugghe, 2006). A key question for developing countries, then, is whether the price-reducing effect of their own tariff reductions would outweigh the price-increasing effect of higher world prices.

Chart 2

Make it cheaper

Completing agricultural trade reform would reduce the prices of staple foods in developing countries by an average of 1 percent.



Source: Authors' calculations.

Applying the global trade analysis model used in Hertel and others (2008), we find that declines in import prices from full liberalization would outweigh the effect of higher world prices, resulting in a 1 percentage point overall reduction of food prices in developing countries (see Chart 2). This is a key reason behind Hertel and his colleagues' finding that global liberalization of agricultural products covered by the World Trade Organization would reduce poverty in 14 of the 15 countries they studied.

The pieces of the puzzle

Agricultural trade reform in developing countries can help improve food security by reducing the cost of food to poor people, and hence increase the security of their access to food. Global liberalization is more complex in its effects, because it results in increases in world prices—a reflection of an increase in world import demand and the abolition of export subsidies. Our analysis suggests that, on average, global trade reform would slightly lower the price of staple foods in poor countries, and hence contribute to a small reduction in global poverty.

Achieving and maintaining an open trade regime is important, but not sufficient, for achieving food security. In the short term, trade liberalization needs to be accompanied by social safety net programs that protect the poorest from shocks such as those resulting from higher international grain prices. In the longer term, the key lies in improved productivity that raises the incomes of poor families. ■

Maros Ivanic is a Consultant and Will Martin is Lead Economist in the World Bank's Development Research Group.

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POINT OF VIEW

Neighborly Investments

Gulf oil producers are investing petrodollars in other Middle East countries—a trend that should continue even as oil prices fall

Mahmoud Mohieldin

Oil storage tankers at a refinery in Egypt.

THERE has been extensive coverage of the impact of expensive oil on inflation and growth in both developed countries and energy-scarce nations. But the largely beneficial impact of petrodollar surpluses on Arab economies has been a neglected topic. Although oil prices have come down dramatically since their peaks in the middle of 2008, the surpluses oil-producing countries have available for investment are still considerable.

As a result, the flow of petrodollars has not only improved the economic prospects of the six oil-producing countries in the Persian Gulf, but, because many of those petrodollars are being invested in the region, it has also improved the outlook for neighboring Arab nations. The accumulation of financial wealth and the search for higher yields have led the Gulf Cooperation Council (GCC) investors to diversify their investment strategy, geographically and across asset classes.

The GCC states have become more strategic about investing their wealth, generated from the increase in oil revenues. The six oil producers that comprise the GCC—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates—have learned from the bad experiences of the boom-bust cycles of the 1970s and 1980s. Moreover, the investment restrictions that the United States began to impose after the attacks of September 2001 have encouraged GCC states to diversify the investment of their surpluses regionally. Instead of investing revenues in U.S. treasury bills or depositing earnings in Eurodollar accounts at multinational banks, the oil producers are now using their oil to accumulate foreign exchange reserves, to reduce public debt, and to build up sovereign wealth funds (SWFs) and a variety of state-controlled but sophisticated investment institutions.

Neighbors feel the impact

Despite the recent price declines, GCC oil revenues are expected to exceed $600 billion in 2008 and remain sizable in 2009. There are three major channels through which such revenues could affect both the Gulf states and neighboring countries.

- ***Trade in goods.*** This remains a relatively unimportant area. Trade among Arab countries grew to 11.2 percent of their total trade in fiscal year 2006–07, but at that level does not play a major role in cross-country benefits. During the 2006–07 period in Egypt, for example, Arab trade accounted for only 9.6 percent of Egypt's total trade.
- ***Trade in services.*** This produces a much greater regional revenue flow—through both remittances and tourism. Egyptians working abroad—including those in GCC countries—have significantly increased their remittances, contributing positively to the balance of payments position and to the welfare of the household sector in Egypt. According to the Central Bank of Egypt, remittances from Egyptian workers in GCC countries rose 160 percent between 2003–04 and 2006–07, from $1.21 billion to $3.13 billion. Their share of total remittances from Egyptians abroad rose from 40 percent to 50 percent during that time frame. Tourism has increased almost threefold since 2002, reaching $10.8 billion in 2007. About 20 percent of the tourists are Arabs. The Egyptian Ministry of Economic Development estimates that each tourist dollar spent ultimately generates $4 or $5 in income, which suggests a strong impact on incomes and the standards of living of workers in the tourism sector and sectors linked to it.
- ***Investment.*** Some of the GCC capital that had been invested in the United States and Europe has been redirected to Arab countries, making it the most effective channel between the GCC and neighboring countries. Countries such

as Egypt, Jordan, and Morocco have benefited, becoming attractive investment destinations for GCC states (Institute of International Finance, 2008). Large current account surpluses, along with investments by corporations and wealthy individuals, have allowed a significant portion of GCC investments to take place through SWFs (see table). Gulf-based SWFs have shown an interesting appetite for hybrid financial instruments, in addition to their traditional use of reserve surpluses to make longer-term private equity investments.

Foreign direct investment (FDI) is the avenue of choice for most of the funds GCC states invest in their neighbors—much of it linked to privatizations, large infrastructure projects, and new equity investments. The share of GCC funds in total FDI in Egypt—the largest recipient of FDI from GCC states—increased from only 4.56 percent in 2005 to 25.2 percent in 2007.

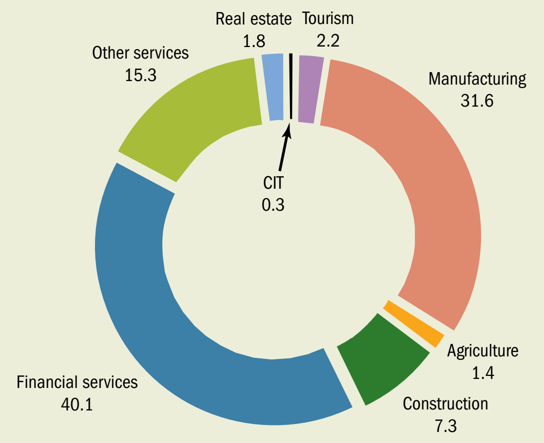
But it is not just the increase in volume of FDI that was notable during this period. The pattern of Gulf investments and their diversification in the neighboring economies changed as well (see chart). In the 1970s and 1980s, Gulf investments were more concentrated in real estate development and activities associated with the hydrocarbon sector. Higher oil revenues allowed GCC governments to diversify their economies away from hydrocarbons and adopt more ambitious investment behavior, which included spending generously on domestic infrastructure as well as buying stakes in companies in developed and emerging markets. Even with the diversification moves, however, hydrocarbon industries still represent more than 80 percent of total government revenues, and the share of hydrocarbons in the GDP of GCC countries has actually risen—from 36 percent in 2002 to about 50 percent in 2007. Currently, through partnerships with companies based in industrial countries and their accumulated cooperative experience in GCC countries, Gulf investments in Egypt have expanded beyond their traditional areas to include manufacturing, organic farming, communication and information technology, financial services, and logistics.

In addition to FDI, some neighbors have benefited from foreign portfolio investment in companies listed on stock exchanges. Foreign investors account for about one-third of market capitalization in Egypt and Morocco, and close to half of the Amman, Jordan, stock exchange. Of those foreign holdings, Arab investors are estimated to account for one-half of those in Egypt and three-fourths in Jordan.

Expanding horizons

Gulf countries have expanded their Egyptian investments beyond real estate and hydrocarbons to include financial services, communications and information technology (CIT), and services.

(non-oil sector foreign direct investment in Egypt, 2007–08, percent of total)



Source: Balance of Payments Statistics, the Central Bank of Egypt Quarterly Reports (FY 2007–08).

The region is vulnerable to fluctuations in energy prices, which is magnified when regional geopolitical risks are considered. Moreover, inflation and associated currency appreciation are adding to the challenges facing the GCC economies. However, oil price scenarios do suggest that the Gulf countries' wealth will grow significantly in the coming 10 years. Even in a scenario in which oil is at $50 a barrel, a price that seems lower than is likely over the longer run, the GCC countries would accumulate approximately $5 trillion by 2020, which is equivalent to 2.5 times their earnings over the past 15 years (McKinsey & Co., 2008). Such wealth, carefully managed, will enable the GCC countries to continue the implementation of their development strategies and benefit their neighbors. ■

Major investors

Sovereign wealth funds (SWFs) maintained by Gulf Cooperation Council states account for more than 40 percent of the assets of all such funds.

Country	Fund	Assets (billion dollars)	Inception	Rank
United Arab Emirates (UAE)	Abu Dhabi Investment Authority	875	1976	1
Saudi Arabia	SAMA Foreign Holdings	365.2	1990	3
Kuwait	Kuwait Investment Authority	264.4	1953	6
Qatar	Qatar Investment Authority	60	2003	12
UAE - Abu Dhabi	Mubadala Development Company	10	2002	29
Bahrain	Mumtalakat Holding Company	10	2006	30
Saudi Arabia	Public Investment Fund	5.3	2008	32
Oman	State General Reserve Fund	2.0	1980	39
UAE - Ras Al Khaimah	RAK Investment Authority	1.2	2005	40
Gulf Cooperation Council SWF assets		1,593.1		
Percentage of total global SWF assets				41.6

Source: Sovereign Wealth Fund Institute, August 2008.
Note: The United Arab Emirates, Kuwait, Qatar, and Bahrain are member countries in the International Working Group of Sovereign Wealth Funds; Saudi Arabia and Oman are permanent observers.

