

The background of the cover features a stylized illustration of a landscape. In the foreground, there are several dark grey, jagged shapes representing factory chimneys or buildings. Behind them, a row of trees with brown trunks and green, rounded canopies stretches across the scene. The trees are rendered in a flat, graphic style. The overall color palette is dominated by greens, browns, and greys, with a white background for the text.

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December 2009

**Unemployment
The Third Wave**

**William White on the
Future of Macroeconomics**

**Joseph Stiglitz
The People's Professor**

**Eswar Prasad
Rebalancing Growth in Asia**

Climate Change

Stimulating a

Green Recovery

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A climate for recovery

WE HAVE come a long way over the past year. The economic tsunami that was unleashed by the collapse of Lehman Brothers turned uncertainty into outright panic, and in the frenzied fallout, global economic activity began to collapse at a rate not seen since the Great Depression.

Today, the storm seems to have passed and the worst averted. Thanks to bold and rapid action, delivered in an atmosphere of unprecedented policy cooperation, global economic activity is again on the rise, although, as we highlight in this issue of *F&D*, unemployment and the lingering scars of the crisis will continue to take a toll.

One of the major lessons from the recovery is the power of multilateralism—the success of working together to combat a crisis. It is a lesson that could also be applied to the global problem of climate change, explored in our cover story. With the world apparently on an economic recovery path, policymakers are looking at ways to limit the impact of climate change through broad international action. One of the challenges is to balance actions to mitigate climate change with measures to stimulate growth and prosperity.

This issue of *F&D* also examines a variety of issues raised by the crisis—including the future of macroeconomics, explored by William White, former chief economist at the Bank for International Settlements, and the longer-term impact of the crisis on the United States, the world's largest economy. Our "People in Economics" profile spotlights Joseph Stiglitz, the Nobel Laureate who "can't get any respect at home." We also look at the need for rebalancing growth in Asia, which is leading the world out of recession, and we interview five influential Asians on the region's fragile rebound. We turn our "Straight Talk" column over to Barbara Stocking of Oxfam, who makes a forceful case for stepping up help to the most vulnerable around the world.

"Data Spotlight" looks at trends in inflation, which has fallen into negative territory in some countries during the crisis, and in "Point-Counterpoint," two experts discuss the pros and cons of remittances—funds repatriated by migrant workers to family and friends back home.

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The People's Professor

Prakash Loungani profiles

Joseph Stiglitz

“THE most misunderstood man in America”—that’s what *Newsweek* called Joseph Stiglitz in an article this year. The 2001 Nobel Laureate in economics “can’t get any respect at home,” the magazine said, adding that “in Washington he’s seen as just another economic critic and not always a welcome one.” Outside his native United States, Stiglitz gets quite a different reception—in many countries he is treated like an oracle. Luckily, jokes Stiglitz, he spends a fair bit of his time these days outside the United States: “My passport is so thick that sometimes I’m questioned about whether it’s real.”

Stiglitz isn’t surprised by his lack of popularity in Washington. He says it’s because he has always taken the side of the “little guy” against the financial elites and their champions. It’s the theme that runs through his life’s work. The academic work that earned

him his Nobel focused on cases where one side in a transaction had less information than the other, leading to market outcomes that were often patently unfair. When he dove into policymaking in the 1990s, first on President Clinton’s Council of Economic Advisers (CEA) and then as chief economist at the World Bank, he continued to take on “lawyers and investment bankers and economic superpowers” to defend the cause of the global citizen. As Jonathan Chait wrote in *The American Prospect* a decade ago, Stiglitz “remains a professor, not a player And yet, somehow, the issues he cares about most always make it onto the agenda.”

Rabbi Joe

Stiglitz grew up in Gary, Indiana, the hometown of another economics Nobel Laureate, Paul Samuelson. His family provided him with an early education in doing the right thing. His mother taught in a public school,



a white teacher in a school with predominantly African-American kids. His father told him about the moral and legal importance of paying the household help's social security—Stiglitz says that listening to his father “saved me a lot of trouble when I was up for Senate confirmation” as CEA chairman. And he fondly remembers an uncle who, though a successful businessman, was critical of President Kennedy for being too anti-union.

A high school personality test suggested that Stiglitz would do well as a rabbi. He didn't go off in that direction, but at Amherst College, where he headed for his undergraduate studies, he quickly gained a reputation as a formidable debater and expositor. He also made a fateful decision to switch from physics to economics, a subject in which his prodigious talent soon became obvious. Barry Nalebuff, a Yale University professor and Stiglitz collaborator, says: “Like Rabbi Hillel, Joe can explain what you need to know about economics while standing on one foot; the rest is commentary.”

Realizing Stiglitz's potential, his professors encouraged him to leave Amherst after his third year and start graduate work elsewhere; they

were nevertheless devastated to see him go. “Frankly, seeing Stiglitz leave is like watching the disappearance of one's right arm,” one of them wrote. The Massachusetts Institute of Technology (MIT), however, was overjoyed to get him as a student. The institution's admissions committee sent his information to the economics department and asked what the amount of his stipend should be, listing choices ranging from no stipend to \$12,000. The professor assessing Stiglitz's application scribbled on the folder: “Offer him Department Head's salary.”

Paper chase

A few weeks into his stay at MIT he had already produced his first academic paper. The 1965 paper—Stiglitz was 22 then—challenged Karl Marx's claim that European nations had needed colonies to provide a market for their excess production of goods at home. Stiglitz argued that the colonies were more important as an avenue for investment opportunities; without them, entrepreneurs would have run out of high-return opportunities at home. Colonization was a way of making the property rights associated with those foreign investments secure. And, more important, the colonizer could

shape the direction of the colony's investment so that it would not compete with its home industry—England, for instance, kept India from investing in textiles. It was an early indication of Stiglitz's sympathy for economically underprivileged nations—a cause that today has him railing against rich nations' agricultural subsidies to their rich farmers, which hold back competition from poorer farmers everywhere.

“Stiglitz ‘remains a professor, not a player And yet, somehow, the issues he cares about most always make it onto the agenda.’”

In the 1960s, MIT was the center of a revolution in economics. “The department placed mathematics—not philosophy or ideology—at the heart of policy analysis,” says Stiglitz, but it sought to bring about “an interface of careful mathematical models and the practical problems of the economic world.” Stiglitz went on to excel at this work, so much so that MIT made him an offer right away on his graduation. The job came with strings attached, though. Stiglitz had to agree to sleep in an apartment instead of his office—MIT wanted to see a lease as proof that he had an apartment—and to start wearing shoes around the office. MIT was not able to retain Stiglitz for long—over the next two decades his wanderlust took him to Cambridge, Yale, Oxford, Stanford, and Princeton—but MIT was right about his potential. Stiglitz unleashed an intellectual effort that earned him the 1979 John Bates Clark medal—awarded to the most influential U.S. economist under the age of 40—and made him a shooin for a Nobel Prize.

A list of the most influential articles in economics has six papers by Stiglitz, an honor that he shares with only two others, Robert Barro (see *F&D*, September 2007) and Eugene Fama. A common theme in his papers is the difficulty in getting markets to function properly when information is costly to acquire or when the parties involved in a transaction are not equally informed.

In a 1981 paper with Andrew Weiss, Stiglitz gave a powerful demonstration of how credit markets could malfunction when this was the case. In the textbook model of credit markets, interest rates work to bring about balance between supply and demand; if there is too much demand for credit relative to supply, interest rates rise to cut off the demand of some of the borrowers. But what if lenders don't know which of their borrowers will work hard at their projects and repay the loan and which are going to shirk and simply hope that good fortune will enable them to pay off the loan? If there is excess demand for credit, raising the interest rate discourages the hard-working borrowers but not those who are intending to take a gamble with the loan. So, far from restoring balance

between supply and demand as in the textbook model, the rise in the interest rate actually ends up tilting the composition of borrowers toward the undesirable type. Nalebuff says the Stiglitz-Weiss paper shows that “who you end up lending money to or what they do with that loan changes with the interest rate you charge . . . Or, as Groucho Marx might have said: ‘I wouldn’t want to lend money to anyone who would borrow at that interest rate.’” The Stiglitz-Weiss paper helped develop a more realistic description of credit markets by showing why lenders might engage in credit rationing (i.e., limit the volume of loans) rather than raise the interest rate.

In other papers, Stiglitz showed that such information gaps could also plague labor markets. In the textbook model, the wage rate is the lever that eliminates unemployment by moving up or down as needed to balance out the demand and supply of labor. But, just as in the credit market, there are informational deficiencies. Employers often lack accurate information about which of their workers will give the proverbial 110 percent to their job and which are inclined to shirk. They could of course monitor their employees to determine who’s been working hard and who’s been merely saying so. But such monitoring is costly in terms of the employer’s time and can lower employee morale.

Employers, Stiglitz argued, are therefore likely to use the wage rate as a tool to separate workers from shirkers. They may offer a wage higher than the going market rate as an incentive to induce hard work from those who are willing and able to supply it. Paying a wage higher than the competition means that the good workers have something to lose if their jobs are terminated; they thus have an incentive to work hard. But with wages set above a competitive level, the wage rate no longer acts a lever to eliminate unemployment. In fact, as Stiglitz demonstrated in a 1984 paper with Carl Shapiro, unemployment is necessary as a “disciplining device” to keep workers from shirking.

Stiglitz also questioned how well stock markets could work when their information was costly to acquire. A tenet of the textbook model of stock markets is that stock prices accurately reflect all publicly available information. But in a 1980 paper with Sandy Grossman, Stiglitz presented a paradox. If prices reflect all the market information perfectly, then no one should bother to collect information because they can get it for free from the prices. But if no one bothers to collect information, then prices reveal no information. “The paradox lays the basis for the argument that imperfect information is likely to be the rule, rather than the exception,” says Nalebuff.

Throughout his career, Stiglitz has written more than 600 articles—his CV runs to 60 pages—with over 100 coauthors. Nobel Laureate and *New York Times* columnist Paul Krugman says Stiglitz is “an insanely great economist—almost every time you dig into some sub-field of economics . . . you find that much of the work rests on a seminal Stiglitz paper.”

Turbulent academic

In 1993, Stiglitz abandoned his comfortable perch in academia for the rough-and-tumble of the policy world. He became a member of Clinton’s CEA and later its chairman. Alan Blinder,

a Princeton professor and a fellow CEA member, describes it as “a gutsy move for a purely academic superstar.” Stiglitz was instrumental in pushing through several initiatives, including persuading a somewhat reluctant U.S. Treasury to issue inflation-indexed government debt. But Chait wrote in *The American Prospect* that Stiglitz’s style of argument—making his case publicly even after losing internal debates on issues—led to wintry relationships with other presidential advisors, such as Larry Summers. Blinder says politely that “Joe’s behavior . . . might perhaps be considered a little quixotic.”

“Stiglitz was instrumental in pushing through several initiatives, including persuading a somewhat reluctant U.S. Treasury to issue inflation-indexed government debt.”

This style grew even more pronounced after Stiglitz moved in 1997 from the White House to become World Bank chief economist. He was critical of the economic advice to the transition economies to carry out a speedy move to markets and capitalism. Stiglitz favored a much more gradual move, with legal and institutional reforms needed to support a market economy preceding the transition to markets. Kenneth Rogoff, a Harvard professor and former chief economist of the IMF, doubts that Stiglitz’s approach would have succeeded. He says it is “unlikely that market institutions could have been developed in a laboratory setting and without actually starting the messy transition to the market.” Rogoff adds that because the institutions underpinning communism had collapsed, “some new institutions had to be created quickly,” and it is inevitable that mistakes were made in this haste. But “institutions take a long time to nurture and the ones that are there today, however imperfect, might well not be there if the effort had not been started” immediately when communism fell.

During the financial crisis of 1997–98, Stiglitz publicly criticized the programs put together by the IMF and the governments of some Asian countries. Stiglitz argued that raising interest rates to defend the currencies in these countries was counterproductive: the high interest rates reduced confidence in the economy by increasing loan defaults and corporate bankruptcies. Not everyone agreed with Stiglitz. The late MIT economist Rudiger Dornbusch defended the high-interest-rate strategy as essential to restoring confidence, adding that “no finance minister will opt for the Stiglitz Clinic of Alternative Medicine. They [will] have the ambulance rush them to the IMF.” J. Bradford DeLong, a noted macroeconomist at the University of California, Berkeley, wrote that following “Stiglitz’s prescriptions [to] lend more with fewer conditions and have the government print more money to keep interest rates low . . . would have been overwhelmingly

likely . . . to end in hyperinflation or in a much larger-scale financial crisis as the falling value of the currency eliminated every firm's and bank's ability to repay its hard [foreign] currency debt."

After exiting the World Bank in 1999, Stiglitz repaired to Columbia University and wrote what became a best-selling book titled *Globalization and Its Discontents*. Many reviewers of the book noted that its narrative power came from having a clear villain: the IMF. The book's references to the IMF—almost all critical—totaled 340. Tom Dawson, the IMF's external relations head at the time, quipped: "That works out to over one alleged mistake committed by the IMF per page. You'd think by sheer accident we'd have gotten a couple of things right."

"The game isn't over"

Stiglitz does think the IMF got some things right in the financial crisis of 2007–08: "The IMF is much better than it was in the past, absolutely. It has changed in many ways, and I think everybody needs to recognize it," he told *The Miami Herald* this year. At the annual meetings of the IMF and the World Bank in Istanbul, Stiglitz commended the IMF's support for a global fiscal stimulus and its view that there would be costs to an early withdrawal of the stimulus. "It's a repositioning of the IMF from what it has been historically," he told *The Wall Street Journal*.

Stiglitz sees the fallout from the financial crisis as vindicating his academic work and what he has been saying in policy circles for decades. In papers written in the mid-1980s with his Columbia colleague Bruce Greenwald, Stiglitz described how changes in financial and credit conditions are important in the propagation of the business cycle. U.S. Federal Reserve Board Chairman Ben Bernanke said in a July 2007 speech that the work of Stiglitz and others "gave economists the tools to think about the central role of financial markets in the real economy" and led to a better understanding of how "extreme disruptions of the normal functioning of financial markets . . . seem often to have a significant impact on the real economy," as happened, for instance, during the Great Depression.

Only a month after that speech, Bernanke and policymakers around the globe became engaged in fighting a financial crisis whose effects on the economy threatened to rival those of the Great Depression. The crisis has led to calls for reforms, including curbs on bankers' pay and more regulation of derivatives markets. To Stiglitz, an important reform would be to bring back the 1933 Glass-Steagall Act, which had separated commercial and investment banks. He had fought against repeal of the act in 1999, fearing that it would lead to the kind of financial meltdown that occurred in 2007–08. "When repeal of Glass-Steagall brought commercial and investment banks together, the investment-bank culture came out on top," Stiglitz wrote.

Despite the financial crisis, Stiglitz remains optimistic about the future of markets and capitalism. In contrast to "the 19th century owner-operated capitalism, in the 21st century capitalism will be operated by the people," he says. But

to make it a success, people have to be more economically literate and there has to be greater civic participation in economic policymaking. With these goals in mind, Stiglitz founded the Initiative for Policy Dialogue (IPD) in 2000—a global network of economists, political scientists, and policymakers that studies complex economic issues and provides policy alternatives to countries. IPD also conducts workshops to enable the media and civil society to participate effectively in policy circles. Dawson applauded the effort: "It's a tough business—you almost have to be a Bono to have an impact on policy."

Indeed, to reach wider audiences, Stiglitz has branched out into film with a documentary called *Around the World with Joseph Stiglitz* about how the fruits of capitalism can be shared more equally. Will it give filmmaker Michael Moore a run for his money? "No," laughs Stiglitz, "I think Moore is very effective," but "frustration doesn't do any good."

Unlike Moore, Stiglitz says he hasn't lost his "Midwestern optimism" that things improve over the long run. Many people, he says, express their dismay to him that, with the financial crisis barely over, the bankers and their boosters seem to be back calling the shots. But if genuine reform of the financial system is not undertaken, "there is a reasonable risk of another crisis within 10–15 years, and the likelihood that the banks will win the next round is lower." Every crisis provides "an impetus for deeper democratic reform. The game isn't over." ■

Prakash Loungani is an Advisor in the IMF's Research Department.

References:

- Chait, Jonathan, 1999, "Shoeless Joe Stiglitz," *The American Prospect*, July 1.
- DeLong, J. Bradford, 2002, "IMF Chief Economist Ken Rogoff Unloads Both Barrels in the Direction of Joe Stiglitz," *Semi-Daily Journal*, July 2.
- Hirsch, Michael, 2009, "The Most Misunderstood Man in America," *Newsweek*, July 27.
- Rogoff, Kenneth, 2002, "Has Russia Been on the Right Path?" *Vedomosti*, August 26.
- See bibliography online at www.imf.org/fandd



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Climate



Policy in Hard Times

Benjamin Jones and Michael Keen

EFFORTS to negotiate a successor to the Kyoto Protocol, and to form domestic climate policies, have intensified in recent months and are now at a critical and difficult point. At the same time, policymakers are searching for new sources of sustainable growth to recover from the deepest economic crisis in decades, and in many cases also the means to cope with severe fiscal pressures exacerbated by the crisis.

What are the interactions between these two challenges—making climate policy and dealing with a worsened macroeconomic outlook? How should the challenges of recovery affect climate policy? And how should climate concerns be reflected in macroeconomic and fiscal policies over the short and longer terms?

Mitigation policy and crisis recovery

The crisis has had major effects on the global economy, but the need to combat climate change—outlined, for example, in the *Fourth Assessment Report: Climate Change 2007* of the United Nations Intergovernmental Panel on Climate Change—remains urgent. And current policy responses are generally acknowledged to be inadequate.

The decline in economic activity as a result of the crisis could cut global greenhouse gas emissions by more than 2.5 percent in 2009, after rapid increases in recent years, according to the International Energy Agency (IEA). But the serious damage of climate change arises not from the *flow* of greenhouse gas emissions but from the accumulated *stock*. The sheer scale of the existing stock and its very slow decay mean that even

quite large reductions in emissions over the short term will do little to reduce the damage to be expected from climate change. For that, a massive change in the underlying trend of emissions is needed.

The downturn has not affected the market failures that underlie the climate problem—most important, that polluters do not bear the full costs of emissions. Even with the mitigating effects of the crisis, in the absence of additional policy intervention global emissions could rise by 40 percent by 2030. Broader and deeper international measures to raise the cost to firms and households of emitting greenhouse gases must remain a priority.

The need to restore economic prosperity after the crisis may have weakened political support for climate mitigation measures—centered on strong and broad carbon pricing to address basic market failures—which could increase production costs and reduce household incomes. And the effects could be persistent: compromising climate policy objectives when times are hard could seriously undermine, for example, the credibility of future emissions pricing, which is a critical guide to efficient long-term energy investments. Hasty investment decisions to stimulate recovery could make reducing future emissions even harder.

Current macroeconomic weaknesses do not warrant less ambitious abatement objectives. If anything, for two reasons, they argue for the opposite. First, the marginal costs of mitigation have fallen (permit prices in the European Union Greenhouse Gas Emission Trading System—EU ETS—are at roughly half their 2008 peak). The large drop in aggre-

Restoring economic growth after the global financial crisis need not thwart the fight against climate change

gate demand that underpins these trends may of course be short lived relative to climate policy horizons, but the point remains: lower private abatement costs mean that emission targets should, in principle, be tighter rather than looser.

Second, and perhaps more important, lower energy prices present an opportunity to introduce and lock in some element of carbon pricing. While there will be opposition to increasing the fiscal burden, this is a good time for countries with controlled fuel prices, in particular, to adopt automatic pricing mechanisms that embody a green tax element. The recent uptick in medium-term fossil fuel price forecasts highlights the urgency of such reforms.

Strengthening public finances

The crisis, and policy responses to it, has left the public finances of many countries in even poorer long-term health than before. The fiscal positions of the G-20 advanced economies weakened by 6 percent of gross domestic product (GDP), on average, during 2008–09, and those of many developing countries have also deteriorated. Future challenges may be even more severe: for example, the IMF puts the present value of population aging–related public expenditure costs at perhaps 10 times those of the financial crisis. Public spending will therefore need to be cut and tax revenues increased substantially—perhaps by an average of 3 percentage points of GDP in advanced economies (Cottarelli and Viñals, 2009).

Carbon pricing alone cannot solve these deep fiscal problems, but it can make a significant contribution. The proposed U.S. emission trading program, for example, could raise about \$870 billion over 2011–19—roughly 15 percent of the forecast cumulative fiscal deficit and about 0.5 percent of cumulative GDP. And by correcting an underlying resource misallocation, such levies have the added benefit of being less distortionary than other taxes, such as the corporate income tax and social security contributions for and by lower-paid workers.

To realize these important revenue opportunities, governments need to resist political pressures to overcompensate producers by awarding them free emission permits—also known as “grandfathering.” Huge rents have already been transferred to power generators and industrial producers in the European Union. And similar trends appear likely in the United States. Emerging draft U.S. legislation, if enacted, would lead to a loss of \$700 billion of the \$870 billion (more than 80 percent) in projected revenues from carbon pricing (CBO, 2009).

Large-scale grandfathering of emission permits creates massive windfall profits for regulated firms. Some estimates suggest free transfer of as little as 6 percent of emission rights could be enough to fully compensate electricity producers for any resulting reductions in the value of polluting assets (others put the figure somewhat higher—on the order of 25–30 percent). At best, grandfathering is a crude means of reducing competitive risks to firms exposed to international competition, because the implicit subsidy is targeted at all production rather than exports alone. Nor does it counteract the effect that underpricing of greenhouse gas emissions

abroad has on the price of competing imports. Perhaps most important, free allocation of rights does nothing to shield consumers from increased prices of energy-intensive products: even if they are awarded rights for free, producers have an incentive to raise their output prices to ensure that they earn at least as much as they could by selling those emission permits. Targeted compensation for the welfare losses of the poorest customers would be a more effective answer.

So a transition to full auctioning of emission rights is critical. Where substantial grandfathering is politically unavoidable, at least initially, policymakers should commit to phasing it out over time. If international implementation of carbon pricing remains incomplete, it would be better to address any valid competitiveness concerns—and emerging evidence suggests these can be quite modest—via targeted support rather than through general subsidies. In all cases, the value of grandfathered rights should be quantified and reported as a tax expenditure, so that the issue is open to public debate.

Trade measures such as border tariff adjustments—which remit the burden of emission pricing on exports and impose corresponding charges on imports—are a possible alternative. But they risk being misused to hide tariffs or export subsidies, thereby fueling a slide toward protectionism, and may not be consistent with World Trade Organization rules. Moreover, it is far from clear how such adjustments might be made in relation to emission permits, especially when they are not auctioned.

Reversing fuel subsidies—currently valued at over \$300 billion a year, and creating significant macroeconomic and fiscal vulnerabilities, particularly in low- and middle-income countries—is another priority. Fuel subsidies are widely recognized to be an inefficient way to help the poor (because energy is often disproportionately consumed by wealthier people) and to create incentives for emission-intensive energy use. IEA (2009) estimates that the elimination of fuel subsidies could reduce greenhouse gas emissions by about 12 percent by 2050. The recent commitment by G-20 members to eliminate subsidies is an important step, both in itself and as an example for others.

Tax or cap and trade: lessons from the crisis

The crisis may strengthen the preference many economists have for emission taxes over cap-and-trade systems (the two main instruments for pricing carbon). The fall in the demand for ETS permits in the European Union is a powerful reminder that policy is set with imperfect knowledge of future mitigation costs. This uncertainty creates important differences between the two. If a carbon tax rather than the ETS had been in place in the European Union, for instance, the recent reduction in abatement costs would have brought about not a fall in carbon prices, but a larger reduction in emissions. While the observed price drop may have provided some automatic stabilization, volatility discourages mitigation-related investments, since it means that risk-averse investors will then likely require higher-than-expected returns. Overall, the cost of achieving a given level of mitigation might therefore have been lower if stable tax-based incentives had been implemented.

Where emission trading is chosen instead of a carbon tax, market stability should be protected as far as possible. Systems that allow both carbon price variations (such as cap and trade) and some flexibility in aggregate emissions (such as a tax) can, in principle, be an improvement over either choice alone. This can be achieved by modifying cap-and-trade systems, for example by setting a price floor (through a reserve auction price) or permitting banking of emission rights for future use, and/or by setting a price ceiling (by a willingness to auction unlimited rights at a given price). Such measures are not without their own difficulties, however. It would be best to address the underlying causes of volatility—for example, by expanding the sectoral and geographic coverage of the chosen measures.

Stimulating a green recovery

Expenditures on environmental programs (green stimulus measures) have helped sustain aggregate demand and employment in the short term. Studies suggest that these could confer stronger growth effects than conventional measures such as general consumption or income support. A review of the recovery plans of 20 countries (HSBC, 2009) identified more than \$430 billion—or about 15 percent of the additional aggregate expenditure—allocated to green objectives.

However, stimulus spending also includes “dirty” investments, such as the \$270 billion allocated to road-building projects in the G-20. Such investment is likely to confer strong nonenvironmental benefits by making road transportation more attractive, but it could substantially increase future emissions unless kept in check by proper (and even more aggressive) future carbon pricing.

Promoting recovery from the crisis while avoiding wasteful or inefficient expenditures requires careful evaluation of the contribution of recovery programs (environmental or otherwise, including in the form of tax breaks) to demand. Spending measures must not take the place of more efficient emission pricing—especially given many countries’ intense fiscal challenges. The risk is an inefficient policy mix: public spending paying for the uncorrected externalities of undercharging polluters.

Spending on renewable energy projects is an appealing stimulus measure, to the extent that these activities tend to be relatively labor intensive (particularly during their development phase). However, public financial support in many advanced economies for such programs was already high—perhaps too high—before the crisis. Support for biofuels in the United States, Canada, and the European Union, for example, amounted to about \$11 billion in 2006 and achieved emission reductions at a much higher cost than the EU ETS. While this might be expected in the early stages of new technologies, there is little sign here of public spending having been inefficiently low. Given the typically large up-front costs and long pay-back periods in the development of renewables, credible emission pricing is likely to be more effective for the efficient development of this crucial sector than temporary spending on specific projects.

Nevertheless, climate-related public spending will be needed in a number of areas even after fiscal stimulus fades.

Public support for basic energy research and development can help make up for the fact that weak intellectual property rights and strong spillover benefits discourage private spending. Kick-starting new markets to reduce deforestation, which accounts for nearly one-fifth of global emissions, is key. This can be done, for example, by helping develop robust monitoring and verification arrangements and compensating affected individuals and communities. Additional public investment in low-carbon energy infrastructure could help cushion the environmental burden of future energy needs. (About 1.6 billion people do not have access to electricity, and—likely more important for emissions—there is a growing need for capital replacement in many advanced economies.) Investment in adaptation—closely linked to basic development needs such as access to health, education, water, and sanitary services—is also likely to be an ongoing fiscal challenge.

A climate for recovery

Sustaining recovery from the global financial crisis while coping with climate change presents both difficulties and opportunities. There are potential win-win spending measures, but the more fundamental linkages and synergies lie in the broader strategies adopted toward each. Greater climate resilience can promote macroeconomic stability and alleviate poverty, and carbon pricing, essential for mitigation, can also help strengthen fiscal positions, which many countries need. The temporarily lower energy prices resulting from current macroeconomic weaknesses present some early opportunities. But the currently weak economic outlook in many countries warrants some caution in moving to aggressive emission pricing where the associated increase in production costs and reduction in household incomes could significantly impede recovery. What is critical, however, is to recognize that the policies needed to address climate issues efficiently—including by moving toward broad-based carbon pricing and away from grandfathering emission permits—remain fundamentally unchanged, and no less urgent. Emission pricing, spending, and regulatory measures must be deployed—with careful attention to the balance between them. ■

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References:

Congressional Budget Office (CBO), 2009, *Cost Estimate for H.R. 2998, the American Clean Energy and Security Act, as amended and reported by the House Committee on Rules on June 26 (Washington)*.

