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## IMF steps up capacity building in Africa

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On January 9, the IMF launched its third regional technical assistance center in sub-Saharan Africa, based in Libreville, Gabon, will bolster the ability of its eight members to design and implement policies that promote macroeconomic stability, growth, and poverty reduction. Speaking at the inauguration, Managing Director Rodrigo de Rato stressed the importance of strong institutions and the IMF's commitment to helping low-income countries reach the Millennium Development Goals.



Stephen Jaffee/IMF

## Rajan warns against protectionist forces

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Large global imbalances and rising inequalities in many countries—both industrial and emerging market—increase the risk of a protectionist backlash, says Raghuram Rajan, who stepped down at end-2006 as Economic Counsellor and Director of the IMF's Research Department to return to the University of Chicago. In a wide-ranging interview, he reflects on the global economy, the IMF's role in furthering economic and financial stability, and being in the hot-seat job of chief economist.



Eugene Salazar/IMF

## IMF considers possible new financing instrument

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Discussions are under way on a possible new IMF financing instrument designed to meet the needs of emerging market countries that rely on global financial markets for their investment needs. Taking into account its previous experience with contingent lending and crisis management, the staff is seeking advice from policymakers and academics on the best way to help these countries protect themselves against the potentially devastating effects of sudden stops in access to financial markets. The objective would be to help stabilize confidence in the face of shocks and reduce the risk of crises.

## The case for removing fuel subsidies

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Developing countries often impose controls on petroleum products to shield the poor from sharp price increases. What actually happens, says a new IMF Working Paper, is that the wealthy reap the largest benefits and the subsidies drain substantial resources from more productive uses. A more effective way to help the poor, the paper argues, is to remove the subsidies and put in place well-targeted social assistance measures.



Ali Jarekj/Reuters

# What's on

## JANUARY 2007

**16–17** 12th Euromoney Central and Eastern European (CEE) Forum, “The CEE: Separating Rhetoric from Reality,” Vienna, Austria

**22** Bank of Japan International Symposium, “Ten Years After the Asian Currency Crisis: Future Challenges for the Asian Economies and Financial Markets,” Tokyo, Japan

**22–24** World Sustainable Development Forum: “Meeting the MDGs: Exploring the Natural Resource Dimensions,” Energy and Resources Institute, New Delhi, India

**24–28** World Economic Forum Annual Meeting, Davos, Switzerland

**25** International Donor Conference, Paris, France

## FEBRUARY

**7–8** 2nd OECD Forum in Mexico: International Forum on Public Policies for the Development of Mexico, organized by OECD, World Bank, UNDP, Inter-American Development Bank, and Economic Commission for Latin America and the Caribbean, Mexico City, Mexico

**9–10** G7 Ministerial Meeting, Essen, Germany

**13–15** Global Forum: Building Science, Technology, and Innovation Capacity for Sustainable Growth and Poverty Reduction, World Bank, Washington, D.C., United States

## MARCH

**4–6** Institute of International Bankers’ 2007 Annual Washington Conference, Washington, D.C., United States

**17–19** 7th Annual Conference of the Parliamentary Network of the World Bank, South Africa

## APRIL

**2–4** 3rd Secondary Education in Africa Regional Conference, Ghana Ministry of Education, Accra, Ghana

**14–15** 2007 Spring Meetings of the World Bank Group and the IMF, Washington, D.C., United States

**26–27** “New Perspectives on Financial Globalization,” conference sponsored by the IMF

Research Department and Cornell University, Washington, D.C., United States, see [www.imf.org/external/np/seminars/eng/2007/finflo/042607.htm](http://www.imf.org/external/np/seminars/eng/2007/finflo/042607.htm)

## MAY

**20–21** European Bank for Reconstruction and Development, Annual Meeting and Business Forum, Kazan, Russia

## JUNE

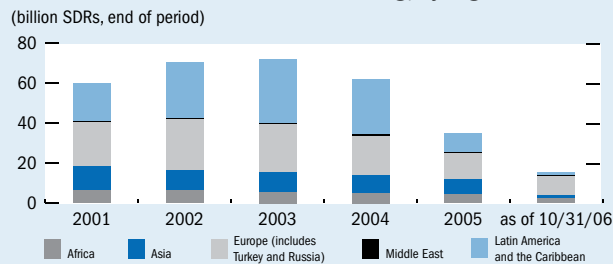
**6–8** G8 Summit, Heiligendamm, Germany

### IMF Executive Board

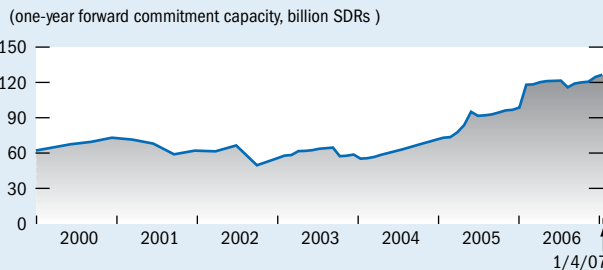
For an up-to-date listing of IMF Executive Board meetings, see [www.imf.org/external/np/sec/bc/eng/index.asp](http://www.imf.org/external/np/sec/bc/eng/index.asp)

# IMF financial data

## Total IMF credit and loans outstanding, by region



## Available IMF resources



Note: Special Drawing Rights (SDRs) are an international reserve asset, created by the IMF in 1969 to supplement the existing official reserves of member countries. SDRs are allocated to member countries in proportion to their IMF quotas. The SDR also

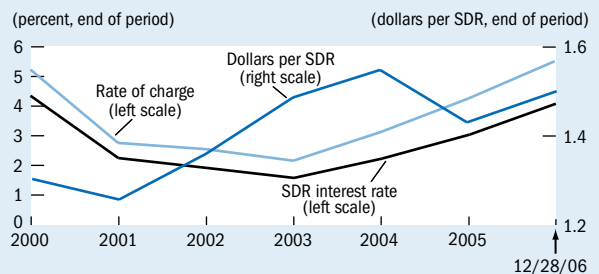
## Largest outstanding loans

(billion SDRs, as of 11/30/06)

Nonconcessional (GRA)		Concessional (SAF/PRGF)	
Turkey	6.51	Pakistan	0.94
Ukraine	0.59	Congo, Dem. Rep. of	0.55
Dominican Republic	0.33	Bangladesh	0.32
Serbia, Republic of	0.32	Georgia	0.16
Iraq	0.30	Yemen, Republic of	0.15

## Related rates

SDR interest rate, rate of charge on IMF nonconcessional loans outstanding, and dollars per SDR



serves as the unit of account of the IMF and some other international organizations. Its value is based on a basket of key international currencies.

## IMF opens new center to boost capacity building in Africa

The IMF inaugurated its third technical assistance center in Africa on January 9. Managing Director Rodrigo de Rato said that the launch was taking place at a hopeful moment: “economic growth in sub-Saharan Africa is likely to exceed 5 percent this year for the third year in a row, and prospects for next year are also bright. Average inflation, excluding Zimbabwe, has been below 10 percent.”