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POINT OF VIEW

Nigeria's Shot at Redemption

Natural gas plant alongside fishing village of Finima, Nigeria.

Turning Nigeria's oil windfall into a blessing

Ngozi Okonjo-Iweala

NIGERIA squandered its oil windfall of the 1970s, which led to three decades of economic stagnation and the degradation of public institutions. The reason was a mix of bad fiscal and macroeconomic policy, corruption, and poor governance. Besides, not many countries (or even economists) at that time fully understood how difficult it is to manage oil windfalls. The latest oil boom gives Nigeria a chance to turn the "oil resource curse" into a blessing. It must learn from its past mistakes and can no longer plead inexperience. The country has made a good start by making fundamental changes in its response to the current oil boom, but sustaining these reforms is vital, both for Nigerians and for the entire African continent.

In April 2006, Nigeria paid the last installment on the $30 billion it owed the Paris Club of official creditors, which had accounted for more than 85 percent of its external debt. As part of the agreement, Nigeria immediately paid $6 billion in arrears, with the remaining $24 billion restructured on Naples Terms—the Paris Club's concessionary terms for restructuring poor countries' external debt, resulting in an $18 billion write-off. While an unalloyed triumph, the very fact that Nigeria, a country blessed with vast oil reserves, had to extricate itself from a debt overhang was ironic.

How did Nigeria get itself into this predicament, and what lessons can it and other oil-exporting developing countries draw from this experience? This is a good time to be asking these questions. The reason is that the oil price boom of the past few years has given oil-exporting developing countries, especially those that squandered the proceeds of the previous oil price booms of 1973–74 and 1979–80, a rare shot at redemption.

The debt overhang

The two price hikes orchestrated by the Organization of Petroleum Exporting Countries in 1973–74 and 1979–80 resulted in a substantial windfall for Nigeria, amounting to $300 billion between 1970 and 2001. But the windfall also led to a substantial appreciation in the real exchange rate: 55 percent between 1974 and 1980. Subsequently, in 1982, the country was hit by a double whammy: falling oil prices and a sharp rise in interest rates. As a result, inflation rose, the country faced the prospect of debt rescheduling, and the government chose to ration foreign exchange through import licenses.

Reflecting these developments, Nigeria's currency, which was pegged to the U.S. dollar, was devalued by 36 percent between 1980 and 1984. But inflation was far higher, and the excess demand for foreign exchange was rationed by tightening restrictions on import licensing, raising the black market premium on foreign exchange. Eventually, in September 1986, Nigeria floated the naira. By that time, debt rescheduling and external financing had become urgent concerns. The float was the centerpiece of a reform program based on market incentives, liberalized prices, and the elimination of import licenses and commodity boards. But external debt kept mounting, reflecting not so much new borrowing after the mid-1980s as the cumulative effect of arrears and penalty interest rates. In addition to this macroeconomic imbalance, the country had little to show for its oil windfall in terms of economic development and poverty reduction.

Box 1

External debt overhang

At the end of 1983, Nigeria's total external debt outstanding and disbursed was $12 billion. Based on a conservative estimate of proven oil reserves and allowing for extraction costs and appropriate revenue sharing with the private sector, the government's share of oil wealth was estimated at $75 billion, even at the low oil prices of 1985 (Pinto, 1987). Yet, by 1985–86, Nigeria was having difficulty rescheduling a relatively paltry $2 billion in insured trade credits, with its creditors insisting on a prior IMF-supported reform program.

Why, in view of Nigeria's vast oil and gas reserves, was the rescheduling so difficult? First, because Nigeria's external borrowings were effectively collateralized by oil, creditors became skittish as oil prices fell. Second, in view of the economic dominance of oil by the mid-1980s, coupled with serious policy and institutional failures, creditors were unwilling to reschedule Nigeria's debt without an IMF-supported program. Nigeria had developed a credibility gap and was unable to attract foreign financing even for potentially high-rate-of-return investments: it had developed a classic "debt overhang."

Why did this happen? The answer lies in the authorities' mismanagement of the oil boom of the 1970s, which shows that even brief periods of mismanagement can have negative consequences that persist for decades. The authorities' focus at that time was on avoiding Dutch disease, or a deterioration in the non-oil traded goods sector—notably, agriculture and manufacturing. Only much later did the authorities recognize the more serious damage to the economy—in the form of a debt overhang (see Box 1), prolonged economic stagnation, and degradation of public institutions—caused by corruption and bad governance.

A new chance

Following elections in 1999, the first administration of Olusegun Obasanjo focused on ensuring political stability and tackling corruption. The second Obasanjo administration (2003–07) implemented a comprehensive economic and anticorruption reform program that emphasized fiscal, structural, and institutional and governance reform. The program also sought to enhance transparency by adopting the Extractive Industries Transparency Initiative (EITI; see Box 2) and prosecuting corrupt officials. This resolve to change the course of the Nigerian economy coincided with rising oil prices, which enabled Nigeria to break out of the natural resource trap.

On the macroeconomic front, the central challenge was to lower volatility by de-linking public expenditure from current oil revenue. Nigeria succeeded in doing this in 2004 by adopting an "oil-price-based fiscal rule." The rule's objective was to constrain spending by transferring oil revenues to the budget in accordance with a reference price, together with a ceiling on the non-oil deficit. The Fiscal Responsibility Bill, signed by President Umaru Yar'Adua in November 2007, enshrined the oil-price-based fiscal rule into law.

To improve transparency and tackle corruption, the government adopted a two-pronged approach:

- It embedded anticorruption measures in a comprehensive economic reform program, and
- It conducted diagnostic studies to identify specific areas in which corruption was undermining public sector performance and growth.

For example, to fight corruption, the government reviewed the public procurement process and instituted a "due process mechanism" in public contracts.

The oil-price-based fiscal rule and the adoption of the EITI both underscored Nigeria's determination to make a clean break with the past by fighting corruption and improving governance. In a revolutionary move, Nigeria went beyond the petroleum sector by publishing revenues from *all* sources at *all* tiers of government. The credibility boost facilitated Nigeria's debt cancellation by the Paris Club and lifted its profile in the eyes of investors. Standard & Poor's and Fitch Ratings assigned Nigeria a sovereign credit rating of BB– for 2007, affirming earlier results. Nigeria's rating peers at the time included Indonesia, Turkey, Ukraine, Venezuela, and Vietnam. The improved rating led to sizable increases in foreign direct investment in both the oil sector (about $6 billion a year) and non-oil sectors (about $3 billion a year).

The current oil boom was necessary for elimination of Nigeria's debt overhang—by providing needed liquidity—but it was by no means sufficient. If the lessons from the 1970s had not been learned, the opportunity presented by the new boom would have certainly been squandered. The combination of high oil prices, improved governance, new political will and leadership, and better fiscal management have made all the difference. The big challenge now is to maintain the momentum of reforms. (For the challenges and policy responses, see chart.)

Lessons learned

The most important lesson that emerged from the 1970s is that mismanaging even a relatively brief oil price windfall can hurt not just current, but also future, generations. An appropriate remedy must take into account the two main features of oil: its nonrenewability and its price volatility. For most developing countries, oil revenues accrue to the government in the first instance. The composition and level of government spending and the nature of its links to current oil revenues are critical for economic diversification, solvency, and long-run growth. Thus, the core economic policy response centers on fiscal policy. Since 2004, Nigeria has been addressing this challenge with its oil-price-based fiscal rule, which breaks the link between government expenditure and current oil revenues. This has dampened the transmission of oil price volatility to the rest of the economy by limiting the appreciation and volatility of the real exchange rate.

Box 2

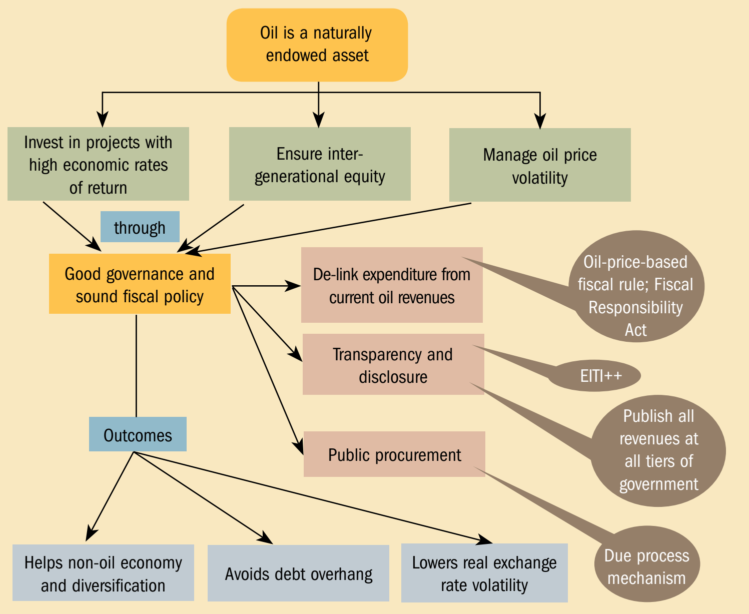
Extractive Industries Transparency Initiative

The Extractive Industries Transparency Initiative (EITI), unveiled in 2002 at the Johannesburg World Summit for Sustainable Development, is a voluntary initiative consisting of a set of standards to promote revenue transparency and accountability in resource-rich countries. The initiative requires companies to publish what they pay and governments to disclose revenues from oil, gas, and mining.

