IMFSURVEY

International Monetary Fund
VOLUME 32
NUMBER 22
December 15, 2003

www.imf.org/imfsurvey

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Interview with Raghuram Rajan

Top economist calls for rethink of IMF's role

In October, Raghuram Rajan took up the reins as Economic Counsellor and Director of the IMF's Research Department—the first chief economist to come from a developing country and the first to specialize in international finance rather than macroeconomics. Rajan, an Indian national, joins the IMF staff after a distinguished career as an academic and a researcher, most recently as Professor of Finance at the University of Chicago's Graduate School of Business, where he spent much of the past 12 years. In January 2003, he won the Fisher Black prize for the person under 40 who has contributed the most to the theory and practice of finance. He spoke with Laura Wallace about his new post.

IMF Survey: Were you appointed to change the role of the Research Department—to make it less focused on macroeconomics and more focused on financial and institutional policy issues?

Rajan: There is a desire on the part of management that we increase the weight we put on the microeconomic and financial underpinnings of economic growth and financial stability. However, it's not so much taking weight off macroeconomics, which is always going to be the bread and butter of the IMF, as it is saying we're very good in this area and now we need to strengthen some of the areas that we've just started exploring in the past few years. *(Please turn to the following page)*

Rajan: "One of the areas that I find most frustrating is the complete lack of guidance in economics as to how to start a virtuous cycle of development in the poorest parts of the world."

A tale of two giants: India and China

In 1980, India was the fifth largest economy in the world, while China was the ninth largest (in terms of GDP compared at purchasing power parity exchange rates). By 2001, China had leapt to second place, behind the United States, and India had moved into fourth place. Both countries have also witnessed sharp declines in poverty—jointly lifting some one-half billion people out of poverty over the past two decades. At a conference organized by the IMF and India's National Council of Applied Economic Research in New Delhi, November 14–16, academics and public sector officials sought to identify the factors behind the two countries' impressive track record over the past two decades. Kalpana Kochhar, Assistant Director in the IMF's Asia and Pacific Department, presents the highlights of the conference.

Lord Desai: China will become a great economic power, and India will become a great society.

Only a generation ago, Lord Meghnad Desai (London School of Economics) noted in opening the discussion, a conference like this would have focused on whether China and India could feed their populations. Today, these two giants account for nearly 40 percent of the world's population and nearly 20 percent of world output. He highlighted the "historical legacies" that "shaped both the politics and economics of the two countries." Through much of its history, China was a single nation ruled by a strong central power, whereas India *(Please turn to page 370)*

Rajan on demystifying successful reform

(Continued from front page)

IMF Survey: What is your vision for the Research Department? What role should it play internally and externally? What critical issues should it explore?

Rajan: We can start by reexamining the role of the IMF itself. After all, in a changing world, research can give us useful pointers. We need to ask where have we been particularly successful and where have we been less successful. We need to see what a detailed analysis of what we've done in the past would tell us about what we should be doing in the future. We should also spend more time thinking about how all of the research done on developed countries—especially on fiscal and monetary policies—translates not only for emerging markets but also for the underdeveloped areas of the world. The IMF is in an ideal position to have access to the necessary data and experiences. It would be useful, too, to put more weight on researching the process of reform, including the political dimensions. How do policymakers actually get the reform process to work? And, finally, we should do more research on microeconomic and financial issues.

IMF Survey: Your work looks surprisingly nonmathematical for a high-flying economist of today. What do you make of the heavy emphasis these days on mathematics?

Rajan: If you look at my work, I have a fair number of theoretical papers, which are about as mathematical as economists get. My papers run the gamut from low-tech work to reasonably high-brow theory. However, I believe that it is very important for economists to communicate not just with each other but with a larger public. For that reason, every so often I write a piece that people who are not economists can understand. And often, it seems, that's the piece that everybody reads, rather than the other stuff that is more targeted to a specialist audience. My philosophy is that if you can't say in simple words what it means and why it's of reasonable importance, you should wonder whether, in fact, the work is useful.

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—Raghuram Rajan

IMF Survey: Recent IMF research seems to show that the benefits of a floating exchange rate regime increase as economies develop. Does this mean that we can expect the exchange rate system to evolve toward more and more floaters, rather than toward one world currency, which is the dream of some?