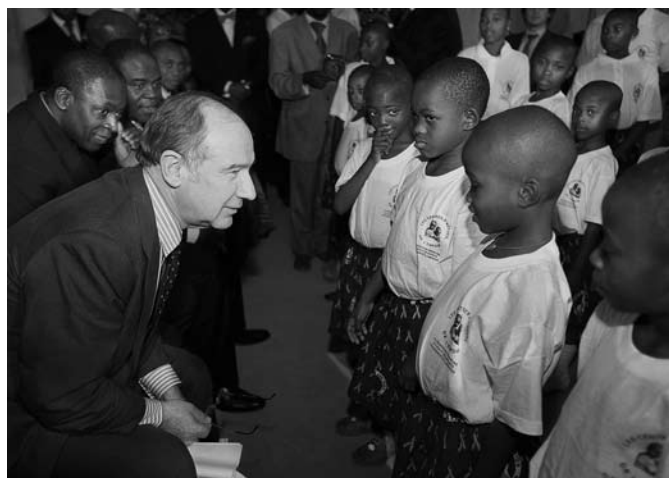
Speaking at the opening of the Central Africa Regional Technical Assistance Center (Central AFRITAC) in Libreville, Gabon, de Rato said, “we have learned that technical assistance is most valued when those who offer it work closely with those who seek it, and that it is important to respond quickly when countries need help.”

Central AFRITAC joins the IMF’s other African technical assistance centers, East AFRITAC in Dar es Salaam, Tanzania, and West AFRITAC in Bamako, Mali (see box).

Financial contributions from the African Development Bank and the governments of France and Germany, as well as the Gabon government’s offer to serve as host, made the new technical assistance center possible.

### Key priorities for Africa

Boosting technical assistance in Africa supports the IMF’s medium-term strategy. The IMF has a clear goal, de Rato said, in “helping low-income countries meet the Millennium Development Goals [MDGs].” The IMF is also updating its debt sustainability framework, which will help its low-income members meet the challenges of debt relief. “Countries have a legitimate interest in using the borrowing space created by



Managing Director Rodrigo de Rato meets with AIDS orphans at the Centers for Hope in Yaoundé, Cameroon, on the second leg of his Africa trip.

debt relief to accelerate their progress toward the MDGs.” But he cautioned countries against borrowing to finance expenditures that do not improve their economic position and thereby jeopardizing their hard-won gains.

One of the IMF’s core responsibilities is to help countries design and implement policies that promote macroeconomic stability, which is essential for sustainable growth and poverty reduction. And, de Rato said, “it is now widely accepted that strong institutions are critical to economic development and growth.” That is why, he added, “we at the IMF believe that capacity building is a key priority in Africa, and this is why we have responded to the call of African leaders urging us to step up our assistance to the region.” Indeed, since the establishment of the first AFRITAC at the end of 2002, the annual volume of IMF technical assistance to Africa has increased by more than 20 percent. The IMF also plans to increase the number of staff working for the Executive Directors who represent African countries.

“I am confident,” de Rato said, “that in developing the IMF’s regional technical assistance centers, and especially the three centers that as of today exist in Africa, we are doing the right thing. . . . They will promote strong institutions, raise growth, and improve living standards.”

While in Gabon, de Rato met with President el Hadj Omar Bongo Ondimba and senior members of the government. He also traveled to Cameroon, where he met with President Paul Biya and other senior officials to exchange views about the challenges the country faces now that it has received debt relief and how the IMF can help, and he visited a center that cares for children who have lost their parents to AIDS. ■

### AFRITACs offer much-needed advice and training

**Established:** *East*, Oct. 2002; *West*, May 2003; *Central*, Jan. 2007

#### Countries served:

**East:** Eritrea, Ethiopia, Kenya, Rwanda, Tanzania, and Uganda

**West:** Benin, Burkina Faso, Cote d’Ivoire, Guinea, Guinea Bissau, Mali, Mauritania, Niger, Senegal, and Togo

**Central:** Burundi, Cameroon, Chad, Central African Republic, Democratic Republic of the Congo, Republic of Congo, Equatorial Guinea, and Gabon

**Total number of advisors:** 19

**Combined annual operating costs:** \$14 million

**Sample training topics:** Cash liquidity management, credit risk, fiscal decentralization, customs administration, customs and fiscal fraud, budget reform, government cash management, national statistics, and best practices on microfinance

## Interview with Raghuram Rajan

# Protectionist backlash still a risk to global economy

**A**t end-2006, Indian-born Raghuram Rajan stepped down as Economic Counsellor and Director of the IMF's Research Department to resume his career as an academic and researcher at the University of Chicago's Graduate School of Business. When Rajan joined the IMF in September 2003, he was the first chief economist to come from a developing country and the first to specialize in international finance rather than macroeconomics. Earlier that year, he won the Fisher Black prize for the person under 40 who had contributed the most to the theory and practice of finance. Laura Wallace of the IMF Survey spoke with him about global economic issues, the IMF's role in furthering economic and financial stability, and being in the hot-seat job of chief economist.

**IMF SURVEY:** How do you see the IMF's role evolving, particularly when we have fewer crises?

**RAJAN:** We should be happy that there are fewer crises of the old sort requiring bucket loads of money. Perhaps the next crises will be different in nature—they may be slower in developing but more costly and widespread in consequence. For instance, insufficient investment in energy in the past, and even today, will have consequences for some time. The large global imbalances create the possibility of a protectionist reaction, or a sharp adjustment in asset prices, in the future.

Some of these slow developments are obvious at the multilateral level, but not at the level of an individual country.

As another example, with demographic changes, capital has to be able to flow out of countries where populations are aging to the countries where populations are still young so capital can be matched with labor to boost production. Similarly, manufacturing is increasingly taking place in developing countries. But if their markets are in developed countries, the developing countries need to have entities there to handle design and marketing. This means emerging market investment in upstream assets like research and development and in downstream assets such as distribution in developed countries. It is thus in the interest of all countries to keep barriers to cross-border investment from rising.

The IMF has a very important function in fostering multilateral dialogue to deal with problems that have multilateral solutions and using that process to encourage change

in individual countries. One of its new tools to do this is the multilateral consultation, which it began using in 2006 to promote dialogue on the enormous global imbalances. The virtue of this device is that it brings together the right people to discuss a particular issue. Until now, the various international forums have been either too big or not inclusive enough.

The IMF also has its traditional bilateral surveillance role, and we need to keep rethinking that role to ensure that it's top-notch and provides value even as member countries increase in sophistication. Right now, a new area of emphasis is improving the integration of financial sector surveillance with the regular country consultations.

The bottom line is that even if there are no fires, the fire department should be thinking about precautions to make sure a fire doesn't break out. But this also means staffing should be sufficiently flexible—crudely speaking, more resources in regional departments (the fire-fighters) in bad times and more resources in functional departments (the ones building knowledge of risks and necessary precautionary measures) in good times. This remains a challenge.

**IMF SURVEY:** You mentioned the IMF's first venture into resolving global imbalances—meeting bilaterally with Japan, China, Saudi Arabia, the United States, and the euro area—

but so far, there's very little to show for it. What will it take to get progress?

**RAJAN:** Managing Director Rodrigo de Rato once said it took us years to get to this point on the global imbalances, so they aren't going to be solved overnight. It's really important to see this as a process rather than a grand agreement where countries suddenly get religion and do the right thing, and then the problem is solved. In fact, if you look at the Plaza Accord or the Bonn Accord, history now suggests that they weren't particularly effective, or that they didn't even go in the right direction. So the key is to create a structure to manage this process over time. The virtue of the dialogue is for the important countries to acquire a shared understanding of what needs to be done, which feeds into their own internal country debates. It also creates an atmosphere of trust so that when problems do arise, countries have the rapport to talk and resolve them.