Nigeria was one of the first countries to adopt the EITI, approving the Nigeria Extractive Industries Transparency Initiative (NEITI) Bill in May 2007. Going beyond the basic requirement, Nigeria has conducted financial, physical, and process audits of the petroleum sector for the period 1999–2004. This has led to Nigeria's efforts being labeled EITI++, and the initiative is now being extended to other countries under the auspices of the World Bank and other EITI partners.

Managing oil revenues

Sound fiscal policy and good governance have been central in managing Nigeria's recent oil windfall.


Oil is a naturally endowed asset
Invest in projects with high economic rates of return
Ensure inter-generational equity
Manage oil price volatility
through
Good governance and sound fiscal policy
De-link expenditure from current oil revenues
Oil-price-based fiscal rule; Fiscal Responsibility Act
Transparency and disclosure
EITI++
Publish all revenues at all tiers of government
Public procurement
Due process mechanism
Outcomes
Helps non-oil economy and diversification
Avoids debt overhang
Lowers real exchange rate volatility

Although the oil-price-based rule helps save part of the oil windfall, it is not enough because the accrual of oil revenues results from the depletion of an asset (oil reserves). Hence, the government also needs to ensure that the rate of return on government spending is at least as high as the yield on a diversified portfolio of financial assets. This means careful screening of public investment projects and altering the composition of spending.

Nigeria is ensuring a higher rate of return on government spending partly through the due process mechanism, which has promoted an open tender process with competitive bidding for government contracts. But it also needs a system for the effective cost-benefit analysis of public investments. An excellent example of a high-rate-of-return investment was Nigeria's 2005–06 buyback of its Paris Club debt. Not only did the buyback save on future debt service costs, it improved the climate for investment and growth by eliminating the external debt overhang and strengthening Nigeria's creditworthiness.

Because oil is a naturally endowed and exhaustible asset, its benefits should be shared across generations. One way to ensure this is by bequeathing the next generation a healthy and diversified economy with low indebtedness. Nigeria has taken the first steps in this process. Saving part of the windfall and investing in infrastructure and long-gestation projects in health and education is another part of the equation. But despite the real progress made in the past few years, Nigeria remains heavily dependent on oil. The share of oil and gas reached more than 95 percent of exports in 2007 on the back of the huge oil price rise; moreover, oil and gas continue to account for 85 percent of government revenues and 52 percent of GDP. And despite the boom and Nigeria's resource abundance, nearly 54 percent of its population lives on less than $1 a day. Clearly, Nigeria has a long way to go in diversifying its economy, furthering its development agenda, and reducing poverty.

While the current oil boom has provided the means to eliminate the debt overhang and even build up a reserves cushion, policymakers need to guard against overexuberance about the continuing rise in oil prices. Such caution is underscored by the recent fall in oil prices linked to the spreading global financial crisis and the prospect of a worldwide recession. We are seeing that fortunes can change rapidly and dramatically, as they did in the early 1980s. The bitter lesson from experience is clear: governments of oil-rich developing countries must adopt conservative reference prices and anticipate volatility and downside risks.

The second major lesson from Nigeria's experience is that corrective measures must go beyond the confines of economic policy and embrace governance and transparency. Good fiscal policy is critical, but ensuring that Nigeria gets its fair share of oil revenues and that the oil is extracted with minimal waste and maximum transparency is equally important. In this regard, Nigeria has been a trailblazer by earning a label of EITI++ and publishing the revenues of all levels of government.

Nigeria has embarked on an ambitious effort to boost growth and maximize the welfare of all its citizens. The latest oil boom has provided the wherewithal to reverse the damage caused by the squandering of the oil boom of the 1970s. This opportunity must not be allowed to slip by. ■

Ngozi Okonjo-Iweala is Managing Director at the World Bank. She was Nigeria's Minister of Finance from 2003 to 2006. This article is based on a public lecture she delivered in Jakarta, Indonesia, on January 30, 2008. Brian Pinto and Mona Prasad of the World Bank assisted in preparing the article.

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The **Economic Geography** of **Regional Integration**

Done right, regional integration helps connect developing countries to world markets

A container ship off the coast of Brazil.

Uwe Deichmann and Indermit Gill

WITH the future of the Doha Round uncertain, there has been a sharp increase in the number of bilateral and regional trade agreements. This has revived long-running arguments in international economics between those promoting global trade agreements and those favoring regional approaches. But in many ways this has been the wrong debate, especially for the world's smallest, poorest, and most geographically disadvantaged countries, such as those in Africa and Central Asia.

One reason is that the difference between trade agreements and more general mechanisms for integration is often misunderstood. Regional integration includes a multitude of steps that increase the competitiveness of participating countries, not just preferential trade access. Second, this debate often implies a false choice between regional versus global integration. Both are necessary because they support different objectives. Regional integration helps small and remote countries scale up supply capacity in regional production networks. This, in turn, allows these countries to access global markets.

To understand why these distinctions matter for policy, the World Bank's latest *World Development Report* (WDR), titled "Reshaping Economic Geography," analyzes trade developments through the lens of economic geography (see box). Development is accompanied by sectoral transformations from agriculture to industry and services. The WDR argues that developing countries must also undertake spatial transformations—that is, allow a geographic distribution of economic activities within and among countries. A crucial element in these transformations is regional integration. To be effective, regional integration strategies need to be tailored to the economic geography—most important, size, location, and openness to interaction with major markets—of each part of the world.

A look at the unexpected consequences of falling transportation costs during the 20th century illustrates the role of economic geography in international development. In 1910, British exports were spread almost evenly among Europe, Asia, and other regions. But by the 1990s, 60 percent of British exports went to Europe and only 11 percent to Asia. Standard economic theory would predict that with better and cheaper transportation, trade with faraway places would increase. Instead, trade increased between neighbors.

Insights from the new economic geography and international trade theory, for which Paul Krugman received the 2008 Nobel Prize in economics, shed light on this puzzle. The first wave of globalization in the 19th century increased trade based on comparative advantage. Countries exchanged what they could not produce themselves. So Europe traded machinery for Central American bananas, or for South Asian spices. But in the 20th century, transportation costs fell so much that even trade in similar goods or in parts and components made economic sense. So countries exchanged different types of beer or traded parts of cars and computers.

Geographic transformations

Nations do well when they promote transformations along the dimensions of economic geography: higher densities as cities grow, shorter travel distances as workers and businesses migrate closer to denser areas, and fewer divisions as countries lower economic borders and enter world markets to take advantage of scale and trade in specialized products. The WDR concludes that transformations along these three dimensions—density, distance, and division—are essential and should be encouraged.

But with these transformations will come unbalanced growth. One billion people now live in slums, but the rush to cities continues. A billion people live in lagging areas of developing nations, far from globalization's many benefits. And poverty and high mortality persist among the world's "bottom billion," trapped without access to global markets, as others grow more prosperous and live ever longer lives. Concern for these three intersecting billions underlines the demand for spatially balanced growth.

But we find that although economic growth will be unbalanced, development can still be inclusive. Even people who start their lives far from dense economic activity can benefit from the growing concentration of wealth. For growth to be rapid and shared, governments must promote economic integration at all geographic levels using an appropriate mix of instruments—spatially blind institutions, spatially connective infrastructure, and spatially targeted incentives.

This favored trade between countries with similar endowments, which tend to be nearby. This interplay between falling transportation costs and the changing nature of trade has led to the concentration of economic mass in leading world markets. The experience of successful developers has lessons for today's developing regions.

Beyond the stagecoach

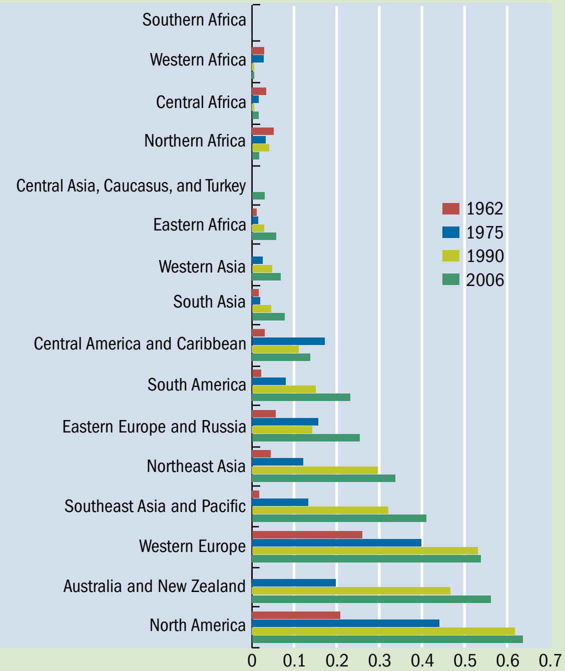
Since the end of World War II, transportation costs have indeed fallen considerably. By some estimates they are half of what they were in 1970. And transportation friction—the share of transportation costs in the total value of goods shipped—has dropped even more as the value-to-weight ratio in trade has increased. For transportation modes with less of a drop in costs and friction, quality and speed have improved greatly. The use of shipping containers, for instance, eliminates costly and time-consuming reloading, and more and more goods are now shipped by air.