Cottarelli, Carlo, and José Viñals, 2009, “A Strategy for Renormalizing Fiscal and Monetary Policies in Advanced Economies,” *IMF Staff Position Note 09/22 (Washington: International Monetary Fund)*.

HSBC Global Research, 2009, *A Climate for Recovery: The Colour of the Stimulus Goes Green (London)*.

International Energy Agency (IEA), 2009, *World Energy Outlook 2009 (Paris)*.

Jones, Benjamin, and Michael Keen, 2009, “Climate Policy and the Recovery,” *IMF Staff Position Note 09/28 (Washington: International Monetary Fund)*.



A Changing Climate for Development

A Bangladeshi family travels to a safer location amid flood waters.

Climate finance can provide the resources developing countries need to mitigate and adapt

Kirk Hamilton and Marianne Fay

CLIMATE change exacerbates the challenges of growth and development. It is already harming developing countries by introducing new threats, worsening old ones, diverting resources from development programs, and making it more difficult to escape poverty.

Although developing countries emitted only one-third of the greenhouse gases now in the atmosphere, these countries are currently producing more than half the world's annual emissions, and this share is rapidly increasing. Developing countries cannot simply follow the carbon-intensive development path that high-income countries did. Yet they still need massive expansions in energy, transportation, urban systems, and agriculture. So, while high-income countries can and must reduce their carbon footprints, tackling climate change also requires a new development paradigm for developing countries.

But having poor countries finance a global public good—climate mitigation—or diverting development finance for adaptation is clearly inequitable. So effective climate finance solutions are critical to solving the climate challenge.

Imminent danger

Climate change is a serious and immediate threat to development. Unmitigated climate change could cause warming of up to 5°C this century—the difference between today's climate and the last ice age—leading to a world vastly different from the one we live in. Even a 2°C warming, likely the best we can achieve, will result in new weather patterns, including increased variability and more frequent and intense extreme weather events. Dealing with this will require substantial adaptation efforts. But even with such efforts, some 100–400 million more

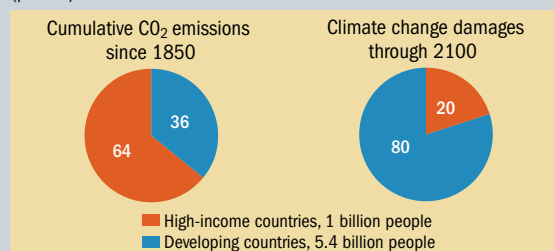
people could be at risk of hunger, and 1–2 billion more may suffer from water shortages.

Developing countries are the most vulnerable to a changing climate, potentially bearing some 80 percent of the damages from climate change (see Chart 1). Warming of 2°C would lead to minimal losses in high-income countries and a global average gross domestic product (GDP) loss of about 1 percent, but could result in a 4–5 percent permanent reduction in annual per capita income in Africa and South Asia. These losses would be driven primarily by the effect of climate change on agriculture, a sector important to the economies of both Africa and South Asia.

Chart 1

Historical emissions and future damages

The poor will suffer most from, but contributed far less to, climate change.
(percent)



Source: World Bank (2010).

Note: Hope (2009, with additional data provided to us) shows that under business as usual (3.9°C warming above pre-industrial levels by 2100) or optimal climate policy (2.6°C warming), the share of developing countries in global climate damages varies from 84 percent to 86 percent. This is a consistent result across a range of integrated assessment models, as reported in World Bank (2010).

Adapting later not an option

Richer countries are more resilient to shocks and better able to adapt to changing circumstances. This has led many to argue that the best way to help developing countries tackle the changing climate is to ensure rapid growth. Unfortunately, growing first and worrying about climate change later is not the answer.

Growth will likely not be fast enough to help the poorer countries. Consider the situations of Bangladesh and the Netherlands, two of the countries most threatened by sea level rise. Bangladesh has adopted a highly effective early warning and flood forecasting system, but with annual per capita income of only \$450, its options for further action are limited. Even the Netherlands, with per capita income 100 times that of Bangladesh, has had to begin a program of selectively relocating some residents because continued protection of all residents is unaffordable.

The inertia present in our climate system is another reason prompt action is necessary. Scientists tell us that putting off mitigation for 10 years would likely make it impossible to keep warming from exceeding 2°C. The carbon dioxide emitted today will stay in the atmosphere for a century, and temperatures will continue rising for a few centuries after greenhouse gas concentrations in the atmosphere have stabilized. So today's decisions determine tomorrow's options.

The infrastructure resulting from growth and development introduces another element of inertia, locking in carbon footprints for many decades. Factories and power plants last 15–40 years, and road, rail, and power distribution networks, 40–75 years. Decisions on land use and urban form—the structure and density of cities—have effects lasting more than a century.

Opportunities to shift from high-carbon to low-carbon capital stocks must be seized sooner rather than later. Traditional high-carbon growth in developing countries will exacerbate the climate problem, and delaying action by a decade or two could increase mitigation costs by as much as 2 to 5 times, according to some models. Developing countries are growing fast and their needs are huge and immediate. They are expected to double their energy consumption over the next 20 years. And China is on a path to double its stock of buildings between 2000 and 2015.

Climate-smart development

Developing countries need to worry not only about the effects of climate change, but also whether they are locking themselves into high-carbon futures. The choice is not simply between a low-carbon, low-growth world and a high-carbon, high-growth world. Plenty of inefficiencies drive today's high carbon intensity. In Russia alone, a 45 percent reduction in energy consumption could be achieved without affecting productivity and lifestyles, mainly by increasing energy efficiency in electric generation, factories, and buildings. In contrast, Brazil, China, and India are becoming market leaders in a variety of low-carbon technologies such as bioethanol, electric cars, and solar water heaters. And North Africa has embarked on a massive program to develop its solar potential.

Such a climate-smart development path—one in which developing countries avoid being locked into a high-carbon, low-competitiveness future—will require substantial efforts on the part of both high- and low-income countries. Commitment to stringent emission-reduction targets in high-income countries is a critical first step. This will trigger investments in the new technologies needed to make development and climate policy compatible. It will also help develop carbon-finance markets. But more will be needed to help developing countries finance the transition to a lower-carbon path.

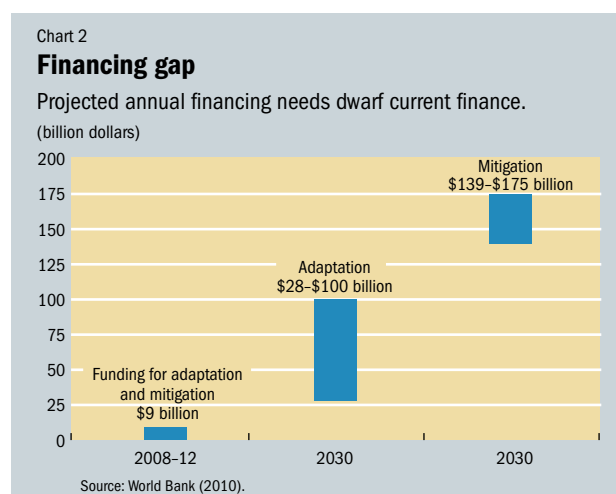
Financing climate action

Climate action aimed at limiting warming to 2°C this century will be efficient and effective only if all countries play their part in mitigation. The role of climate finance, flowing from high-income to developing countries, is to reconcile equity with efficiency and effectiveness in dealing with the climate challenge.

The current climate financing architecture is built around the Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCCC) and about 20 other bilateral and multilateral climate funds. These instruments will generate roughly \$9 billion a year between end-2008 and end-2012 (see Chart 2). Carbon markets under the CDM, whereby firms can buy offsets in developing countries against any carbon cap they face, are the primary market-based instrument for climate action and will generate roughly half of the \$9 billion annual figure.

Huge needs

Chart 2 shows the projected annual needs for mitigation and adaptation finance in developing countries in 2030, based on a range of climate models and assessment tools (see World Bank, 2010, Chapter 6). The figures dwarf current finance, with adaptation investments ranging from \$28 billion to \$100 billion, and mitigation costs of \$139 billion to \$175 billion a year. To put this in context, Hope (2009, with additional data provided directly to us) estimates that mitigation costs in developing countries, consistent with limiting warming to slightly more than 2°C, could amount to 0.4 percent of



high-income country GDP in present value terms over the century. However, because low-carbon technologies are typically very capital intensive, even when they have lower operating costs, the up-front investments that need to be financed in developing countries could equal two to three times the net mitigation cost figure.

Filling the climate financing gap will require all the tools at our disposal, spanning efficiency gains, reform of the carbon markets, and the creation of innovative financing instruments.

How to increase climate finance

There is ample scope to increase the efficiency of existing climate finance. Each of the roughly 20 bilateral and multilateral climate funds currently operating has its own governance and administrative systems, driving up overall costs. Consolidation of climate finance must become a priority. The main source of finance for adaptation to climate change is the Adaptation Fund established under the UNFCCC. This fund can accept donor contributions, but its main source is a 2 percent tax on CDM carbon trades. As a tax on a good rather than a bad thing, this has obvious efficiency costs, and simulations (Fankhauser and Martin, 2010) show that the lost gains from trade resulting from the tax fall disproportionately on the developing country suppliers of carbon credits.

Although the carbon markets under the CDM have been highly successful, reforms will be needed if this market is to be scaled up. Two broad types of reforms can be foreseen: streamlining the existing project-based portfolio of the CDM and expanding the market to policy-based or sectorwide approaches. Costs, delays, governance, and effectiveness—that is, whether carbon trades actually reduce emissions in the recipient country—are major concerns for the project-based CDM. Defining baselines and monitoring outcomes will be key to the success of sector- and policy-based markets, as well as for two of the largest potential sources of climate finance for developing countries: avoided deforestation and soil carbon sequestration (transferring carbon dioxide from the atmosphere into the soil). Without protocols to bring forests and soils into the carbon markets, initiatives are now limited to providing technical assistance and financial incentives to change forest and land management practices in developing countries.

Taxing the untaxed will likely be part of any scaling up of climate financing, with international bunkers (fuel stocks for international air and marine transport) being a prime target. Linking national carbon markets will increase their scale and liquidity. The European Union Greenhouse Gas Emission Trading System (the world's largest carbon market) is a potential partner for emerging cap-and-trade systems. Auctioning “assigned amount units,” the national emission caps agreed under the UNFCCC, rather than giving them away, could generate additional finance, as could a global carbon tax, but these options face objections relating to fiscal costs and sovereignty.

Generating funds for climate adaptation presents particular difficulties. While emission trading for mitigation brings in the private sector and provides strong incentives for effi-

ciency as market participants seek the lowest-cost abatement options wherever they occur in the world, no similar market incentive exists for adaptation. Unlike mitigation, the benefits of adaptation are local, and so the question of how and where to make adaptation investments becomes paramount.

Filling the climate financing gap through fiscal transfers presents problems of donor fatigue. Climate financing must be additional to official development assistance (ODA) if growth and development are not to suffer. The potential size of climate finance is commensurate with ODA as a share of high-income-country GDP. But, with some notable exceptions, high-income countries currently fall far short of meeting their ODA commitments.

“By financing low-carbon alternatives, climate finance can help take the carbon out of growth.”

Engaging the private sector in scaled-up carbon markets is an attractive way to fill the financing gap for mitigation. More generally, pricing carbon through taxes or emission charges will be transformational, influencing the consumption and investment decisions of billions of households and firms. But pricing carbon alone will not generate the needed flows of finance across borders. For this to be achieved, equitable allocations of emission rights and innovative market mechanisms will have to supplement fiscal transfers.

Integrating development and climate action

Developing countries face the majority of the damages from climate change, making adaptation not an option but a necessity. By financing low-carbon alternatives, climate finance can help take the carbon out of growth. It can also provide the resources needed to adapt. But it will need to be backed by a spectrum of climate actions, including the development and deployment of low-carbon technologies, increasing energy efficiency, changing the way we design cities and transportation systems, reforming the institutions needed to deal with climate change, and maintaining political support for climate action. We have no choice but to act now, act together, and act differently on climate and development. ■

Kirk Hamilton is coauthor, and Marianne Fay is codirector, of the World Bank's World Development Report 2010: Development and Climate Change.

References:

- Fankhauser, Samuel, and Nat Martin, 2010, “The Economics of the CDM Levy: Revenue Potential, Tax Incidence, and Distortionary Effects,” *Energy Policy*, Vol. 38 (January), pp. 357–63.
- Hope, Chris, 2009, “How Deep Should the Deep Cuts Be? Optimal CO₂ Emissions over Time under Uncertainty,” *Climate Policy*, Vol. 9, No. 1, pp. 3–8.
- World Bank, 2010, *World Development Report 2010: Development and Climate Change* (Washington).

Technology, Not Talks will Save the Planet

There are smarter alternatives to fighting climate change than cutting CO₂ emissions

Bjørn Lomborg

DIRE predictions about melting ice caps and rising sea levels still strike fear in our hearts. But increasingly, people are ignoring the ominous warnings that are filling the media landscape in the run-up to the United Nations climate change conference in Copenhagen in December 2009. Public support for environmental issues in key countries has taken a beating. Only one-third of Americans now think that humans are responsible for climate change. The number of Australians who deem global warming a “serious and pressing problem” has dropped sharply. And fewer than one-fifth of Britons believe climate change will have an impact on their children.

These recent poll findings provoked British Foreign Secretary David Miliband to complain that the public “lacks a sense of urgency.” But in the wake of the global economic crisis, it is completely understandable that people everywhere have become more skeptical about policies that stand to cost them a fortune—while doing little to save the planet.

Repeated efforts—including terrifying advertisements and exaggerated claims that global warming will be worse than scientists expect—have failed to convince people of the need to accept expensive, ineffective carbon cuts. Surely, rather than “fixing the public,” we should now try to engineer a better, more effective response to this challenge.

Unfortunately, this December, we will see politicians and negotiators engaged in a cynical act of political theater that is unlikely to sway minds, when they meet for two weeks to try to agree on a successor treaty to the Kyoto Protocol, which expires in 2012. It has been obvious for some time that decision makers are unlikely to sign a significant global deal in Copenhagen, let alone solve many of the divisive political challenges certain to beset such talks. They will, however, congratulate themselves for working so hard to save the planet.

Drastic carbon cuts now are not the answer

After this hollow, stage-managed declaration of victory is over, we can hope that politicians will engage in some soul-searching about why Copenhagen failed before it even began. The reasons? Reducing carbon dioxide (CO₂) emis-

sions quickly is immensely complicated, politically divisive, and hugely expensive. Moreover, it is an extremely poor way to help the planet.

First, many of the promises made by politicians are essentially fantasies. Consider Japan. In June 2009, it committed to cutting greenhouse gas levels by 8 percent from 1990 levels by 2020. As Professor Roger Pielke, Jr., has noted, this would require building nine new nuclear power plants, constructing more than 1 million new wind turbines, installing solar panels on nearly 3

million homes, doubling the percentage of new homes that meet rigorous insulation standards, and increasing sales of green vehicles from 4 to 50 percent (Pielke, 2009).

Living up to this commitment would be a Herculean effort for any country, let alone one that already leads the world when it comes to energy efficiency. Yet Japan’s new prime minister recently promised an even stronger reduction, 25 percent, without any obvious way to deliver on his promise.

The only possible outcome of committing to such drastic targets is that countries will fail to deliver, just as they failed to deliver on carbon-emission-reduction promises made in Rio de Janeiro in 1992 and in Kyoto in 1997.

Second, there is the massive technological challenge. Global energy demand will double by 2050, and use of fossil fuels—much maligned by some—remains vital not only to our prosperity but to our very survival. Alternative energy sources have been hyped by corporate lobbyists and credulous media as far more ready for widespread use than they really are.



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Economists Chris Green and Isabel Galiana (Green and Galiana, 2009) recently examined non-carbon-based energy today—nuclear, wind, solar, and geothermal—and found that, taken together, alternative energy sources would get us less than halfway toward stable carbon emissions by 2050. We need many times more non-carbon-based energy than is currently being produced.

Third, the current approach has created a division between rich and developing nations. China and India are enjoying swift growth that is lifting millions of people out of poverty. Indian Prime Minister Manmohan Singh recently declared, “Developing countries cannot and will not compromise on development.” Chinese Premier Wen Jiabao has said, “It’s difficult for China to take quantified emission reduction quotas at the Copenhagen conference, because this country is still at an early stage of development.”

Even if all these points could be set aside, immediate carbon cuts have a final, fatal flaw: they will cost much more than the expected damage of global warming.

In July, leaders of the world’s major industrialized nations—the Group of Eight—agreed that they would strive to make carbon emission cuts to limit global warming to no more than 2°C above preindustrial levels. This would be the most costly public policy ever enacted. Climate economist Professor Richard Tol—a contributing, lead, principal, and convening author for the Intergovernmental Panel on Climate Change—showed that a high global CO₂ tax starting at \$68 a ton (designed to limit temperature rises to less than 2°C) could reduce world gross domestic product by a staggering 12.9 percent in 2100—the equivalent of \$40 trillion a year—costing 50 times the expected damage of global warming (Tol, 2009).

Tol’s figures are based on projections using models from the Stanford Energy Modeling Forum. About half the models found it impossible to keep temperature rises lower than 2°C with carbon cuts, so the \$40 trillion price tag comes from the models that could. This optimistic cost estimate assumes that politicians everywhere in the world would, at all times, make the best choices possible to reduce carbon emissions, wasting no money whatsoever. Dump that far-fetched assumption, and the cost could easily be 10 or 100 times higher.

To put this in the starkest terms: drastic carbon cuts would hurt much more than climate change. Cutting carbon is expensive, especially in the short term, because alternatives to fossil fuels are few and costly. Without feasible carbon alternatives, we will just hurt growth.

The promise of new technologies

There are smarter alternatives. This year, the Copenhagen Consensus Center (of which I am the director) commissioned climate economists to look *closely* at the pros and cons of *different* responses to global warming. We then asked Nobel laureate economists to examine and rank the different solutions.

The panel ranked carbon taxes as the least attractive option. One of the most effective responses, the panel found, would be dramatically higher public funding of research and development (R&D) of non-carbon-based energy, in

the order of \$100 billion a year. That is fiftyfold what governments spend now, but a fraction of the cost of proposed carbon cuts.

We cannot rely on private enterprise alone. As with medical research, many early, innovative breakthroughs will not reap significant financial rewards, so there is no strong incentive for private investment today. Given that every dollar spent on R&D could avert 11 dollars’ worth of climate damage, public money would be well spent. Carbon taxes could play an important role in funding R&D.

Our current approach to solving global warming—focusing primarily on cutting carbon through taxes rather than through technology—puts the cart before the horse. Policymakers should abandon fraught carbon reduction negotiations and agree instead to invest in R&D to get technology to where it needs to be. This would be more likely to tackle climate change and have a much greater chance of political success.

In the short term, we should invest a small amount—less than \$1 billion a year—in researching climate engineering technology called “marine cloud whitening,” which shows great promise in delaying many effects of global warming, helping us buy time to shift away from fossil fuels. If this works—and we still need to ensure that it will—it could prevent *all* 21st century global warming at a total cost of just \$9 billion, thousands of times cheaper than other proposals. In terms of averted warming, this equates to about \$2,000 worth of good for every dollar spent.

This approach would complement investment in technology, because climate engineering has the advantage of speed. There is a significant delay between carbon cuts and a drop in temperature—even halving global emissions by mid-century would barely be measurable by the end of the century. And making green energy cheap and prevalent will take a long time. After all, electrification of the global economy is still incomplete, even after more than a century of effort. Climate engineering technology could help us buy time to achieve a sustainable, efficient shift away from reliance on fossil fuels.

We have no more time to waste on a foolhardy, flawed response to global warming. Growing disillusionment with carbon cuts is not a sign of failure on the public’s part, but of the vast challenges inherent in trying to cut carbon emissions in the short term. The greatest hope for Copenhagen is that politicians will come away with the realization that we need to solve global warming in a more sensible, enlightened way. ■

References:

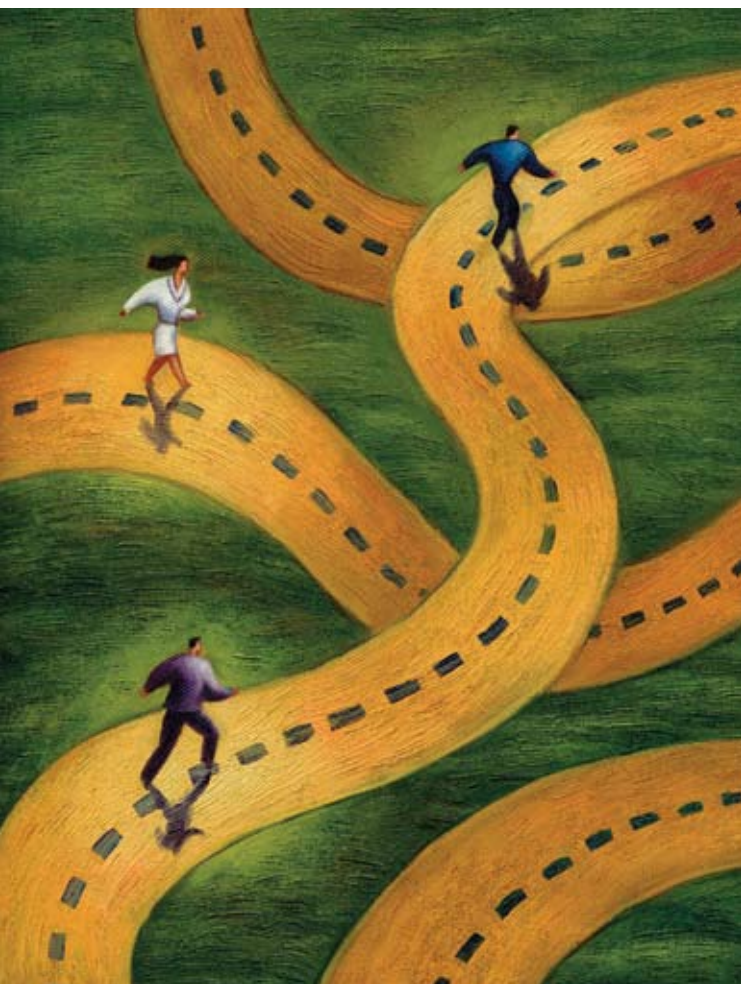
Green, Chris, and Isabel Galiana, 2009, “An Analysis of a Technology-led Policy as a Response to Climate Change”; see <http://fixtheclimate.com/component-1/the-solutions-new-research/research-and-development>

Pielke, Jr., Roger A., 2009, “Mamizu Climate Policy: An Evaluation of Japanese Carbon Emissions Reduction Targets,” *Environmental Research Letters*, Vol. 4, No. 4.

Tol, Richard S., 2009, “An Analysis of Mitigation as a Response to Carbon Change”; see <http://fixtheclimate.com/component-1/the-solutions-new-research/mitigation>

Modern Macroeconomics Is on the **Wrong** Track

William White



EVERYONE is painfully aware that we are in the middle of a major global economic and financial crisis. During a visit to the London School of Economics late last year, Queen Elizabeth II asked why no economists had forecast the crisis. But indeed some had sounded warnings. A more interesting question is why no one, including policymakers, was inclined to listen.

Perhaps the most important reason was that, in the run-up to the crisis, many were making large sums of money. Another, the subject of this article, is that the prevailing paradigm of macroeconomics allows no room for crises of the sort we are experiencing.

The former BIS chief economist argues that the global economic crisis should prompt a rethinking of macroeconomic analysis

Simply improving our macroeconomic analytical frameworks will likely not be sufficient to avoid future crises. Nevertheless, a reevaluation is necessary. There are many dead ends from which to escape, but there are also many promising strands of thought to be pursued.

Mainstream modern macroeconomics

In a recent paper, Gregory Mankiw (2006) offered “a brief history of macroeconomics.” He began with the Keynesian revolution, then moved to the New Classical and New Keynesian schools, which have dominated the teaching of macroeconomics in recent decades.

Perhaps the greatest accomplishment of the Keynesian revolution (named for the late economist John Maynard Keynes) was that it provided a general equilibrium model capable of explaining the simultaneous determination of output, interest rates, and (later) prices and inflation—subject to the assumption that wages reacted only slowly to changes in other economic variables. Large, empirically estimated macroeconomic models made the Keynesian model more concrete. Unfortunately, expectations, which were of crucial concern to Keynes, were treated in a rudimentary fashion in most of these models. There also seemed (at least to many academics) inadequate theoretical justification for assuming that wages and prices reacted only slowly to shocks to the economic system.

Dissatisfaction with these shortcomings led to New Classical models, which assumed away rigidities (such as sticky prices and wages) and postulated that all economic agents formed expectations about the future in a rational way, then acted rationally to maximize their interests. Subsequent New Keynesian models differed from New Classical ones primarily in that they reintroduced the wage and price rigidities assumed by Keynes. This line of thinking has also underpinned the new Dynamic Stochastic General Equilibrium models of the economy—which have become

popular in recent years, even among researchers at leading central banks.

The recent crisis has demonstrated the inadequacy of models based on the assumption of rational expectations. Already under attack on philosophical grounds (Foley, 2004)—what exactly does it mean to be rational?—the rapid rise and subsequent collapse of a wide range of asset prices hardly seemed consistent with a rational pricing process related to underlying values. Rather, it appeared as if expectations in many markets were based simply on the extrapolation of past developments. This led to price levels that eventually proved unsustainable, as fundamentals eventually reasserted themselves. The assumption that most markets have rapidly adjusting prices that quickly reestablish equality between demand and supply (particularly of labor) seemed increasingly inconsistent with observed increases in unemployment. Finally, there was growing recognition that many prices at the heart of the economic system (for example, many exchange rates, interest rates, and the price of energy) were influenced as much by governments as by markets.

“The recent crisis has demonstrated the inadequacy of models based on the assumption of rational expectations.”

In short, this crisis provides evidence that the simplifying assumptions on which much of modern macroeconomics is based were not useful in explaining real-world developments.

It would be tempting to say that policymakers were led astray because they used these kinds of models. Unfortunately, there is very little evidence that these modern academic theories had much impact on the way most central bankers used policy instruments. Alan Blinder, a highly respected central banker and academic, has written convincingly on this (Blinder, 1988 and 1997). Rather, most senior policymakers continued to rely on Keynesian-based models. However, these models also failed to provide advance warning of mounting problems, so their shortcomings must be considered too.

Shortcomings of Keynesian models

Postwar empirical models with Keynesian underpinnings have never been good at forecasting turning points in the business cycle. This is a fundamental shortcoming, since we hardly need expensive models to assert that the future will be pretty much like the past. Keynes, as Axel Leijonhufvud (1968) documents, was profoundly skeptical about the usefulness of such models, because their construction ignored one of Keynes's greatest insights. Expectations are crucial to all forms of economic behavior, but given the complexity of the economy, the future is uncertain. Faced with uncertainty, economic behavior tends to be guided in large part by

heuristic devices and raw emotion (“animal spirits”—Akerlof and Shiller, 2009), which can produce sudden and sharp departures from the past. If there is anything that would characterize the future, it was not the average of past observations.

So, although they provide a useful theoretical framework for how the world works, traditional Keynesian models, like the modern models, are not very helpful when it comes to prediction and are of limited use to policymakers. Worse, models in the Keynesian tradition also ignore two other considerations suspected of having great practical importance in the current crisis: the insights of the Austrian school of thought and those of Hyman Minsky.