**Perhaps the next crises will be different in nature—they may be slower in developing but more costly and widespread in consequence.**

—Raghuram Rajan





Rajan: “On top of quota reform, we need to find other ways to give emerging markets and developing countries a bigger say and a bigger stake.”

**IMF SURVEY:** [Are you optimistic?](#)

**RAJAN:** Yes, of course. Without hope, any multilateral enterprise is a nonstarter. The fact that we have this group together and talking is itself a minor victory.

**IMF SURVEY:** [If crises do erupt, will the IMF play an important role, as in the 1990s, given that emerging markets have built up big war chests of reserves and our main shareholders continue to disagree on whether large-scale lending is a good thing or not?](#)

**RAJAN:** We may have some of the old-style crises, but I sense that future crises, unless our member countries have learned nothing—and I think they’ve learned a fair amount—will be very different. So I’m not sure whether we’ll need to deploy large sums of money, but I do think we’ll need to play a role in building confidence in these countries. The precise mechanism by which we build confidence is something we need to think about. In particular, should we wait for a crisis to develop before we step in? As you know, the IMF’s Research Department has been working with the Policy Development and Review Department on a variety of possible insurance schemes that offer countries more certainty of funds in return for a greater scrutiny of policies before a potential crisis. As [IMF First Deputy Managing Director] John Lipsky says, we need to weigh how we can help the markets do the right thing rather than stand in their way.

**IMF SURVEY:** [In the medium term, what worries you the most on the macroeconomic front?](#)

**RAJAN:** My single biggest concern is that with rising inequality in many countries— industrial and emerging markets, including China and India—the forces that want to constrain markets and protect livelihoods against competition are getting stronger. Typically, if there’s growth, there’s enough consensus to suppress these forces and ensure that the growth process isn’t stopped. But if there’s a serious global downturn, these forces could assert themselves with a vengeance. We’ve seen this happen before. We have to pay more attention to promoting more inclusive growth without compromising growth itself. And usually this means trying to broaden the base of opportunity for people—not only through health care, education, and access to finance but also by ensuring that good macroeconomic policies create an environment for growth to be widely spread.

**IMF SURVEY:** [You mentioned India and China. Is India’s current obsession with how China is doing a healthy one?](#)

**RAJAN:** In some ways. After all, one reason reform in India took off was that Indians saw that a large neighboring country with similar problems could grow fast. Previously, they had always dismissed the East Asian miracle as a “small country” phenomenon. What’s dangerous is that now that the world is talking about “Chindia,” Indian reformers might sit back and say, “We’ve arrived.” As the Indian Prime Minister recognizes, India still has a long way to go. Indian growth rates are approaching Chinese growth rates, but China has been growing at this rate for at least 25 years. India has only about 15 years under its belt, and a lot has to go right for it to be truly in the same league as China.

**IMF SURVEY:** [How about longer-term economic worries? And is the IMF taking longer-term issues seriously enough?](#)

**RAJAN:** Invariably, when you look out 40 years, you always miss the issue that’s going to be the most important. In the 1960s, people thought the year 2000 would see people flying around with motorized backpacks. Their view of the future wasn’t the Internet, with millions of people spending five hours a day in a virtual world, spending virtual money on virtual real estate, and dating virtual people. So it’s not clear to me that the problems that we’ll be confronting in 40–50 years are precisely the problems we’ve identified now. That said, we’ll certainly have to deal with looming issues like aging populations and global warming,



Stephen Jaffe/IMF

Rajan briefing the press on the latest IMF *World Economic Outlook* in Singapore at the 2006 IMF-World Bank meetings. He has become more worried that the financial sector in developed countries could be a source of global instability.

as well as, unfortunately, old issues like poverty and economic volatility.

The question that a number of IMF staffers have is how longer-term issues might affect our policy advice. Climate change is a good example. For the most vulnerable countries, clearly the more flexible their economies, including how much open land they have, the more they'll be able to adapt—whether that means abandoning or entering certain industries or forms of agriculture, or even moving physically. Canada, which has lots of open spaces and the ability to move north over time, has more flexibility than Bangladesh, which is pretty crowded through and through. Given that any adaptation will not take place overnight, we have to embed these longer-term issues into our regular policy advice. It will either strengthen the urgency of our policy advice or change its nature for some countries.

**IMF SURVEY:** From your interactions with policymakers, do you get the sense that the Fund would be more effective as a trusted confidential advisor or as a key player in shaping public national and international debates? Is there, in fact, a conflict between these approaches, or can they complement each other?

**RAJAN:** It depends a lot on a country's sophistication. In emerging markets and developing countries with still-low levels of economic capability—and this group is getting smaller over time—we sometimes have to do the work that would ordinarily be done by finance ministry and central bank officials. In these cases, we're true insiders. And, since we need access to inside information, it would be unfair for us to use that information publicly. That

doesn't mean we wouldn't have a role in shaping public opinion, but we would need to do it in a way that isn't confrontational.

In more sophisticated and transparent countries that have a private industry analyzing economic data, our value stems largely from our independence. We come without the biases of the existing country authorities or even the private sector. In these cases, we can play a larger role in the national debate because we don't have privileged access to nonpublic information. While the objective is not confrontation with governments, we have greater leeway and responsibility to participate in debates, where our analysis and opinions, rather than nonpublic data, are what we bring to the table.

**IMF SURVEY:** How important is it that emerging markets and developing countries feel more represented in the decision making of the Fund? Will quota reform be enough?

**RAJAN:** Quota reform is critical because a country's quota is ultimately the number that reflects its representation and voice in the Fund. The quota has to reflect economic importance, however we define it. And we need to find a way to constantly revise quotas without turning it into a major uproar. But if we achieved serious quota reform today, would it overnight change the pattern of power in the Fund? No, because the major industrial economies would still be large and thus retain a lot of voting power.

This is why on top of quota reform, we need to find other ways to give emerging markets and developing countries a bigger say and a bigger stake. If we don't, the danger is that they'll stop paying a lot of attention to the IMF—just as the industrial countries have done unless they happen to find the policy analysis useful—because right now emerging markets have enough foreign reserves to guard against everything except Armageddon. Part of the solution rests in the hands of those who feel underrepresented. They need to put more ideas on the table and build coalitions, pulling in members with greater voting power. Currently, there are a number of small countries whose Executive Directors on the IMF's Board punch far above their weight in quotas, and they should be emulated.

**IMF SURVEY:** Is IMF research sufficiently independent and protected from the politics of the place? Or is it important that it be somewhat integrated to make it effective?

**RAJAN:** I think it's sufficiently protected. On independent research, management has stood its ground, insisting that if we suppress bad news, all our research findings will be suspect and totally useless. Of course, we take seriously our counterpart responsibility that the research has to have great integrity. The Executive Board has also been protective on a number of occasions when, for example, *World Economic Outlooks* came up with findings that were less than palatable to some of the membership.

Of course, when the Research Department gets into Fund policy issues, we enter the debate within the Fund and that debate is a very intense, vigorous one. Clearly, we need to hold off publishing until there's more of an internal consensus. At the same time, the internal debate could be enriched if we got more outside views. The Fund has to find ways to introduce a debate outside, without ideas immediately being construed as the official position of the Fund. This is where I think we need more work.