Rajan: The idea of one world currency is a little unrealistic, and perhaps not economically sound, because it wouldn't give countries enough flexibility. One world currency essentially means one monetary policy and thus doesn't allow monetary policy to adapt to the situations of particular countries. The idea of emerging markets moving toward greater flexibility is, in many ways, a sound one, and something I think countries do on their way to full development. It goes to the broader issue that as their institutions develop, countries can and should look for flexibility in a variety of areas, not just the exchange rate. For example, labor regulations can become more flexible and allow more wage and contract flexibility.

IMF Survey: How much can the IMF do to identify exchange rate manipulation and to counter the practice—a responsibility enshrined in its founding Articles of Agreement?

Rajan: I would suspect that there are very few situations in which the IMF has brought a charge of exchange rate manipulation against a country, and even if it did, I doubt the country immediately gave in and said "yes, we're manipulating our exchange rate." But the IMF does have a role in pointing out situations where a lack of exchange rate flexibility tends to create worse imbalances than one might desire. It's useful for us to point out things that individual countries cannot because it would be seen as interference. That said, we have to couch whatever we say in fairly delicate terms. We should focus on pointing out the many benefits that an offending country would get from stopping its manipulation.

IMF Survey: Recently, the heads of the IMF and the World Bank sent a letter to world leaders urging them to get the Doha trade talks back on track. Just how important is Doha?

Rajan: Trade talks are very important, and free trade is extremely important. Not just for the benefits that trade brings directly to countries but also for the spillover benefits that trade generally has in strengthening institutions, thereby enhancing growth prospects. And this holds for developing and developed countries. That said, the breakdown of trade talks at Cancún highlighted legitimate concerns on the part of some developing countries, and these need to be brought to the fore. At the same time, however, all countries need to remember that they all gain from trade liberalization. So one shouldn't let this degenerate into a debating society where you score points but don't move forward on the broader agenda.

IMF Survey: What do you think the IMF's role should be in low-income countries, and what role should it play in the global war on poverty?

RAJAN: It's not an obvious role, because the IMF has historically been more concerned with stability than with development. We've left development more to the World Bank. That said, there's no escaping the fact that underdevelopment can be a source of fragility—not just for the country itself but also for the rest of the world. We can't wash our hands of underdeveloped countries and say "other institutions are responsible for this. We'll take care of the policies once these countries develop." We have to engage, asking questions about the growth process and carrying out pertinent research.

IMF SURVEY: How can poor countries, such as those in Africa, take concrete steps to build stronger institutions and grow given their limited financial and human resources?

RAJAN: This is the question of the ages. The issue of development, especially in parts of Africa, is something that—as we move more into the 21st century—is going to become front and center. Better communication and transport have brought countries closer and made the world smaller and, in the process, have also brought the consequences of the lack of development closer to the developed world. We can't hide from it, and we shouldn't. We have both a moral and practical duty to think about development. We also need to care because as populations age in the developed world, other countries will need to take up some of the slack, especially in terms of being able to generate resources for the rest of the world to live on. This development dilemma is the single biggest economic challenge the world faces in the longer term. And there isn't an easy solution. It isn't just a case of pouring in more money. We need to better understand how successful development has occurred. Indeed, one of the areas that I find most frustrating is the complete lack of guidance in economics as to how to start a virtuous cycle of development in the poorest parts of the world.

IMF SURVEY: Where does good governance fit in? Which comes first, good governance or development?

RAJAN: That's like asking, which came first, the chicken or the egg? Suppose you say good governance precedes development. Then what do you do about those countries that don't have good governance? And there are many of them. Do you just leave them to their fate or does the developed world come in from outside and impose good governance by a very strong, extensive monitoring system? And then what happens to the idea of sovereignty? And whose idea of governance? Our idea of governance or the people's idea of governance? The problem here is that even the little evidence that we have on aid going to well-governed countries and then enabling them to develop and grow very fast is being questioned by economic studies. We really don't have much to go on. We don't know how to build good governance. And even if good governance exists, we don't always know how to take full advantage of it. This sounds very pessimistic, but I think it also suggests that there's a tremendous amount of work that can be done and needs to be done quickly.

IMF SURVEY: Is this an area that your department will be researching?

RAJAN: Yes.

IMF SURVEY: Should the IMF be more politically aware? How can it further reforms in a politically challenging environment?