But these costs have not fallen equally everywhere. Economies of scale in transportation, such as giant container ships plying the seas on lucrative routes between Northeast Asia and North America, imply that lower costs will increase trade, which will further lower costs. Much of the developing world is left out of this cumulative and beneficial process because it lacks the production scale and infrastructure to attract cheaper transportation services.

Trade concentration

Intra-industry trade is highest in the developed world, but close to zero in Africa and Central Asia, Caucasus, and Turkey.

(Grubel-Lloyd intra-regional trade index)



Source: Brülhart (2008).

Note: The Grubel-Lloyd index is the fraction of total trade that is accounted for by intra-industry trade. Data for Southern Africa; Central Asia, Caucasus, and Turkey; and Australia and New Zealand are incomplete or not available.

Where transportation costs have fallen, firms have increased scale and specialization. The key driver, and a major determinant of growth, in developing regions is intra-industry trade, mostly of parts and components. This type of trade is more sensitive to transportation costs than trade in primary goods and final products. In the world's largest markets—North America, Western Europe, and East Asia—intra-industry trade represents a high and increasing share of total trade (see chart). Increasingly sophisticated buyer-supplier networks in leading world regions have been a major feature of globalization. Customers for final products may be anywhere, but suppliers of inputs tend to be nearby. Increased specialization generates more trade, providing opportunities even to some small economies. For example, Cambodia may not be able to build computers or cars, but it can produce the cables or wires that will be used in assembly lines in China. Through this "vertical disaggregation" of production—made possible by falling transportation costs—growth and prosperity have spread within developing regions.

The recent East Asian experience can be explained by specialization in the wake of falling transportation costs, but the same thing has not happened in other parts of the world. Especially in Africa, individual countries are too small to generate sufficient scale and capacity to attract productive investment in labor-intensive manufacturing—still the most important pathway to middle-income levels. Significant divisions between countries in these regions persist. Borders are much less permeable in Africa than in Western Europe. These divisions prevent beneficial interaction and the pooling of resources, which allows regional growth centers to emerge, for instance, in favorable coastal locations. Consequently, growth spillovers, which are a major driver of development in leading world regions, are virtually absent in places such as Africa. If Switzerland had been subject to the negligible neighborhood spillovers experienced by the Central African Republic between 1970 and 2000, its GDP would have lost $334 billion. Cambodia's growth might have been much lower if it were in East Africa instead of East Asia.

Becoming close friends

How can poor, small, and remote countries benefit from the same forces that have transformed East Asia? Individually, most countries in lagging regions do not have the required number of skilled workers, local financial capacity, or ability to sustain clusters of suppliers and complementary services. A key to overcoming these constraints is regional integration. The goal is to boost the supply capacity of countries in a region by providing regional public goods and taking advantage of specialization.

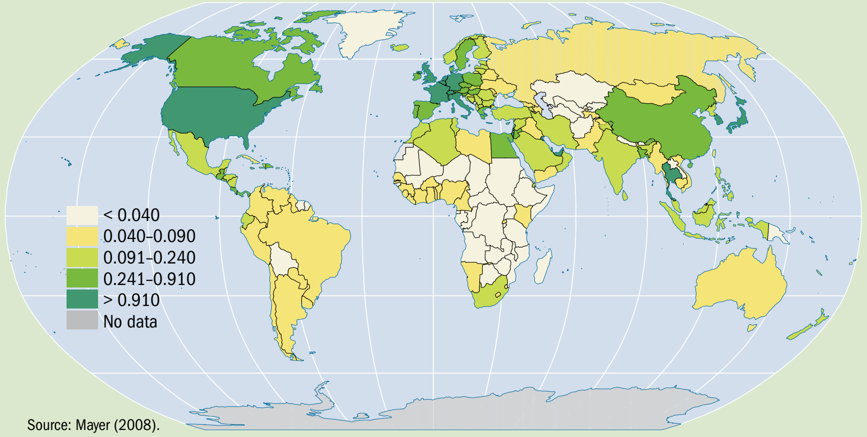
Regional integration means much more than preferential trade access between neighbors. It includes a number of steps that can be taken on the way toward full global integration, from regional infrastructure investment to the liberalization of regional labor markets. Three key principles can be identified.

Start small. Regional integration can initially address narrow areas of cooperation in which the costs and benefits are

The country club

Proximity to prosperous places shapes development prospects.

(real market access relative to the United States, index, 2003)



Source: Mayer (2008).

clearly defined. Today's European Union started as an agreement on coal and steel in six countries.

Think global. Regional integration should not create islands. It should help countries gain access to world markets that they could not achieve on their own. Larger countries may be able to choose between unilateral global integration and regional integration. But small, poor, or landlocked countries need one to achieve the other. For example, shared regional infrastructure hubs—such as transportation corridors—give countries access to previously unreachable world markets.

Compensate the least fortunate. Concentration of economic activity, which follows regional integration when firms specialize and increase scale in production in fewer places, is an inevitable and, indeed, desirable part of the development process. But it means that some areas will gain more than others—at least initially. As people migrate to leading regions, they spread the benefits by sending remittances to their home countries. But, in addition, explicit compensation schemes may be required to ensure access to social services and basic infrastructure in lagging areas. Aid flows will play an important role in compensating the laggards, but so must local efforts. The West African Economic and Monetary Union adopted a common external tariff with revenue sharing in 2000. The two richest countries, Côte d'Ivoire and Senegal, collected 60 percent of customs proceeds but retained only 12 percent.

Winners without borders

The strategies for effective regional integration are not uniform across world regions. Geography shapes development prospects and suggests the types of instruments required. The common problem is division—thick economic borders. What differs is economic density within the region and distance from large world markets (see map).

Regions close to major world markets. Countries in regions that are close to world markets—such as Central America and the Caribbean, North Africa, and Eastern Europe—face relatively easy integration. Common *institutions* can help these countries become extensions of large, more sophisticated markets.

Regions with big economies located far from world markets. Countries in regions that are geographically distant from the major world markets but have large home markets—such as China, India, South Africa, and Brazil—are attractive to investors everywhere. Good institutions and regional *infrastructure* can help them access these markets. Examples of such regions are East Asia and, increasingly, South Asia. But southern Africa and South America can also integrate globally by making their home markets bigger and more specialized through regional institutions and infrastructure. For the smallest economies, regional infrastructure is especially important to reduce the distance from large neighbors, and use those neighbors as a conduit to world markets.

Regions with small countries located far from world markets. International integration is hardest for countries in regions that are divided, distant, and lack the economic density of a large local economy. These are the regions that Collier (2007) calls the "bottom billion"—East, Central, and West Africa; Central Asia; and the Pacific islands. For these regions, all three instruments are needed—regional institutions that help thin borders, regional infrastructure that connects countries, and *incentives*—such as preferential access to world markets with liberalized rules of origin, more aid for social service delivery in lagging countries that creates portable skills, and increased support for infrastructure in coastal countries to improve market access. Incentives could be made conditional on ensuring that all countries make efforts to strengthen regional cooperation.

A better understanding of the economic geography of development can help in the crafting of responses calibrated to meet challenges of international integration. ■

Uwe Deichmann heads the Spatial Analysis Team in the Development Research Group, and Indermit Gill is Chief Economist in the Europe and Central Asia Region of the World Bank. Gill led the team that prepared the World Development Report 2009.

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BACK TO BASICS

What Is Gross Domestic Product?

Tim Callen

MANY professions commonly use acronyms. To doctors, accountants, and baseball players, the letters MRI (magnetic resonance imaging), GAAP (generally accepted accounting principles), and ERA (earned run average), respectively, need no explanation. To someone unfamiliar with these fields, however, without an explanation these acronyms are a stumbling block to a better understanding of the subject at hand.

Economics is no different. Economists use many acronyms. One of the most common is GDP, which stands for gross domestic product. It is often cited in newspapers, on the television news, and in reports by governments, central banks, and the business community. It has become widely used as a reference point for the health of national and global economies. When GDP is growing, especially if inflation is not a problem, workers and businesses are generally better off than when it is not.

Measuring GDP

GDP measures the monetary value of final goods and services—that is, those that are bought by the final user—produced in a country in a given period of time (say a quarter or a year). It counts all the output generated within the borders of a country. GDP is composed of goods and services produced for sale in the market and also includes some nonmarket production, such as defense or education services provided by the government. An alternative concept, gross national product, or GNP, counts all the output of the residents of a country. So if a German-owned company has a factory in the United States, the output of this factory would be included in U.S. GDP, but in German GNP.

Not all productive activity is included in GDP. For example, unpaid work (such as that performed in the home or by volunteers) and black-market activities are not included because they are difficult to measure and value accurately. That means, for example, that a baker who produces a loaf of bread for a customer would contribute to GDP, but would not contribute to GDP if he baked the same loaf for his family.