**IMF SURVEY:** How do you think an economic counselor should balance the duties of spokesperson of the IMF and the role of a researcher generating new ideas, especially when such ideas conflict with IMF orthodoxy?

**RAJAN:** You can't be considered a complete flake. Academia tends to emphasize the innovative, the out-of-the-ordinary, because that's what's new and interesting. But policymakers have to look at magnitudes, how it all adds up. And sometimes the innovative, the out-of-the-ordinary may not be the most important factor. The best academics, of course, recognize this. The economic counselor has to attempt to offer innovation to the academic audience while giving sensible advice to policymakers, and it isn't an easy task.

But the real difficulty comes when the message is unpalatable to the policy establishment outside the Fund. For example, I became convinced early on in our research that there wasn't much evidence that foreign aid had worked particularly well. That message wasn't palatable to some of the establishment. There is indeed an industry that has become dependent on aid, and, like all industries, it too seeks protection. So it prompted a certain amount of reaction, but once the initial reaction subsided, the message got seriously taken up in a number of places and is making its way into better policies.

I've also become more worried that the financial sector in developed countries could be a source of global instability. The reaction when I first made these points to an audience

of central bankers in 2005 was not warm and fuzzy, to say the least, but I think I touched on a worry that many of them are increasingly articulating.

**IMF SURVEY:** Do you see a need for the IMF to do a better job of absorbing ideas from outside—for example, from academia?

**RAJAN:** I don't think the problem is absorbing outside ideas. There's always somebody in the Fund who's up to the mark. I think the problem is convincing Fund researchers that they have the right to be unorthodox and innovative in their own work, without waiting for the outside to first legitimize an idea. It's easy for me to say what I think—I can't be demoted or promoted. But we have very smart economists who need to be convinced that they can think outside the box without being deemed unreliable

by their colleagues. During my tenure, the Fund did indeed promote researchers who have been unorthodox, and I think this sends a strong message within the Fund. Too often, there's self-censoring that tends to produce "lowest common denominator" research—minor technical advances or variations on existing themes.

**IMF SURVEY:** What areas of research have you had the most impact on during your tenure?

**RAJAN:** Briefly, I think we've done substantial and influential work on low-income countries, including tracking the integration of China and India; we've started investigating the political economy of reform more closely; and we've done more work on the financial sector and its impact on the macroeconomy. We haven't, however, neglected traditional areas—our work in explaining the rise of global imbalances has been extremely influential, and our work on macroeconomic modeling and exchange rate analysis is filtering to area department work. I also believe the work of the department has helped the evolution of the Fund's medium-term strategy.

**IMF SURVEY:** What influence will your stay at the IMF have on your personal research and your career?

**RAJAN:** I have a far better sense now of how various macroeconomic forces fit together, and that will feed into my research. I'll probably do more work on development because it's so tremendously important. And I've made so many friends here with whom I can bandy ideas about and do research that I think I'll never really leave the Fund. ■

**I think the problem is convincing Fund researchers that they have the right to be unorthodox and innovative in their own work, without waiting for the outside to first legitimize an idea.**

—Raghuram Rajan

## In times of plenty, IMF prepares for rainy day

The IMF is weighing a new financing instrument designed to help prevent confidence crises in emerging market countries by providing a line of contingent financing. The need for a new loan instrument designed specifically with emerging market countries in mind was proposed as part of Managing Director Rodrigo de Rato's medium-term strategy, which seeks to improve the IMF's ability to meet the needs of its member countries in today's globalized world.

The increased mobility of capital has allowed rapidly growing emerging market countries to tap into global savings to satisfy their considerable need for investment capital. But past experience has demonstrated that such funds may be withdrawn at a moment's notice for reasons that may not be closely related to the country's economic performance. The sudden withdrawal of funds—driven by a loss of confidence and contagion effects—can have devastating effects on countries, but might be avoidable. It therefore makes sense to consider whether there is a role for the public sector to address what is, in essence, a market failure.

Over the past decade, emerging market countries have improved their policies and increased their reserves. The IMF is supporting this effort on the policy front by improving its surveillance (shorthand for its monitoring of economic developments and policies) and standing ready to make high-access financing available in the event of a crisis. This may reduce the need for emerging market countries to accumulate reserves, which—from a purely economic perspective—may not constitute an efficient use of scarce resources.

### A missing tool

A number of emerging market and other countries have suggested that the IMF's tool kit may be missing an item—an instrument that could provide contingent financing that countries with strong policies can tap into to help prevent crises or reduce their cost. In the current favorable environment of abundant liquidity and robust growth, however, it is quite likely that potential users may not seek access to a new contingent financing instrument



The IMF's First Deputy Managing Director, John Lipsky (right), consults with the Director General of the Bank of Italy, Fabrizio Saccomanni, during an outreach event in Rome on December 14. The meeting, attended by a mix of country officials and academics from 16 African, Middle-Eastern, and European countries, saw a lively discussion of the pros and cons of the Fund's proposed new credit line for emerging market countries.

in the near future. Nevertheless, it is prudent for the IMF to consider its member countries' potential needs so that it is ready to provide assistance when market conditions may be less favorable than they are now.

The new instrument under consideration would broadly share the objectives of the Contingent Credit Lines (CCL), the IMF's previous instrument for contingent financing, which expired in 2003 without ever being used, and draw on the lessons learned from the CCL's lack of success. Several possible problems have been identified. The lack of automaticity of drawings and the small scale of the initial loan amount raised doubts about the usefulness of the facility. Members were also concerned that investors might perceive a country's decision to apply for the CCL as an indication of unseen vulnerabilities and that losing eligibility would send a negative signal. It is hard to know which of these concerns played the larger role in discouraging use of the CCL, but it is possible that they might not have resulted in the instrument's demise if a country meeting the eligibility requirements had requested its use.

A paper prepared by the Policy Development and Review Department provided the basis for a discussion at the IMF's Executive Board in August 2006. The IMF staff is now in the process of seeking views on what role a new instrument might play and on an appropriate design that could find broad support among its members. In particu-



lar, the staff is seeking to clarify how a new instrument could balance the need for rapid access to funds with safeguards to reduce the risks of rapidly available financing. Following a successful discussion of the issue with policymakers in Korea in August 2006, two more seminars were held, in Chile and Italy, in December. The staff is also seeking input from market participants. The work on a new instrument remains at an early stage, however, and further discussions by Executive Directors will be held this year.

### A possible design

The overarching goal for a new instrument is to help prevent capital account crises. This could be achieved through two channels. First, the instrument could lower incentives for private investors to rush for the exit by providing assurances that large-scale financing would be available for countries hit by shocks. Second, it could help countries reduce underlying economic vulnerabilities by reinforcing their commitment to implement sound policies. Designing a lending instrument to achieve these two objectives involves trade-offs that have to be carefully balanced. A successful design should aim to combine the following elements:

- *Financing should be large enough to help prevent a crisis and should be readily available.* Inadequate financing or insufficient assurances about the availability of Fund resources in the event of a crisis would reduce the effectiveness of a new instrument for crisis prevention—although large financing creates risks for the Fund.