RAJAN: This is a very good question. Part of our problem is that we get it from both sides. One side says that we're politically too sensitive and we don't force reforms that are necessary because we're worrying too much about the current political leadership—that it'll be forced out of power, with terrible consequences for the country. Another view holds that we're not paying enough attention to the fragility of the political coalition in power and that we should be more supportive of it. There's a dilemma here.

We often assume, or at least some people assume, that governments are always working in the best interest of their citizens. But if that were true all the time and in all situations, we wouldn't have to go in and point out certain things that they should be doing to get their budgets in order, to get more investment in primary education, and so on. So when we're confronted with a government that doesn't have those interests at heart, what do we do? If we intervene too much and prescribe 'x, y, and z,' we're accused of interfering in the country's sovereignty. But, if we stay away and let the status quo continue, that doesn't serve the country well either. And we've seen some problems emerging recently in Latin America, for example, as a result of governments that haven't carried out essential policies.

What does this mean for the IMF? In situations where we feel the government isn't doing the best thing for its people, we need to be a little more prescriptive—but prescriptive in a way that convinces the leaders to take ownership of the necessary reforms because it's in their long-term interest, not because we're saying "do this or else." Occasionally, we're going to face situations where the government isn't going to be persuaded; and, at that point, we should find ways to disengage until we can work with a more willing government.

It would be good if we could have a more systematic way of thinking about dealing with politics, because, ultimately, all economic reforms have political trappings.
—Raghuram Rajan

IMF Survey: Your recent book *Saving Capitalism from the Capitalists* [co-authored with Luigi Zingales] suggests that interest groups that may block socially beneficial reforms could come either from the "left" (labor unions, for example) or from the "right" (powerful capitalists). What implication does this have for IMF policy advice?

Rajan: The IMF has always had to deal with interest groups from every direction, but it has done so on a case-by-case basis, often taking the politics as a constraint that needs to be navigated through to get programs going. It would be good if we could have a more systematic way of thinking about dealing with politics, because, ultimately, all economic reforms have political trappings.

Rajan: "I worry that the IMF is sometimes called in to substitute through its lending for what should effectively be the job of a restructuring mechanism."

IMF Survey: We know that developed countries have a variety of financial systems, with some relying relatively more on stock markets, such as the United States, but others relying relatively more on banking systems, such as Germany and Japan. What should developing countries make of these models?

Rajan: This goes back to the issue of whether one size fits all. A lot depends on the country's state of development and the rate of technological progress. If one were to make a perhaps overly broad-brush statement, one would say that for developed countries, at times of very fast technological progress and when research and development is critical, market-based financing tends to work reasonably well. However, for developing countries and in situations when technological progress has slowed down and the emphasis is on reconstruction and consolidation, bank-based systems tend to work reasonably well.

IMF Survey: In terms of crisis resolution, the IMF has been very involved in the debate over whether there should be a sovereign debt restructuring mechanism (SDRM). For now, that's been put on the backburner in favor of collective action clauses. What are your thoughts?

Rajan: We can't stop now and say we've solved the problem of how to restructure a country's debt in an effective way that is reasonably low cost and carries legitimacy with it. The problem is still with us. I worry that the IMF is sometimes called in to substitute through its lending for what should effectively be the job of a restructuring mechanism. So we need to continue exploring ways to get an effective system, while taking into account the objections that people have raised in the past to proposals such as the SDRM.

IMF Survey: How do you see the role of the IMF evolving in the coming years and decades?

Rajan: It is hard to predict how the world economy will evolve, and our role will naturally have to evolve with the way it does. However, simply extrapolating trends, we can expect that, as financial markets around the world become stronger and deeper over time, our mission should be evolving even more toward advice and coordination—technical assistance, surveillance, designing reform programs—rather than just providing finance. As a multilateral organization with a broad shareholding, we can play the role of honest broker—saying things and coordinating international responses to problems that individual countries might find harder to do. ■

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03/203: "Macro Effects of Corporate Restructuring in Japan," Se-Jik Kim

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03/206: "The United States and the New Regionalism/Bilateralism," Alvin D. Hilaire and Yongzheng Yang

03/207: "Of Openness and Distance: Trade Developments in the Commonwealth of Independent States, 1993–2002," Katrin C. Elborgh-Woytek

03/208: "The Term Structure of Interest Rates and Monetary Policy During a Zero-Interest-Rate Period," Jun Nagayasu

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Fourth Annual IMF Research Conference

What drives capital flow cycles?