The Austrian school perspective

In contrast to the Keynesian framework, Austrian theory assigns critical importance to how the creation of money and credit by the financial system can often lead to cumulative imbalances over time. These imbalances, which ultimately come down to investments that do not end up profitable, eventually implode in the context of an economic crisis of some sort. In today's terms, unusually rapid monetary and credit growth over the past decade or so led to asset price increases that seemed to have little to do with fundamentals. It also led to spending much higher than historical norms. For example, the household saving rate in many English-speaking countries fell to zero or below, even as the ratio of investment to gross domestic product in China rose to almost 50 percent. From an Austrian perspective the danger would be that these imbalances would revert, respectively, to more justifiable and more normal levels. Over the past two years we have seen something of this nature, in both asset prices and spending patterns in the United States, the United Kingdom, and a number of other countries. This is at the heart of our problems. Moreover, for those with an Austrian perspective, the continued and unprecedented investment-fueled growth in China is more a danger signal than a sign of renewed sustainable growth.

Mistaken spending decisions eventually result in stocks of unprofitable (for corporations) or undesired (for households) investment/durable goods that will take a long time to depreciate. In today's terms, many industries that expanded sharply in response to high demand are now too big and must shrink. Such industries at the global level include financial services (particularly global supply networks), car production, wholesale distribution, construction, and many other intermediate and primary inputs. Moreover, with many production facilities in Asia geared to sell to foreigners, who no longer have the means to pay, a massive geographical reallocation of production facilities seems in order.

From this perspective, Keynesian demand-side stimulus might well have near-term benefits, but could eventually have less desirable effects if it impedes necessary adjustments in production capacities. Over time, such considerations matter. Cash for clunkers programs in countries with very low household saving rates are not optimal. Nor are attempts to hold down exchange rates for countries with huge external trade surpluses. Nor are wage subsidies to support part-time

work, if jobs in the industries being supported will never come back.

While all this restructuring takes place, the structural rate of unemployment will be higher and the level of potential output lower. Moreover, the reduced potential will come on top of the more traditional effects of downturns associated with such factors as lower investment—sometimes suppressed by tighter credit conditions—and employment and wages that do not adjust quickly (see Cerra and Saxena, 2008). This implies that all policies to expand aggregate demand could stimulate inflation pressures sooner than expected. Given that some of these policies, such as quantitative and credit easing, are themselves unprecedented, and their effects commensurately uncertain, the added uncertainty generated by shifts in aggregate supply cannot be judged welcome now.

Hyman Minsky and the role of the financial system

The popular shorthand for our current difficulties is the “global financial crisis.” But the crisis is both real and financial. The associated concern that weakness in the financial system could feed back into the real economy through tighter credit conditions also feeds the perception that it is only a financial crisis. Paradoxically, modern economic analysis hardly mentions problems in the financial sector. As Charles Bean (2009) observed, the fact that financial intermediation is barely acknowledged in the premier analyses of interest rates and prices “speaks volumes” about modern macroeconomics.

Admittedly, bankers create money and credit, and this is seen, by the Austrians at least, as the root of the crises that emerge from time to time in capitalist societies. However, even in that literature, problems in the financial sector and negative feedback effects from the financial sector to the real economy are barely mentioned.

One relatively early attempt to factor in such considerations was made by Irving Fisher (1933). Against the backdrop of the thousands of bank failures in the United States in the 1930s, he spoke of successive stages of lending with ever easier credit conditions. (The last of these he speaks of as aiding “speculation and outright fraud.”) In the end, this laxity threatened the banks themselves.

For a fuller evaluation of such financial considerations, we really need to turn to Hyman Minsky. Minsky (1982) also spoke of stages of credit growth, with the horizon of the credit getting ever shorter, culminating in what was essentially Ponzi finance. Loans would, in the last stage of the boom, be made to pay the interest on previous loans. Then, at a moment impossible to predict, creditors would suddenly admit to their folly. They would focus first on their own exposures, but then almost instantaneously on what they assumed to be the even more imprudent behavior of others. At this “Minsky moment,” the bust would begin, with important implications for the real economy. While it looked like a liquidity crisis, the underlying reason for the drying up of the availability of credit was, in Minsky’s view, deep concerns about the insolvency of counterparts, including other banks. Against the backdrop of the decision by BNP Paribas in August 2007 to freeze withdrawals from three of their mutual

funds, and the subsequent failure of Lehman Brothers in 2008, there seems to be much in Minsky’s work that is relevant to current problems.

The way forward for macroeconomics

What do the above considerations imply for the future of macroeconomics? The simplifying assumptions of the New Classical and New Keynesian models do not make them obvious candidates for near-term guidance on how best to conduct macroeconomic policies.

We are left then with the Keynesian framework, with all the likely fuzziness and uncertainties implicit in the principal functional forms being subject to “animal spirits.” At the least, this implies appropriate skepticism of the forecasts generated by the available empirical models. Recent experience of very large forecast errors—not least by the IMF, the Organization for Economic Cooperation and Development, and other official bodies—only accentuates a tendency under way in most forecasting shops for many years. Conscious of the potential shortcomings of individual models, many institutions have begun to maintain a variety of such models. Judgments about policy requirements are based on an overview of them all, plus whatever intuition experienced policymakers are prone to add. This blend of art and science may be the best we can ever hope for.

But there are other challenges to the conventional way of doing things as well. How can we blend into the Keynesian framework some of the insights of Austrian theory? In normal circumstances, using this Keynesian framework in a straightforward way to project output gaps and inflationary tendencies might seem satisfactory. For example, earlier this decade, such a framework seemed to provide an adequate explanation of the simultaneous observation of rapid growth, falling inflation, and very low real interest rates in the global economy (White, 2008). However, beneath this calm surface, Austrian “imbalances” were building up, which eventually culminated in the current crisis. The future macroeconomic research agenda must find ways to identify and react to these pressures. Fortunately, a significant amount of work in the area of identification has been done, and some promising areas for further progress suggested (see Borio and Drehmann, 2009).

One tendency that must be resisted is to see this work on imbalances as related solely to “financial stability.” In part, this tendency is related to the misconception that our current problems are limited to those of a financial crisis. Rather, an important aspect of the issue is how excessive credit and monetary creation can lead to imbalances outside the financial system, with significant macroeconomic implications. Today, for example, households in the United States and a number of other countries seem likely to spend less, save more, and try to pay down debt. This seems likely to happen regardless of the capacity or incapacity of the financial system to give previous borrowers more credit. How the state of household and corporate balance sheets affects the desire to spend (as opposed to the capacity to spend) is a crucial issue for future research.

Viewing the problem as a broader macroeconomic issue, rather than one simply of financial stability, also has important institutional implications. It suggests that the ultimate responsibility for monitoring the buildup of these kinds of Austrian imbalances, and for directing the policy response, falls more naturally into the realm of central banks than into that of financial supervisors. This creates a bit of a political

“How the state of household and corporate balance sheets affects the desire to spend (as opposed to the capacity to spend) is a crucial issue for future research.”

problem, because regulatory instruments—particularly ones that can be based on rules rather than discretion (White, 2009)—seem to be the preferred policy response to the buildup of these kinds of problems. Further research into these questions would be very welcome. In particular, the scope for monetary policy to “lean against the wind” of rapid credit growth would merit significant attention.

To say that the problem is a broad macroeconomic problem is not to deny that it has a crucial financial component. Imbalances and excessive leverage in household and corporate balance sheets will generally be matched by excessive leverage on the part of financial firms. Indeed, it is the need to unwind both sets of leverage simultaneously that tends to make associated economic downturns so severe. This implies that research into the functioning of the financial system remains a high priority.

The current crisis has led many to disavow most versions of efficient market theory, but what is to replace them? Again,

and fortunately, there already exists a body of finance literature on information deficiencies, network problems, flawed incentives, and the like. The insights of behavioral finance are also receiving more serious treatment (for example, Akerlof and Shiller, 2009), as are the contributions of market practitioners with particular insights into the interactions among participants that can generate unwarranted market outcomes (for example, Soros, 2009).

As with the broader macro problems, new ways of thinking about financial problems can also have important institutional implications. No question is currently more important than the role of government safety nets. In various ways, they have been expanding for decades, and we have just observed another massive step in that direction. Whether the growing moral hazard (flawed incentives) associated with expanding safety nets has contributed to the increasing severity of financial cycles cries out for the attention of researchers. Current concerns that banks have become too big/complex/interrelated/global to fail/save are only one aspect of this much bigger issue.

In short, when it comes to further macroeconomic research, the current crisis has highlighted what appear to be some dead ends. At the same time, it has also revealed many outstanding questions of highly practical significance with implications both for how crises should be managed and how they might be prevented. Whether these analytical insights will amount to a paradigm shift in how we think about these things remains to be seen. But, however we label it, a change in our thinking is highly desirable. ■

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References:

Akerlof, George A., and Robert J. Shiller, 2009, *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism* (Princeton, New Jersey: Princeton University Press).

Bean, Charles, 2009, “The Great Moderation, the Great Panic, and the Great Contraction,” *Schumpeter Lecture, Annual Congress of the European Economic Association, Barcelona, August 25*.

Blinder, Alan, 1988, “The Fall and Rise of Keynesian Economics,” *The Economic Record*, Vol. 64, No. 4, pp. 278–94.

———, 1997, “What Central Bankers Could Learn from Academics— and Vice Versa,” *Journal of Economic Perspectives*, Vol. 11, No. 2, pp. 3–19.

Borio, Claudio, and Mathias Drehmann, 2009, “Towards an Operational Framework for Financial Stability: ‘Fuzzy’ Measurement and Its Consequences,” *BIS Working Paper 284* (Basel: Bank for International Settlements).

Cerra, Valerie, and Sweta Saxena, 2008, “Growth Dynamics: The Myth of Economic Recovery,” *American Economic Review*, Vol. 98, No. 1, pp. 439–57.

Fisher, Irving, 1933, “The Debt-Deflation Theory of Great Depressions,” *Econometrica*, Vol. 1, No. 4, pp. 337–57.

Foley, Duncan, 2004, “Rationality and Ideology in Economics,” *Social Research*, Vol. 71, No. 2, pp. 329–39.

Leijonhufvud, Axel, 1968, *On Keynesian Economics and the Economics of Keynes* (New York: Oxford University Press).

Mankiw, N. Gregory, 2006, “The Macroeconomist as Scientist and Engineer,” *NBER Working Paper 12349* (Cambridge, Massachusetts: National Bureau of Economic Research).

Minsky, Hyman P., 1982, “The Financial-Instability Hypothesis: Capitalist Processes and the Behaviour of the Economy,” in *Financial Crises*, ed. by Charles P. Kindleberger and Jean-Pierre Laffargue (Cambridge, United Kingdom: Cambridge University Press).

Soros, George, 2009, *Central European University Lecture Series, Budapest, October 26–30*.

White, William R., 2008, “Globalisation and the Determinants of Domestic Inflation,” *BIS Working Paper 250* (Basel: Bank for International Settlements).

———, 2009, “Should Monetary Policy ‘Lean or Clean?’” *Globalization and Monetary Policy Institute Working Paper 34* (Dallas, Texas: Federal Reserve Bank of Dallas).

Rebalancing Growth in Asia

Asian emerging markets can improve their economic welfare by rebalancing growth toward domestic demand

Eswar Prasad

WITH the increasing importance of Asian emerging markets in the world economy, rebalancing growth in developing Asia toward more reliance on domestic demand and less on exports is an important component of the global effort to stabilize world financial and economic systems.

Asia's export-oriented growth strategy played a role in the global imbalances that have characterized the international economy in recent years and played some role—though how much is hotly debated—in contributing to the global economic crisis.

Global imbalances—with large current account deficits in the United States and a few other advanced economies and big current account surpluses in oil-exporting countries and in emerging Asian markets, especially China—provided cheap money that worsened the root problems of weak regulatory systems and regulatory failures in the United States and other advanced economies. These imbalances remain troubling because if a disorderly adjustment does take place, through a sharp fall in the value of the dollar or a prolonged contraction in economic activity in industrial countries, it will be very costly and disruptive to the world economy.

Not only would a reduction of the imbalances in emerging Asia be helpful to the global economy, rebalancing may offer advantages to other countries in the region as well by making their high growth rates more durable, translating into more benefits for their citizens.

If rebalancing is a goal, the first question is how to evaluate the “balance” of an economy in terms of reliance on domestic versus foreign demand and also in terms of the composition of domestic demand. There is no definitive answer, but my approach is to evaluate growth patterns in the major Asian emerging markets—China, India, Indonesia, Korea, and Thailand—and then to analyze these patterns to see how this growth improves the economic welfare of the average household in these economies.



Young women shopping in Beijing, China.

Growth patterns

One way to characterize the balance in a country's growth is to look at the evolution of the major components of its national output—private consumption, government consumption, investment, net exports—and employment.

Over the past decade, the share of private consumption in gross domestic product (GDP) has fallen in key emerging Asian economies and in the largest advanced economies, with the notable exception of the United States (see Chart 1). In China, there was a dramatic drop from an already low 46 percent in 2000 to 35 percent in 2008. By contrast, the shares of both investment and net exports rose markedly in China—by about 8 and 6 percentage points, respectively—between 2000 and 2008. There was also a significant decline in India's private consumption relative to GDP—from 64 percent in 2000 to 57 percent in 2008, with investment taking up the slack.

When we look at average GDP growth rates for the same countries, private consumption accounts for under one-third of China's GDP growth, less than any other economy in the sample (see table). Investment growth made a major contribution to overall growth rates in both China and India—accounting for nearly half of overall GDP growth. In China, investment growth has been the dominant source of GDP growth.

After evaluating private consumption and investment, it is important to assess how dependent a country is on external trade for growth. Even if a country has a high level of exports relative to GDP, it could also import substantially, meaning that *net* exports (exports less imports) contributed little to bottom-line GDP growth. China is popularly characterized as relying on export-led growth, but the direct contribution of net exports to GDP growth amounted to only 1.1 percentage points a year over 2000–08, just one-tenth of overall GDP

Modest employment growth

Investment growth has done little to boost employment in China.

Country	GDP growth	GDP growth contributions				Net exports	Employment growth
		Total	Private	Government	Investment		
China	10.2	4.1	2.8	1.3	5.0	1.1	0.9
India	7.2	4.1	3.5	0.5	3.6	-0.3	1.9
Indonesia	5.2	3.1	2.5	0.6	1.4	0.4	1.6
Korea	4.9	2.5	1.9	0.6	1.0	1.4	1.7
Thailand	4.8	2.7	2.4	0.4	1.5	0.5	1.6
Unweighted medians							
All countries	5.2	3.1	2.5	0.6	1.5	0.5	1.6
All excl. China	5.0	2.9	2.4	0.5	1.5	0.4	1.7
International comparisons							
Germany	1.4	0.5	0.3	0.2	0.1	0.9	0.4
Japan	1.5	1.0	0.6	0.4	0.2	0.5	-0.1
United States	2.3	2.3	2.0	0.3	0.1	-0.1	0.7

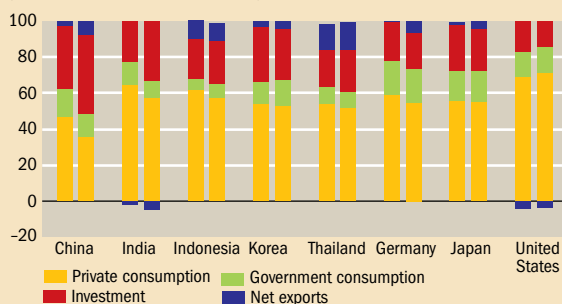
Sources: CEIC Data; IMF *World Economic Outlook*; Asian Development Bank; and author's calculations.
 Note: GDP growth rates (in percent) are annual averages over the period 2000–08. GDP growth contributions (in percentage points) are averages over the same period, except for Indonesia (2001–08). Contributions may not sum exactly to GDP growth because of rounding. Investment includes private and public investment. Employment growth rates (in percent) are also annual averages over 2000–08. India's employment data are available only for 2000 and 2005 from ADB. Japan's investment excludes 2008 owing to lack of data. The unweighted medians are the cross-sectional medians of the data in the respective columns.

Chart 1

Growth shares

Private consumption is contributing less today to GDP growth in emerging Asian economies than at the start of the decade.

(shares of real GDP, 2000 and 2008)



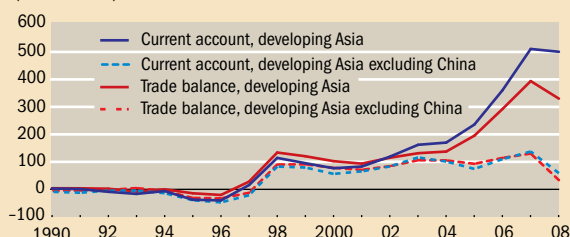
Sources: CEIC Data; IMF *World Economic Outlook*; and author's calculations.

Chart 2

Excess savings

Developing Asia's current account surplus began to surge in 2003, reaching \$500 billion in 2007.

(billion dollars)



Sources: IMF *World Economic Outlook*; CEIC Data; and author's calculations.
 Note: Developing Asia includes Bangladesh, Cambodia, China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan Province of China, Thailand, and Vietnam. For the trade balance, the 2006 and 2007 numbers do not include Bangladesh, and 2008 numbers do not include Bangladesh, Cambodia, Sri Lanka, or Vietnam, owing to lack of data.

growth. However, in sheer volume, China's trade surplus of \$295 billion in 2008 (6.8 percent of GDP) dominates aggregate Asian trade (excluding Japan) with the rest of the world.

The Chinese growth model, which has relied to a great extent on investment growth, has resulted in limited employment growth—barely 1 percent a year, or about one-tenth the rate of output growth during this decade (see table)—which is odd for an economy with a huge labor force and significant underemployment. Even though this may reflect high productivity growth, the low rate of employment growth is clearly of concern even to the Chinese government because it has implications for economic and social stability. Employment growth has also been modest in other Asian economies.

External (im)balances

Domestic and global imbalances are connected through the current account—or the difference between national savings and investment. Chart 2 shows the overall current account balance for developing Asia between 1990 and 2008. The total excess savings of the Asian region amounted to about \$100 billion in the early 2000s, then began to surge in 2003.

Nearly all of the growth in excess savings was from China. Excess savings from the other countries was steady at about \$100 billion through 2007–08. The aggregate current account balance, including China, jumped to \$500 billion by 2007–08, driven by massive Chinese current account surpluses, which hit \$440 billion in 2008. Indeed, China's national savings and current account surpluses dominate the region's savings-investment balances. China accounts for just under half of GDP in Asia (excluding Japan), but accounts for nearly 90 percent of the region's current account surplus. The trade surplus, again dominated by China, is the main determinant of the region's current account surplus.

Evolution of national saving rates

To explore savings in more detail, we look at the evolution of gross national saving rates and the composition of savings in China, India, and Korea. These three economies account for about three-quarters of GDP in Asia (excluding Japan). And all three have experienced an increase in corporate savings (see Chart 3). In China, the share of corporate savings has risen markedly, accounting for almost half of national savings by 2007–08. Interestingly, in India, household savings have remained the dominant source of national savings, amounting to about 20 percent of GDP since the early 2000s, whereas corporate savings have become increasingly important in recent years. In Korea, household savings as a ratio of GDP have fallen since the late 1990s, driving down overall national savings slightly.

Looking at savings relative to household disposable income offers a different perspective on household savings. Chart 4 shows that China's household saving rate rose markedly during the second half of the 1990s and continued to increase during the high-growth years of this decade, reaching 28 percent of household disposable income in 2008. The household saving rate in India has risen sharply over the past decade, from 20 percent of disposable income in 1998 to 32 percent in 2008. Indeed, India now seems to have the highest household saving rate among

the Asian economies for which data are available. By contrast, the household saving rate in Korea has fallen considerably, from nearly 30 percent in the late 1990s to 7 percent in 2007.

Both the evolution of overall saving rates and the sources of national savings vary substantially across countries. China accounted for about 62 percent of gross national savings in all of Asia (excluding Japan) in 2008. In terms of sheer magnitude, the sharp increase in corporate savings and the evolution of Chinese savings clearly both play big roles in influencing overall saving patterns in Asia (Prasad, 2009b).

Corporate savings

Corporate savings reflect retained earnings, which in turn depend on the profitability of firms. Lin (2009) argues that China's high level of corporate savings is partly thanks to a financial structure dominated by state-owned banks and an equity market with restricted entry, both of which favor large firms. Similarly, China's repressed financial system provides cheap capital (low real interest rates) to large state-owned firms. Massive state subsidies combined with administrative monopolies have led to high profitability in some sectors, with the boom years until mid-2008 generating rising profits. In a fast-growing economy, retaining and reinvesting profits is clearly an attractive proposition when firms face a very low opportunity cost of funds.

China's underdeveloped financial system and dividend policies for its state-owned firms also help explain the high level of retained earnings among profitable Chinese firms. Until recently, state-owned enterprises were not required to pay dividends to their shareholders or to the state. Moreover, the lack of alternative financing mechanisms such as a deep corporate bond market has led firms to retain their earnings to finance future investment projects.

There are clearly links between different imbalances. Government subsidies for energy and land, as well as cheap capital provided by the state-owned banking system, have created incentives for massive investment in China. This helps explain the declining share of labor income in national income—down 8 percentage points over the past decade—and low employment growth. Repressed low interest rates on bank deposits also give firms an incentive to recycle their retained earnings into further investments, including even marginally productive projects. An inefficient financial system can create a variety of imbalances that hold down employment and household income growth and discourage consumption growth (Prasad, 2009a).

What drives household savings in China?

Household savings in China accounts for two-thirds of total household savings in Asia. Analyzing the factors that drive the rising Chinese household saving rate is a first step in devising policy measures to stoke private consumption growth.

In joint work with Marcos Chamon (2010), I use data from a sample of urban households, which account for about two-thirds of total income, to study the determinants of rising household savings in China. In 1990, the saving rate initially increases with age, peaks at around age 50, and then declines (see Chart 5). This is the pattern predicted by standard economic

Chart 3

Composition of national savings

The share of corporate savings in national savings is increasing in China, India, and Korea.

(percent of GDP)

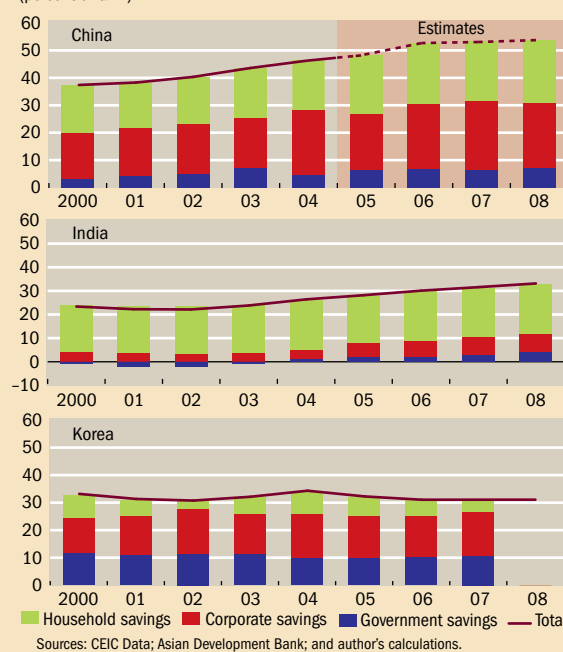
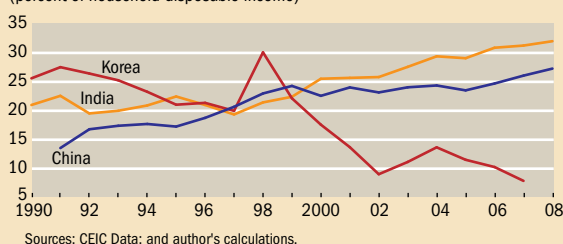


Chart 4

Household savings

China's and India's household saving rates continue to rise.

(percent of household disposable income)



models. Young workers borrow against their future income; workers have the highest saving rates when their incomes are highest, in the latter stages of their careers; and retirees start drawing down their savings when they stop working.

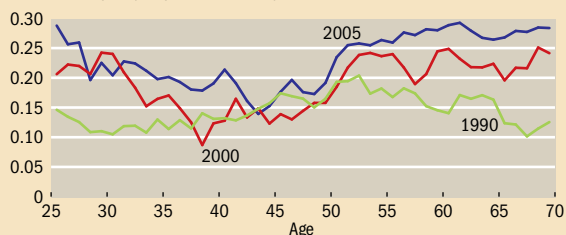
By 2005, saving rates in China increased for all age groups. More interestingly, the age profile of saving shifts to an unusual pattern, with younger and older households having relatively high saving rates. A careful statistical analysis confirms this pattern even after controlling for other factors such as shifting demographic trends. We find that these patterns are best explained by the rising private burden of expenditures on housing, education, and health care. For instance, health expenditure-related risks largely explain the dramatic increase in saving rates among elderly households. As the population ages and income levels rise, the demand for health care is growing and is not being met by the state-financed health care system.

Chart 5

Shifting patterns

Savings in China has shifted so younger and older households now save more than workers.

(average saving rate by age of head of household;
1 - consumption/disposable income)



Source: Chamon and Prasad (2010).

Note: Income and consumption profiles were smoothed by a 3-year moving average (the averages for each age were combined with those for the ages immediately above and below).

These effects and precautionary motives may have been amplified by financial underdevelopment, as reflected in constraints on borrowing against future income and low returns on financial assets. In a fast-growing economy where the desired consumption bundle shifts toward big-ticket durable goods such as cars and houses, inability to borrow against future income could lead to households saving more to self-finance their purchases. Lack of diversification opportunities for financial assets could cause households to save more for precautionary purposes. These factors are exacerbated when greater macroeconomic and household-level uncertainty—as a result of enterprise restructuring and other aspects of the transition to a market economy—increases precautionary savings.

How to address imbalances

This analysis points to steps that could promote domestic demand growth (especially private consumption growth), reduce dependence on external demand, raise employment growth, and improve overall economic welfare in Asian economies, particularly China.

- *Social safety net.* Increasing spending on the social safety net and other government insurance mechanisms could help reduce precautionary motives for saving. Better provision and delivery of health care would reduce the need for older citizens to save and self-insure. This is increasingly relevant with lengthening life spans, increasing health care costs, and rising dependency ratios of older people to working-age people.

- *Financial market development.* A broader array of financial markets—including insurance, corporate bond markets, and a variety of “plain vanilla” derivatives markets such as currency futures—would provide more instruments for saving, borrowing, and hedging risk. It would also allow for diversification across different types of income (labor versus financial) and different types of assets. And more channels for raising funds means firms could rely less on retained earnings for financing their investment.

- *Improving financial system efficiency.* A better-functioning financial system could channel capital into more

productive uses, providing credit to corporations and entrepreneurs and promoting entrepreneurial activity. This would raise employment if the shift in incentives increased the amount of bank credit available to small and medium-sized private enterprises that are dynamic and serve as engines of employment growth.

- *Financial inclusion.* An important aspect of financial development is to give a broader swath of the population, especially in rural areas, access to the formal financial system, including banking, insurance, and securities markets. This would increase returns on savings and reduce incentives for households to save more to self-insure against health and other risks. It would also give small-scale entrepreneurs the opportunity to raise funds without having to create and use their own savings.

- *Macro policies.* In some countries with tightly managed exchange rates, a more flexible exchange rate regime that allows the exchange rate to respond to differences in productivity relative to trading partner countries could generate positive wealth effects. A higher exchange rate value would make foreign goods, including consumer and investment goods, cheaper in domestic currency terms. This would encourage private consumption and reduce reliance on foreign demand. A more flexible exchange rate, by allowing more independent monetary policy, could also improve macroeconomic stability, which in turn would have a favorable effect on both output and employment growth (Prasad and Rajan, 2006).