- *Measures to safeguard the IMF's resources will be necessary.* Adequate safeguards need to be included in the design of the new instrument to properly address the risks implied by a commitment to provide rapid financing if a crisis emerges. Such safeguards could take the form of prequalification standards to limit eligibility to a group of countries with strong policies, follow-up monitoring by the IMF of policy commitments made by countries, or a combination of both.

- *A framework for monitoring economic policies should be designed to provide incentives for good policies that countries are fully committed to implementing.* Such incentives could stem from qualification standards that countries aim to achieve and maintain over time, or from policy commitments that are monitored in the context of the new financing instrument. Some believe that conditionality (agreements on policy changes that countries

adopt to ensure their continued access to funds) under traditional IMF arrangements is excessive, and a different structure may be considered to make certain that IMF resources are protected.

- *The negative signals associated with either requesting a credit line or failing to qualify for its renewal should be limited to the extent possible.* Some countries were concerned that requesting a CCL would be interpreted as a signal of vulnerability, a problem that contributed to the earlier facility's demise. To avoid similar problems in the future, it may be advisable for countries to request a credit line before they see an imminent risk of crisis. Countries' concerns about an adverse market reaction in the event the IMF decides to discontinue access to its funds (because of deteriorating economic conditions or policies) can never be fully eliminated but could be mitigated by avoiding sending overly blunt exit signals in the context of contingency lending arrangements.

**Inadequate financing or insufficient assurances about the availability of Fund resources in the event of a crisis would reduce the effectiveness of a new instrument for crisis prevention—although large financing creates risks for the Fund.**

### Controlling risks

Any financial engagement between the IMF and a member country carries risks that must be carefully assessed and controlled. In the context of a new crisis prevention instrument, such risks include lending without proper policy adjustment by the member country following a crisis, and moral hazard problems that encourage reckless lending by the markets and by member countries.

The first problem could be addressed through prequalification criteria that would be valid only for a limited time, a close relationship between the IMF and the member country following qualification, and discussions with the Executive Board once the country has accessed the instrument. Moral hazard on the part of a country's authorities would likely be avoided by the enormous costs of a crisis—even if substantial Fund financing softens its impact. Reckless lending by private creditors may be limited because of markets' previous experience with losses during financial crises. ■

Peter Breuer and Alan MacArthur  
IMF Policy Development and Review Department

Copies of *Consideration of a New Liquidity Instrument for Market Access Countries* are available for \$15.00 each from IMF Publication Services. See page 16 for ordering details. The full text is also available on the IMF's website ([www.imf.org](http://www.imf.org)).

### Sustaining Latin American growth

Latin America may be in its third year of economic recovery with reasonable prospects for next year, but that is not quite enough to banish the ghosts of decades of starts and stops. Against the backdrop of current growth, the IMF's Western Hemisphere Department convened a day-long conference to examine the recent research of IMF economists and outside specialists on the issue of economic growth—perhaps the most important factor in poverty reduction—and the outlook for continued expansion in Latin American and Caribbean countries.

Two issues in broader growth theory provided a basis for the day's discussions: the role of foreign capital in the economic growth of developing countries and how to make growth spells last longer. Standard economic models suggest that capital should flow from rich countries to poorer countries because the investment opportunities are more productive in countries that have a low capital-to-labor ratio. But the IMF's Arvind Subramanian said that, increasingly, capital is flowing from poorer to richer ones. Moreover, poor countries that ran current account surpluses, not relying on foreign financing, have tended to grow faster than countries that ran current account deficits.

There are several potential explanations, Subramanian said. Research that he and IMF colleagues Eswar Prasad and Raghuram Rajan did in their paper "Foreign Capital and Economic Growth" found that external capital may not be needed in countries that generate more domestic savings than can be put to productive use. Or foreign capital may not help in countries that do not have the capacity to absorb it. In some instances, foreign capital could be helpful, but financial systems are insufficiently developed to harness it. He said that foreign direct investment (which often does not rely on the domestic financial system) tends to behave more in line with the standard model.

There is, he added, a less benign reason for lower inflows of foreign capital: it can hurt development. Countries may avoid capital inflows because they lead to overvalued currencies, which, in turn, hurt competitiveness in key sectors, such as manufacturing.

#### Starting and stopping

When it comes to growth, many developing countries, including those in Latin America, have historically *not* had trouble getting it started. The problem has been an inability to maintain the type of "long-sustained growth spells that have been the basis of prosperity in Asia" and

that are typical of industrial countries, according to the IMF's Jeromin Zettelmeyer.

Zettelmeyer and his coauthors Andy Berg and Jonathan Ostry, in "What Makes Growth Sustained," analyzed the experiences of 140 countries to determine how initial conditions and developments during a growth spell affected its duration. The cross-country analysis found that the most potent variable was the level of inequality in a society. The more unequal the income distribution, the worse the country's chances of sustaining a long growth spell. The analysis also found that, although the initial level of democracy did not help predict the length of a growth spell, democratization during the spell tended to prolong its life. Furthermore, countries that liberalized trade have tended to enjoy longer growth spells. Although not as robust a predictor, export-oriented growth lasted longer, perhaps because export sectors create their own constituencies for institutional reform. The most important external threat to a sustained recovery is the volatility of U.S. interest rates.

The IMF's Rishi Goyal also found that U.S. interest rates are the only external shocks significantly related to the large ups and downs that have characterized Latin American economic performance. In the IMF Working Paper "Volatility and Growth in Latin America: An Episodic Approach," he and coauthor Ratna Sahay studied 17 countries and found that U.S. interest rates "were nearly twice as high" during periods of low growth. They also found that volatile fiscal policies, low levels of market-oriented reforms, and the reversal of previously implemented reforms were associated with lower growth.

Presentations on Argentina, Brazil, Mexico, and Peru found grounds to be hopeful that growth would continue. And one presentation suggested that in Brazil, at least, growth is far higher than what is being reported.

#### Will Argentina's growth endure?

Few Latin American countries historically have had a more volatile economic performance than South America's second-largest country. But since the crisis of 2001–02, when output plunged and poverty and unemployment rose dramatically, Argentina has mounted a steady recovery. Output has risen 36 percent since then, and unemployment and poverty have fallen.

"The government gets credit because it has sustained unprecedented, good macroeconomic policies," Harvard University professor Federico Sturzenegger said. The government is running a strong fiscal surplus, restructuring debt, and maintaining an undervalued currency (which encourages savings). It has also resorted to price controls, but these, he said,

have been ineffective. Can recovery be sustained? Probably, he said. A combination of the good macroeconomic policies and reforms undertaken in the 1990s to open up the economy will enable the country to make the transition to a lower but still high rate of growth “without a new macro crisis.” For Argentina, said Sturzenegger—a government economic official during the 2001 crisis—“that is a first.”

Brazil, the region’s biggest economy, has had—like most Latin American countries—a lackluster growth performance since 1980. But the IMF’s Martin Cerisola and coauthors Ricardo Adrogué and Gaston Gelos said that changes in economic policies since the mid-1990s have helped raise the annual growth rate to about 2.75 percent in recent years—better than in the 1980s and 1990s, but substantially below that in the 1960s and 1970s.

Those reforms included privatization, deregulation, and sharp tariff cuts. All led to a more open economy and increased competition, and helped raise productivity. In the IMF Working Paper “Brazil’s Long-Term Growth Performance—Trying to Explain the Puzzle,” Cerisola said that prospects for continued growth are good. He cited reforms of the financial sector that reduce the chances of banking crises and help improve the ability of the system to intermediate savings and borrowing. A major risk factor is high government consumption—at about 37 percent of GDP—despite low levels of government services.