Economists from the IMF and elsewhere gathered at the IMF's Fourth Annual Research Conference on November 6–7. The conference had an overarching theme of capital flows and macroeconomic cycles but also dealt with other issues. (Papers are available on the IMF's website (*www.imf.org*)).

This year's conference, noted Managing Director Horst Köhler in opening remarks, had come at an opportune time. Over the past year, financing conditions for developing and emerging market economies had steadily improved, with spreads compressed to near all-time lows. But was the world in for another bout of exuberance? Had lessons been learned? Good research, Köhler said, is crucially important if the IMF is to better understand the mechanisms that drive capital flow cycles and help member countries shape the policies needed to meet new challenges.

Current account imbalances

Sebastian Edwards (University of California, Los Angeles, and National Bureau of Economic Research) delivered the Fourth Mundell-Fleming Lecture, "Current Account Imbalances: History, Trends, and Adjustment Mechanisms." The issue could not have been more topical given the ongoing debate on the United States' current account deficit and its eventual correction.

Edwards reviewed the distribution of current account imbalances in the world economy during the past 32 years and analyzed the pattern of adjustment that countries followed in dealing with large payments disequilibria. He focused, in particular, on the connection between adjustment and exchange rate regimes; and between the cost of current account deficit reversals and "sudden stops" of capital inflows. Edwards also considered whether openness, the extent of dollarization, and the exchange rate regime affect the cost of reversals.

Edwards' findings indicated that throughout the sample period (1970–2001), the vast majority of countries ran current account deficits, but, with the exception of a few countries, large current account deficits did not persist for significant periods. Edwards found that a larger number of countries ran persistently large surpluses, implying that the nature of the adjustment process was asymmetrical.

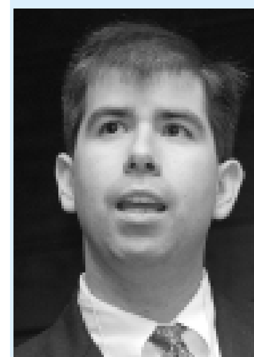
Also, major reversals in current account deficits were strongly associated with "sudden stops" of capital flows and with a high probability of exchange rate crises. That said, Edwards found no statistically significant relationship between reversals and banking crises or between reversals and IMF-supported adjustment programs within a three-year window. Edwards concluded that current account reversals had a negative effect on real growth that went beyond their direct effect on investment, that the size of the effect of reversals on growth depended on the country's degree of openness (more open countries suffer less), that there appeared to be no link between a higher degree of dollarization and the negative effects of reversals, and that countries with more flexible exchange rate regimes were better able to adapt to reversals than countries with more rigid exchange rate regimes.

Sebastian Edwards

"Trilemma" alive and well?

Are policymakers really forced to choose no more than two policy options from among fixed exchange rates, free capital mobility, and monetary policy independence? After studying historical data from the gold standard era to the present, Maurice Obstfeld (University of California, Berkeley), Jay C. Shambaugh (Dartmouth College), and Alan M. Taylor (University of California, Davis) came to believe that the "trilemma" forces stark choices. Using differentials between national and international short-term market interest rates to measure monetary independence, they found that countries that opted to peg their exchange rate lost considerable monetary independence, absent capital controls, and countries that did not peg had a fair amount of monetary policy autonomy even without capital controls. Whether they chose to exercise it was another matter—quite a few did not.

The authors focused on three periods: the pre-World War I gold standard (1870–1913), the convertible Bretton Woods system (1959–73), and the post-Bretton Woods era (1974–present). They saw the gold standard as "a period of mostly fixed exchange rates, unfettered capital mobility, and, hence, limited monetary independence."



Jay Shambaugh

The Bretton Woods regime, by contrast, was designed to preserve the monetary independence that had been emerging in the interwar period. Relatively stable fixed-but-adjustable exchange rates coupled with the pervasive capital controls of the Bretton Woods period succeeded in giving more room for monetary autonomy. But as capital controls diminished, "the combination of exchange rate

pegs and monetary independence became untenable." Unpegging rates has at least partially restored monetary independence, if central banks choose to use it.