No magic bullet

There is no magic bullet for countries trying to rebalance growth away from excessive dependence on exports and/or investment. A number of complementary policy measures can help build momentum toward the objective of more balanced growth driven by domestic demand. This will benefit Asian economies and at the same time promote the stability of the international financial system. ■

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References:

Chamon, Marcos, and Eswar Prasad, 2010, “Why Are Saving Rates of Urban Households in China Rising?” *American Economic Journal: Macroeconomics* (January).

Lin, Justin, 2009, “Paradigm Shift on Both Sides of the Global Imbalance,” presentation at the Brookings-Caijing Conference in Washington, D.C., January.

Prasad, Eswar, 2009a, “Is the Chinese Growth Miracle Built to Last?” *China Economic Review*, Vol. 20, No. 3, pp. 103–23.

_____, 2009b, “Rebalancing Growth in Asia,” NBER Working Paper 15169 (Cambridge, Massachusetts: National Bureau of Economic Research).

_____, and Raghuram Rajan, 2006, “Modernizing China’s Growth Paradigm,” *American Economic Review*, Vol. 96, No. 2, pp. 331–36.

Rebuilding U.S. Wealth

A world that frets about lost consumer demand should also worry whether newly frugal U.S. households will save enough

Evan Tanner and Yasser Abdih

U.S. CONSUMERS, once the driving force behind world prosperity, are buying less and saving more in the aftermath of a global financial crisis that wiped out a big chunk of their wealth.

After saving almost nothing from their paychecks for a number of years, U.S. consumers may have permanently changed their behavior, many economists and others think. Policymakers and economists around the world are concerned that the shortfall in global demand caused by the newly tightfisted U.S. consumer portends a sluggish global recovery. The spending gap will not be bridged by consumers from other countries, such as China, or additional capital investment, at least not in the near term, they believe.

But there is another side to the story. Although the global concern about replacing lost U.S. demand is real, for the United States itself the worry might rather be whether households will be frugal enough. Consumers can rebuild their wealth (that is, net worth—the difference between assets and liabilities) only by letting their savings accumulate.

Wealth and investment

Household wealth building is critical to a related concern: capital investment. Net worth and capital expenditures appear to be closely linked (see Chart 1). This striking correlation may be explained by the effect of the so-called financial accelerator: firms with stronger balance sheets can borrow (and finance capital expenditures) on more favorable terms. During periods of financial distress, when credit is scarce and corporate earnings are low, new household savings appear to be the most likely source of funds for firms seeking to replenish their balance sheets.

Sustainable growth requires new capital formation. While rising overall demand (including consumption)

may be a precondition for a recovery in capital investment, as traditional theories of investment tell us, weak balance sheets may dampen that recovery. Unless capital gains and corporate earnings are as strong as they were in the bubble years before the crisis, an unlikely prospect, firms will not be able to generate sufficient investment funds internally and will likely need to tap increased household savings to replenish their balance sheets. Our research suggests that households will not save enough, which augurs badly for the long run.

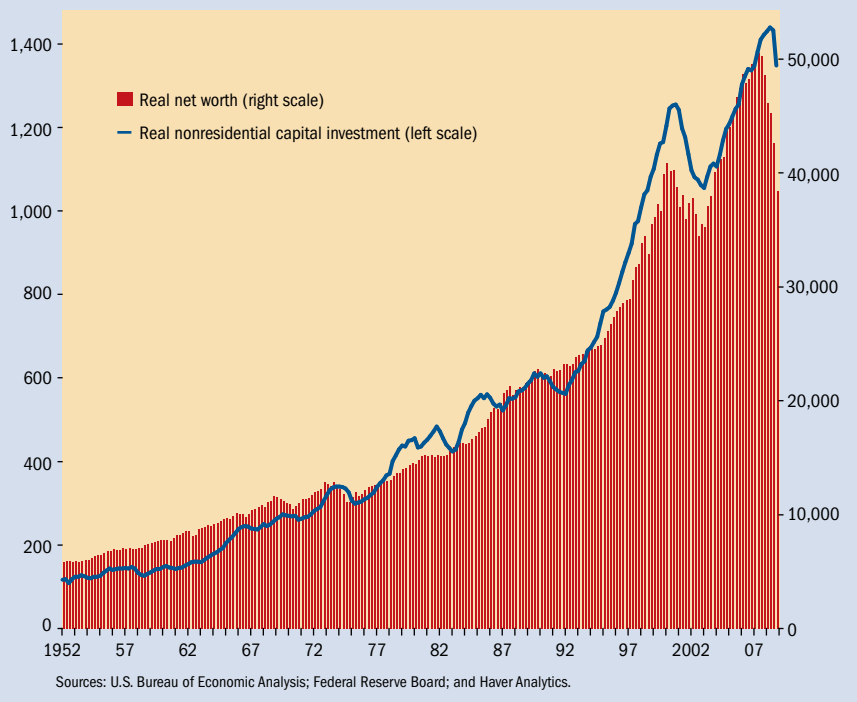
Net worth and household savings

In the run-up to the current crisis, there was a surge in U.S. household wealth—in houses and equity shares, among other sources. As their assets increased, households were able

Chart 1

Generating wealth

Household net worth and capital investment moved together between 1952 and 2008.
(billions of constant 2000 dollars)



to enjoy ever higher consumption and still add to their net worth, even as out-of-paycheck saving rates fell to all-time lows. When asset values plummeted dramatically in 2008, households responded by consuming less and saving substantially more out of their paychecks.

This corresponds to historical patterns. In addition to some fixed amount that is independent of current conditions, households typically consume more when their disposable paycheck income rises. But consumption is also related to asset income. Using data from 1952 to 2008, we found that U.S. households have responded to changes in their asset income as they are doing now—by making similar-sized adjustments in their out-of-paycheck saving. They consume less when asset income declines and more when it rises. In the long run, this compensating adjustment approaches one to one: for every dollar increase in asset income, consumption increases and out-of-paycheck saving declines by a dollar—and the reverse for every dollar decline in asset income. Such a one-to-one relationship was precisely what economist Milton Friedman observed years ago when he developed his theory of optimal long-term household behavior, the permanent income hypothesis. But we also find that consumers typically make that long-term adjustment very gradually over time.

What might happen to *future* savings and wealth if households continue to behave as they have on average over the past half century? To find out, we developed a baseline model that projects future levels of consumer savings and accumulated wealth on the assumption that household behavior remains fundamentally unchanged.

In this baseline, out-of-paycheck savings initially rise after 2009, a direct result of the crisis. Then, as household assets stabilize, savings recede somewhat. The forecast takes on a hump shape, peaking in 2011 and declining thereafter. From their trough in 2007 to the 2011 peak, the adjustment in savings is about 2¼ percent of gross domestic product (GDP). With future asset returns projected to be somewhat below their exaggerated values of recent years, household net worth rises from current levels—but only slightly—in the baseline.

A new frugality?

But the economic environment has changed dramatically. There is more uncertainty. Consumers are deleveraging (shedding debt), voluntarily or otherwise, and they are more aware than ever of record government deficits.

So the baseline model may not be a good guide to future saving behavior. If a new frugality has emerged, U.S. consumers could be on a permanent course to save more. How much more? IMF chief economist Olivier Blanchard has said economists can hazard no more than a “best guess” (Blanchard, 2009).

We tried to determine how much more consumers must save to restore their net worth to levels that correspond to better (precrisis) times. We assumed that households would boost their savings by some fixed amount, relative to the baseline, in each period. But, after this one-time shift, sav-

ings will remain tied to asset income at the margin—as in the baseline model.

Net worth by 2018

We calibrated our hypothetical savings shifts to roughly align our initial-year forecasts with averages from previous eras: the 1990s, the 1980s, and, most dramatically, the frugal 1950s–1970s. To replicate the 1990s, the increase in savings would have to be even higher than the baseline adjustment, by about 3.3 percent of GDP. To match the 1980s, that additional saving effort would be about 6.3 percent of GDP, and to duplicate the 1950s–1970s, about 9 percent of GDP. Much like the baseline scenario, our alternative savings forecasts are also hump shaped. Savings peak in 2011 and subside thereafter. Consumption, which falls dramatically under these more frugal scenarios, rebounds gradually—but remains below baseline levels for many years.

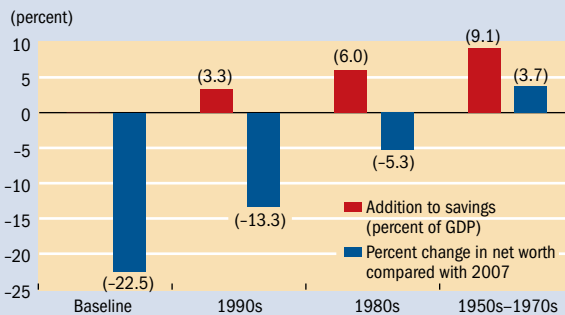
Because savings under these more frugal scenarios are higher than in the baseline, household net worth grows more quickly. If U.S. households start saving more now, where will net worth be in 2018 relative to the \$46 trillion (in constant 2000 dollars) at which it peaked in 2007? Under the baseline, household net worth would be about 22 percent below that peak. Under the 1990s and 1980s scenarios, net worth also remains below the peak—about 13 percent and 5 percent, respectively. Under the 1950s–1970s scenario, net worth is forecast to exceed the 2007 peak by nearly 4 percent (see Chart 2).

The baseline is the median scenario: in probability terms, 2018 net worth is equally likely to be above or below this forecast. The probability that 2018 net worth will equal or exceed the most frugal projections is less than 50 percent. For example, the probability is about 25 percent that household net worth will equal or exceed values envisaged under the 1950s–1970s scenario.

Chart 2

Restoring net worth

To return to their 2007 level of net worth by 2018, U.S. households must boost savings dramatically.



Sources: Federal Reserve Board; Haver Analytics; and authors' calculations.

Note: Net worth is household assets minus household liabilities. The zero line represents U.S. household net worth in 2007. The baseline, which reflects historical household saving behavior, predicts that out-of-paycheck savings will rise in the near term by about 2¼ percent of GDP. That would leave net worth more than 20 percent below its precrisis level by 2018. By adding the equivalent of 3.3 percent of GDP, out-of-paycheck savings would roughly match levels that prevailed in the 1990s; at 6 percent, the savings levels of the 1980s; and at 9.1 percent the levels that prevailed in the 1950s–1970s. Only in the latter scenario would U.S. household net worth surpass its 2007 level by 2018.

Savings: new resources for investment

A large portion of the new household savings is currently absorbing record public borrowing and offsetting a shortfall in corporate savings. It appears that new savings flows will not be immediately channeled into new capital spending. Investment demand is expected to remain sluggish over the medium term because of a large inventory of unsold houses, low capital utilization, and a wounded financial system. During this interim, new household savings will help replenish the net worth of both households and firms.

But when the economy begins to pick up, these stronger balance sheets will help support investment spending. As we saw in Chart 1, nonresidential investment and net worth rise and fall together.

According to a phenomenon called the “financial accelerator,” an increase in net worth will help reduce certain costs associated with financial intermediation (Bernanke, Gertler, and Gilchrist, 1999). For example, household savings may be used to purchase corporate equities—as has been happening in recent months. Here, the net worth of households and non-financial corporations move hand in hand. Some firms use the proceeds from equity sales to stockpile cash and deposits, both foreign and domestic. Such assets can serve as collateral and reduce the cost of external borrowing. For this reason, the positive relationship between net worth and capital investment should not be a surprise.

But any beneficial impact of replenished balance sheets on investment will probably not be immediate. And, because it is likely that consumers will not save enough, there is a risk that U.S. net worth could stagnate for years, with adverse effects on a lasting, robust recovery. Of course, other factors may also impede an economic recovery: low productivity growth, economic uncertainty, an inefficient financial system that is hobbled with nonperforming assets, and excessive government debt with its concomitant fiscal burden. All these issues are worth fretting about. ■


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References:

Abdih, Yasser, and Evan Tanner, 2009, “Frugality: Are We Fretting Too Much? Household Savings and Assets in the United States,” *IMF Working Paper 09/197* (Washington: International Monetary Fund).

Bernanke, Ben S., Mark Gertler, and Simon Gilchrist, 1999, “The Financial Accelerator in a Quantitative Business Cycle Framework,” in *Handbook of Macroeconomics, Vol. 1*, ed. by John B. Taylor and Michael Woodford (Oxford: Elsevier), pp. 1341–93.

Blanchard, Olivier, 2009, “Sustaining a Global Recovery,” *Finance & Development, Vol. 46, No. 3*, pp. 8–12.



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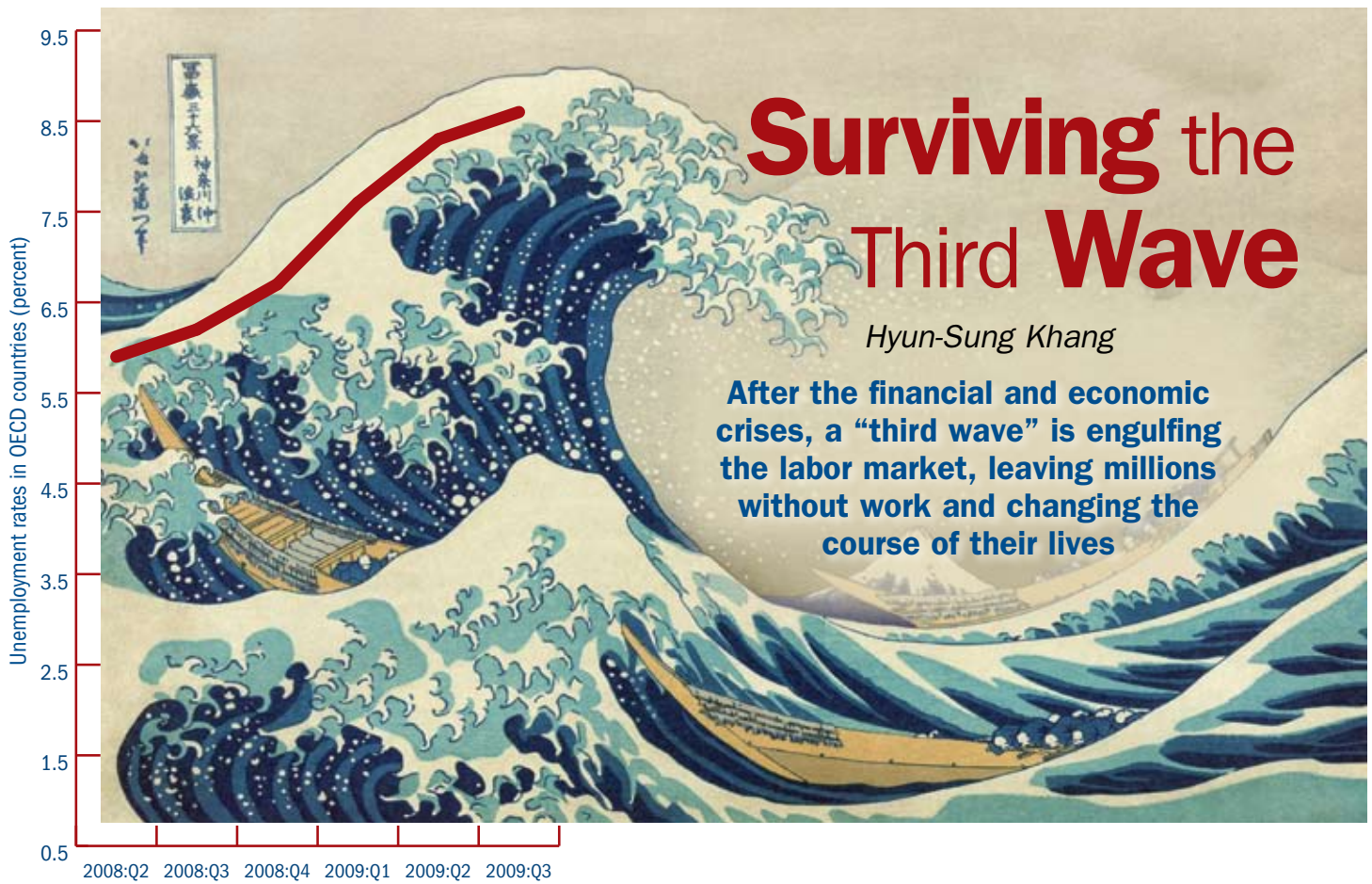
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POWER plant operator Zeki Kilic was afraid to tell his wife when his firm announced it was introducing short-time working in response to the global slump. Plummeting demand for steel meant his employer, German industrial conglomerate ThyssenKrupp Steel, could not maintain its workforce at full capacity, but it didn't want to lay off its highly qualified employees. So it introduced short-time working, or *Kurzarbeit*, as it is known in German.

“We were in a doomsday mood,” Kilic says. “The world economic crisis was the phrase on everyone’s lips. And you didn’t know where all this was heading.”

Kilic was reluctant to break the news to his wife because he feared short-time working was simply a precursor to an eventual layoff. His worries are understandable. The aftershocks of the global crisis are resonating through workforces around the world. Tens of millions of people have already lost their jobs and millions more will soon be sharing the same fate. While countries are slowly returning to positive growth, for many people, the worst is yet to come.

“Imagine the worker who will lose his job in the months ahead. For that worker the crisis is not behind him, but still ahead,” says the head of the IMF, Dominique Strauss-Kahn. He sees an emerging third wave of the crisis hitting labor after the initial financial markets crash, which swiftly engulfed the wider economy.

“The pace and magnitude of the increase in unemployment in the OECD area are unprecedented in the postwar period, and we need to go back to the economic downturns of the 1970s and early 1980s to find something similar,”

says Stefano Scarpetta of the Organization for Economic Cooperation and Development (OECD). The OECD calculates that unemployment will continue to rise until the end of next year. If the forecast is correct, the number of jobless within its 30 member states will be over 20 million higher than at the beginning of the downturn—the worst hike since the end of World War II.

Output will eventually recover, but the risk is that the rise in unemployment will prove enduring. Even if jobs are created eventually, the slump is etching lasting scars on the lives of millions of new graduates unable to secure jobs, young people sentenced to a lifetime of lower wages, and temporary workers whose shaky grip on the world of work has become even more tenuous, alongside the psychological distress of the jobless and their families.

Impact varies geographically

The impact of the global slump on unemployment has varied across regions and countries. It is not restricted to the geographical source of the crisis. While the United States has breached the psychologically significant 10 percent unemployment mark, Japan, which initially viewed the U.S. financial crisis as “fire on the other side of the Pacific,” has also confronted record levels of unemployment during this crisis. Contrast this with the Netherlands, where—at 3.6 percent—unemployment was up less than 1 percentage point over the previous year, according to OECD harmonized rates.

In Africa, the slump in global demand, coupled with a sharp decline in the prices of some major commodities,

pushed the continent's largest economy, South Africa, into its first recession in almost two decades. Its legacy: about a quarter of the population lacks work, according to the country's statistical agency, Stats SA. The picture for developing countries is more difficult to distinguish given the absence of reliable figures. Where those statistics do exist, they can distort a complicated social picture and hide considerable human distress. In developing countries, workers cannot afford to stay unemployed, and in the face of a crisis people are often forced into less productive and lower-paying jobs.

Duncan Campbell, of the Geneva-based International Labor Organization (ILO), recalls his experience working in Thailand during the 1997–98 Asian crisis when, contrary to expectations, unemployment fell. "Anecdotal evidence tells us that it was effects like the Thai factory worker who lost his job, opened up a street stall, and then drew in his wife to work on the stall, and then also his child, who previously used to be in school. So even where there has been no rise in unemployment, what we do see is a rise in working poverty, income-related underemployment, and an increase in vulnerability."

Disaffected youth

The impact of unemployment has also been unevenly distributed across sectors and types of workers. History suggests that immigrants and low-skilled, temporary, and older workers are likely to be shown the door first as layoffs are rolled out. One trend causing particular anxiety is the number of young people exiting high school and college into a jobless market. The ILO has warned that youth unemployment worldwide will rise from 12 percent in 2008 to 15 percent in 2009. In Spain, the unemployment rate for teenagers and young adults has hit almost 40 percent.

Unemployment, especially for those just starting out, can scar individuals for years, and possibly all their working lives. "The effects of a period without work do not end with that spell," David Ellwood—now dean of the Kennedy School of Government at Harvard University—has written (Ellwood, 1982). Ellwood and, later, other economists concluded that early unemployment influenced workers' prospects and reduced their wages over the span of their working lives: the absence of a work record lowered their likelihood of being hired, and disillusionment and despair impaired their search for work.

Workers in precarious, temporary employment

Joining young people in the job queue are temporary workers, who, with limited access to safety nets, face dire straits without employment. During the boom, many companies in OECD countries took on temporary workers, largely to skirt hiring and firing regulations. The predicament of temporary workers is particularly acute in countries such as Japan, where housing is often part of the employment package. This was vividly illustrated by Yoshinori Sato in the September 2009 issue of *Finance & Development*. A vehicle assembly worker, Sato found himself out of a job and facing homelessness with four days to vacate his company-owned dormitory room.

According to OECD calculations, some 95 percent of the 158,000 layoffs in Japan since October 2008 involved non-regular workers (part-time, temporary, and contract workers; those on loan from other companies; and workers hired out by agencies), who usually do not qualify for company-paid severance or unemployment insurance. The precarious existence of the Japanese temporary worker is mirrored in the lives of his French and Finnish counterparts, with governments in all three countries trying to ease the vulnerability of their nonregular working population.

The crisis increasingly affects women

In the early days of the crisis, high numbers of layoffs in construction and manufacturing meant men were initially hit harder than women. But as developed economies continue to bleed jobs, women are increasingly joining their male counterparts in the unemployment line. In the United States, for example, service industries—a sector where women are heavily represented—now account for half the overall decline in employment.

While more women will soon find themselves forced out of work in the richer economies, paradoxically, in poor countries, more women may have to return to the world of work, distorting the historical pattern of female participation in the labor market. In the early stages of development, women's participation in the labor force is high, but as a country moves along the development path, their participation drops as production moves from the household, family farm, and small business to the wider market. Women begin to reenter the work force in large numbers as they become more educated and the value of their human capital rises. For this reason, female labor force participation is often described as U-shaped. "In recessions, the shape of the 'U' gets distorted," says Campbell. "It probably gets flatter."

Jobless recovery?

Even though unemployment is a lagging indicator, the fear is that growth and employment are decoupling—that along with subdued growth and costlier credit, high structural unemployment (or at least higher than before the crisis) could now be part of a "new normal."

Historically, as an economy emerged from recession, growth was accompanied by a rise in employment. However, as Andolfatto and MacDonald (2004) point out, after the two most recent recessions in the United States, employment growth lagged the recovery in gross domestic product by several quarters—a phenomenon known as "jobless recovery." It is a description economists such as William Darity of Duke University—who has studied the psychological impact of unemployment—disdain as a contradiction in terms. He believes any meaningful recovery must involve job creation.

Explanations for this recovery-minus-job-creation phenomenon are varied. After a recession, the natural rate of unemployment may simply end up higher. Some economists argue that it results from the churning effect of workers reallocating their skills from a declining to a burgeoning sector, or perhaps sustained unemployment rates reflect efficiency gains from technology.

Robert Gordon—of the National Bureau of Economic Research, which is responsible for pronouncing the official end to a U.S. recession—argues that jobless recoveries result from the tendency of firms to overhire in the late stages of business expansion. This buildup of labor kicks in following the end of a slump, and this “end-of-expansion effect” can lead to an increase in output without a corresponding increase in labor (Gordon, 1993).

In later writings, Gordon added a complementary hypothesis—the “early recovery productivity bubble”—which he describes as the corollary of the jobless recovery. “In the first few quarters of the recovery profits are still squeezed, and business firms are aggressively attempting to cut costs by reducing labor input” (Gordon, 2003)—hence the rise in output with fewer workers. Given his belief that the U.S. recession ended in June of this year, he has no doubt the developed world will see—indeed may already be in the throes of—a jobless recovery.

Continued high unemployment

Gordon believes positive employment growth will resume at the beginning of 2010. Others are more pessimistic, believing that many economies are confronting the specter of a structurally higher rate of unemployment. The idea of a permanent effect of a transitory shock, such as a recession, is encapsulated in the concept of hysteresis. Traditionally, economists believed that high unemployment was a cyclical phenomenon—unemployment would cause people to lower their wage demands, so new jobs would be created and unemployment would fall. But in a paper written more than 20 years ago, Olivier Blanchard and Lawrence Summers (Blanchard and Summers, 1986) asserted that unemployment rates have a ratcheting effect.

Whether hysteresis occurs in unemployment rates has been debated by economists, but in the current climate it is experiencing something of a return to fashion. Blanchard, now chief economist at the IMF, says he is still undecided about the precise channels for hysteresis. During the intervening two decades, he has variously explored the possibility of an insider-outsider theory of wage bargaining (where remaining employed workers increase their wage targets, preventing the unemployed from getting their jobs back); the changing behavior of the unemployed (who become unemployable); and, most recently, unemployment protection measures introduced by governments at the height of a crisis. These, Blanchard suggests, can discourage a return to work. “The reasons for unemployment go away, but the institutional structures remain the same. When you have done this, you have screwed up the labor market.”

The creator of the concept of hysteresis in employment rates is skeptical about its role in *this* crisis. (Blanchard finds a more plausible explanation in the modest scale of the recovery: “Output growth is going to be low, productivity growth is going to be normal, and employment growth is going to be very small,” he says.) But others—such as Laurence Ball of Johns Hopkins University—seize on hysteresis as a possibly critical explanation for continued higher unemploy-



Zeki Kilic on the job at ThyssenKrupp Steel.

ment rates into the future. “With interest rates near zero in the United States, there is no room to cut in this crisis, and that, in my view, is why we are going to get hysteresis effects,” says Ball.

Impact of long-term unemployment

Long-term unemployment results in serious problems for the jobless as well as for the overall economy (though a few economists have investigated the positive externalities to downturns). The problems of long-term unemployment are intuitive. Workers, unemployed for an extended period, lose their skills and are less able to keep up with current work practices; their ties to the world of work weaken; and even if they do return to work, the formerly jobless can end up less efficient and proficient than they used to be.

The endpoint for a discouraged job seeker is complete withdrawal from the labor market. Estimates from an analysis of the Current Population Survey suggest that almost half the unemployment episodes completed in 2003 ended with the individual leaving the labor force (Ilg, 2005). The OECD assumes that two out of every three workers in mainland Europe who remain jobless for more than a year will not resume work thereafter.

Governments respond

The social and financial cost of long-term unemployment—not only to the individual, but also to the state—has led many governments to channel a sizable proportion of stimulus funds into programs to get the unemployed back to work. Depending on the fiscal situation, political inclination, and cultural preferences, these measures range from the creation of public sector jobs and retraining programs to tax incentives to encourage hiring.

In India, for example, the government has used double its intended budget on the “National Rural Employment

Guarantee Act.” This offers 100 days of work a year to any adult member of a rural household—man or woman—willing to do manual labor on a public works project for the minimum wage. In Mexico, President Felipe Calderón announced reforms to ease red tape and lower costs for investors in public works projects to foster job growth. And in the United States, the Obama administration is considering a tax credit for new hires next year.

In recent years, many governments have favored supply-side measures—including reducing the power of unions, cutting red tape, and the introduction of expensive training programs—to boost employment. This followed the bitter experience of the 1970s, when many countries tried to overcome the effects of the oil shock by promoting demand-side policies, but in the process ended up stoking inflation. Now, record-low interest rates and fiscal deficits will limit some governments’ room to maneuver. But even measures to promote employment have a mixed record, and governments are often motivated more by political pressure to cushion their workers from the worst of the economic crisis than by efficient outcomes.