### Is growth underestimated?

One controversial presentation suggested that there may be no need to explain Brazil’s recent low growth because it has been growing far faster than published data indicate. The IMF’s Irineu de Carvalho said that Brazil’s consumer price index seriously overstated inflation after the country had liberalized its trade regime, because the index failed to take account of new goods or of rapid quality improvements in existing goods. As a result, de Carvalho said—in a presentation based on “The Myth of Post-Reform Income Stagnation in Brazil,” coauthored with the IMF’s Marcos Chamon—real income growth may be understated by as much as 3 percentage points a year when the index is used to deflate nominal growth figures. He said similar biases may occur in other Latin American countries, but he found the understatement in Mexico was much smaller, on the order of 1.4 percentage points a year.

The Mexican economy has been growing at about 3–4 percent a year since 2003 and has put in place a number of reforms



Arvind Subramanian



Jeromin Zettelmeyer

over the past two decades. Its performance has been good relative to other Latin American economies, according to a presentation by the IMF’s Vincent Moissinac, but not as good as that of Asian countries. He said that further reforms are needed, especially if Mexico is to position itself to deal with future shocks, such as increased competition from China. Mexico is hampered by a rigid and inefficient labor market and high concentrations in product markets, such as energy, telecommunications, beverages, and construction. Mexico must improve its business climate and pursue further reforms in its financial system to provide the quantity and quality of services the country needs.

Peru also suffered in the 1980s and early 1990s, but stabilized its economy and initiated structural reforms in the mid-1990s. On average, real GDP has grown at about 2.5 percent a year for the past decade and a half, although real GDP is only now approaching its 1975 peak, and about half the population remains under the poverty line.

The IMF’s Eva Jenker, in a presentation based on “Growth and Reform in Peru Post-1990: A Success Story,” said that Peru needs to expand education and infrastructure while continuing stable monetary and fiscal policies. Further structural reforms are also needed to make labor markets less rigid. She called for more research on how to strengthen the link between economic growth, which is improving, and the reduction of poverty, which remains high.

The seminar included presentations on growth issues in several low-income countries—Bolivia, Guyana, Haiti, and the Dominican Republic. Sara Calvo of the World Bank explored the puzzle in Bolivia, where, despite deep reforms since the mid-1980s, economic performance has been lackluster and poverty high. She used the new approach known as growth diagnostics, which seeks to pick the most “binding constraint” from the many factors that could hinder a country’s growth. In Bolivia, she said, the approach “cannot reject” as the binding constraint low private investment caused by uncertainty about future returns and possible expropriation. ■

James L. Rowe  
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The papers, presentations, and discussions from the workshop “Economic Growth and Latin America: What Have We Learned?” can be found at <http://www.imf.org/external/np/seminars/eng/2006/growth/index.htm>

## Nepal: the challenge of translating peace into prosperity

On November 21, the seven-party alliance government of Nepal and the Communist Party of Nepal (Maoist) (CPN-M) signed a comprehensive peace accord that marked the official end of an 11-year armed insurgency and provided for arms management and an interim government and legislature in which the CPN-M would participate in the lead-up to constituent assembly elections in June 2007.

Over the course of the insurgency, there was a heavy loss of life. Nepal's real GDP growth also fell from the trend rate of 5 percent to 2 percent during 2000/01–2005/06, with political instability shaving off an estimated  $\frac{3}{4}$  of 1 percentage point a year from growth (see chart).

The country, however, was able to maintain macroeconomic stability. Inflation remained in the single digits, anchored to price developments in India through an exchange rate peg to the Indian rupee. The fiscal position also stayed broadly satisfactory, with low overall and domestically financed fiscal deficits. The revenue-to-GDP ratio rose, but development spending was constrained by weak implementation capacity at the local level, especially in the conflict-affected areas. Remittances played an important role in offsetting low export growth and lower aid levels and allowed the country to maintain external balance. And, aided by strong remittances, solid wage growth, urbanization, and a decline in the dependency ratio, the poverty rate fell to 31 percent in 2003/04 from 42 percent in 1995/96.

### Challenges ahead

The peace accord holds the promise of a new beginning for Nepal, but the root causes of the insurgency—low growth, pervasive poverty, and a perception that economic policies and institutional structures have not delivered adequate growth and equity—still need to be addressed.

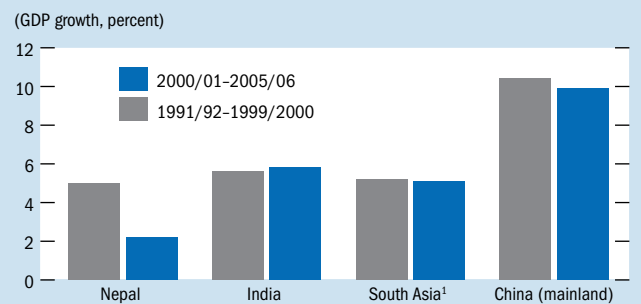
Higher growth will require raising productivity across economic sectors. In agriculture, Nepal needs to vigorously implement its 20-year Agricultural Perspective Plan. This plan provides complementary inputs and rural finance for better irrigation, fertilizers, and farm machinery, and improved infrastructure to promote commercialization and market access for agricultural products.

In manufacturing, Nepal must boost competitiveness—through investments in infrastructure and an improved climate for doing business—and reduce transportation and transactions costs. It also has scope to exploit more fully Nepal's comparative advantage in sectors such as hydropower and tourism.

At the same time, Nepal will have to maintain sound macroeconomic policies. On the fiscal front, expenditure on

### Lost ground

A new peace accord gives Nepal the opportunity to revitalize growth and position itself to take part in the Asian region's prosperity.



Source: Nepalese authorities, and IMF, *World Economic Outlook*.  
<sup>1</sup>Average of Bangladesh, India, and Sri Lanka.

social sectors and infrastructure will need to be stepped up, whereas security-related spending can be reduced. To keep deficits and public debt on a sustainable trajectory, Nepal will have to mobilize adequate external aid. Domestic revenue must also be increased through steps to broaden the tax base and improve taxpayer compliance and services. In all this, the public will demand greater fiscal transparency.

On the financial side, it will be essential to mobilize domestic resources effectively and improve intermediation to finance development activities. Enhanced legal and regulatory frameworks would underpin financial sector integrity, facilitate consolidation, and set the stage for Nepal to meet its World Trade Organization commitments to financial sector liberalization in 2010. In addition, the Nepal Rastra Bank must bolster its financial sector oversight. And the government will need to substantially increase loan recovery from large, willful defaulters and resolve nonperforming loans to improve the financial condition of the two largest commercial banks.

More broadly, Nepal must improve governance and service delivery to ensure that the benefits of higher growth are shared equitably. Strong efforts are required to better target programs for the poor, while reconstruction, rehabilitation, and relief help heal the scars of the conflict.