Discussant Hélène Rey (Princeton University) suggested that, for periods with high capital mobility, the research might be measuring market integration rather than monetary autonomy or, at least, be unable to distinguish between the two. She also pointed out that the functions of monetary policy have changed greatly over time, leading central banks to view short-term interest rates and exchange rates quite differently in different periods, which could explain why some central banks might choose not to use autonomy when they have it. She added that common shocks could account for many of the observations, a possibility that the authors had also noted.

Andrew Rose

Does credit follow trade?

Do international trade patterns determine lending patterns? Economists Andrew K. Rose (University of California, Berkeley) and Mark M. Spiegel (Federal Reserve Bank of San Francisco) hypothesized that creditor country banks lend more to sovereign borrowers in trading partner countries because the banks believe borrowers will avoid default for fear of the high cost of the trade reduction likely to ensue. Using a gravity model of sovereign lending, they confirmed that creditors do lend more to the countries with which they trade most.

Discussant Mark Wright (Stanford University) noted that the apparent pattern of credit following trade might be explained nearly as well by models based on the borrowers' credit market reputation. The authors agreed that their results did not necessarily refute reputation-based models of sovereign debt. And panel chair Gerd Häusler (IMF) pointed to a potential weakness in the bank credit data, which arises from the fact that the big banks that are the lenders of record usually sell the debt immediately rather than holding it as they might have in the past. Wright observed that the model did not control for the possibly large role of bank trade credits.

Beatrice Weder

Emerging market risk without reward?

A study by Christoph Klingen (IMF), Beatrice Weder (University of Mainz), and Jeromin Zettelmeyer (IMF) of "How Private Creditors Fared in Emerging Debt Markets, 1970–2000" yielded some puzzling results. Theory predicts that lenders will demand that risk be rewarded with higher returns. Therefore, loans to sovereigns considered more likely to default ought to earn a premium over the long term. But the authors found little difference between estimated returns on emerging market debt and U.S. Treasury bonds over the 30-year period.

Their finding becomes less surprising when returns for subperiods are considered. The 1970–89 cycle yielded negative or very low returns (ex post spreads over treasuries). Very high returns were realized from 1989 until 1993, and lower but positive returns from 1994 to 2000. A plausible explanation offered by Wright is that the defaults of the 1980s were truly unexpected—a very rare event from which long-term returns are still recovering. The authors agreed that only time will tell. Another surprise is that ex post returns on Brady bonds were quite high—the authors observed that the success of the Brady deals (negotiated debt write-downs with official sponsorship) drove the high returns for the early 1990s. Wright felt this might be evidence that there is a collective action problem in debt rescheduling that needs to be solved.

Jean Imbs

Shedding light on the quantity puzzle

As countries become more financially integrated, the expectation is that movements in consumption will become more synchronized internationally than movements in output. With capital flows tending to follow high returns, they will tend to boost growth in already fast-growing economies and depress growth where it is already slow, resulting in negative output correlations across countries. By contrast, with consumption decisions being based on fully diversified portfolios of wealth, consumption will be strongly correlated, positively, across countries. However, the data overwhelmingly show that movements in output are more synchronized internationally than movements in consumption, even among financially integrated economies.

It is this anomaly—referred to in the economics literature as the quantity puzzle—that Jean Imbs (London Business School) explored, examining two prominent explanations for the quantity puzzle. The first hypothesis maintains that capital flows are more restricted than popularly believed; as a result, diversification is limited and consumption plans remain largely idiosyncratic and less correlated internationally than GDP fluctuations. The second hypothesis is that capital flows, though unrestricted, are governed by imperfect information and tend to herd rather than respond to differentials in returns. Thus, fluctuations in output can become more synchronized between financially integrated regions.

Imbs argued that the consumption smoothing effect of financial integration is present but overwhelmed by an independent effect of integration on output, the consequence of a "herding" behavior that causes high output correlations across countries. ■

IMF Economic Forum

Living with private capital flows

Capital flows offer countries huge potential bene fits, but they can also be very dangerous. Too much capital in emerging economies can overwhelm badly regulated systems, and sudden stops can cause jarring financial crises. To review the experience with these types of crises, the IMF held an Economic Forum on November 7 at the conclusion of its Fourth Annual Research Conference (see page 365). Panelists were Agustín Carstens (IMF Deputy Managing Director), Jeffrey Frieden (Professor, Harvard University), Peter Garber (Global Strategist, Deutsche Bank), and Morris Goldstein (Senior Fellow, Institute for International Economics). Zanny Minton-Beddoes (*The Economist*) moderated.