A shortcut to shorter unemployment lines?

Intervening while at-risk workers are still employed can ultimately prove less expensive than waiting for them to lose their jobs and funding unemployment benefits or costly (and arguably ineffective) job training programs. Short-time working, for example, one of the most popular job-protection measures in the euro area, is praised by its supporters as an appropriate response to this crisis, in which many firms face the combined pressure of a severe short-term contraction in demand and an inability to access credit. According to the OECD, short-time working programs have been adopted in various forms by 22 of its 30 member countries. The German version, *Kurzarbeit*, is designed to distribute the economic pain between employee, employer, and the government.

This was the system adopted by Zeki Kilic’s company, ThyssenKrupp Steel. Workers work fewer hours, and their salaries are paid by the government and the employer. A peculiarity of the system is that the hourly wages of workers can jump, often by a substantial amount (a source of finger-pointing by critics). ThyssenKrupp attempted to keep wage losses for all employees to a maximum of 10 percent of their salary. In Kilic’s case, when *Kurzarbeit* was in full force, he was working three-quarter time, but saw only about a 10 percent reduction in his wages each month.

Designed to bridge the gap between full-time employment and unemployment, short-time working recognizes that it often makes economic sense to keep workers in anticipation of a rebound rather than pay the costs of hiring and firing. “Without *Kurzarbeit*, there would certainly have been massive layoffs,” said a spokesman for ThyssenKrupp Steel. “If you lay off people during a crisis, you lack a specialized workforce when orders rise again. We wanted to avoid this.”

But critics say *Kurzarbeit* is an expensive option that often fails to deliver the most efficient outcome. Moreover, the

experience with short-time working subsidies has not been unconditionally encouraging. Compensation often goes toward retraining workers whose employers would have retrained them anyway or ends up supporting firms that prove nonviable, even when business conditions improve. “It can be a very costly measure by the government, and there is at least a danger of delaying necessary structural change,” says Martin Schindler of the IMF.

Contrasting patterns of unemployment are informing the debate about how best to create and protect jobs. European joblessness has risen less than in the United States, though it was higher to begin with. At 9.7 percent (latest available figures), unemployment in the euro area was just 2.5 percentage points higher than at its lowest point in the cycle, 21 months ago. Over the same period, unemployment in the United States surged by almost 5 percentage points. The European model, previously criticized for its supposedly sclerotic worker retention policies and excessive job protection—as opposed to apparently more nimble and mobile, hire-and-fire U.S. working practices—is now viewed with renewed confidence.

The argument about the respective virtues of each economic model has yet to be played out. German unemployment, for example, may yet see a sharp upswing as measures such as short-term working programs run their course, and *Kurzarbeit* may be vindicated—or not—by the shape of the cycle. “Eventually, fiscal support for such schemes will run out, and the speed of the recovery will be among the factors that determine whether they have really helped to avoid unemployment or merely delayed it,” says Schindler.

Kilic, however, has no doubt that short-term working saved his job. Although the ThyssenKrupp steel plant is not yet running at full capacity, he and his colleagues returned to full-time work in August after six months on short time.

“*Kurzarbeit* did help, clearly,” he said. “We are out of the woods now. It could have been much worse.” ■

Hyun-Sung Khang is a Senior Editor on the staff of Finance & Development.

References:

- Andolfatto, David, and Glenn MacDonald, 2004, “Jobless Recoveries,” *EconWPA Macroeconomics Paper 0412014*.
- Blanchard, Olivier J., and Lawrence H. Summers, 1986, *Hysteresis and the European Unemployment Problem*, NBER Macroeconomics Annual (Cambridge, Massachusetts: MIT Press), pp. 15–77.
- Ellwood, David, 1982, “Teenage Unemployment: Permanent Scars or Temporary Blemishes?” in *The Youth Labor Market: Its Nature, Causes, and Consequences*, ed. by Richard B. Freeman and David A. Wise (Chicago: University of Chicago Press), pp. 349–85.
- Gordon, Robert J., 1993, “The Jobless Recovery: Does It Signal a New Era of Productivity-Led Growth?” *Brookings Papers on Economic Activity*, Vol. 24, No. 1, pp. 271–316.
- , 2003, “Exploding Productivity Growth: Context, Causes, and Implications,” *Brookings Papers on Economic Activity*, Vol. 34, No. 2, pp. 207–79.
- Ilg, Randy, 2005, “Analyzing CPS Data Using Gross Flows,” *Monthly Labor Review*, Vol. 128, No. 9, pp. 10–18.



Remittances in

A Lifeline to Poor Countries

Dilip Ratha

REMITTANCES, funds repatriated by migrant workers to family and friends back home, provide the most tangible link between migration and development. But only 3 percent of the world's population (just over 200 million people) has migrated to another country, so migration cannot substitute for domestic development and job creation except in tiny countries.

Because remittances are unilateral transfers—gifts, if you will—they do not create liabilities. And they usually come with advice—from migrants who have seen better—on how to best use them. Thus, remittances are not simply money, but value-added money.

Officially recorded remittances to developing countries reached \$330 billion in 2008. The true size, including unrecorded formal and informal flows, is believed to be significantly larger. Remittances total at least three times official development assistance and are the largest source of external financing in many developing countries. In India, remittances exceeded \$50 billion in 2008, surpassing all official and private capital flows. In Mexico, remittances are larger than foreign direct investment inflows. They exceed tourism receipts in Morocco, revenue from tea exports in Sri Lanka, and the revenue from the Suez Canal in Egypt. While the volume of remittances in dollar terms tends to be larger in big countries such as India, China, and Mexico, the share of remittances in gross domestic product (GDP) tends to be higher in smaller and poorer countries. In 2008, remittances exceeded half the GDP in Tajikistan and Haiti, and over 10 percent of GDP in 23 countries.

Remittances tend to be a stable, and often countercyclical, source of foreign exchange earnings. Migrants usually send more money when the family back home experiences hardships, for whatever reason, and therefore remittances act as insurance against economic adversity.

Remittances have been remarkably resilient during the global economic crisis. Newly available estimates show that remittances fell by 6 percent in 2009—compared with a one-third drop in foreign direct investment and a near-total collapse of private portfolio flows. Remittances have provided a lifeline to the poor in conflict countries such as Afghanistan, Haiti, and Somalia.

Remittances help reduce poverty. In Nepal, the poverty headcount declined by 11 percentage points between 1995 and 2004, with a third to a half attributable to remittances, many from India, another poor country. Household surveys have shown that remittances may have reduced the share of poor people in the population by 11 percentage points in Uganda, 6 percentage points in Bangladesh, and 5 percent-

age points in Ghana. Cross-country analyses have shown that a 10 percent increase in officially recorded per capita remittances may lead to a 3.5 percent decline in poor people.

Remittances are associated with increased household investments in education, entrepreneurship, and health. Studies based on household surveys in El Salvador and Sri Lanka found that children of remittance-recipient households have lower school dropout rates and that these households spend more on private tuition for their children. In Sri Lanka, children in remittance-receiving households have higher birth weight, suggesting that remittances enable households to afford better health care. Several studies also show that remittances provide capital to small, credit-constrained entrepreneurs.

Remittances reduce poverty, increase welfare, and provide foreign currency that enables countries to pay for essential imports and service external debt. That in turn improves access to international capital markets. Commercial banks in several countries—including Brazil, Mexico, El Salvador, and Kazakhstan—have used future flows of remittances as collateral to raise billions of dollars in financing at cheaper interest rates and longer maturities.

There are critiques of remittances. At a macroeconomic level, large and sustained remittance flows may lead to currency appreciation, with adverse consequences for exports. Some researchers say remittances allow governments to delay public investments (such as in schools or roads) or push off long-term economic reforms. There is little empirical support for this position, mainly because of methodological difficulties associated with reverse causality: poor countries with weak institutions and low economic growth tend to receive large remittances. The chain runs from weak institutions to large remittances, not the reverse.

Some analysts say remittances dampen growth because recipients may become dependent on them and work less. Evidence is inconclusive, in part because remittances have their greatest impact during economic downturns when jobs decline and in part because any effect on permanent behavior takes root over a long time. On the other hand, because remittances finance education and health and alleviate credit constraints for small entrepreneurs, they may enhance growth. To the extent that they increase consumption, remittances may increase individual income levels and reduce poverty, even if they do not directly improve growth. ■

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Development

A Wobbly Crutch

Ralph Chami and Connel Fullenkamp

MANY economists are optimistic that remittances can be a major contributor to economic growth and development, and it is impossible to deny that remittances help lift millions out of poverty. But remittances do not represent a first-best solution to the problems of poverty and development. Far from it. They are costly to those who receive them and are difficult to channel into activities that lead to economic growth and development. They also have unintended consequences that may even make them obstacles to development.

Remittances aren't cheap for those who earn them. One or more family members—usually those most important to the family's well-being, such as the head of household—must make a long, expensive, and often dangerous trip, remaining apart from their family for months or years at a time. This places a tremendous burden on those left behind, economically but also emotionally. Children of remittance-receiving families often grow up without the benefit of close contact with both parents, and the entire family's stress level is heightened by the absence of one or more members. For example, involvement in gangs by children left behind by remitting parents has been reported in several countries. All of these factors make the pursuit of remittances a costly, risky investment for families. Who would want to make this investment, other than the truly desperate?

These transfers are intended to provide for people's basic need for food, clothing, and shelter. The effort to lift people out of poverty is laudable, and numerous survey studies on the use of remittances have concluded that remittances have always been overwhelmingly directed toward consumption and not investment activities. But we should not expect remittances to be engines of growth in the same way as foreign direct investment.

Even when remittances are "saved" by households, this typically means that the household uses the funds to purchase land or a better home or for home improvement. This generates very little new capital or other economic activity. Research on the effects of remittances on growth finds, at best, no robust, positive effect on economic growth and often reveals a negative effect (Barajas and others, 2009). For years, many countries have received huge amounts of remittances, relative to their gross domestic product, but there is not one example of a country that has exhibited remittance-led growth. Where is the remittances success story?

Remittances also have many unintended consequences because they are gifts rather than earned income. Recipients

may not look as hard to work or put as much effort into schooling if they know they can count on remittance income to supplement or replace their wages. Researchers have found evidence that recipients of remittances reduce their labor force participation. To the extent that people do make investments with remittance income, they have an incentive to take on riskier projects, because they are betting with other people's money. Many remittance-receiving regions report anecdotal evidence of local real estate price bubbles funded in large part by remittances. Thus, remittances can distort asset prices and actually exacerbate poverty by pricing many poor families out of the real estate market—not to mention the adverse consequences for everyone after the price bubble bursts.

An even more insidious effect of remittances on economic development and well-being is their impact on institutions and governance. A remittance-receiving household no longer has to care as much about the quality of the government and its ability to provide infrastructure and institutions that facilitate growth. If conditions are bad at home, families send more members abroad and use remittance income to compensate for the lack of government services. They lose interest in pressuring the government to deliver better services. The government, for its part, does not feel compelled to provide these services because it realizes that these households can fend for themselves, and the quality of government declines even further.

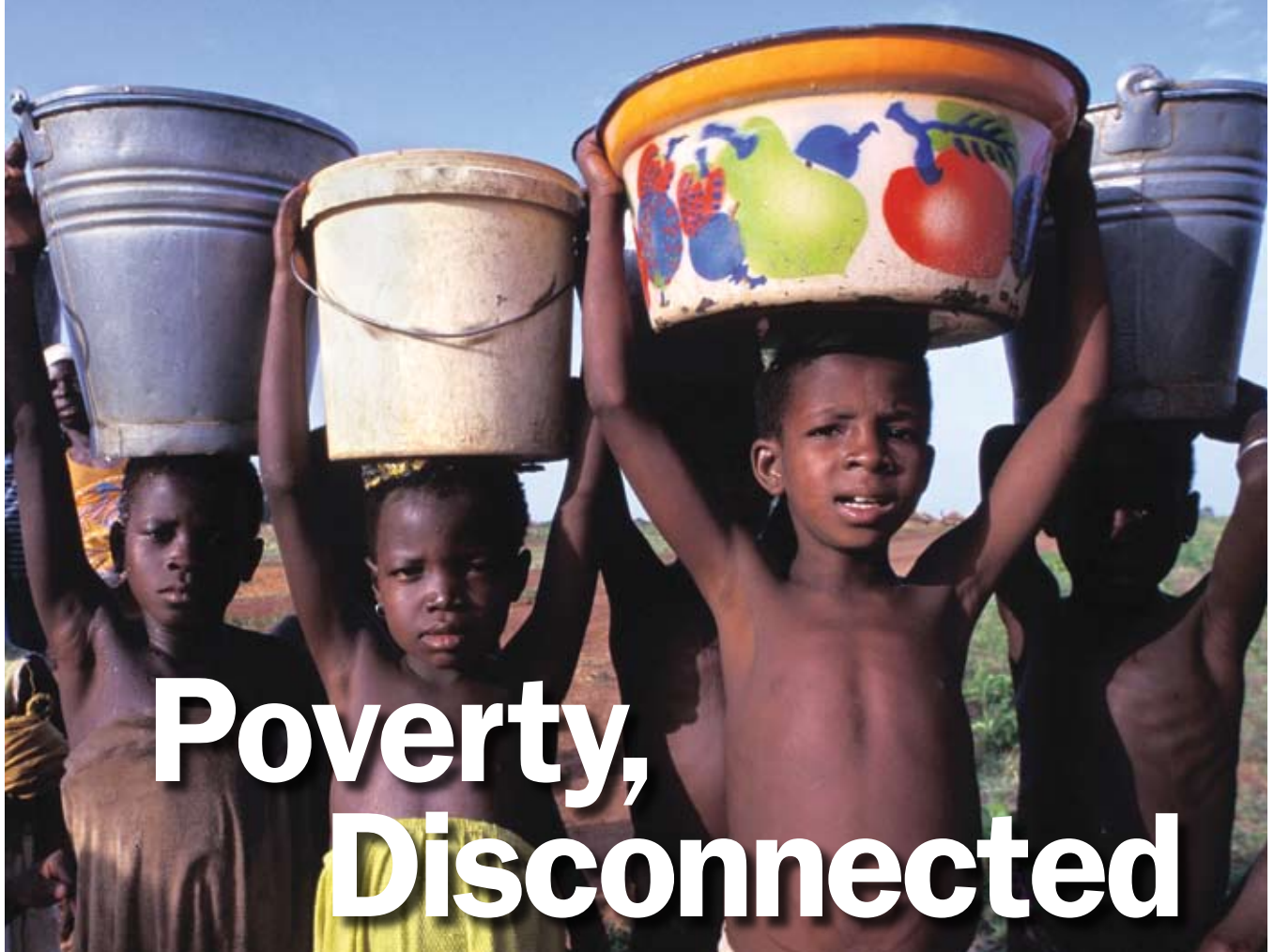
Remittances are not the highway to a better future. They are a wobbly crutch that millions of people must rely on because there are no better ways to support themselves in their country. The vast expansion of remittances should not be taken as a positive sign of better times ahead, but as a reprimand to policymakers, who should be working harder to improve opportunities for their citizens at home. ■

Ralph Chami is a Division Chief in the IMF's Middle East and Central Asia Department, and Connel Fullenkamp is Associate Professor of the Practice of Economics at Duke University.

Reference:

Barajas, Adolfo, Ralph Chami, Connel Fullenkamp, Michael Gapen, and Peter Montiel, 2009, "Do Workers' Remittances Promote Economic Growth?" *IMF Working Paper 09/153* (Washington: International Monetary Fund).





Poverty, Disconnected

Children collecting water in Ghana.

Ravi Kanbur

Why soup kitchens may be fuller than ever, even as official statistics suggest poverty is coming down

ECONOMISTS have long sought to improve on gross domestic product as a measure of growth and well-being. What is needed, many say, is a new way to gauge economic, environmental, and social sustainability.

For those at the bottom of the income pyramid, living on a dollar a day or less, such musings may seem both irrelevant and far-fetched. But work by the Commission on the Measurement of Economic Performance and Social Progress—set up by the French government under the leadership of economists Joseph Stiglitz and Amartya Sen—represents the culmination of many years of effort to reduce reliance on per capita income growth or consumption.

Distributional indicators, such as poverty statistics constructed from household income and expenditure surveys, help spotlight the plight of the poor. In some countries, such as India, the announcement of official poverty figures is a major event with significant political and policy implications. And in the past two decades many countries have begun to conduct household surveys aimed at chron-

icling poverty, with the result that poverty statistics are more widely available across the globe.

What have we learned from the new data? Setting aside the effects of the crises of the late 2000s and looking back two decades from the mid-2000s, the broad facts can be classified into the following stylized patterns (Kanbur, forthcoming). Where there has been no economic growth, poverty has risen. This is true of many African and some Latin American countries. In a large number of countries, including the biggest ones, such as India and China, and even in some African countries, such as Ghana, there has been fast growth by historical standards, and poverty—the percentage of the population below the poverty line—has fallen, as measured by official data.

What is interesting, however, is the disconnect between the optimistic picture painted by these official data on poverty and the more pessimistic view of grassroots activists, civil society, and policymakers more generally. This disconnect does not, of course, lend itself to quantification in the way that official

poverty figures are presented. Rather, the evidence is more indirect and qualitative. Examples include the findings of “participatory poverty appraisals” in Ghana and elsewhere, governmental concerns about social unrest in China, the Indian election results of 2004 (where, after a decade of falling poverty according to official data, the ruling party’s “India Shining” slogan was defeated by the opposition’s “Common Man” slogan), and, indeed, the general unease policymakers display when it comes to distributional issues—even in countries that have good performance on poverty numbers.

What is going on? Could it be that official poverty data are misleading? Can poverty on the ground rise when official data report it is falling? There are five reasons why there may well be a disconnect between the seemingly good quantitative evidence that poverty is falling and the widespread concern that things have not really improved.

The numbers game

Consider an economy in which the incidence of poverty has been falling 1 percentage point a year. This is a good rate of decline, especially for an African country. At this rate, depending on the initial poverty level, an economy would be well on its way to achieving the first Millennium Development Goal, which is focused on reducing the incidence of income poverty.

But suppose the population in this economy is growing 2 percent a year. In this case, although the proportion of those living below the poverty line is declining by 1 percentage point a year, the absolute number of poor people is increasing by 1 percentage point a year. This explains why soup kitchens are fuller than ever, there are more street children than ever, and there are more distressed farmers than ever, even though official “headline numbers” suggest declining poverty.

The disconnect is sharpest in economies where poverty incidence is declining relatively slowly and where the population is growing relatively quickly—as in many countries in Africa. But the tendency is present in all economies. Even in China, which has seen a spectacular decline in both the incidence of poverty and the absolute number of poor people in recent years, the rate of decline of poverty incidence is greater than the rate of decline of the number of poor people (Chakravarty, Kanbur, and Mukherjee, 2006).

Capturing the value of public services

Household surveys are excellent at capturing the market value of goods and services bought and sold. Expenditure data generated from respondents are the building block of poverty data in countries like India and Ghana. Over the years, these surveys have also become increasingly better at capturing the value of a number of nonmarket activities, such as production for home consumption.

However, household surveys are not good at capturing the value of public services such as health, education, and transportation. Conceptually, there is no particular difficulty in incorporating these into the standard money metric measures of well-being. Empirically, however, there are severe difficulties in estimating the value of these services for each household.

In any event, this is not the way official statistics are compiled. Of course, the surveys do collect information on the availability and quality of health care, education, water, sanitation, and other services. But there is no integration of the value of these into the income and expenditure measure of well-being from which the poverty rates are calculated.

Consider, then, an economy that is changing from relying primarily on public services to relying primarily on the private sector. Many people will argue that it is precisely such a

“The anguish of increasing poverty among some, perhaps a sizable number, of the poor will not be captured by the national-level decline in poverty.”

transformation that will result in higher growth. The household survey data will capture the growing number of transactions in the expanded private sector, but they will not capture the corresponding decline in public services. And that is a problem, because no matter how inefficient, these services have at least some value to poor people.

Because the value of public services is not accounted for in standard household survey measures of well-being, standard official poverty statistics overstate the improvement in well-being throughout the population, including for those at the lower end of the income distribution scale. Hence, the statistics overstate the reduction in poverty resulting from the shift of more activities to the private sector.

Accounting for inequalities within households

Another defining feature of standard household income and expenditure surveys is that all money metric information is collected at the household level. The usual way of converting this information into measures that reflect individual well-being is to divide by household size and assign the per capita household income or consumption of the household to each individual in the household. But as we know, there can be great inequalities within households, with women and children receiving a much smaller share of total household consumption than men.

Accordingly, intrahousehold inequality information is suppressed. For example, an analysis of a specially designed nutrition survey in the Philippines showed that ignoring intrahousehold inequality understated true inequality and poverty by as much as 30 percent (Haddad and Kanbur, 1990).

These findings suggest that the poverty rate reflected in the official statistics is lower than what the true income distribution would show. But we don’t have the data to calculate these differences, leaving us with a disconnect between the

(more optimistic) official poverty reduction narrative and reality on the ground.

Poor winners and poor losers

Consider a country where major structural changes are under way. In general, these changes will create winners and losers—in the short and long term. If the poor are all winners, or if there are some poor winners and no poor losers, poverty will decline. But measured poverty may also decline even if a significant number of the losers are poor, because their losses are outweighed by the gains of the other poor. The anguish of increasing poverty among some, perhaps a sizable number, of the poor will not be captured by the national-level decline in poverty. There will be a disconnect between those who focus on official statistics and those whose focus is losers among the poor.

Because national-level poverty data are calculated from snapshot surveys, we cannot test this logic directly. The available panel data do show a marked decline in well-being for a significant proportion of the population, which lends some weak support to the hypothesis. But the literature has not used these data to identify the effects of liberalization or global integration.

However, the observed increasing inequality in the periodic surveys that underpin national poverty data also supports this logic. Certainly, poverty reduction rates across regions within a country vary widely. In Ghana, for example, during the 1990s national poverty declined, but poverty in the north remained stagnant or increased for some measures. In Mexico in the late 1980s and early 1990s, declining poverty at the national level was not reflected in the poor south (Kanbur and Venables, 2007). In other countries, poverty measures with a stronger emphasis on the depth of poverty decreased less, indicating a greater problem among those living well below the poverty line compared with those living close to it (McKay and Aryeetey, 2007).

Death and poverty

All official poverty indices have one feature in common: holding all else constant, the death of a poor person reduces poverty. If a poor person dies, measured poverty goes down!

This does not sit well with our moral compass, but it is an inescapable feature of poverty indices, and the higher level of mortality among poor people means it is an ever-present issue in poverty numbers.

“There will be a disconnect between those who focus on official statistics and those whose focus is losers among the poor.”

How can we get around this problem and still keep our statistics intact? One answer is to bring mortality rates, or life expectancy, explicitly into the picture (Kanbur and Mukherjee, 2007). Doing so would allow us to counteract the fact that measured poverty would decline if HIV/AIDS increased mortality among the rural poor. In another, more positive example, reducing infant mortality among the poor will tend to increase measured poverty. Here also, a social evaluation must counteract the statistical effect by considering well-being in all its dimensions, including by looking at life expectancy.

Better measures, better outcomes

For all these reasons, poor people may stand to benefit substantially from a new approach such as the one proposed in October 2009 by the Commission on the Measurement of Economic Performance and Social Progress. The proposed approach would use household surveys more extensively to capture a fuller set of data and paint a much more accurate picture of the living conditions of the poor. It would help authorities in designing policies to help people escape poverty.

Still, this is not enough. Simply producing poverty statistics alongside per capita income will still yield poverty statistics that paint too rosy a picture, because they ignore many of the other issues highlighted in the Commission report—nonmarket services, gender inequalities within households, and non-income dimensions of well-being. There is plenty of work to be done. ■

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References:

Chakravarty, Satya, Ravi Kanbur, and Diganta Mukherjee, 2006, “Population Growth and Poverty Measurement,” *Social Choice and Welfare*, Vol. 26, No. 3, pp. 471–83.

Commission on the Measurement of Economic Performance and Social Progress, 2009, report; see www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf.

Haddad, Lawrence, and Ravi Kanbur, 1990, “How Serious Is the Neglect of Intra-Household Inequality?” *Economic Journal*, Vol. 100 (September), pp. 866–81.

Kanbur, Ravi, forthcoming, “Globalization, Growth and Distribution: Framing the Questions,” in *Equity and Growth in a Globalizing World*, ed. by Ravi Kanbur and A. Michael Spence (Washington: World Bank for

the Commission on Growth and Development).

———, and Diganta Mukherjee, 2007, “Premature Mortality and Poverty Measurement,” *Bulletin of Economic Research*, Vol. 59, No. 4, pp. 339–59.

Kanbur, Ravi, and Anthony J. Venables, 2007, “Spatial Disparities and Economic Development,” in *Global Inequality*, ed. by D. Held and A. Kaya (Cambridge: Polity Press), pp. 204–15.

McKay, Andrew, and Ernest Aryeetey, 2007, “Growth with Poverty Reduction, but Increased Spatial Inequality: Ghana over the 1990s, in Determinants of Pro-Poor Growth: Analytical Issues and Findings from Country Cases,” ed. by Stephen Klasen, Michael Grimm, and Andy McKay (New York: Palgrave Macmillan).



Fiscal Expansions What Works

There is a firm link between the composition of fiscal policy and the length of a financial crisis

Emanuele Baldacci and Sanjeev Gupta

A laborer works on the scaffolding at a construction site in Yingtan, Jiangxi Province, China.

FISCAL measures, such as tax cuts and spending increases, have been central to government responses to the current global financial crisis.

All countries in the Group of Twenty (G-20—see box) have adopted discretionary fiscal packages to fight the economic downturn that was set off in mid-2007 by a financial and banking crisis with roots in the U.S. mortgage market. Those programs, enacted specifically to boost aggregate demand during the economic downturn, cost about 2 percent of the gross domestic product (GDP) of the G-20 countries in 2009 and are projected at 1.6 percent of GDP in 2010 (IMF, 2009).

These expansionary fiscal policies have begun to offset the fall in private demand in G-20 countries, but it is too early to tell whether they will help shorten the duration of the recession and promote growth in the medium term. Does it matter for the next three to five years whether governments rely on tax cuts or spending increases to combat the recession? Or whether governments cut consumption taxes or income taxes or spend on current consumption or investment? We examine these questions, using historical data from past banking crises, which have caused more severe and protracted recessions than those with their roots in the real economy (Baldacci, Gupta, and Mulas-Granados, 2009).

The world's biggest economies

The so-called Group of Twenty represents many of the world's largest economies—advanced and emerging—and accounts for about 80 percent of global output and trade. The G-20, which includes 19 countries and the European Union, has become the main forum for major economies to discuss global economic conditions and what collective actions may be needed. The advanced economies in the G-20 are Australia, Canada, France, Germany, Italy, Japan, South Korea, the United Kingdom, and the United States. Emerging economy members are Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, and Turkey.

Fiscal balances deteriorate

The discretionary programs enacted to combat the global recession contributed to increased government deficits. In addition, declining economic activity and a drop in asset values lowered government revenues and increased spending for existing social programs, such as unemployment insurance. On average, fiscal balances in the G-20 nations are projected to deteriorate by about 7 percent of GDP in 2009, compared with the precrisis period. The discretionary measures account for almost one-third of the increase in deficits. Discretionary fiscal stimulus was somewhat larger in emerging market economies, which have limited social programs and lower revenues. By contrast, in advanced G-20 economies, the bigger deficits were caused mainly by automatic increases in spending on such existing social programs as unemployment insurance and social assistance.