Moreover, "gross" domestic product takes no account of the wear and tear on the machinery, buildings, and so on (the so-called capital stock) that are used in producing the output. If this depletion of the capital stock, called depreciation, is subtracted from GDP, we get net domestic product.

Theoretically, GDP can be viewed in three different ways.

- The ***production approach*** sums the "value added" at each stage of production, where value added is defined as total sales minus the value of intermediate inputs into the production process. For example, flour would be an intermediate input and bread the final product, or an architect's services would be an intermediate input and the building the final product.
- The ***expenditure approach*** adds up the value of purchases made by final users—for example, the consumption of food, televisions, and medical services by households; the investments in machinery by companies; and the purchases of goods and services by the government and foreigners.
- The ***income approach*** sums the incomes generated by production—for example, the compensation employees receive and the operating surplus of companies (roughly sales minus costs).

GDP in a country is usually calculated by the national statistical agency, which compiles the information from a large number of sources. In making the calculations, however, most countries follow established international standards. The international standard for measuring GDP is contained in the *System of National Accounts, 1993,* compiled by the International Monetary Fund, the European Commission, the Organization for Economic Cooperation and Development, the United Nations, and the World Bank.

Real GDP

One thing people want to know about an economy is whether its total output of goods and services is growing or shrinking. But because GDP is collected at current, or nominal, prices, one cannot compare two periods without making adjustments for inflation. To determine "real" GDP, its nominal value must be adjusted to take into account price changes to allow us to see whether the value of output has gone up because more is being produced or simply because prices have increased. A statistical tool called the price deflator is used to adjust GDP from nominal to constant prices.

GDP is important because it gives information about the size of the economy and how an economy is performing. The growth rate of real GDP is often used as an indicator of the general health of the economy. In broad terms, an increase in real GDP is interpreted as a sign that the economy is doing well. When real GDP is growing strongly, employment is likely to be increasing as companies hire more workers for their factories and people have more money in their pockets. At present, concerns are in the opposite direction. After several years of exceptionally strong real GDP growth, many countries are experiencing a slowdown, with real GDP estimated to have declined in a number of industrial countries in recent quarters. But real GDP growth does move in cycles over time. Economies are sometimes in periods of boom, and sometimes periods of slow growth or even recession (with the latter sometimes defined as two consecutive quarters in which output declines). In the United States, for example, there were six recessions of varying length and severity between 1950 and 2007 (see chart). The National Bureau of Economic Research makes the call on the dates of U.S. business cycles.

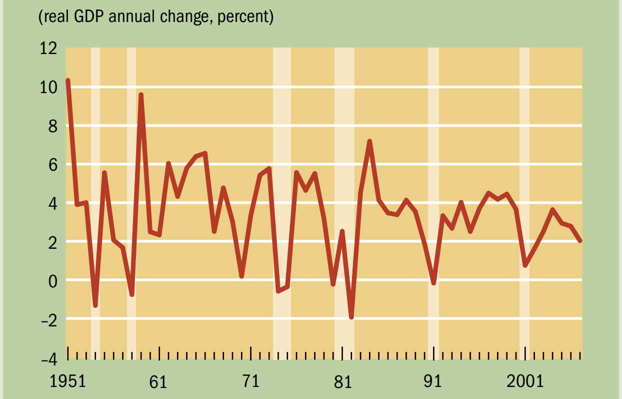
Comparing GDPs of two countries

GDP is measured in the currency of the country in question. That requires adjustment when trying to compare the value of output in two countries using different currencies. The usual method is to convert the value of GDP of each country into U.S. dollars and then compare them. Conversion to dollars can be done either using market exchange rates—those that prevail in the foreign exchange market—or purchasing-power-parity (PPP) exchange rates. The PPP exchange rate is the rate at which the currency of one country would have to be converted into that of another to purchase the same amount of goods and services in each country (see “Back to Basics” in the March 2007 issue of *Finance & Development*). There is a large gap between market and PPP-based exchange rates in emerging market and developing countries. For most emerging market and developing countries, the ratio of the market and PPP U.S. dollar exchange rates is between 2 and 4. This is because nontraded goods and services tend to be cheaper in low-income than in high-income countries—for example, a haircut in New York is more expensive than in Bishkek—even when the cost of making tradable goods, such as machinery, across two countries is the same. For advanced countries, market and PPP exchange rates tend to be much closer. These differences mean that emerging market and developing countries have a higher estimated dollar GDP when the PPP exchange rate is used.

The IMF publishes an array of GDP data on its website (www.imf.org). International institutions such as the IMF also calculate global and regional measures of real GDP growth. These give an idea of how quickly or slowly the world economy or the economies in a particular region of the world are growing. The aggregates are constructed as weighted averages of the GDP in individual countries, with weights reflecting each country’s share of GDP in the group (with PPP exchange rates used to determine the appropriate weights). So, for example, the updated edition of the IMF’s *World Economic Outlook* projects that global real GDP will grow by 2.2 percent in 2009, down from 3.7 percent this year (and 5 percent in 2007). Advanced economies are expected to contract for the first time on an annual basis since World War II.

Growth and gaps

Since 1950, U.S. economic output, as measured by gross domestic product adjusted for inflation, has mainly been growing, except for six recessions of varying length and severity.



Source: IMF, World Economic Outlook database.
Note: Light-shaded areas represent recessions—periods when output declines. Recessions are dated by the National Bureau of Economic Research, a private organization.

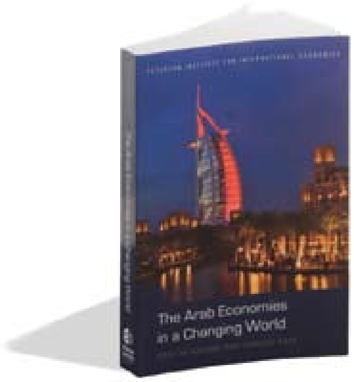
What GDP does not reveal

It is also important to understand what GDP cannot tell us. GDP is not a measure of the overall standard of living or well-being of a country. Although changes in the output of goods and services per person (GDP per capita) are often used as a measure of whether the average citizen in a country is better or worse off, it does not capture things that may be deemed important to general well-being. So, for example, increased output may come at the cost of environmental damage or other external costs, such as noise. Or it might involve the reduction of leisure time or the depletion of nonrenewable natural resources. The quality of life may also depend on the distribution of GDP among the residents of a country, not just the overall level. To try to account for such factors, the United Nations computes a Human Development Index, which ranks countries not only based on GDP per capita, but on other factors, such as life expectancy, literacy, and school enrollment. Other attempts have been made to account for some of the shortcomings of GDP, such as the Genuine Progress Indicator and the Gross National Happiness Index, but these too have their critics. ■

Tim Callen is a Division Chief in the IMF’s Middle East and Central Asia Department.

BOOK REVIEWS

Defying the Average in the Arab World



Marcus Noland and Howard Pack

The Arab Economies in a Changing World

Peterson Institute for International Economics, Washington, D.C., 2007, 350 pp., $24.95 (paper).

In *The Arab Economies in a Changing World,* Marcus Noland and Howard Pack examine the economic performance and prospects of 10 Arab countries: Algeria, Egypt, Jordan, Kuwait, Lebanon, Morocco, Saudi Arabia, the Syrian Arab Republic, Tunisia, and the Republic of Yemen. The presumption is that "Arabism" affords a significant degree of homogeneity to compare economic performance and prospects. As someone who wrote a book in 1976 on the region that stretches from Morocco to the Islamic Republic of Iran, I can say that the "Arab" region affords little homogeneity. I found the same to be true in 1997 in the six Gulf Cooperation Council (GCC) countries. These countries did not afford the hoped-for homogeneity (Saudi Arabia and Bahrain can hardly be compared). Later, in 2006, I felt that maybe the oil exporters of the Persian Gulf represented the best indicator of homogeneity, but even this has its limitations. Noland and Pack have silently arrived at a similar conclusion that their countries are too varied to afford neat generalizations.

Key insights

The main conclusions of this book are that (1) although most of these countries have achieved significant success according to social indicators, their economic performance has been average; (2) the reasons for their economic performance vary; (3) the contributing factors are bad institutions (high degree of corruption, lack of cross-border integration, limited application of technology and innovation, below-average education and skill enhancement, and so on), authoritarian rule, political uncertainty, and large government sectors; and (4) in the case of the oil-exporting countries, oil has created special opportunities and pitfalls. In summary, the authors conclude that "at issue is not the extent of past achievements, . . . but rather whether the existing economic and political models . . . are adequate to successfully address the current demographically driven pressure to deliver jobs. . . . The answer is almost surely no."

While their analysis is thoughtful and highly significant, I have some differences with the authors. For instance, the authors shortchange the importance of women's labor force participation in future unemployment. Also, because of the diversity of their countries, Noland and Pack miss the fact that the performance of the Persian Gulf oil exporters was not average, but below average during 1975–2004.

Errors of omission

In assessing the reasons underlying average economic performance, Noland and Pack fail to stress the role of conflicts and wars. Iraq, Lebanon, Kuwait, Algeria, Egypt, the Syrian Arab Republic, and Jordan have all paid a heavy price, and certain GCC countries have footed some of the bills.