Drawing on his previous experience in the Mexican Finance Ministry, the IMF's Agustín Carstens opened the forum by citing six lessons that countries can follow to avoid having capital flows interfere with macroeconomic performance.

- ***Develop internal sources of finance***. Countries that do this well, Carstens said, attract complementary, good-quality capital flows from abroad. But how can countries develop their domestic financial systems? By concentrating on the fundamentals—solid macroeconomic management, good rule of law, and effective financial supervision and regulation, with an emphasis on the quality of human capital needed.
- ***Be extremely vigilant about the health of countries' financial systems***. The biggest risk that a country in a banking crisis faces is a weak financial system. There is no greater deterrent to development, Carstens noted, than having a derailed banking system, which can generate huge capital outflows.
- ***Exercise great care in the use of derivatives and indexing as instruments to entice or maintain capital flows.*** These instruments can be hazardous for the economic health of a country, particularly its public finances. When a country is under balance of payments pressure, there is the temptation to substitute gimmicks for good policymaking. But there is no substitute for decisive macroeconomic measures, and, sooner rather than later, the abuse of indexing and derivatives will come back and eat countries alive.
- ***Be transparent***. Many governments have tried to manage information as a policy instrument. But markets are now very sophisticated and the space for abusing the management of information is long gone.
- ***Self-insure against shocks and volatilities in capital markets by building up reserves to be able to service debts***. This holds even if countries have a floating exchange rate regime.
- ***Pursue foreign direct investment (FDI)***. FDI can bring capital, technology, and employment, but having a physical plant in a country will not forestall the outflow of capital in case of instability.

Chinese "trilemma"

Morris Goldstein of the Institute for International Economics built on Carstens' points, stressing that the liberalization of capital flows needs to be phased in accordance with the health and resilience of the country's domestic financial system. To explain his point, he cited the "trilemma" now playing out in China: high rates of capital inflows, significant expansion of bank lending, and an overheating economy (see discussion of trilemma, page 365).

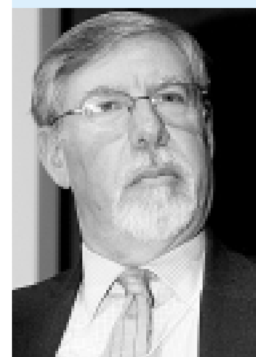
According to Goldstein, the renminbi is overvalued by about 15–25 percent. One solution to the trilemma would be to allow the currency to float freely and to completely open the capital account. But, he said, the Chinese authorities are justifiably concerned that if they open the capital account and if there were bad news about the banking system, this could lead to large-scale capital flight and a large depreciation.

A better way to solve the trilemma, Goldstein argued, is for China to reform its exchange rate regime by switching to a basket peg with equal weights for the dollar, the yen, and the euro; by revaluating the exchange rate by 15 percent to 25 percent immediately; and by widening the exchange rate band from less than 1 percent to, say, 5 percent to 7 percent. In addition, China should open its capital account and allow the renminbi to float after it gets its banking system on a sounder footing. When countries have to worry about their banking system, they don't have a trilemma but a quadrilemma.

More generally, Goldstein pointed out two major problems associated with sudden stops in capital flows and exchange rate volatility: too much public debt and currency mismatches. In the past, the international community has not been conservative enough about what is a safe or sustainable ratio of public debt. We used to think that 50 percent or 60 percent of GDP was not such a big number, he said, but events have shown that it is. The IMF needs to be tougher about making debt sustainability a key condition for its lending.

Currency mismatches are at the heart of emerging market vulnerability to sharp exchange rate deprecia-

Carstens: There is no greater deterrent to development than having a derailed banking system, which can generate huge capital outflows.



Goldstein: Currency mismatches are at the heart of emerging market vulnerability to sharp exchange rate depreciation and should be higher up on the priority list for reform of the financial architecture.

tion and should be higher up on the priority list for reform of the financial architecture, Goldstein said. Currency mismatch variables have proved to be one of the better performing leading indicators of currency and banking crises. The IMF should therefore regularly publish data on currency mismatches at the economy-wide and sectoral levels and comment on mismatches it regards as excessive. It should also make the reduction of currency mismatches a condition for its loans in cases where they are deemed to be too large.