Most of the fiscal stimulus has involved raising public spending. More than two-thirds of the discretionary stimulus came in spending measures in 2009, with the rest in tax cuts. Investment in infrastructure accounts for almost half of the stimulus in emerging G-20 economies, compared with about one-fifth in advanced G-20 economies. Tax reductions, notably in corporate and personal income taxes, are a significant share of fiscal stimulus in advanced economies.

Recessions and fiscal policy

The role of fiscal and monetary policy during recessions has been studied extensively. Fiscal and monetary policies counter the effects of shrinking output during recessions, credit contractions, and asset price declines (Claessens, Kose, and Terrones, 2008). Fiscal policy appears to be particularly effective at shortening the duration of recessions. This suggests that an aggressive countercyclical fiscal stance—one that leans against the direction in which the economy is moving by cutting taxes or increasing spending—is appropriate during recessions and that fiscal stimulus should be large, sufficiently long lasting,

diversified, contingent, collective, and sustainable (Spilimbergo and others, 2008). However, there is little evidence of the effectiveness of fiscal policy during periods of systemic banking crises. This has limited our understanding of how the current stimulus packages will affect the duration of the crisis.

Several factors could hamper the effectiveness of fiscal expansion during the more severe and long-lasting recessions caused by financial crises:

- The dramatic drop in aggregate demand necessitates a larger fiscal stimulus to support the economy than in a standard recession.
- The implementation of fiscal policy is made difficult because the ability of consumers to spend is hampered by financial distress. The latter causes capital markets to freeze, collateral to fall in value, and lenders to tighten loan standards—all of which limit the potential for private consumers to access credit against the backdrop of severe income losses.
- Governments find it difficult to finance fiscal expansions in a more risk-averse global environment. While this can be particularly important for countries with high initial levels of debt or high credit risk, an across-the-board increase in the perception that it is riskier to lend to governments can affect sovereign bond issuance even in better-rated economies. However, this effect can be offset in part by lower inflation pressures and financial markets' flight to quality.

Systemic banking crises and fiscal policy

We used new data on financial crisis episodes compiled by Laeven and Valencia (2008) to study the effectiveness of fiscal policy under systemic banking crises. This database comprises 118 episodes of financial crisis that occurred in 99 countries during the period 1980–2008. These crises were different from standard recessions because they originated from severe systemic disruptions in the banking system. Financial crises are typically associated with bigger economic losses than in normal recessions: the output loss is 3 percent of GDP in recessions compared with more than 6 percent of GDP in financial crises.

Financial crises lasted on average two and a half years (see Chart 1), with 85 percent of the episodes lasting between one and four years. The longest lasted eight years. These crises also

generated large economic costs. The peak-to-trough fall in GDP growth was more than 5 percentage points during the average shock episode. The effects of crises on fiscal aggregates were also significant: during the crisis, public debt increased by about 30 percentage points of GDP (see Chart 2), reflecting a large deterioration in the primary fiscal balance. A drop in revenue collection as well as higher public expenditure contributed to the fiscal deterioration. These results are similar to the estimated impact of the current crisis on output and government debt in G-20 countries and to those reported in other studies on financial crises (Reinhart and Rogoff, 2009).

Did fiscal expansions help in shortening the length of financial crises? Our results, based on regression analysis of the factors that affected crisis duration, indicate that they did. Higher government spending and lower taxes boosted aggregate demand by replacing falling private consumption. Public investment also contributed to offsetting the collapse in private investment. Higher deficits led to shorter crisis durations in our sample (see Chart 3). An increase of 1 percent of GDP in the fiscal deficit reduced the duration of the crisis by almost two months. This suggests that fiscal expansion of a size similar to that adopted on average by G-20 countries during the current global financial crisis may cut the length of the recession by almost one year, compared with a baseline scenario in which the budget deficits remain the same as in the precrisis period.

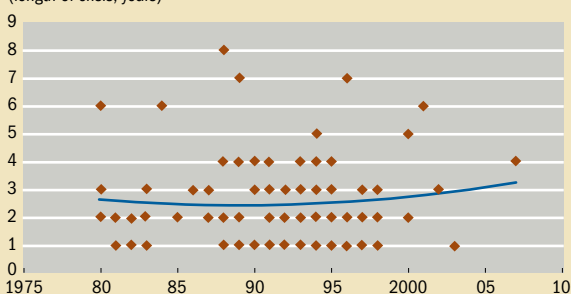
Fiscal policy composition

We also find that the composition of fiscal expansion—how it is distributed as current spending, investment spending, or tax cuts—matters. Higher public consumption—government purchases of goods and services and wages—and lower income taxes shorten the duration of financial crises. For example, a 10 percent increase in the share of public consumption in the budget reduced the crisis length by three to four months more than larger fiscal deficits alone would have. The same cannot be said for capital expenditures. Why? We believe that implementing capital projects generally takes longer than directly injecting demand through government purchases of goods and services. This picture seems consistent

Chart 1
Timing the crisis

Financial crises between 1980 and 2008 lasted 2½ years on average. The longest lasted 8 years.

(length of crisis, years)

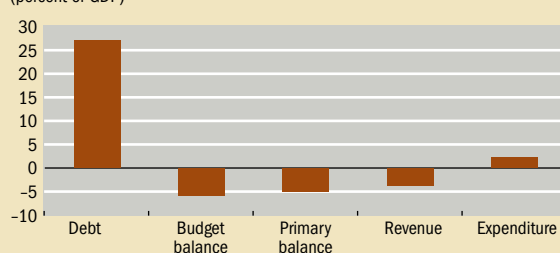


Source: Authors' calculations.

Chart 2
Costly downturns

Public debt climbed by almost 30 percent of GDP on average during financial crises, while budget deficits worsened on average by 5 percent of GDP.

(percent of GDP)



Source: Authors' calculations.

Note: The chart covers the 118 episodes of financial crisis between 1980 and 2008.

with the pace of disbursement of current fiscal packages. Tax cuts and increases in government consumption and transfers were implemented rapidly in many G-20 economies. However, procedures for budget allocation, transfers to subnational governments, procurement, and payments to contractors slowed down the disbursement of some capital projects (Horton, Kumar, and Mauro, 2009).

The composition of tax measures is also important: cutting consumption taxes was more effective than cutting income taxes. That is because cuts in levies such as value-added or sales taxes quickly stimulate private consumption, whereas income tax reductions can in part be saved. Consumption tax cuts help support domestic demand, particularly when dropping asset values, income losses, and rising unemployment dent households' ability to spend.

Other factors played a significant role. Crises that were preceded by a credit boom tended to last longer. Those during which a guarantee for bank deposits was provided (or expanded) by the government were shorter than crises during which governments did not provide this financial safety net. Closing failed banks and strong government intervention in financial markets were also beneficial in resolving crises.

The analysis also found that the way fiscal policy is constructed affects whether it creates conditions that promote economic growth five years after a crisis. Fiscal responses that had a greater share of public investment may not have helped shorten recessions as much as consumption spending, but they had a positive effect on output growth in the medium term. A 1 percent increase in the share of capital outlays in the budget raised postcrisis growth by about one-third of 1 percent a year in our regression analysis of crisis episodes. It appears that capital investment promotes medium-term growth by removing infrastructure bottlenecks and by enhancing private sector competitiveness. Income tax reductions were also associated with positive growth effects. Trimming income taxes removed distortions that hurt long-term economic performance.

These results highlight the potential trade-off between fiscal policy's role in supporting aggregate demand in the short term and its contribution to productivity growth in the medium term. They point to the need to evaluate the composition of fiscal stimulus packages before their implementation, as different short-term and medium-term fiscal multipliers can affect fiscal policy performance during the crisis and in its aftermath.

Fiscal policy and debt sustainability

However, insufficient fiscal space—that is, the capacity to spend more without jeopardizing fiscal solvency—and concerns about the sustainability of public debt can limit the effectiveness of fiscal expansions during crises. The lack of fiscal space in countries with high public sector debt-to-GDP ratios before the crisis not only constrains the government's ability to implement countercyclical policies, it also undermines the effectiveness of fiscal stimulus and the quality of fiscal performance. For example, in countries with relatively high debt, crises lasted almost one year longer; the beneficial effects of fiscal expansions were negated by the high public debt. Our simulations show that high initial levels of public debt make it more difficult to exit a crisis and limit the ability of expansionary fiscal policy to support output growth. Similar results are found for countries with lower per capita income, because those nations' limited fiscal space, lower technical capacity to implement fiscal stimulus plans, and higher exposure to macroeconomic risks—including to external shocks—reduce the scope and the effects of fiscal expansions during crises. ■

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References:

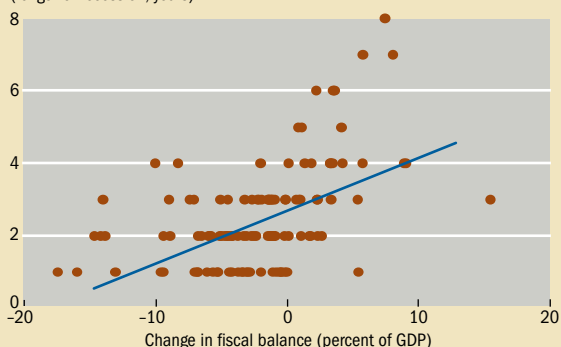
- Baldacci, Emanuele, Sanjeev Gupta, and Carlos Mulas-Granados, 2009, "How Effective Is Fiscal Policy Response in Systemic Banking Crises?" IMF Working Paper 09/160 (Washington: International Monetary Fund).
- Claessens, Stijn, M. Ayhan Kose, and Marco Terrones, 2008, "What Happens During Recessions, Crunches, and Busts?" IMF Working Paper 08/274 (Washington: International Monetary Fund).
- Horton, Mark, Manmohan Kumar, and Paolo Mauro, 2009, "The State of Public Finances: A Cross-Country Fiscal Monitor," IMF Staff Position Note 09/21 (Washington).
- International Monetary Fund (IMF), 2009, "The State of Public Finances: A Cross-Country Fiscal Monitor," IMF Staff Position Note 09/25 (Washington: International Monetary Fund).
- Laeven, Luc, and Fabian Valencia, 2008, "Systemic Banking Crises: A New Database," IMF Working Paper 08/224 (Washington: International Monetary Fund).
- Reinhart, Carmen, and Kenneth Rogoff, 2009, "The Aftermath of Financial Crises," NBER Working Paper 14656 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Spilimbergo, Antonio, Steve Symansky, Olivier Blanchard, and Carlo Cottarelli, 2008, "Fiscal Policy for the Crisis," IMF Staff Position Note 08/01 (Washington: International Monetary Fund).

Chart 3

Deficits to the rescue

There was a strong correlation between larger budget deficits and shorter recessions between 1980 and 2008.

(length of recession, years)



Source: Authors' calculations.

Note: The chart covers the 118 episodes of financial crisis between 1980 and 2008.

Choosing an Exchange Rate Regime

**A new look at an old question:
Should countries fix, float, or
choose something in between?**

Atish R. Ghosh and Jonathan D. Ostry

A PERENNIAL question in international economics—whether in academia or in policy circles—concerns the optimal choice of exchange rate regime. After the breakdown of the Bretton Woods system in the early 1970s, and the subsequent adoption of the Second Amendment to the IMF’s Articles of Agreement, member countries have been free to adopt the exchange rate regime of their choice.

But because countries no longer are obligated to peg their exchange rates in a system overseen by the IMF, they need a sound basis for selecting the regime best suited to their needs—be it fixed, floating, or intermediate. Over the past decade, the IMF has produced three major analytical studies on countries’ choices of exchange rate regime—in 1999, 2003, and 2009 (Mussa and others, 2000; Rogoff and others, 2004; and Ghosh, Ostry, and Tsangarides, forthcoming)—that build on the existing empirical literature both within and outside the IMF (Ghosh and others, 1997; Ghosh, Gulde, and Wolf, 2002; Levy-Yeyati and Sturzenegger, 2003; and Reinhart and Rogoff, 2004). These reviews, part of the IMF’s surveillance mandate, help inform member countries of how their choice of exchange rate regime can affect their own macroeconomic performance—inflation, growth, susceptibility to crises—and contribute to the stability of the international monetary system.

Evolving views

In practice, the preferred exchange rate regime, particularly for developing and emerging market economies, has evolved considerably over the past couple of decades. Pegging the exchange rate to a strong anchor currency (often the dollar or the deutsche mark) was popular in the early 1990s—especially for nations in transition from command to market economies that were seeking to stabilize their economies after their initial price liberalizations. But the 1990s also saw a spate of capital account crises in emerging market countries, with



sharp reversals of capital inflows leading to collapsing currencies and underscoring the fragility of such fixed exchange rate regimes.

By the time of the 1999 IMF review of exchange rate regimes, the received wisdom was that simple pegs were too prone to crisis and that countries should adopt either “hard” pegs—such as monetary unions or currency boards—or, at the other end of the spectrum, free floats in which the market determines a currency’s value without government intervention.

This so-called bipolar prescription, intended primarily for emerging market and developing countries, was much the same choice that the advanced economies were making. Many of those advanced economies were headed toward hard pegs in the form of a monetary union, while others were free floating. Some, indeed, managed to do both: countries in the euro bloc have a hard peg (a currency union) with other members of the bloc, but the euro itself floats against third currencies.

The bipolar prescription for emerging market countries proved short lived, however. The collapse in 2002 of Argentina’s hard peg (the currency board, which linked domestic peso issuance to dollars in the central bank) cast doubt on the hard end of the bipolar spectrum.

Fear of floating

The 2003 review used a de facto classification of exchange rate regimes that was based on the actual behavior of the exchange rate rather than on what formal, or de jure, commitment the central bank had made. The 2003 review found that pegged exchange rates provided little benefit to emerging market countries in terms of either inflation or growth performance. Because such regimes are associated with greater likelihood of currency or financial crises, the review concluded that emerging market countries—and developing countries as they became more financially integrated—should adopt freely floating exchange rates.

But in practice, few central banks were (or are, for that matter) willing to follow such a policy of benign neglect because they cannot be indifferent to the value of their currency. When the value of the currency declines, authorities worry about both imported inflation and the balance sheet effects of an exchange rate depreciation on borrowers that have borrowed in foreign currency and suddenly find that debt more expensive to service. On the other hand, when a currency's value rises, there is a loss of export competitiveness.

This fear of floating, as it has been called, is particularly prevalent among emerging market and developing countries for which sharp appreciations or depreciations of the exchange rate—or, more generally, currency volatility—may be particularly deleterious. But it is also noteworthy that among advanced economies, euro area members avoid currency volatility by maintaining irrevocably fixed exchange rates (through the monetary union) with the countries with which they have the deepest economic ties, such as trade.

In sum, the bipolar prescription ruled out intermediate regimes (including simple pegs), the collapse of Argentina's currency board ruled out the hard end of the spectrum, and in practice few countries were willing to go to the soft end of free floating. So which regime should a country adopt? It was clearly time for a fresh look at this question.

What they do and what they promise to do

The just-completed review, based on a data set of IMF member countries over the period 1980–2006, is the most comprehensive study of exchange rate regimes. Not only does this study examine the impact of the exchange rate regime on a wider range of variables (monetary and fiscal policies, inflation, output growth and volatility, cross-border trade and capital flows, crisis susceptibility, and external adjustment) than did the earlier reviews, it is also the first to use both *de jure* (what they promise to do) and *de facto* (what they do) classifications of the exchange rate regime in its analysis.

As a result, the message about the relative merits of various exchange rate regimes is more nuanced than those in the earlier reviews.

Inflation performance

There is ample evidence that, for developing and emerging market countries, *pegged exchange rate regimes are associated with the best inflation performance*. The only exception occurs when the peg is at an undervalued rate and the country is unable to offset the growth of the money supply that occurs when persistent current account surpluses and resulting accumulation of foreign reserves translate into excessive monetary growth; in such cases (a small minority in the IMF data set), the inflation benefit from pegs does not occur.

The inflation benefit from pegged regimes may seem at odds with the findings of the 2003 study, which found that emerging economies captured little inflation benefit from pegging. The explanation is straightforward and results from the 2009 study's use of both *de jure* and *de facto* classifications of the exchange rate regime, whereas the 2003 review focused exclusively on the *de facto* classification. An important part of

a peg's inflation benefit comes from the credibility of a formal commitment by the central bank to maintain the parity—not just from its *de facto* foreign exchange intervention or the behavior of the exchange rate. In nearly every case in which the central bank makes a formal commitment to a pegged exchange rate regime, it in fact maintains that peg. In other words, when it comes to pegging the exchange rate, deeds nearly always back words. The opposite case—a *de facto* peg without a *de jure* commitment—is much more common but does not deliver the same benefit in terms of anchoring inflation expectations and reducing inflation. By using both *de jure* and *de facto* classifications, the 2009 study was able to pick up on such subtleties, which were missed in earlier reviews.

How growth fares

Growth performance is best under intermediate exchange rate regimes—those that maintain relatively rigid exchange rates but do not formally peg to a single anchor currency. This is largely because such intermediate regimes represent a happy balance between pegs and free floats. Pegged regimes are associated with lower inflation, lower nominal and real exchange rate volatility, and greater trade openness—all of which are associated with faster growth. But pegged regimes are also more susceptible to exchange rate overvaluation, which hurts competitiveness and undermines growth performance.

Compared with pegged regimes, floating exchange rates are at less risk for overvaluation, but they also fail to deliver low inflation, reduced volatility, or better trade integration.

Between these extremes, intermediate regimes achieve the best balance and are associated with faster per capita output growth of about half a percentage point a year (after taking into account other factors that affect growth). Pegged exchange rate regimes are associated with better growth performance than floating regimes—but only if they are able to avoid real exchange rate overvaluation and loss of competitiveness.

Trade links

That countries in a monetary union have deeper trade links is well known. But the 2009 study establishes that similar benefits for trade integration derive from simple pegs (and, to a lesser degree, even from intermediate regimes). The study also finds that—crises aside—capital flows under pegged and intermediate regimes tend to be more consistent with consumption smoothing than capital flows under floats. While this latter finding is less sharply defined, one explanation is that the lower real exchange rate volatility under more rigid regimes fosters greater “stable” forms of capital flows—such as foreign direct investment—than “hot money” portfolio flows. Indeed, promoting greater trade and cross-border investment was the economic motivation behind fixed exchange rates and eventual monetary union in Europe.

Some trade-offs

Nothing is perfect, of course. The study found three major downsides to more rigid (pegged or intermediate) exchange rate regimes.

First, such regimes (especially pegs) *severely constrain the use of other macroeconomic policies*. The “impossible trinity” of simultaneously maintaining a pegged exchange rate, an open capital account, and an independent monetary policy is well established. What is striking in the 2009 study is that this constraint seems to hold, even for countries with less-open capital accounts or those that heavily sterilize reserve flows under pegs. The other striking result is that countercyclical fiscal policy—cutting taxes and increasing government

“Greater crisis susceptibility is a cost of more rigid exchange rate regimes. But countries with floating regimes are not entirely immune.”

spending to counter economic downturns and vice versa—is also heavily constrained under pegged exchange rate regimes. This presumably happens because capital flows are related to the business cycle in most emerging market and developing countries. Because expansionary fiscal policy in a downturn could lead to a loss of confidence and trigger further capital outflows, which would threaten the viability of the peg, there is less scope for countercyclical fiscal policy in countries with pegs. Thus, while pegging the exchange rate provides a useful commitment device for the central bank to anchor expectations by disciplining policies, it also limits the potential to respond to macroeconomic shocks.

Second, both the 1999 and 2003 studies found that pegged (and intermediate) regimes are associated with *greater susceptibility to currency and financial crises*, such as debt crises, a sudden stop in capital inflows, or banking crises. The current study confirms these results, especially for developing and emerging market countries with more open capital accounts. But it also finds that credit booms, including those that end in crisis, are about as likely to occur under floating regimes as they are under pegged or intermediate regimes. Likewise, the study finds that the risk of a growth crisis (a sharp decline in growth for whatever reason) is not correlated with the exchange rate regime. Thus, greater crisis susceptibility is a cost of more rigid exchange rate regimes. But countries with floating regimes are not entirely immune—as indeed the current global crisis, with its epicenter in countries with floating regimes, has amply demonstrated.

Third, pegged and intermediate exchange rate regimes *impede timely external adjustment*. On the deficit side, more rigid regimes are associated with larger deficits that unwind more abruptly and, because the real exchange rate does not adjust, have a greater impact on output and economic activity than deficits under floating regimes. On the surplus side, these regimes are associated with large and highly persistent

surpluses that, if large enough in the aggregate, can affect the stability of the overall international monetary system.

The bottom line

Unlike previous reviews, the current study finds important trade-offs in the choice of exchange rate regimes. Regimes that are more rigid help countries anchor inflation expectations, sustain output growth, and foster deeper economic integration. But they also constrain the use of macroeconomic policies, increase vulnerability to crisis, and impede external adjustment. This trade-off is illustrated by the recent experience of European emerging market countries. Although many of the countries with less flexible regimes enjoyed strong growth in the years leading up to the present crisis, they also built up large external imbalances, increasing their vulnerability to abrupt and disruptive adjustment and limiting their potential for countercyclical macroeconomic policies.

At its core, the results of the 2009 IMF review and the trade-offs it finds should

- help bring greater balance to the debate over which exchange rate regimes are appropriate for which countries,
- allow the IMF greater latitude to take account of country-specific circumstances when tailoring the policy advice it gives to individual countries, and
- provide a wealth of information and empirical results to help the IMF’s 186 member countries make better-informed choices for themselves regarding the best choice of exchange rate regime. ■

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References:

- Ghosh, Atish R., Anne-Marie Gulde, Jonathan D. Ostry, and Holger Wolf, 1997, “Does the Nominal Exchange Rate Regime Matter?” NBER Working Paper 5874 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Ghosh, Atish R., Anne-Marie Gulde, and Holger Wolf, 2002, Exchange Rate Regimes: Choices and Consequences (Cambridge, Massachusetts: MIT Press).
- Ghosh, Atish R., Jonathan D. Ostry, and Charalambos Tsangarides, forthcoming, Toward a Stable System of Exchange Rates, *IMF Occasional Paper* (Washington: International Monetary Fund).
- Levy-Yeyati, Eduardo, and Federico Sturzenegger, 2003, “To Float or to Fix: Evidence on the Impact of Exchange Rate Regimes,” *American Economic Review*, Vol. 93, No. 4, pp. 1173–93.
- Mussa, Michael, Paul Masson, Alexander Swoboda, Esteban Jadresic, Paolo Mauro, and Andrew Berg, 2000, Exchange Rate Regimes in an Increasingly Integrated World Economy, *IMF Occasional Paper* 193 (Washington: International Monetary Fund).
- Reinhart, Carmen, and Kenneth Rogoff, 2004, “The Modern History of Exchange Rate Arrangements: A Reinterpretation,” *The Quarterly Journal of Economics*, Vol. 119, No. 1, pp. 1–48.
- Rogoff, Kenneth, Aasim Husain, Ashoka Mody, Robin Brooks, and Nienke Oomes, 2004, Evolution and Performance of Exchange Rate Regimes, *IMF Occasional Paper* 229 (Washington: International Monetary Fund).



Too Big to Ignore

S. Raihan Zamil

UNPRECEDENTED actions by governments during the global economic crisis to shore up financial institutions deemed too big to fail underscore the critical role of large systemically important financial institutions in national economic development and in financial system stability.

These steps—which included government guarantees of bank debt, capital injections, and cleansing of bank balance sheets—were considered necessary because of fears that a failure of a systemically important institution would seriously damage the real economy, trigger a loss of confidence in the financial system, or both. Bailouts of large, systemically important firms have sparked debate about the proper regulatory, supervisory, and resolution framework for too-big-to-fail firms.

This article explores many of the complex issues and trade-offs policymakers must consider in evaluating reforms to the oversight of systemically important banks (SIBs). It also summarizes a range of practical solutions covering two critical dimensions of this debate: *crisis prevention* (better regulation and supervision of SIBs) and *resolution* (how best to support SIBs or allow them to fail). There is a broader debate, not addressed in this article, about whether to include non-bank financial firms within the definition of a systemically important institution.

What to do?

In crafting policies to address too-big-to-fail banks, policymakers must also consider moral hazard—that is, whether by rescuing troubled, systemically important banks they encourage their growth and remove some of the consequences of risky behavior (see box). But, given that the decision to save an institution may be a foregone conclusion if there is a likelihood of broader damage to the economy, the overarching questions then become how to develop measures to encourage SIBs' prudent behavior and how to formulate policies that hold SIBs and their stakeholders fully accountable, while minimizing the consequences of their failure on innocent bystanders.

All national authorities must develop their approach to SIB oversight within the context of their country-specific needs. Several large countries—in conjunction with international standard-setting bodies—have floated proposals. It will be a challenge to achieve international and domestic consensus on many elements. But there are common issues for policymakers and regulators in every jurisdiction:

- how to define an SIB;
- whether SIBs should be held to higher regulatory and supervisory standards than non-SIBs and, if so and recognizing the trade-offs they present, what those standards should be; and

Oversight of systemically important banks must be reevaluated

- whether policies can be developed that allow troubled SIBs to fail, but limit the effect of that failure on the real economy and financial stability.

Defining systemic institutions

Authorities must develop a workable definition of a systemically important bank. Should the bank's status be based on the size of its assets or deposits, the complexity of its activities, its role as a counterparty in derivatives transactions, or some other measure? Moreover, it is likely that what constitutes a systemically important bank during normal times will change during times of stress. If that is the case, how do authorities choose which banks are subject to more stringent regulatory and supervisory requirements? At a minimum, policymakers should identify a core group of banks considered SIBs under *any conceivable circumstances*, apply higher regulatory and supervisory standards to them, and recognize the difficulty of identifying before a crisis smaller banking groups that may be viewed as systemically important during turbulent times.

Crisis prevention

Authorities will have to adopt a comprehensive set of crisis-prevention measures to better regulate and supervise SIBs. Among these measures are tighter capital and liquidity re-

quirements, heightened risk-management standards, limits on risky activities, improved governance of SIBs by boards of directors, prudent bank compensation programs, and strengthened consolidated supervision of banking groups.

Authorities must develop more stringent capital and liquidity measures for SIBs. In the run-up to the crisis, reported capital and liquidity positions at SIBs appeared healthy because of rapid growth in high-risk activities, rising asset prices, and access to cheap market-based funding sources. Once the crisis hit, these cushions proved illusory as the financial consequences of SIBs' high-risk strategies became apparent. Therefore, more conservative capital and liquidity requirements for SIBs (compared with non-SIBs), as well as countercyclical capital measures, are needed to limit excessive growth during good times and allow for greater shock absorption during stressful times. A key challenge will be calibrating an appropriate level of minimum capital and liquidity requirements, given variations in accounting and loan-loss provisioning standards, operating environments, funding structures, and differences among countries regarding what constitutes a liquid asset. Lower leverage (that is, increased capital) and more liquid assets on SIB balance sheets will result in less bank lending and borrowing—an explicit trade-off for a more stable financial system.

The moral hazard worry

Governments have focused on preserving financial system stability and mitigating damage to the broader economy during the current financial crisis. They pushed aside traditional concerns about moral hazard—that is, whether by routinely propping up failing banks because of their size, authorities in effect encourage a systemically important bank (SIB) to take on greater risks, sowing the seeds of a bigger financial crisis, followed by ever larger bailouts.

But the moral hazard problem may be overblown. The eventual impact on risk-taking behavior of two main players in an SIB bailout—executive management and shareholders—may not differ significantly from the effect on the same players in a failed bank that is not considered systemically important. For the third important player—bank creditors—a more compelling case can be made to reduce moral hazard by treating them in a bailed-out SIB the same way they are treated in a failed nonsystemic bank. Nevertheless, it is questionable whether those creditors could realistically monitor and alter an SIB's future risk-taking behavior.