The authors also ignore the negative role of outside powers, whether in support of dictators, isolation of countries, sanctions, "pushing" of sophisticated military hardware, or simply a divide-and-conquer policy. The authors say, "Because of the unusually long-standing stable nature of Arab political regimes, this legacy (i.e., authoritarianism) appears to have persisted considerably longer in the region than equivalent tendencies did in other regions." But they don't say why. "The issues being contested are fundamentally 'internal' in nature. In this case, the international community can do little." The answer is that foreign powers must shoulder some of the blame for authoritarian rule and for the so-called internal issues in a number of these countries.

> "Although most of these countries have achieved significant success according to social indicators, their economic performance has been average."

And, finally, although the authors state in various places that Islam is not a factor in the economic performance of these countries, they appear to also hedge their bet: "It could be that the negative interpretations of Islam's historical legacy reviewed earlier are correct but that enough convergence in institutions, policies, and behavior has occurred that the effects have been attenuated in the contemporary world." They quote only one group of commentators, without offering the balancing perspectives of another—who believe that Islam clearly stresses the importance of economic prosperity and economic justice for the Muslim community.

Hossein Askari
Iran Professor of International Business and International Affairs
George Washington University

Archana Kumar is Book Review Editor.

Friends or Foes?

Bill Emmott

Rivals

How the Power Struggle Between China, India and Japan Will Shape Our Next Decade

Harcourt, 2008, 352 pp. $26 (cloth).

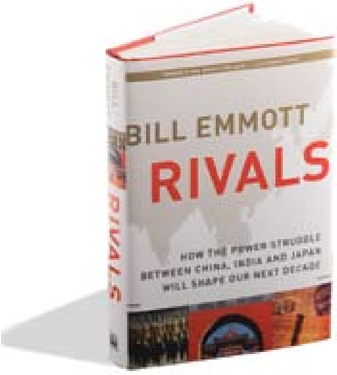
For 13 years, Bill Emmott labored as editor-in-chief of *The Economist,* a lofty position he ascended to after a stint as the magazine's correspondent in Tokyo, where he served during the 1980s. At the time, Japan's economic expansion was arousing fears in the United States and elsewhere that the country was determined to remake the world in its image. But in 1989, Emmott wrote a counterintuitive book, *The Sun Also Sets: The Limits to Japan's Economic Power,* forecasting that the country's growth was unlikely to continue in the 1990s.

With that bulls-eye prediction, Emmott comes to Asia discussions with a healthy dose of credibility. His departure from *The Economist* in 2006 enabled him to return to reporting, and he has unleashed a fresh dose of illuminating observations in *Rivals: How the Power Struggle Between China, India and Japan Will Shape Our Next Decade.* Heavy on nuance and light on cliché-ridden cheerleading, *Rivals* is a valuable and accessible contribution to the (often turgid) discussion of Asia's economic and political future.

Who is right?

Emmott begins with the insight that Asia has never before been home to three powerful countries, all at the same time, and thus central to the continent's future will be how well they can manage their political and economic relationships with each other. The book quotes a senior Indian official, from the Ministry of External Affairs, expressing the zero-sum view: "The thing you have to understand," said the official, "is that both of us [India and China] think that the future belongs to us. We can't both be right."

China's grievances against Japan's conduct during World War II remain an open wound, with many Chinese charging the Japanese with failure to repent for their war crimes. And China still lays a claim to the Indian state of Arunachal Pradesh—a claim that led to war in 1962—while India says it is the rightful owner of a remote parcel of Himalayan land that today belongs to China.


BILL EMMOTT
RIVALS
HOW THE POWER STRUGGLE BETWEEN CHINA, INDIA AND JAPAN WILL SHAPE OUR NEXT DECADE
RIVALS

Against this backdrop, China's decision to increase its military spending by 18 percent a year, and India's to increase its by 8 percent (while also signing a nuclear energy pact with the United States), looks ominous. Even Japan, although limited in what it can do to bolster its military, signed a security declaration with Australia last year—the first time Tokyo has entered into such an agreement since signing a peace treaty with the United States in 1952.

The tie that binds

The encouraging news is that the three countries are being woven together through economic integration. In July 2008, for example, Japan exported more to China than to the United States—the first time this has ever happened. As high growth continues (at least in China and India), this integration should deepen, uniting Asia to a degree without precedent since the exploits of Genghis Khan.

But will the integration continue? That depends on the ability of each country to pursue reforms that will catalyze economic growth.

China's capital markets are, for example, riddled with weaknesses. Indeed, the vice-chairman of the National People's Congress declared last year that 70 percent of the country's publicly traded companies are worthless and should be de-listed.

India's economy is still handicapped by a phalanx of regulatory measures that stifle business activity (it scores a lowly 134th in the World Bank's *Doing Business* rankings). And the country's infrastructure and inefficient governing system threaten investment and economic growth.

Japan's economy is still plagued by widespread inefficiencies, and the Nikkei index recently fell to its lowest level since 1982. In 1998, while editor of *The Economist*, Emmott published a cover story with the headline "Japan's Amazing Ability to Disappoint." The headline would still work today.

Making peace

Emmott closes with a number of recommendations for managing the rivalry between the three nations. These include initiatives involving security (persuading India to sign the Nuclear Non-Proliferation Treaty), environment (reducing emissions and increasing investment in clean energy), and diplomacy (encouraging U.S. support for the East Asia Summit launched in 2005, because it is the only regional body encompassing China, India, and Japan). Given Emmott's past success as a predictor, his failure to declare whether he expects the three nations to emerge as self-destructive rivals or as mutually beneficial allies is a curious omission.

But he rightly observes that relations between the three countries will be dictated by the behavior of China. The successful staging of the Beijing Olympics will do wonders for China's image, though more meaningful for the long term are the words of Deng Xiaoping when asked about China's approach to governing: "Stability overrides everything." Japan and India, and other nations in Asia, can only hope this means a commitment to regional partnership—and peace.

Matthew Rees
President, Geonomica

Eyes on the Price

Robert J. Samuelson

The Great Inflation and Its Aftermath

The Past and Present of American Affluence

Random House, New York, 2008, 336 pp., $26 (cloth).

The U.S. Federal Reserve—"the Fed"—has committed two major blunders in its 95-year existence. The Fed worsened the Great Depression of the 1930s by refusing to inject liquidity into a global economy thirsting for it. And in the 1970s, the Fed permitted the Great Inflation to unfold by not soaking up liquidity from a global economy drowning in it. The Great Depression looms large in public consciousness, but the Great Inflation has faded from memory.

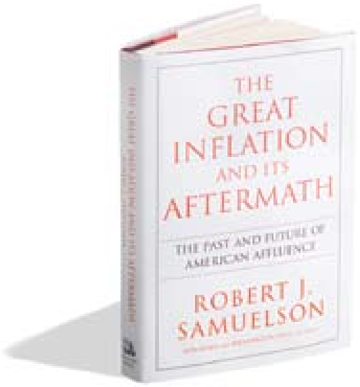
Robert Samuelson's book is a successful attempt to reclaim the "lost history" of the Great Inflation, an episode he regards as the U.S. government's "greatest *domestic* policy blunder [emphasis in original]" in the post–World War II era. But the book is much more than the story of the conquest of inflation; it provides one of the best narratives of U.S. and global economic history since 1960.

Never-ending rain

From 1960 to 1979, annual U.S. inflation increased from less than 1½ percent to nearly 13½ percent. Price increases, says Samuelson, were "like the rain that never stopped." At the time, U.S. citizens protested vehemently against this rise in inflation. And in public opinion polls of the time, inflation was described as "more upsetting" than either the Vietnam War or the Watergate scandal.

Samuelson argues that allowing inflation to drift into double digits had devastating consequences for the U.S. economy in the 1970s. High inflation "incontestably destabilized the economy, leading to four recessions of growing severity." High inflation—and the accompanying high and volatile interest rates—stunted the increase in living standards by lowering productivity growth, causing stagnation in the stock market, and leading to a series of debt crises that affected "American farmers, the U.S. savings and loan industry, and developing countries."

Was the rain that never stopped simply a run of bad luck? No, says Samuelson, it was the "perverse consequence of well-meaning policies, promoted by some of the nation's most eminent academic economists." In the 1950s and early 1960s, economists came to believe that there was a stable inverse relationship between inflation and unemployment, implying that unemployment could be reduced by accepting a bit more inflation. The Fed was a "prime accomplice" in triggering the Great Inflation. All major inflations involve too much money chasing too few goods, and the worst U.S. peacetime inflation occurred, writes Samuelson, "because the government, through the Fed, created too much money."



Morning in America?

How was inflation reduced from double digits in 1980 to a mere 4 percent by 1982? Samuelson argues that this "was principally the accomplishment of two men—Paul Volcker and Ronald Reagan." But what they had to do to lick inflation was not pretty. Essentially, the Fed under Chairman Volcker tightened liquidity enough to bring about the most "punishing economic slump" since the Great Depression. Former U.S. President Reagan's role was to allow the Fed to maintain this policy "long enough to alter inflationary psychology." Even today, Samuelson says, the social costs of what the U.S. economy had to endure between 1980 and 1982 to reduce inflation "seem horrendous."