The IMF has been a part of the international community's efforts to support Nepal. Just ahead of the peace accord, the IMF Executive Board approved the second and third reviews of the Poverty Reduction and Growth Facility to support Nepal's Poverty Reduction Strategy and extended it for one year. ■

Ari Aisen and Edimon Ginting  
IMF Asia and Pacific Department



## How budgetary institutions can improve fiscal outcomes

Political economists have reached important, though rather pessimistic, conclusions about long-term influences on fiscal performance. In their view, more representative electoral systems achieve inclusiveness at the cost of reduced political and fiscal discipline. In societies divided along ethnic or religious lines, electoral systems accommodate these interests but, in turn, promote coalition governments that result in greater competition for fiscal resources. According to recent work by the IMF's Stefania Fabrizio and Ashoka Mody, effective budgetary institutions—the mechanisms and rules of the budget process—can provide a useful check on the strong influences of history and politics.

### The European Union experience

To explore the difference budgetary institutions can make, the authors isolated their role and controlled for a comprehensive set of economic and political conditioning factors, such as inflation, the unemployment rate, electoral systems, and government fragmentation and ideology. They then focused on the new and potential member states of the European Union between 1997 and 2003. These countries represent an important historical experiment, because they offered the opportunity to observe changes over time in the quality of fiscal institutions.

In anticipation of acceding to the European Union on May 1, 2004, the prospective members made a commitment to budgetary discipline. Despite the common commitment, however, performance has not been uniform. Estonia, for example, managed its public finances well, even running a primary surplus in some years. Poland improved its fiscal position in the late 1990s, running a surplus in 1999 and 2000, but drifted back to deficits thereafter. Hungary's budget balance generally worsened.

The countries also have different legacies. Whereas the Baltic nations have small governments, Hungary and Poland and, to a lesser extent, the Czech Republic have large governments, with expenditure-to-GDP ratios that show a tendency to increase along with per capita incomes. All of the new member countries face significant challenges, not least because they have adopted proportional electoral rules that, to varying degrees, increase the likelihood of coalition governments and thus generate budgetary pressures.

Despite the small country sample, the robustness of its principal findings strengthens the case for specific institutional or rule-based measures to curb fiscal pressures. Also of interest was the multidimensional nature of the political determinants of fiscal performance. The influences of these

variables are more sharply discernible when they are considered as groups rather than as individual variables. This, the study conjectures, reflects the fact that history and politics affect policy formulation through a variety of overlapping channels. Striking, too, are the interactions between the degree of coalition fragmentation and ideology. Three main conclusions emerge:

**The quality of budgetary institutions matters.** Higher-quality institutions have a material bearing on budgetary discipline. This discipline seems to act through constraints on expenditures, where the scope for indiscipline is greatest. The study does not tackle the determinants of good institutions, but it clearly finds that these transition countries had a window of opportunity when old political constraints were loosened and reformers were able to seize the initiative to varying degrees and with varying success.

**Politics are important.** In particular, more fragmented coalitions and governments that are left-leaning, more nationalistic, and supportive of more fiscal decentralization tend to be less fiscally conservative. Greater voter participation—desirable in a vibrant democracy—appears to result in loosened budgetary purse strings. Moreover, contemporary politics appear to trump economics (inflation, the employment rate, economic openness, and the debt-to-GDP ratio).

**Deeper societal features are also relevant.** The influence of historical and political factors—ethnic fractionalization and the number of representatives elected per district—supports the idea that more inclusiveness hurts budgetary outcomes. These results are unstable, however, and possibly reflect theoretical ambiguity in the relationships and, more likely, the constraints of a small country sample.

Ultimately, then, contemporary democratic practice and long-standing political and societal characteristics both have a significant bearing on fiscal outcomes. Budgetary institutions can create useful checks in the competition for fiscal resources, but the tussle between the forces supporting sound institutions and the politics of claims on budgetary resources will continue. ■

Stefania Fabrizio and Ashoka Mody  
IMF European Department

This piece is based on an article that appears in *Economic Policy* (Vol. 21, Issue 48). An earlier version of the research is published as IMF Working Paper No. 06/123, "Can Budget Institutions Counteract Political Indiscipline?" by Stefania Fabrizio and Ashoka Mody. The full text is available on the IMF's website ([www.imf.org](http://www.imf.org)).

## Rethinking fuel subsidies

**D**eveloping country governments commonly resort to controlling the prices of petroleum products, at least in part to protect low-income residents. But how effective are these subsidies? A new IMF Working Paper—drawing on poverty and social impact analyses in Bolivia, Ghana, Jordan, Mali, and Sri Lanka—underscores how expensive and poorly targeted energy subsidies are. There are more effective ways, it argues, for governments to help shield the poor from high energy prices.

Developing countries intervene in energy markets in a variety of ways. In oil-importing countries, some governments directly control quantity, distribution, and prices. Others allow the private sector to import and distribute petroleum products freely, but set price ceilings and compensate private sector distributors to cover any losses. In oil-exporting countries, governments often set domestic prices below world levels, imposing an opportunity cost on its suppliers.

Although politically popular, subsidized fuel prices have significant downsides. For governments, the subsidies may

direct public expenditures away from more productive uses, reduce revenues from domestic production, or contribute to unsustainable budget deficits. At the household level, low fuel prices also encourage inefficiency in the use of energy. And, as a means of shielding the poor from rising petroleum costs, universal energy subsidies are simply not cost-effective, because they inevitably entail a substantial leakage of benefits to higher-income groups.

To gauge the magnitude of these consumer subsidies, the paper compared actual consumer prices with reference prices that capture the true opportunity cost of domestic consumption (see box). In the five countries analyzed, the aggregate budget subsidy was 2.0–3.2 percent of GDP in 2004 (see table). Extrabudgetary subsidy costs were also incurred. For instance, in Bolivia, the private sector shouldered production and distribution costs of more than 1½ percent of GDP. Based on the prices at the time each country was analyzed (between October 2004 and September 2005), subsidized fuel products would need to rise by one-third to two-thirds to reach world market levels.

### Gauging the cost of subsidies

Because most countries are either net exporters or net importers of petroleum products, the appropriate reference price in measuring the extent of subsidy is the relevant border price—that is, the world price adjusted for trade and transport costs to the country's border. For an exporting country, the border f.o.b. (free on board) price minus trade and transport margins to the border represents the revenue forgone in consuming rather than exporting petroleum. For an importing country, the border c.i.f. (cost, insurance, freight) price plus trade and transport margins from the border represents the cost of domestic consumption. These reference prices are thus efficient because they maximize the sum of consumer and producer surpluses.

The difference between the actual consumer price and the reference price represents the unit subsidy (actual less than reference) or tax (actual greater than reference) for that product. It is not uncommon for some products to be subsidized and for others to be taxed. Multiplying this difference by annual product consumption and summing across products gives the total cost of the fuel subsidy. Comparing the actual to the reference price also provides the basis for identifying how much actual prices need to increase to eliminate the subsidy. That said, of course, not all subsidies are recorded in the budget. Some cost can be passed on, at least initially, to public enterprises or, through regulations, to private sector market participants. ■

### Who benefits?

Fuel subsidies affect households in two ways. First, they have a direct effect on the prices of the petroleum products that households consume. Second, they have an indirect effect on the prices of other goods and services that use petroleum products as inputs consumed by households.