In a government bailout of an SIB, some members of management get sacked, and shareholders lose a significant portion of their investment's value because it is diluted by the amount the government invests to prop up the institution. For non-SIBs that are allowed to fail, all executives lose their jobs, and shareholder losses are permanent. Despite legitimate policy debate over whether these treatment disparities are warranted, the moral hazard question is whether these differences cause SIB management and shareholders to act more irresponsibly than their non-SIB counterparts. Because *executive management and shareholders* of bailed-out SIBs do share in varying degrees of pain, together with incalculable damage to their rep-

utation in the marketplace (particularly in the case of management), it does not appear that moral hazard plays a meaningful role in shaping SIBs' risk-taking behavior. Their prospective risk appetite is more likely to revolve around excessive focus on short-term profits and pressure from shareholders to maximize the stock price. These competitive pressures are endemic to a market economy and are *independent* of the moral hazard question.

Creditors (debt holders), on the other hand, are treated disproportionately better at SIBs than at non-SIBs. When a government rescues an SIB, creditors are not usually asked to share in any losses. Indeed, their credit quality position is often strengthened because of the government intervention. For a non-SIB that liquidates, creditors almost always experience significant losses. In addition, the creditors' main objective is to seek repayment of their outstanding credit extensions, which does not coincide with the profit and share-price maximization interests of management or shareholders. Therefore, policies to counter moral hazard are most relevant for, and should focus on, creditors.

Still, the degree to which creditor discipline could realistically alter the risk-taking behavior of SIBs is unclear. The global financial crisis has shown that individuals privy to proprietary and real-time information—the risk managers at banks, internal and external auditors, and regulators—could not constrain excessive risk taking at SIBs. Why would creditors—who would rely on publicly disclosed information—do better? This is not to say that policymakers should not attempt to create the proper incentives and policies to encourage such surveillance, but they also should be realistic about its uses and limitations.

Although higher capital and liquidity requirements provide buffers against unexpected events in times of stress, the first line of defense against financial instability is *strengthening the risk-management standards and practices of SIBs*. Risk management encompasses the people, processes, and systems an SIB employs to oversee its risk exposure. The stature and authority of the risk-management function must be elevated within each SIB, so that it is willing and able to rein in excessive risk taking, particularly during good times. Moreover, SIBs must be held to a higher standard than non-SIBs to ensure that SIBs' risk-management systems and underlying practices reflect their size, complexity, and role in the economy.

But stronger financial buffers and better risk management alone cannot prevent higher-risk activities from causing another systemic crisis. The global financial crisis has demonstrated that SIBs' excessive risk taking can be catastrophic and that there is no built-in safeguard to constrain such risk taking. As a result, *authorities should set percentage-of-capital limits on SIBs' high-risk activities*. It may be difficult to determine what constitutes high-risk activities and to assign them appropriate quantitative thresholds. Nevertheless, the development of hard limits is the only tangible way to reduce the threat to the financial system by "collective action" problems of SIBs—that is, that individual firms' quest for maximum profit and shareholder value leads to pressure on other banks to take on excessive risk.

A fundamental cause of the financial crisis was inadequate oversight by SIBs' boards of directors, given their failure to establish or enforce a suitable risk-tolerance threshold. Weak board supervision was driven by the lack of appropriate technical expertise and the part-time nature of board positions, which made it difficult to oversee an SIB's risk profile. So regulatory authorities must *prescribe more stringent "fit and proper" criteria for boards of directors of SIBs*. Authorities should require that all SIB directors be full-time and that the majority have the technical expertise needed to understand and oversee large, complex institutions.

A key board responsibility is to design compensation programs that reward longer-term performance and promote sound risk management. The financial crisis revealed that bank compensation practices encouraged excessive risk taking and rewarded short-term profits at the expense of longer-term viability. To address this deficiency, regulatory authorities should establish, and boards of directors adopt, *prudent standards for bank compensation programs* that require a significant portion of bonuses to be paid in shares that vest over time, link bonuses to performance targets and adherence to prudential principles, and permit bonuses only if supervisors consider a bank's capital ratios sufficient. Bonuses for traders must be based on realized, not unrealized mark-to-market, gains. Moreover, assessment of bank compensation programs should be part of supervisory authorities' ongoing oversight responsibilities of individual banks.

Ultimately, the introduction of more stringent regulations, stronger risk management, and better board oversight must be *underpinned by robust consolidated supervision*. Large

SIBs typically engage in many activities—banking, consumer finance, securities, insurance, asset management, and securitization, among others—at the bank itself, in its subsidiaries, and in sister companies under a parent-holding-company structure. Consolidated supervision focuses on assessing the risk profile at the group or holding company level—not at the level of the individual subsidiaries. The practice of consolidated supervision must be strengthened—regardless of whether it is conducted within a unified regulatory apparatus

“Ultimately, the introduction of more stringent regulations, stronger risk management, and better board oversight must be underpinned by robust consolidated supervision.”

in which all financial sector watchdogs are under one roof or on a functional basis in which various activities such as banking, securities, or insurance are supervised by separate agencies. There must be a clear legal framework with enabling regulations, supporting supervisory methodologies, and appropriate technical capacity to assess the consolidated risk profiles of SIBs and to take early supervisory action.

Preparing for the worst

A key element in overseeing large institutions is preparing for a “death” or “near-death experience” of an SIB. Authorities must have a plan that would allow them to determine whether to allow an SIB to fail and, if it does fail, how to minimize the damage to the real economy and the financial system as a whole.

Any plan must *establish a mechanism to allow for orderly unwinding of a failed SIB*. This involves authorizing a governmental body to take over a failed banking group temporarily and allowing operations to continue until it can be liquidated or restructured in an orderly manner and/or sold. To facilitate a slow unwinding, supervisory authorities must collect information on an SIB's organizational structure and maintain a current list of asset inventories and key counterparties at each legal entity within the group. An orderly unwinding would not bail out shareholders. Whenever the government considers a systemically important firm to be insolvent, the shareholders' stake should be eliminated. Moreover, key executive bank management members should be replaced with government-appointed officials (from the private sector). The governmental body should also have explicit authority to block the payment of contractual bonuses to senior officers of failed SIBs. A more difficult challenge is determining whether, to what extent, and how creditors and large depositors of failed SIBs should share in the losses.

There should be *explicit rules regarding who gets paid first and the minimum losses to be shared by creditors*—such as institutional investors and possibly large retail depositors not covered under a deposit guarantee—should SIB operations be temporarily taken over. Under this approach, moral hazard concerns would be mitigated, because market participants would be informed of the rules of the game in advance.

SIBs could be required to pay *fees to a resolution fund*, which would be used to offset some of the costs the government might incur in keeping a failed SIB operational. It is important that fees be assessed in advance, to ensure that all SIBs—not just survivors—pay into the fund. A prefunded arrangement would, moreover, eliminate the procyclical nature of requiring payment only after a failure, when other SIBs may need cash to shore up their capital base. Such fees would provide a disincentive to institutions contemplating whether to grow enough to be classified as systemically important.

If key officials are to exercise their resolution authority on SIBs, they must be able to do so without fear of being sued—whether by former owners, government watchdogs, market participants, or others. That means *decision makers must have clear legal protection*. Otherwise, regulators and supervisors might be reluctant to make critical judgments regarding SIBs—often under extremely tight time constraints and based on complex variables that do not provide clear-cut answers.

Authorities should also rethink their mind-set that some banks may be too big to fail. The underlying philosophy should be that *although some banks may be too big to liquidate immediately, no bank is too big to fail*. This subtle philosophical shift could lead to an approach that accepts failure and its consequences—such as elimination of shareholders’ interest and reduced value of creditors’ stake—while continuing to focus on systemic and real-sector implications.

Lessons learned

One of the most sobering lessons of the financial crisis is the degree to which the safety and soundness of the global banking system hinged on the judgment of a few SIBs and their overseers (supervisors) and the lack of explicit regulatory backstops to limit excessive risk taking.

The intellectual justification for construction of regulatory policies and supervisory practices that benefited SIBs far more than any other class of banks was premised on the belief in the reliability of SIBs’ risk models and “sound risk management,” the practice of risk-based supervision at regulatory authorities, and market discipline. But the central role of SIBs in the global financial crisis suggests that their perceived strengths—such as economies of scale, access to global wholesale funding, product innovation, and application of sophisticated risk-management practices—were, in reality, the main cause of systemic risk during times of stress.

A related issue is whether the benefits of SIBs outweigh the costs society must bear in the event of their failure; for example, taxpayer support, significant credit contraction, and financial instability. As long as SIBs exist, a long-term solution to the too-big-to-fail problem warrants formulation of intrusive and more conservative regulatory constraints, combined with supervisors’ greater willingness and ability to take early remedial action under a robust system of consolidated supervision. These preventive measures must be augmented with a credible insolvency regime that imposes market discipline on management, shareholders, and creditors of failed SIBs, if the “too big to fail” doctrine is to be permanently removed from our vocabulary, as it should be. ■

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Jeremy Clift, Editor-in-Chief

Crisis Contained

Archana Kumar

AS Asia tentatively makes its way out of the global economic crisis, the region—and the world—watches and learns from its resilient, though far from invulnerable, journey. Five leading Asian voices share their views on Asia's economic pain and recovery, and how there are no easy answers for coping with the region's future challenges.

Ajith Cabraal is the Governor of the Central Bank of Sri Lanka; *Shuli Hu* is a leading Chinese journalist; *Yung Chul Park* is Research Professor and Director of the Center of International Commerce and Finance at the Graduate School of International Studies, Seoul National University; *Raghuram Rajan* is Eric J. Gleacher Distinguished Service Professor of Finance at the University of Chicago and an Economic Advisor to the Prime Minister of India; and *Tharman Shanmugaratnam* is Singapore's Minister of Finance.

F&D: How has the crisis affected your region and how has the region responded to it?

PARK: For about six months, beginning in October of last year, emerging Asia suffered a great deal of economic pain and losses as the entire region fell into a deep economic crisis as a result of the vanishing export market, which was, in turn, caused by the spread of the global economic crisis.

Adding to the pain of the recession, some of the East Asian countries, such as Korea, also suffered a liquidity crisis. Fortunately, the liquidity crisis was over by the beginning of the second quarter of this year. Since then, these emerging economies have staged a rather impressive recovery.

What are the developments and factors responsible for this remarkable economic recovery? First, the epicenter of the crisis was located elsewhere, unlike in the Asian crisis of 1997, so that these economies suffered basically collateral damage from the crisis. Second, these economies made many strides in restructuring their corporate and banking sectors to improve their financial soundness and competitiveness to help them withstand external shocks much better than before. Asia's financial institutions also held very small amounts of U.S. toxic assets in their asset portfolios. Third, to my great surprise, most of these East Asian economies were very quick to respond to the crisis by introducing and implementing large fiscal stimulus packages, which, in

fact, have started kicking in. Fourth, some of these economies, like Korea, have been able to absorb domestically the impact of this crisis by making market adjustments—for instance, by cutting real wages and lowering the cost of capital to the greatest extent. Finally, most [Asian] currencies, except the Chinese renminbi and Japanese yen, have depreciated a great deal vis-à-vis the dollar, restraining the decline in exports. This has cushioned the impact of the crisis to a large extent.

SHANMUGARATNAM: If you look at the Asian region, or East Asia in particular, this was not a case of a balance sheet recession. This was an economic crisis for us, but it was caused by balance sheet problems elsewhere. Our banks were sound, and government finances by and large were in good condition. Several governments which 10 years ago had serious fiscal problems had since been running down their deficits, and in some instances have been running surpluses so as to reduce debts.

We took a big knock because global trade fell, and so did foreign investments. But it would have been much worse if our financial systems themselves had problems on their balance sheets.

It also meant that the region, from China down to Southeast Asia, was able to respond aggressively to the crisis, and could play a significant role in the global effort to

counter the recession through public sector stimulus. In Singapore, for example, we had a fiscal stimulus of 6 percent of GDP, delivered in one year, which helped reduce job losses and helped prepare firms for the recovery.

HU: The crisis has affected the region mainly through the trade channel. Since last year, the region witnessed a sharp decline of demand from its export sector, and the region heavily depends upon exports. As a result, it has suffered a very, very painful experience from the economic slow-down.

In China, for example, in the coastal area, a lot of factories—especially private factories—closed down, with layoffs among workers, including migrant workers who are originally from the inland of China.

Like the rest of the region, China adopted a fiscal stimulus policy to help the economy foster economic growth as part of the export sector and, at the same time, to help the transformation for the economy: from being heavily dependent upon the export sector toward encouraging greater domestic consumption. The latter is actually very hard to do.

CABRAAL: The most fundamental manner in which the region was affected was by the flight of capital. It was sudden, it was large, and it was something that the region did not expect.

At the same time, the vulnerability caused by certain banking institutions also had its aftershocks and led to some instability in the Asian region. Third, in many of the countries, the reserves that were reasonably adequate suffered a sharp downturn, particularly because of the monies moving out, plus the added disadvantage of the values at which they were recorded in their own balance sheets coming down sharply.

I think the region coped reasonably well. The challenge was to give the stability feature out to the market, and the way the central banks as well as the governments responded was pretty adequate. The stimulus packages that were put in place to address the reductions in the shorter term were also adequate. So the downturn, as far as the growth was concerned, was not as sharp.

RAJAN: The crisis has been a global crisis, of course, and in Asia, many of the countries (not all) have been export led, and clearly with industrial countries slowing down, that had an immediate effect because of the trade compression. There's been a rebound since, because we first thought this is the Great Depression all over again and, since then, realized it's not the Great Depression—it's a deep crisis, but not as bad as people thought.

So there's been some inventory rebuilding. In the short run, this strongly affected rates of growth—leading to double-digit rates of growth. In the medium term, there will be effects that will vary across countries. Countries that

are more export oriented are going to have to readjust their growth model, which is not easy. This is something that they have grown into over 10, 15, 20 years. It's a very producer-led model that has to move toward a more consumption-led one. This is very hard to do in practice because the channels through which you do it are not easy and not laid out. The temptation for governments is just do more of the same, and that's the tendency they will have to fight.

For countries that are not so export led—India is one example—the issue really is to strengthen the financial sector because they are still running large deficits. This is a time that financial market participants are very concerned about any sense of financial fragility.

China is also finding new ways to grow. It has much more fiscal room than India has, but it also has a greater transformation need away from export-oriented growth toward more domestic demand-led growth.

All in all, the good news is that there are possibilities for continued strong growth in Asia, and the balance of economic power continues to flow toward Asia. The bad news is Asia is not immune. It has to make serious changes, sometimes radical changes, to its growth process.

F&D: What do you think will be the longer-term changes and challenges in Asia as a result of the global economic crisis?

HU: I think in Asian countries like China, people are starting to think about the transition to a different economic model, following the crisis. We need to move from a more export-led economy, export-led growth to a more domestic model to achieve balanced growth. We need to correct this imbalance ourselves. However, it is very difficult to do because export-led growth has been taken for granted for several decades as a successful economic model.

PARK: In the short run, the most significant challenge these policymakers will face is dealing with fiscal policy management. Sooner or later, the effects of fiscal stimulus packages will wear off, and at that point what will these countries have to do to sustain reasonable rates of growth? My concern is that they may turn to export promotion again, which is really something that they should try to avoid, if they are serious about resolving global imbalances.

Second—and related to this dependence on exports—they should try to rebalance growth by reforming their policies and adjusting development strategies to rely less on exports and to depend more on internal demand. And, at this stage, they don't seem to have any idea about how they should go about restructuring the economy to boost domestic demand as a major source of economic growth.

Third, in the short run they'll have to think about exit strategies that will help prevent a reemergence of asset market bubbles and building up of inflationary pressures. And, on this

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Raghuram Rajan



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Tharman Shanmugaratnam

question again, the region is in a dilemma. For example, they need to raise the interest rate to prevent asset market speculation, but then monetary tightening may be premature and may derail the recovery process.

Finally, East Asia is responsible, to some extent, for the growing global imbalances, because all of these East Asian countries are going to run huge current account surpluses this year, and the question is whether they can continue to do so, and whether the surplus accumulation is in the interest of East Asia. It is not, but then, they are reluctant to take necessary measures such as currency appreciation to slow down the growth of the surplus. They know that they should actively participate in policy discussions on reducing global imbalances with the United States and Europe, but they seem to avoid the policy coordination largely because they are not prepared to make the policy adjustments required to deal with the imbalance problem.

There has to be some sort of policy coordination among East Asian countries to deal with the exit strategy and the resolution of the global economic imbalances problems.

CABRAAL: We need to look at longer-term maturities as far as our debt capital is concerned. And we need to ensure that the capitalization of the banks is at an even higher level than what it has been. The banking sector came up quite resilient, but it is necessary for us to strengthen ourselves a little more, so that the absorption of shocks becomes easier.

And we must think of diversifying our markets a little more than we have. Also, our reserves management has to look at better positioning of reserves vis-à-vis where they are invested as well as their accumulation. The banking sector stability, as well as the financial system stability, has to be strengthened further, which means that regulation has to be strengthened.

These are good lessons for us. One of the problems is that when problems ease, everything is forgotten, and people think there has been a strong recovery—faster-than-normal recovery—and they are back to business. That can lead to a false sense of complacency. We need to guard against that.

SHANMUGARATNAM: We have to shift our sights to the long term, even now. We have to manage problems in the short term—particularly unemployment—as well as we can. But how we manage the short term, and how we exit from fis-

cal stimulus packages, must depend on what we want to see over the long term. If we focus only on the short term, we risk undermining our chances for self-sustaining growth beyond the current recovery.

Our key objective should be to see private investment grow, as the basis for long-term growth. What this means is that we shouldn't want to raise income taxes in order to raise more fiscal revenues, and certainly not corporate income taxes. Fiscal exit strategies must reflect that objective. The aim is not just to reduce fiscal deficits and to prevent public debt from going out of control, but to do so in ways that give incentive for private investment to grow.

There is the question of where future demand will come from, since the U.S. consumer can no longer drive this. East Asia's growth will depend increasingly on how much demand it generates within the region itself. (See "Rebalancing Growth in Asia" in this issue.) But it would be a mistake to move away from global markets. The real source of East Asian growth over the last three decades has been the remarkable gain in knowledge and techniques, obtained by plugging into global markets—whether through exports or imports. Global markets spur the spread of knowledge. If we give that up, and focus production on home markets, we are going for lower long-term growth in East Asia—and globally. The real challenge therefore must be to grow East Asian demand and allow for increased imports. Abandon export subsidies, but don't abandon exports.

RAJAN: Over the longer term, Asia will look a little more inward rather than outward for growth, which means not just domestic but also to each other. Despite the changes that have been taking place over the years, Asian exports to one another are still relatively limited compared to what they could be. I think economies will try and sell to each other more, which will be an interesting change. But I also think the shift in demand toward the emerging markets, toward Asia, is going to produce a whole set of new, interesting opportunities—which companies in the region, but also companies from outside, can exploit. And this could be a new source of growth—this is growth targeted at the bottom of the pyramid. ■

Archana Kumar is Chief of Internal Communications in the IMF's External Relations Department.



Why Countries Trade

Brad McDonald

IF there is a point on which most economists agree, it is that trade among nations makes the world better off. Yet international trade can be one of the most contentious of political issues, both domestically and between governments.

When a firm or an individual buys a good or a service produced more cheaply abroad, living standards in both countries rise. There are other good reasons consumers and firms buy abroad—the product may better fit their needs than similar domestic offerings or it may not be available domestically. Foreign producers also benefit by making more sales than by selling solely at home and by earning foreign exchange that can be used to purchase foreign-made products.

Still, even if societies as a whole gain when countries trade, not every individual or company is better off. When a firm buys a foreign product because it is cheaper, it benefits—but the (more costly) home producer loses a sale. However, the buyer usually gains more than the domestic seller loses. Generally, the world is better off when countries import products that are produced more efficiently and cheaply abroad. The exception is if the foreign costs of production do not include social costs, such as pollution.

But those who feel they are adversely affected by foreign competition have long opposed international trade. Soon after economists such as Adam Smith and David Ricardo established the economic basis for free trade, British historian Thomas B. Macaulay was observing the practical problems governments face in deciding whether to embrace the concept: “Free trade, one of the greatest blessings which a government can confer on a people, is in almost every country unpopular.”

Two centuries later trade debates still resonate.

Why countries trade

Ricardo observed that trade was driven by *comparative* rather than *absolute* costs (of producing a good). One country may be more productive than others in all goods, in the sense that it can produce any good using fewer inputs (such as capital and labor) than other countries require to produce the same good. Ricardo’s insight was that such a country would still benefit from trading according to its *comparative advantage*—exporting products for which its absolute advantage was greatest and importing those for which its absolute advantage was comparatively less.

Though a country may be twice as productive as its trading partners in making clothing, if it is three times as productive in making steel or building airplanes it will benefit from making and exporting these products and importing clothes. Its partner will gain by exporting clothes—where it has a comparative but not absolute advantage—in exchange for these other products (see box). The notion of comparative advantage also extends beyond physical goods to trade in services—such as writing computer code or providing financial products.

Because of comparative advantage, trade raises the living standards of both countries. Douglas Irwin (2009) calls comparative advantage “good news” for economic development. “Even if a developing country lacks an absolute advantage in any field, it will always have a comparative advantage in the production of some goods” and will trade profitably with advanced economies.

Differences in comparative advantage may arise for several reasons. In the early 20th century, Swedish economists Eli Heckscher and Bertil Ohlin identified the role of labor and capital, so-called factor endowments, as a determinant

Comparative advantage

Even a country that is more efficient (has absolute advantage) in everything it makes would benefit from trade. Consider an example:

Country A: One hour of labor can produce either three kilograms of steel or two shirts. Country B: One hour of labor can produce either one kilogram of steel or one shirt.

Country A is more efficient in both products. Now suppose Country B offers to sell Country A two shirts in exchange for 2.5 kilograms of steel.

To produce these additional two shirts, Country B diverts two hours of work from producing (two kilograms) steel. Country A diverts one hour of work from producing (two) shirts. It uses that hour of work to instead produce three additional kilograms of steel.

Overall, the same number of shirts is produced: Country A produces two fewer shirts, but Country B produces two additional shirts. However, more steel is now produced than before: Country A produces three additional kilograms of steel, while Country B reduces its steel output by two kilograms. The extra kilogram of steel is a measure of the gains from trade.

of advantage. The Heckscher-Ohlin proposition maintains that countries tend to export goods whose production makes intensive use of relatively abundant factors of production. Countries rich in capital—such as factories and machinery—export capital-intensive products, while those rich in labor export labor-intensive products. Economists today think that although factor endowments matter, there are also other important influences on trade patterns (Baldwin, 2008).

Recent research shows that when trade opens up, it is followed by adjustment not only *across* industries, but *within* them as well. Increased competition from foreign firms puts pressure on profits, forcing less-efficient firms to contract, making room for more efficient firms. Expansion and new entry introduce better technologies and new product varieties. Likely most important, trade enables greater selection across different types of goods (say refrigerators). This explains the prevalence of intra-industry trade (for example, countries that export household refrigerators may import industrial coolers), which the factor endowment approach does not encompass.

There are clear efficiency benefits from trade that result in *more* products—not only more of the same products, but greater product variety. For example, the United States imports four times as many varieties (say different types of cars) as it did in the 1970s, while the number of countries supplying each good has doubled. An even greater benefit may be the more efficient investment spending that results from firms' access to a wider variety and quality of intermediate and capital inputs (think optical lenses rather than cars).

Economic models used to assess the impact of trade typically neglect technology transfer and pro-competitive forces such as the expansion of product varieties. This is because these influences are difficult to model, and results that do incorporate them are subject to greater uncertainty. Where this has been done, however, researchers have concluded that the benefits of trade reforms—such as reducing tariffs and other nontariff barriers to trade—are much larger than suggested by conventional models.

Why trade reform is difficult

Trade contributes to global efficiency. When a country opens up to trade, capital and labor shift toward industries in which they are used more efficiently. Societies derive a higher level of economic welfare. But these effects are only part of the story.

Trade also brings dislocation to firms and industries that cannot cut it. Such firms often lobby against trade. So do their workers. They often seek barriers such as import taxes (called tariffs) and quotas to raise the price or limit the availability of imports. Processors may try to restrict exports of raw materials to artificially depress the price of their own inputs. By contrast, the benefits of trade are diffuse, and its beneficiaries often do not recognize how trade benefits them.

Trade policies

Reforms since World War II have substantially reduced government-imposed trade barriers. But policies to protect

domestic industries vary. Tariffs are much higher in certain sectors (such as agriculture and clothing manufacturing) and among certain country groups (such as less-developed countries). Many countries have substantial barriers to trade in services in areas such as transportation, communications, and the financial sector; others have policies that welcome foreign competition.

Moreover, trade barriers affect some countries more than others. Often hardest hit are less-developed countries whose exports are primarily low-skilled, labor-intensive products that industrialized countries often protect. The United States, for example, is reported to collect about 15 cents in tariff revenue for each \$1 worth of imports from Bangladesh (Elliott, 2009), compared with 1 cent for each \$1 worth of imports from some major western European countries—even though imports of a particular product from Bangladesh face the same or a lower tariff than a similarly classified product imported from western Europe. World Bank economists calculated that exporters from low-income countries face barriers on average 50 percent higher than those of major industrialized countries (Kee, Nicita, and Olarreaga, 2006).

Members of the World Trade Organization, which referees international trade, are engaged in a complex effort to reduce and level out government-imposed obstacles to trade in a round of negotiations begun in Doha, Qatar, in 2001. The talks cover a wide range of issues, many of them politically sensitive, including elimination of remaining farm export subsidies, limiting domestic farm subsidies, and sharply cutting advanced economies' tariffs on farm and industrial products. Doha also seeks to address other crucial issues such as barriers to trade and investment in services, trade rules in areas such as fishery subsidies and antidumping, and customs and trade facilitation.

If successful, the Doha Round could yield hundreds of billions of dollars in annual global benefits. But some groups have sought to delay and to dilute the deal. A focus on the greater good, together with ways to help the relatively few that may be adversely affected, can help deliver a fairer and economically more sensible trading system. ■

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References:

- Baldwin, Robert E., 2008, *The Development and Testing of Heckscher-Ohlin Trade Models: A Review* (Cambridge, Massachusetts: MIT Press).
- Elliott, Kimberly Ann, 2009, "Opening Markets for Poor Countries: Are We There Yet?" *Center for Global Development Working Paper 184* (Washington).
- Irwin, Douglas A., 2009, *Free Trade Under Fire* (Princeton, New Jersey: Princeton University Press, 3rd ed.).
- Kee, Hiau Looi, Alessandro Nicita, and Marcelo Olarreaga, 2006, "Estimating Trade Restrictiveness Indices," *World Bank Policy Research Working Paper 3840* (Washington).

Failed Discipline

Gillian Tett

Fool's Gold

Free Press, New York, 2009, 304 pp., \$26.00 (cloth).

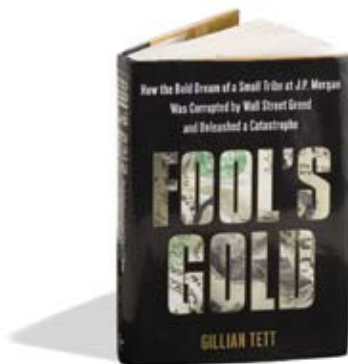
Every reader of *Finance & Development* knows by now the broad outlines of the financial crisis that led to the most severe global recession since the Great Depression, from which we are still emerging. And there is certainly no shortage of views, from popular books to academic treatises, on what exactly caused the crisis and what needs to be done to avoid similar crises in the future.