Samuelson credits the conquest of inflation with ushering in "the past quarter century's prosperity," reversing much of the adverse effects of letting inflation rise to double digits. These years were marked by U.S. income growth, which outstripped that of other advanced nations; entrepreneurial vitality reflected in the emergence of companies such as Microsoft; and revived confidence in the U.S. dollar. This vitality helped transform international finance by encouraging a dramatic surge in cross-border capital flows.

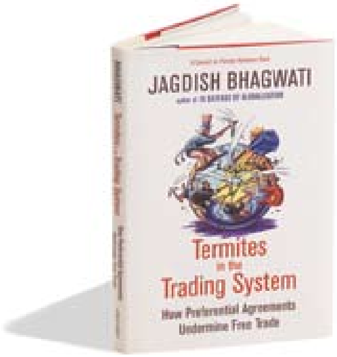
The skies darken again

No success is unvarnished, nor does it last forever. Samuelson concedes that the 25-year run of good economic performance had its blemishes and may now be coming to an end. The years following the conquest of inflation were ones of economic growth, but it was "a starker society that had reverted to the rough-and-tumble existence of a more market-driven economy." And prolonged prosperity—continuous economic growth with only two mild recessions—helped "spawn a complacency and carelessness" about the consequences of the increased complexity of international finance, culminating in the present turmoil.

Samuelson says that the links between the financial system and the rest of the economy, which over time have become "larger and less predictable," will have to be better understood to restore the prosperity of recent decades. While new lessons have to be learned, Samuelson is keen that the lesson learned from the conquest of inflation not be forgotten: "The lesson from the Great Inflation is that inflation ought to be nipped in the bud: The longer we wait, the harder it becomes."

Prakash Loungani
Advisor, IMF Research Department

A Passionate Voice



Jagdish Bhagwati

Termites in the Trading System

How Preferential Trade Agreements Undermine Free Trade

A Council on Foreign Relations book, Oxford University Press, 2008, 160 pp., $24.95 (cloth).

Challenged by the mathematician Stanislaw Ulam to name a single proposition in all of social science that was both true and nontrivial, Paul Samuelson—the undisputed titan of 20th century economics—offered the principle of comparative advantage: “that it is logically true need not be argued before a mathematician; that it is not trivial is attested by the thousands of important and intelligent men who have never been able to grasp the doctrine for themselves or to believe it after it was explained to them.” As Jagdish Bhagwati, a titan of 20th century international economics and author of *Termites in the Trading System*, might point out, these thousands of important and intelligent men have not done much better in grasping the distinction between free trade and free trade areas (trade agreements between a group of countries, described more precisely below), although that distinction also follows from a short set of axioms, and the failure to grasp it imperils the global trade system.

Bhagwati has been alerting the important and the intelligent to this distinction, and its relevance, for a long time, through both scholarly contributions and accessible writings in the popular press. In the early 1990s, when the recent drift in the direction of preferential trade agreements (PTAs) had only just begun, he stood as a lone cautionary voice against this fragmentation of the trade system (see his 1993 article “Regionalism and Multilateralism: An Overview,” in *New Dimensions in Regionalism*, edited by Jaime DeMelo and Arvind Panagariya, New York: Cambridge University Press). Now, with the number of preferential agreements in the hundreds, and with the complexity of regulations governing the flow of goods and services into these countries growing proportionately, Bhagwati’s caution seems particularly prescient.

Although the General Agreement on Tariffs and Trade (GATT), established in 1948, held nondiscrimination between member countries as a key principle, it sanctioned—through Article XXIV—exceptions to this principle, by permitting PTAs in the form of free trade areas (FTAs) and customs unions (CUs). According to the prevailing definitions, members of FTAs, such as the North American Free Trade Agreement (NAFTA) group, and CUs, such as the European Union, must eliminate internal trade barriers, but members of CUs also agree on a common external tariff against imports from nonmembers. Although FTAs and CUs are expected to eliminate barriers to trade between their member countries, doing so is not tantamount to multilateral free trade. The discriminatory tariffs that member countries impose on nonmembers imply that there may be inefficient sourcing of imports, with important (and possibly adverse) normative consequences for both members and nonmembers. Specifically, as Jacob Viner demonstrated in his classic 1950 analysis (in *The Customs Union Issue*, New York: Carnegie Endowment for International Peace), some trade may be “created” between member countries in goods that they produce efficiently relative to the rest of the world, but trade may just as easily be “diverted” from efficient nonmember countries because of preferences member countries grant each other. Thus, member countries may well worsen themselves.

In 100 brisk pages imbued with his characteristic wit and wisdom, Bhagwati dissects the PTA question with scholarly precision, historical depth, and attention to policy detail. In Chapter 2, he analyzes the historical origins of GATT Article XXIV and the political imperatives that led the United States to abandon its once-principled stand on nondiscrimination and admit Article XXIV’s exceptions. His arguments in Chapter 3 about the negative consequences of trade diversion in practice, drawing on recent findings, add empirical heft to the theoretical case against trade preferences. He also discusses in depth the consequences of preferential trade to the multilateral trade system, and he is surely right that the current evolution of the trade system into a chaotic network of overlapping and intersecting PTAs (what he has famously called the “spaghetti-bowl” phenomenon) could not possibly be efficient. In Chapter 4, he lays out an appeal for countries to eschew bilateral initiatives, for broad-based multilateral liberalization to dilute the distorting effects of trade preferences, and for moving us closer to global free trade.

But will they listen, these thousands of important and intelligent men and women? Over the past few decades, Bhagwati—like an Indian classical virtuoso—has generated every variation of the argument for free trade and for multilateral approaches to achieve it. *Termites* contains some of Bhagwati’s most striking arguments for the distinction between free trade and free trade areas, strongest refutations of those who confuse the two, and passionate descriptions of the consequences to the trade system that have arisen from this confusion. His arguments deserve serious attention.

Pravin Krishna

Chung Ju Yung Distinguished Professor
of International Economics
Johns Hopkins University

STRAIGHT TALK

Shifting Perceptions of Poverty

Revised poverty statistics may improve understanding of the development process

Justin Yifu Lin is Senior Vice President and Chief Economist of the World Bank.

IMAGINE you are the prime minister of a developing country. You have been working hard for many years to reform your country's economy so that growth rates can be improved and sustained, and poverty reduced. Just when you were confident things were on the right track and that clear progress was being made toward meeting the Millennium Development Goals (MDGs), out of the blue, some World Bank poverty experts come up with new calculations revealing that the updated international poverty rate in your country is much higher than previously thought. Surprised, you gather your thoughts and request that your own experts carefully review their statistics. Yet they, too, review the empirical evidence and confirm that poverty is more pervasive than you thought.

That is more or less the situation in which many policymakers in developing countries find themselves since the release of the World Bank's internationally comparable poverty estimates. The news was sobering indeed: a study by my colleagues Martin Ravallion and Shaohua Chen, which adjusts the yardstick for measuring global poverty to $1.25 a day in 2005 prices, reveals that more people are living in poverty in developing countries than previously thought, based on the World Bank's prior international poverty line of $1.08 a day in 1993 prices. After a major revision of the method used to calculate poverty, they estimate that 1.4 billion people, or 25 percent of the population of the developing world, live below the international poverty line. Previous work published in 2007 had estimated that 950 million people, or 17 percent of the developing world's population, were living on $1.08 a day or less. By the updated measure, an additional 400 million people are living in poverty.

The new study also found poverty falling from 52 percent of the developing world's population in 1981 to 42 percent in 1990 to 25 percent in 2005, with a constant rate of decline for 1981–2005 of about 1 percentage point a year for the developing world as a whole. It concluded that the world is still on track to reach the first MDG of halving the 1990 level of poverty by 2015.

Dramatic shift

The main reason behind such a dramatic shift in numbers is straightforward: the World Bank has recalculated the number of people living in extreme poverty using recently released results from the International Comparison Program and 675 household surveys covering 116 countries from 1981 to 2005. The old "dollar-a-day" poverty line was chosen to represent the threshold of extreme poverty. It was based on the (then) best available cost-of-living data from 1993, but it has been found that these data underestimated the cost of living in many poor countries. Because the cost of living in poor countries is now known to be higher than was thought, the number of people shown to be living in poverty is also higher.

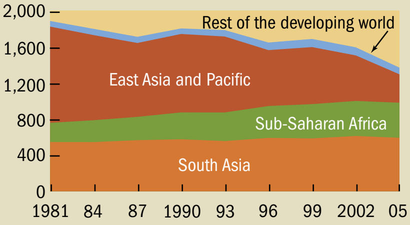
Although the level of poverty across all developing countries is higher than previously estimated, poverty has actually fallen over time. The general methods used to establish the international poverty line and to measure poverty rates have been consistent since the first estimates were made almost three decades ago. What has changed is the reliability, timeliness, and comprehensiveness of the data.

The updates reveal big successes in poverty reduction, particularly in East Asia (see chart). Looking back to the early 1980s, it had the highest incidence of poverty in the world, with almost 80 percent of the population living below $1.25 a day in 1981. By 2005 this had fallen to 17 percent. There are about 600 million fewer people living in poverty by

Uneven advance

Data updates reveal less poverty in East Asia, but a near doubling in sub-Saharan Africa.