For the five countries, the total welfare effect—that is, the sum of the direct and indirect effects—ranged from 1.7 percent of total household consumption in Mali to 8.5 percent of total consumption in Ghana. The subsidies were progressive in that they represented a (slightly) higher proportion of total consumption for poorer households, but they were badly targeted. Richer households received a disproportionate share of the benefits, with the bottom 40 percent receiving between 15 percent (Bolivia) and 25 percent (Sri Lanka). At this level of leakage, for every unit of resources transferred to the poorest households, three to five or more units are transferred to better-off households.

### Better options

To protect the poor and gain political support, the removal of subsidies must be accompanied by well-targeted social assistance measures. Budgetary savings from reduced fuel subsidies should be directed to higher priorities, such as increasing access to or improving the quality of education and health care services, improving physical infrastructure, or reducing taxes.

## The high cost of holding down fuel prices

In many developing countries, fuel subsidies have been popular and substantial, but they have taken a considerable toll on budgets and have offered little comfort to the poor.

	Bolivia		Ghana		Jordan		Mali		Sri Lanka	
<b>Background</b>	Automatic formula introduced in 1996 as part of sectoral reforms but abandoned in late 1990s.		Automatic formula introduced in January 2003. Formula abandoned when world oil prices increased.		In early 2004, the government announced elimination of subsidy over four years in line with a pricing formula that included taxes.		Ad hoc pricing mechanism.		Monthly pricing formula introduced in 2002, suspended in early 2004.	
<b>Budgetary subsidy</b> (percent of 2004 GDP)	2.6 (also regulatory cross-subsidies of 1.7 percent)		2.2 (also losses of the state-owned refinery)		3.2		2.0 (primarily lost revenues from tax preferences)		2.1	
<b>Fuel subsidy</b> (percent of subsidized price)	Average	50	Average	50	Average <sup>1</sup>	68	All products	34	Average	37
	Gasoline	40	Gasoline	17	LPG	48			Gasoline	14
	Diesel	40	Diesel	67	Diesel	77			Diesel	40
	LPG	67	Kerosene	49	Kerosene	80			Kerosene	100
			LPG	108						
<b>Aggregate real income impact</b> (percent range from bottom to top income quintiles)	5.0 (5.8-4.7)		8.5 (9.1-8.2)		4.4 (5.4-4.1)		1.7		2.4 (2.9-2.2)	
<b>Percent share of subsidy received by poorest 40 percent of population</b>	15.3		23.0		21.2		23.9		25.1	
<b>Policy response to costly and inefficient subsidies</b>	Increased prices: 10 percent for gasoline and 23 percent for diesel (later reduced to 15 percent after social unrest). No specific mitigating expenditures implemented.		Increased prices: 50 percent on average in February 2005 together with package of expenditures to mitigate impact on poor. Set up independent authority to implement pricing system.		Prices increased in July and September 2005 as part of phased elimination of subsidies. Also introduced mitigating measures.		Considering reintroducing a pricing formula.		All petroleum product prices were increased in the first half of 2006 to limit increases in fuel subsidies.	

Source: IMF Working Paper No. 06/247.

Note: LPG = Liquefied petroleum gas.

<sup>1</sup>Excludes gasoline, which was not subsidized.

Ideally, an existing, well-designed social protection program—such as Oportunidades in Mexico or Bolsa Familia in Brazil—can be used to safeguard the real incomes of the poorest households. Such a system helps generate efficiency gains by directly addressing any possible adverse effects on low-income households. In the event of price increases—for instance, for petroleum products—the desired transfer to low-income households can be maintained in real terms by inflation-indexing the transfer.

A government's ability to protect the poor over the short term is curtailed if such a system is absent or ineffective. However, a thoughtful plan for eliminating subsidies along with ad hoc mitigation measures can reduce the adverse effects on the poor. In this regard, the paper notes the positive steps that several countries have taken. Ghana eliminated fuel subsidies in February 2005 and used some of the fiscal savings to eliminate fees for primary and junior secondary school, increase funding for primary health care in the poorest areas, and expand investments in urban mass transport.

Jordan is phasing out subsidies over four years while strengthening its primary social assistance program. Ad hoc measures—including a small increase in the minimum wage—are also shielding the poor during the phase-out of subsidies. Sri Lanka is working on better targeting its primary safety net program. Bolivia and Mali, on the other hand, have been slower to take aggressive action to reduce subsidies and more effectively target social assistance. ■

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Copies of IMF Working Paper No. 06/247, "The Magnitude and Distribution of Fuel Subsidies: Evidence from Bolivia, Ghana, Jordan, Mali, and Sri Lanka," by David Coady, Moataz El Said, Robert Gillingham, Kangni Kpodar, Paulo Medas, and David Newhouse, are available for \$15.00 each from IMF Publication Services. See page 16 for ordering details. The full text is also available on the IMF's website ([www.imf.org](http://www.imf.org)).

## The “I”s have IT

The software industry is eyed by many emerging market economies as a pathway to export earnings and economic growth. At a talk at the IMF in December, Carnegie-Mellon University’s Ashish Arora said that the success of software exports from the “I” countries—India, Ireland, and Israel—reflected as much good luck and trust in entrepreneurship as successful government policies or better human capital.

According to Arora, the information technology (IT) revolution in the 1980s opened a window of opportunity that could potentially have been exploited by many countries. But the greater success of software firms in the “I” countries shows that “comparative advantage sets the stage but does not provide the script.” In hindsight, he said, it is possible to see three reasons why these countries were well positioned to take the lead:

**The diasporic effect.** Many of the “reserve army of underemployed” engineers and scientists in these countries had previously migrated to the United States and the United Kingdom. For instance, “people born in India are estimated to account for nearly 5 percent of the IT workforce in the United States,” Arora noted. Likewise, a 2005 survey found that three-fourths of Irish software companies had a founder who had worked abroad. Through their work abroad, this diaspora gained an appreciation of the business practices of people who were to become their customers.

**Freedom to experiment.** Second, the software companies in the “I” countries had freedom to experiment. This trust in entrepreneurship by policymakers in these countries was important, he said. “It is forgotten that Indian software giants like Infosys made huge mistakes in their early days, but they were allowed to learn and adapt.”

**Luck helped, too.** Fortunate timing also played a role. “India and Ireland, in particular,” Arora said, “were lucky that they embarked on major economic reforms and liberalization” around the same time that the IT revolution permitted a “decoupling of the hardware and software sectors.”

Still, in populous countries like India, the software industry cannot serve as an important source of employment. But “the excitement



Arora: The success of software firms in India, Ireland, and Israel shows that “comparative advantage sets the stage but does not provide the script.”

regarding India’s software exports has never been about its employment-generation capability,” he said. “Rather, it is an example of what is possible. Software made ‘Brand India’ a respected one.” The organizational capabilities developed by Indian software firms can also be used in other sectors, such as engineering and business process services.

### Room for more?

Quizzed on whether others could emulate the success of these three countries, Arora said “there is no reason why they should not be able to do so, but the firms in these countries have a head start.” He joked that “providing business services is no different from having a good plumber. Once you form a relationship with someone who you know will be there to fix your problems, you tend to continue the relationship.”

That said, the IT industry offers several niches that can be successfully occupied by newcomers. Arora pointed to Brazilian companies that are, for instance, exploiting their “better hardware capabilities to gain a technical edge” over rivals in other countries. ■

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For more detailed information on the research that formed the basis for Ashish Arora’s presentation, please see <http://www.heinz.cmu.edu/bio/faculty/ashish.html> or <http://ideas.repec.org/e/par15.html>.



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