Nevertheless, Gillian Tett's *Fool's Gold* delivers an interesting perspective on the crisis, providing food for thought for anyone interested in the ongoing policy debate, not to mention a lively and entertaining read. Tett heads up financial market coverage at the *Financial Times* and was named British Business Journalist of the Year in 2008. She is able to describe the roots of the crisis in a way both financial experts and novices can appreciate—indeed, anyone bewildered by the jargon of CDS, CDOs, and ABS will find these instruments demystified, at least to a degree. But her background as a social anthropologist leads her to focus on “how the bold dream of a small tribe at J.P. Morgan was corrupted by Wall Street greed and unleashed a catastrophe.”

While expansionary policies coupled with ineffective regulation and supervision played important roles—as Tett makes clear—the financial crisis overwhelmingly is a story of the failure of market discipline. As the author emphasizes, the instruments developed by JPMorgan and others have the potential either to help control risks or to amplify them, depending on how they are used. Indeed, those at JPMorgan and elsewhere who were instrumental in their development were certain they had unlocked a route to much improved risk management. But, as is now

obvious, financial innovation was in many important ways misunderstood and misused.

Low interest rates and declining volatility after 2001 generated accelerated financial innovation, increasing leverage and complexity. As a result, risk multiplied faster than most market participants realized. Securitization that had worked reasonably well for corporate credit



default swaps (CDS)—where the basic rule of “know your client” still had meaning—ran into new problems when collateralized debt obligations (CDOs) bundled together dissimilar and increasingly low-quality assets, most notably nonconforming subprime mortgages. Over time, the pricing of mortgage securities increasingly seemed to reflect an assumption that housing prices simply would continue to rise, limiting subprime mortgage risk. In the process, risk models—which, regardless of their complexity, ultimately are based on the notion that the future will resemble the past—were relied on to a degree their creators probably never intended. (The reliance on risk modeling was particularly questionable for new and complex financial instruments for which there was, by definition, little history.) In a similar manner, credit ratings—themselves based in large part on the very models used by financial institutions—took the place of the due diligence investors should have undertaken. And regulations were rendered ineffective in many ways, notably via the rapid growth of the “shadow banking” sector, with complex and often opaque

links to the regulated financial system. All these factors left the financial sector vulnerable. Thus, once the crisis struck, it did so with astonishing speed and strength, highlighting relationships between markets and institutions that few understood fully.

Critically—as emphasized in *Fool's Gold*—not all financial institutions acted in the same way. Some, such as the book's protagonists, maintained a solid risk-management approach to financial innovation while participating actively in securitization markets. Others understood the growing risks and took positions that anticipated a weakening housing market.

However, the book makes clear that short-term pressures to show profits in many cases encouraged excessive risk taking. The book discusses how JPMorgan, despite its leading position in the CDS market, was not a major player in the CDO market. Tett describes how some thought the firm was missing opportunities in this market, while competitors built up large and nontransparent risks. She also describes in vivid detail the key players at JPMorgan trying to make the numbers “add up” in an effort to understand how other financial institutions were booking profits on CDOs—only to learn after the bust that their competitors did so only by leveraging themselves to an unprecedented extent by faulty pricing, and in some cases by accumulating huge and hidden risks on their books. But “in the new twenty-first century of finance, very few analysts bothered to pay attention to leverage and risk exposure. They were fixated on data about revenues and reported profits.”

The book's story is cogent, but the implications for policymakers are far less clear. In fact, the most interesting lessons lie in what is not discussed in depth by the author. In particular, the most striking missing piece in this book—and in ongoing policy discussions—concerns the shareholders and boards of the key financial institutions. What were they doing while their institutions built up large risks, and why was senior management oversight in many—though not

all—of these institutions so ineffective? And if this sort of failure of corporate governance was a key cause of the crisis, will a regulatory response by policymakers be sufficient?

As portrayed in the book, moral hazard seems to have played little, if any, role in explaining the shocking lack of proper risk management. As the book makes clear, the major financial players did not take on unsustainable risks because they expected to be bailed out by governments: the developments since September 2008 would have been unthinkable to them a few months, or even weeks, before the crisis struck. In fact, senior managers in affected firms typically suffered large personal losses as the value of their stock holdings declined sharply despite massive public support for their institutions.

And although the potential for individual payoffs was one underlying incentive for the explosion of financial innovation, the potential impact of the compensation reforms under consideration today is far from clear. Many of the major players already had compensation arrangements that broadly conform to current views of best practice. And, more to the point, most of those most deeply involved

from the start didn't see themselves as pumping up short-term profits at the expense of longer-term risks. Many believed they had discovered the tools to manage risk and revolutionize finance for years to come.

Finally, although several postcrisis recommendations blame the “originate to distribute” business model for the securitization boom and bust—see, for instance, calls for underwriters to maintain a minimum level of “skin in the game”—this crisis' real shocker is the extent to which major financial institutions' largest losses stemmed from the huge amount of risk they originated and kept on their books.

All this suggests that, while enhancing our systems of regulation and supervision are extremely important, such efforts should not be expected to banish completely the possibility of financial crises. At best, we can hope to make them much less common and less costly. Moreover, while some of the financial innovation that took place was not socially useful, much of it was—or at least could have been if managed properly. Indeed, reviving these markets, subject to enhanced regulation and probably on a reduced scale, will be critical to restoring economic growth.

In the end, Tett endorses some sensible and fairly straightforward policy recommendations—for greater attention to financial matters by central bankers, more capital in the financial system, and simpler and more transparent financial products. But she also emphasizes the need to rethink the “culture of finance,” with a “return to the dull virtues of prudence, moderation, balance, and common sense.” She argues that ideology, broadly understood, played a key role in forming the financial crisis—in large part through “social silences,” or the failure to raise uncomfortable truths.

At the same time, the crisis has inspired broad-based and innovative approaches to reform that promise to help supplement the hard lessons absorbed by market participants over the past two years. The principal goal is that the financial system, specific institutions, and the individuals who compose them will better understand, measure, and manage the risks that are an integral aspect of markets.

John Lipsky

*First Deputy Managing Director, IMF
(Lipsky was Vice Chairman and, before that, Chief Economist of JPMorgan Investment Bank during 1997–2006)*

Keynes Is Alive in the Long Run

Robert Skidelsky

Keynes

The Return of the Master

Public Affairs, New York, 2009, 250 pp., \$25.95 (cloth).

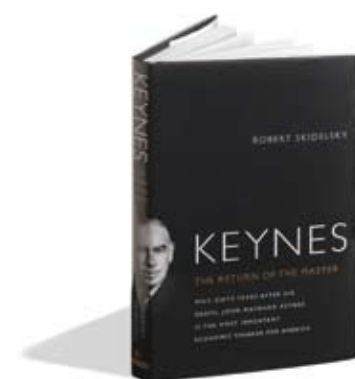
Anand Chandavarkar

The Unexplored Keynes and Other Essays

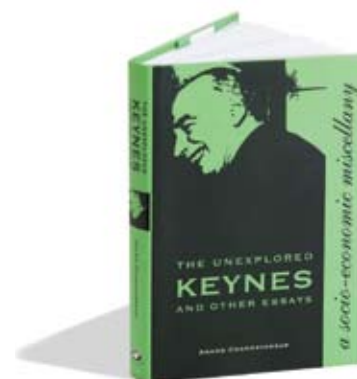
A Socio-Economic Miscellany

Academic Foundation, New Delhi, 2009, 346 pp., Rs 995 (cloth).

In 1984, economics Nobel Laureate George Stigler predicted that economics was on its way to becoming the queen of the social sciences. He called economics “an imperial



science,” one that was instructing other social disciplines through the work of “economist-missionaries . . . often against apprehensive and hostile natives.” A funny thing happened on



the way to the coronation: 25 years after Stigler's article, the feeling in the air is that economics has as much to learn from other disciplines as it has to teach them. A notable example is

the field of behavioral finance, which uses insights from psychology and sociology to understand financial markets. The spate of corporate scandals over the past decade and the recurrence of greed-driven financial crises have led to calls for economics to be more intertwined with ethics. And this year's Nobel Prize in economics went to a political scientist.

“Despite his concerns about its stability, Keynes did not want to bury capitalism.”

This state of affairs would not have surprised or upset the British economist John Maynard Keynes, the subject of these two books. The roots of economics go back to philosophy; indeed early economists were called “the worldly philosophers.” Skidelsky, a historian, and Chandavarkar, an economist, note that Keynes regarded economics as a moral science, to be used to show people how to lead a “good life”—but to Keynes, says Skidelsky, “a good life was not what made people better off: it was what made them good.” Chandavarkar writes that Keynes searched for policy solutions that combined “economic efficiency, social justice and individual liberty.” This was possible only if economists had a broad understanding of many fields: Keynes wrote that an economist should be “mathematician, historian, statesman and philosopher . . . in some degree.”

Role of confidence

Keynes also assigned great importance to psychology, most notably in his assertion that business investment depended significantly on the state of confidence. He felt, says Skidelsky, that the profit expectations of businessmen were not “solidly anchored in underlying forces of productivity and thrift.” Rather, they were driven by uncertain and fluctuating expecta-

tions about the future. Keynes argued that “this feeling of uncertainty waxes and wanes: sometimes people are more confident than at others. When confidence is high, the economy thrives; when it is low, it sickens.”

The collapse of optimistic expectations can thus lead to a collapse of the economy. And when the economy is down, pessimistic expectations, and hence unemployment, can persist. The role of the government is to stabilize the economy by carrying out public investment when private confidence is low. While it is good for the government to spend on something productive, Keynes famously argued, even digging ditches and refilling them was a welcome activity for the government to undertake when the private sector was in the doldrums. “The state of confidence,” Keynes wrote, “is a matter to which practical men always pay the closest attention. But economists have not analyzed it carefully.”

Despite his concerns about its stability, Keynes did not want to bury capitalism. Nor did he want a permanently large role for the state. Chandavarkar writes that “for the young as for the mature Keynes, the mainspring of economic progress was essentially individual initiative and enterprise in a democratic environment.” The role of the state, Keynes wrote, “is not to do things that individuals are doing already, and to do them a little better or a little worse, but to do those things which at present are not done at all.” He turned his back on communism because it became clear to him that a system that allowed the state to do everything would achieve neither material nor moral goals. Skidelsky writes that trips to the Soviet Union in the 1920s convinced Keynes that “one could not enjoy good states of mind if nothing worked.”

Keynes hoped that people would use the forces of markets and capitalism as a quick way to get rich, but that once they had abundance, they would devote themselves to the good life—appreciation of beauty and the arts and other civilized pursuits. That, after all, was what Keynes did. As Chandavarkar writes, Keynes

“straddled with effortless ease the disparate worlds of ideas and affairs—Cambridge, the City, Whitehall, and Bloomsbury.”

Blind spot

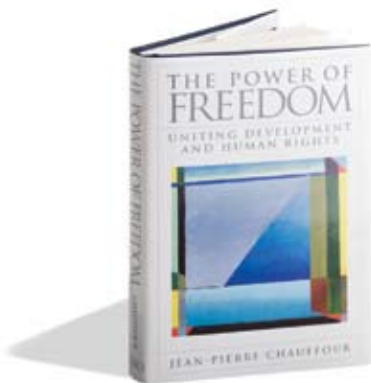
During Keynes's lifetime the principal economic problem was depression and unemployment in the richer nations, not the economic development of the poorer nations, such as India. Skidelsky says that, despite his emphasis on ethics, Keynes never considered the “human and moral implications of imperial rule or whether the British were exploiting the Indians.” Chandavarkar notes that Keynes's stance was in “striking contrast” to that of other members of the Bloomsbury Group, such as E.M. Forster and Leonard Woolf.

Ironically, Keynes's reputation as an economist was first established by his work on developing economies, his 1913 publication *Indian Currency and Finance*. But Chandavarkar—who retired from the IMF—notes wryly that the book was “written without benefit of a mission to India and discussions with the Ministry of Finance.” (Few things about Keynes's connection with India escape Chandavarkar's attention: he mentions a Bollywood film in which the heroine is shown to be absorbed in Keynes's *General Theory*.) In fact, Keynes never visited any developing country except for holidays in Morocco and Egypt. Chandavarkar says that one just has to live, in the words of economist Paul Samuelson, with the “paradox that Keynes the cosmopolitan was at the same time the most provincial of British patriots.”

An acolyte of Keynes once said that if a reappraisal of Keynes by later generations does not establish him as “a truly great man and economist, something will have gone sadly wrong with the definition of greatness.” These two fine books will help ensure that Keynes is always thought of as a great man and a great economist.

Prakash Loungani
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Talk to Me



Jean-Pierre Chauffour

The Power of Freedom

Uniting Development and Human Rights

Cato Institute, Washington, 2009, 212 pp., \$22.95 (cloth).

A few years back, when I was leading IMF missions to Africa, I found myself in a discussion with a civil society representative over her country’s budget. She was arguing for more money to fight HIV/AIDS and invoked citizens’ “right” to life-saving treatments as trumping all other spending priorities. It seemed to me there were a raft of such rights, many of which would save lives, and the finance minister still had to make difficult choices in allocating his spending. We weren’t seeing eye to eye. But we got around our differences by agreeing on a palliative measure—more aid—thus postponing the fundamental questions to another day.

When my macroeconomist colleagues and I venture into the field as one among many partners of developing countries, we have similar interdisciplinary discussions that go to the heart of governments’ terribly difficult allocation decisions and the international community’s attempts to help with those decisions. We have neither a common framework nor even a common language. Human rights advocates, economists, donors, field-based development specialists, and government decision makers approach these problems with dif-

ferent paradigms and struggle to communicate. Frustration runs high because the human problem is so acute and so visible. People are dying as we talk.

In his thought-provoking book, *The Power of Freedom*, Jean-Pierre Chauffour tries to find a common denominator for an interdisciplinary development paradigm. He holds that freedom can bridge the gap between the development and human rights imperatives. Unlike foreign aid, embracing freedom doesn’t paper over or postpone difficult choices.

“Chauffour tries to find a common denominator for an interdisciplinary development paradigm.”

Instead, Chauffour argues, it gives us a framework for communication across disciplines and can spark development that makes people better off and preserves their human rights.

Chauffour takes on both the human rights establishment, born of the 1986 Declaration on the Right to Development, and the development establishment, as perhaps too neatly embodied in the Millennium Development Goals (MDGs). After a fair amount of history and perspective in the first two chapters of Part I, the crux of his argument comes in Chapter 3, on the concepts underlying the human “right” to development, where he argues that too often a moral imperative, “righteousness,” has overtaken any sensible definition of rights. In the next chapter, titled “Practice,” he argues that this has led both the human rights and the development communities into a morass of competing priorities from which there is no visible exit. He makes some thought-provoking forays into just whose rights are being preserved (where his end and hers begin?) and who is meant to preserve them (individuals, states, or the international “superstate”?). Chauffour regards the UN rights processes, the Bretton

Woods–inspired Poverty Reduction Strategy Papers, and the MDGs all with skepticism and shines a spotlight on donor aid’s many critics. By the end of Part 1, readers may be ready to give up on coherent development altogether.

But Chauffour goes on to develop the implications of his argument on the power of freedom as a unifying paradigm. Chapter 5’s title (Economic Paradigm) may raise some noneconomists’ hackles, but it lays the groundwork for an interdisciplinary approach, founded on individual freedom. His vision of the state tends toward minimalism—it should stay out of the way of individual development rather than attempt to spur it on. So he touts the building of institutions—reiterating the extensive literature on property rights and adding some interesting observations on the exact meaning of “participation” in development (Chapter 6). The chapter on macroeconomic policy reveals his roots as a macroeconomist. I found it a nice fit into his new paradigm, but I am not sure how well it will convince those from other disciplines of the congruence of macroeconomic prudence and human rights. And economists might balk at the market-solves-all patina, given recent work on information asymmetries and behavioral economics.

But Chauffour admits at the outset that this book is unlikely to fully satisfy every practitioner among the interested disciplines. It is too widely cast to plumb any single discipline’s orthodoxy, but it confronts a lot of that same orthodoxy. It would be easy for us all to retreat into our own disciplines, bring out the volumes of research that give nuance to the principles we espouse, and say Chauffour just doesn’t understand us. This book gives us a glimpse into how others think and the limitations of our own thinking. That’s how we’ll have a real conversation about people’s freedom to develop themselves and their societies as they see fit.

Mark Plant
Deputy Director
IMF African Department

The Poor Should Not Pay the Price for the Crisis

The economic crisis forces us to confront chronic vulnerability and damaging inequality. How can the financial sector help shoulder the cost?



Dame Barbara Stocking is Chief Executive of Oxfam Great Britain and a member of the Board of Oxfam International.

IN October 2009, a number of major banks reported notable recoveries from their financial woes, with a return to huge profits and “megabonuses.” Meanwhile, new figures show that the economic crisis is pushing 100 people a minute into poverty in developing countries.

This contrast not only illuminates a clear injustice, it also suggests important lessons for moving forward.

First, the severity and duration of the impact on the poorest highlight the extent of chronic vulnerability in the lives of many poor people in the developing world. Tackling this problem requires long-term solutions as well as an emergency response. Second, blind faith in deregulation and market fundamentalism has been shown to be folly. Finally, the stark comparison between the profits of those whose actions lie at the heart of the crisis and the poverty of those described by IMF Managing Director Dominique Strauss-Kahn as its “innocent victims” raises the question of what the financial world can do to pay for the damage inflicted.

Oxfam International works with local organizations in more than 100 countries, providing relief in times of disaster, partnering in long-term development programs, and supporting citizens’ groups to claim their rights and make their voices heard. Our work with the most vulnerable people gives us firsthand knowledge of the crisis and poverty, the progress already made, and the need for further coordinated action.

Impact at the margins

Clearly, there is no uniform picture of the effects of the crisis, which is anyway a compound of the high fuel prices, high food prices, and financial turmoil of the past two years. The impact in terms of investment, exports, jobs, remittances, aid flows, and government

revenues is varied. But for Oxfam, a crucial aspect is that the impact—whether in the least developed countries or in dynamic emerging markets—is most catastrophic for those at the margins. People living at or under the poverty line, without a safety net, are the most vulnerable. This is especially true of women, who make up the majority of the world’s poor. Our research in several countries has found women to be most at risk of losing their livelihoods, whether they are garment workers in Cambodia or shea nut collectors in northern Ghana.

These vulnerable people are not only those who lose their jobs, but also their networks of dependents. In rural Cambodia, for example, 1.5 million people depend on remittances from migrant workers in urban areas—mostly women—as their major source of income. With fewer urban jobs, less money is sent home. It is estimated that up to one-third of workers in garment factories, construction, and tourism in Cambodia have lost their jobs since late 2008, resulting in a loss of \$30–\$45 million in remittances to rural areas.

Even when the crisis seems predominantly to affect the better-off, the impact can still be most severe for the very poor. It has been argued, for example, that the drop in international remittances to Ghana is most serious for the middle classes, who are more likely to receive them. But many of the poorest households in Ghana also get international remittances—and, when they do, depend on them for one-quarter of their income. In the first half of 2009, remittances shrank by \$95 million compared with the same period in 2008. This phenomenon has been catastrophic for some of Ghana’s poorest families.

The human cost

What does this mean for people’s lives? As the poorest people struggle with even lower incomes, they are both cutting back on spend-

ing and seeking to supplement reduced earnings. But such coping strategies themselves often increase vulnerability. Oxfam research into the impact of the crisis on women has found many taking up second or even third jobs, or turning to informal work that is less secure, less physically safe, and comes without social protection.

An inescapable result of the crisis is an increase in hunger and malnutrition, particularly among children. This began with the rapid rise in food prices in 2007 and 2008; reduced household incomes are now perpetuating the problem even as food prices moderate slightly. An Oxfam study of crisis impacts found parents in the Philippines skipping meals so that their children could eat, and families in Cambodia most often coping by eating lower-quality food or fewer meals. World hunger is projected to reach a historic high in 2009, with just over one in six of the world's population going hungry every day.

The ability to access services is also critically affected. Families are cutting spending on health and pulling children out of school to make ends meet, as shown, for example, in a 2008 Oxfam and Save the Children study of the impact of high food prices in the Sahel. Even in better times, the high cost of health care—felt most strongly by those with lower incomes—is one of the major drivers of poverty in developing countries. High health care costs and reduced incomes are a deadly combination.

Building resilience

This throws into sharper relief the need to increase investment both in meeting emergency needs now and in reducing vulnerability over the longer term through expanded social protection, health care, and education. Social protection programs have had an impressive impact in countries including India, Ethiopia, and Brazil, and civil society in Zambia and other countries is calling for similar initiatives. Moreover, if progress toward the UN Millennium Development Goals is not to be thrown into reverse, and countries' development paths compromised by unhealthy and under-educated populations, there is a need for universal, equitable access to well-staffed health and education services. This must include, at a minimum, free primary education and health care—designed to work for women and girls as well as men and boys.

Some governments have made strong efforts to maintain and even increase social spending in response to the crisis. China is making record investments in public health services as part of its fiscal stimulus. In Latin America, most governments have introduced some kind of countercyclical policy to cushion the impact on poor people and maintain social spending. The IMF reports an increase in social spending in most low-income countries where it has programs.

It is crucial that these investments be more than a short-term stimulus that lasts only as long as the economic crisis

at the global level. There is a need for long-term, sustained investment to reduce volatility in poor households' incomes and build stronger, more accessible public services. The crisis has hit the poorest people in developing countries hardest, not because they are the most directly exposed to the financial markets in London or New York, but because their access to essential goods such as food, education, and health care is already fragile.

Paying the price

The question of financing inevitably arises. Oxfam is concerned with both what needs to be done and how it is paid for. We stand in solidarity with citizens who are calling on their governments to increase social investment. Present conditions make this more challenging: the World Bank estimates that the crisis has cut financing for health, education, social protection, and infrastructure in the 60 poorest countries by about \$11.6 billion in 2009. The international community's response should include a clampdown on the tax havens through which developing countries lose up to \$500 billion a year, more support to expand progressive domestic tax collection, and the agreement of fair trade rules.

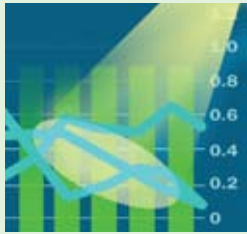
Development aid, while not a solution on its own, is also crucial. Oxfam is steadfast in demanding that donor governments meet their aid commitments. There is a clear need for more grants and concessional financing and for aid that is long term, predictable, and country

owned, delivered as budget support wherever possible. Donor governments must deliver the resources promised.

The current crisis has helped highlight innovative sources of such financing, with finance ministers now seriously discussing the possibility of a tax on financial transactions. The immense volume of these transactions means that returns could be huge: projections indicate that a tax of just 5 basis points (0.05 percent) could raise as much as \$700 billion dollars annually, even while limiting the most speculative trading. Introduction of such a tax is technically feasible, as has been underlined by economists such as Joseph Stiglitz. And it could be implemented in some jurisdictions and not others—such that, for instance, the euro area and the United Kingdom could go ahead even without the United States and Japan.

This idea also has increased political momentum in the current environment. In Pittsburgh in September 2009, the G-20 mandated the IMF to look into ways the financial sector could contribute to the cost of clearing up the crisis. We look forward to the launch of this study and to seeing a robust consideration of the options for a financial transaction tax. Ambitious action on this front by the world's biggest economies could release huge sums, chipping away slightly at banks' billion-dollar bonuses and profits to calm speculation and generate revenue that could strengthen the resilience of those most vulnerable to future crises. ■

“Oxfam is concerned with both what needs to be done and how it is paid for.”



Inflation Drops to Negative Territory

The global crisis has caused inflation rates to fall almost everywhere

INFLATION rates were falling even while large amounts of stimulus were pumped into the global economy to combat the global financial crisis. In the Group of Twenty (G-20) advanced and emerging market economies—which account for about 80 percent of global output and trade—inflation rates have fallen dramatically, becoming negative in the advanced economies. But during the current decade, inflation has trended both up and down. Since 2002, there have been four distinct periods.

During the early part of the decade—2002–04—there was a dramatic decline in inflation in emerging G-20 economies. The key factors behind this drop were improved fiscal performance, downward price pressures from increased global competition, improved monetary policy frameworks, and central bank independence in many countries. During 2004–07, inflation rates in the advanced and emerging G-20 economies were relatively steady, although consumer prices in emerging markets started to creep upward. In advanced G-20 economies, inflation rates hovered around 2 percent during this period, while in emerging G-20 economies rates were 2 to 3 times higher.

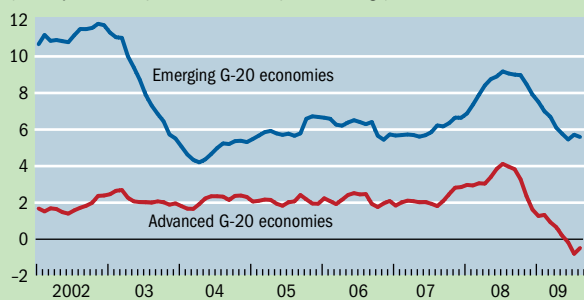
In the next period, inflation in advanced and emerging G-20 economies—pushed up by a steady run-up in commodity prices that started in 2002 and a spike in energy prices in 2008—peaked at 4.1 percent and 9.2 percent, respectively, in July 2008.

But then commodity prices collapsed in the middle of 2008 and the global financial crisis hit in September 2008. As a result, inflation in the advanced G-20 economies has since fallen below zero—to -0.3 percent as of September 2009. In emerging G-20 economies, inflation is at 5.4 percent.

Across the G-20 countries, inflation rates have varied widely over the past year and a half. At the low end is Japan, with an average annual inflation rate of 0.3 percent, while Russia has the highest inflation at 12.6 percent. Advanced G-20 economies are clustered at the lower end of this range. According to the IMF's latest *World Economic Outlook*, inflation in advanced economies is projected to be close to zero in 2009 and to grow to about 1 percent in 2010. In emerging economies, inflation is forecast to be about 5 percent in 2009–10.

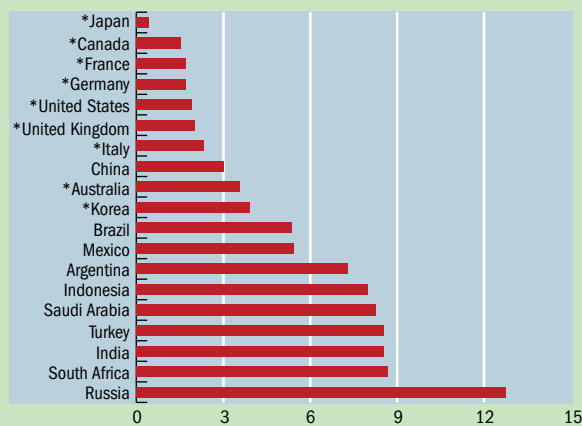
During the current decade, consumer price changes can be grouped into four distinct periods.

(monthly consumer price index, annual percent change)



Inflation rates have varied widely across the G-20 since 2008.

(consumer price index, 2008:M1–2009:M9, annual percent change)



Note: * denotes advanced G-20 economies.

About the database

The G-20 consumer price index (CPI) series are available at <http://financialdatalink.sharepointsite.net/default.aspx>, the website of the Inter-Agency Group on Economic and Financial Statistics, which is hosted by the IMF. The database includes data on the financial, external, and real sectors, and market indicators. The euro area CPI was excluded from the G-20 country analysis to avoid duplication. For Argentina, the database includes official reports of inflation. Private analysts estimate that the CPI inflation has been considerably higher. The Argentine authorities have created a board of academic advisors to assess Argentina's CPI.

Prepared by Mick Silver and Kim Zieschang of the IMF's Statistics Department.

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