(Population living on less than $1.25 a day, millions)



Source: World Bank.

this standard in China alone, though progress there has been uneven over time.

Yet progress is not limited to East Asia—there are many examples of falling poverty rates. In the developing world outside China, the $1.25 poverty rate has fallen from 40 percent to 29 percent over 1981–2005, though not by enough to bring down the total number of poor, which has stayed at about 1.2 billion. India has made notable strides, reducing poverty from almost 60 percent in 1981 to 42 percent in 2005, based on the international $1.25-a-day line. The rest of South Asia has made similar progress. After many years of stagnation, poverty in Latin America has begun to fall, from 11 percent in 2002 to 8 percent in 2005.

Rethink and adjust

But advances are uneven, and the level of poverty in parts of the world remains unacceptably high. In sub-Saharan Africa, the $1.25-a-day rate was 51 percent in 2005—roughly the same as in 1981. Given the depth of Africa's poverty, even higher growth will be needed than for other regions to have the same impact.

Despite the sobering news the numbers convey, the updated estimates may help the international community and policymakers in developing countries rethink and adjust their development strategies and policies. Empirical work by World Bank researchers over 20 years has shown that the incidence of poverty tends to fall with sustained economic growth. Using three successive household surveys from a sample of about 80 countries spanning 1980–2000 and the dollar-a-day poverty rate, Ravallion (2007) estimated that the growth elasticity of poverty reduction is negative—that is, their trends tend to match—in about 80 percent of all cases, though poverty tends to be less responsive to growth in high-inequality countries. His findings are corroborated by the new global poverty numbers. Regional growth rates and changes in the percentage of people living below the international poverty line over the past quarter century tell the same story: East Asia recorded the highest average growth rate during 1981–2005 and also the largest decline in poverty. By contrast, sub-Saharan Africa and the Europe and Central Asia region had the lowest growth rates and performed the worst in their poverty reduction efforts.

The key policy question, therefore, is how sustained growth is generated to reduce poverty. Evidence shows that high rates of growth are associated with openness. Greater trade openness does not always promote growth, and it can also have distributional effects that dull the impact on poverty. But, as a rule, trade openness comes with higher growth and the poor tend to benefit.

Key to competitiveness

The correlations between growth, improvement in trade indicators, and poverty reduction may result from the fact that openness promotes economic strategies based on comparative advantage, which is the key to a country's competitiveness. Michael Porter (1990) famously identified four sources of a nation's competitive advantage:

- sectors or industries making good use of factors that are abundant domestically,
- large domestic markets that enable firms to reach scale,
- industrial clusters, and
- vibrant domestic competition that encourages efficiency and productivity growth.

For any country, the domestic abundance factor actually refers to comparative advantage as reflected in its endowment structure. The industrial clusters and domestic competition factors depend on whether a country adopts a development strategy that is consistent with its comparative advantages. This is because a country whose industrial development defies its comparative advantage will end up with a closed domestic economy and a noncompetitive market, because domestic firms will not be viable in open, competitive markets, and will have to rely on subsidies and protection for survival (Lin, 2007).

Industrial clusters would also be hard to build and sustain in such situations, because the government would not be able to subsidize and protect a large number of firms in a single industry at the same time, allowing the formation of a cluster. When a country follows its comparative advantage, the large domestic markets factor becomes unnecessary because industries are able to compete in global markets.

Exploit comparative advantage

Porter's four factors therefore boil down to a single prescription: allow each country to exploit its comparative advantage. Any low-income, capital-scarce country attempting to develop capital-intensive industries against its comparative advantage will end up with a closed and uncompetitive economy. The poor will be hurt by both slow growth and lack of jobs. Conversely, low-income countries that open up and maximize their comparative advantage tend to enhance their growth prospects and raise their income potential, which are keys to job creation and poverty reduction.

Although the newly released poverty numbers may make the work of policymakers and development experts more humbling, the numbers also present an opportunity to reassess what has been learned so far. Increasing openness as a way of tapping comparative advantage will enhance a country's growth performance and help reduce poverty. In the end, the inconvenient truth—that there are many more poor people in the world than previously thought—could actually improve our understanding of the development process and our efforts to reduce poverty. ■

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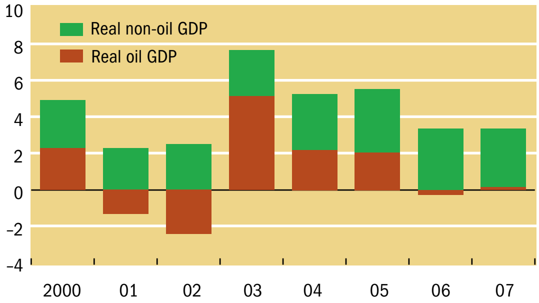
Saudi Arabia

Since the start of the oil boom in 2003, Saudi Arabia has achieved strong growth, aided by high oil revenues and a rapid expansion of the non-oil private sector. While inflationary pressures are easing, the global financial crisis poses new risks.

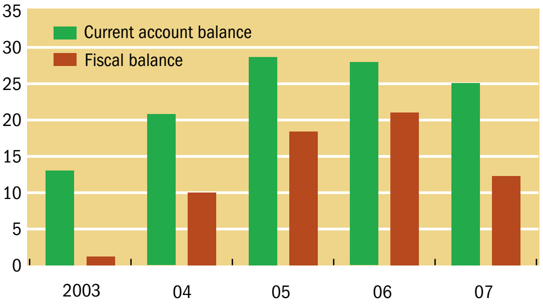
Since 2003, growth has averaged 4.3 percent, with a significant contribution from the non-oil sector.

(percent change)



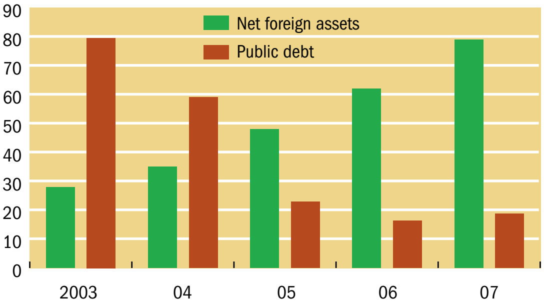
Rising oil revenues through mid-2008 have strengthened the fiscal and external positions . . .

(percent of GDP)



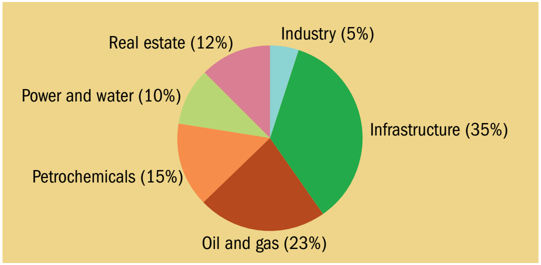
. . . through the accumulation of net foreign assets and the reduction of public debt.

(percent of GDP)



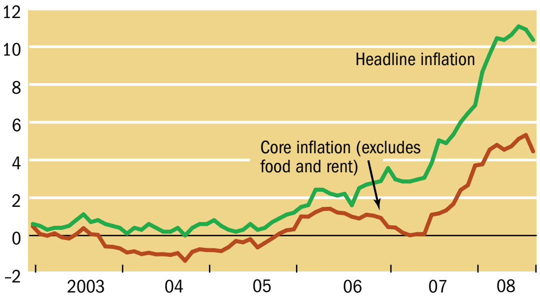
Oil wealth is being invested over the medium term to expand the non-oil sector and boost oil production capacity to support global oil market stability.

(percent of total investment, 2007–14)



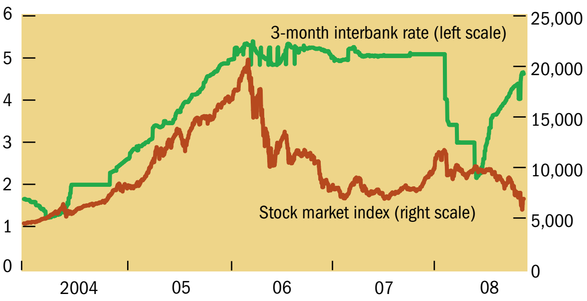
The global economic slowdown has started to ease inflationary pressures.

(year-on-year, percent change)



The key short-term challenge is to minimize the fallout from the global financial crisis, which has so far had a limited effect on the domestic banking system.

(percent) (index)



Sources: Saudi Arabian authorities; and IMF staff estimates.

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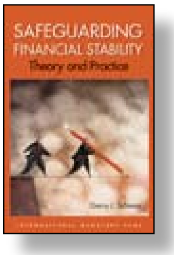

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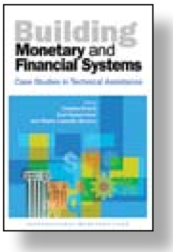

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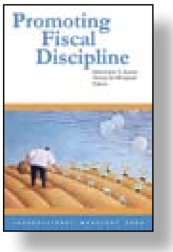

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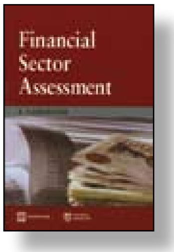

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