Capital zones

Peter Garber of Deutsche Bank gave a provocative view of what the global economy is like now. To explain the emergence of global imbalances, notably between Asia and the rest of the world, particularly with the United States, he divided the world into three capital account zones.

The first zone is where capital flows are driven primarily by the normal risk-return calculations of the private sector. The second zone is where capital flows are driven more by an export-led development strategy. And the third zone acts as a buffer that absorbs capital flows for a price. So where does this fundamental disequilibrium come from? According to Garber, it stems from the enormous excess supply of labor in Asia now waiting to enter the modern global economy, with the exchange rate acting as a valve that controls that rate of entry. To explain how this has come about, Garber used the following analogy. Fifteen years ago there were two isolated planets that were circling the sun. One of them had three major capital-rich industrial regions—Europe, the United States, and Japan—and a periphery of small countries more or less in a fully employed equilibrium with floating exchange rates and capital mobility. The other planet was a communist/socialist world that had large amounts of labor and misallocated and valueless capital. Suddenly, they were pushed together to form one large global market economy. This created a system with massive global unemployment.

There are two ways to correct this imbalance, Garber said. First, by encouraging the growth of internal demand and the importation of capital in the underemployed regions. Second, by running an export-led development program with controls and subsidization of the export sector.

Asia, in particular China, Garber said, chose the latter route, undervaluing exchange rates and exporting capital to the richer zone. But since the export sector is more labor-intensive than the rest, correcting this imbalance by appreciating the exchange rate would, in China, eliminate about half a million jobs in the export sector. This would hurt China's growth prospects and thus create an enormous political problem. Garber said that explains why China will not appreciate its exchange rate.

Garber: This fundamental disequilibrium . . . stems from the enormous excess supply of labor in Asia now waiting to enter the modern global economy, with the exchange rate acting as a valve that controls that rate of entry.

Political and domestic factors

Jeffrey Frieden of Harvard University, a specialist in the politics of international economics, explained why countries act and react the way they do. He started by pointing out that there are two dimensions of capital flow cycles that do not receive much attention: the domestic aspect—that is, what does it look like from the standpoint of a country experiencing a capital flow cycle—and political economy factors.

At the national level, capital inflows create a domestic economic expansion, which is associated with a real exchange rate appreciation. But as the cycle continues, some problems begin to surface. Producers of tradables complain about their loss of domestic market. There are also problems with currency mismatches and concerns about the sustainability of the exchange rate. All these problems, Frieden said, lead to the inevitable end of the cycle, in some cases, with a crash.

How can countries respond to this kind of cycle? One option is sterilization and concerted efforts to avoid an appreciation. But, as mentioned by Garber in the case of China, countries oftentimes attempt to keep the exchange rate relatively weak. Another alternative is to make the exchange rate relatively flexible during the cycle and not wait until there is some sort of massive currency crisis to let the exchange rate go. But, Frieden said, these alternative roads are rarely taken.

Why is delay so common? According to Frieden, there is an underlying political tension that affects the policymaking during these cycles. On the one hand, there is significant resistance to a depreciation in the upswing of a cycle from consumers, especially the middle classes. On the other hand, tradables producers face even greater competitive pressures as a result of a real appreciation. So as the cycle continues, policymakers face conflicting political pressures from different groups in society.

One particular group is consumers. In the run-up to an election, Frieden said, the last thing countries want to do is engineer a devaluation or a depreciation that is going to harm pivotal consumer groups. Governments, he said, are four times more likely to oversee a large depreciation—that is, one exceeding 25 percent—in the six months after an election than they are in the six months before an election. ■

Frieden: There is significant resistance to a depreciation in the upswing of a cycle from consumers, especially the middle classes.

The transcript of the Economic Forum "Capital Flow Cycles: Old and New Challenges" is available on the IMF's website (*www.imf.org*).

Krueger backs Kenyan reform efforts

In early December, Anne Krueger, the IMF's First Deputy Managing Director, traveled to Nairobi to meet the Kenyan authorities and discuss the challenges facing the country and the government's ambitions for economic progress. She also delivered the keynote address at the biannual meeting of the African Economic Research Consortium (AERC).

Krueger's trip, her first to Africa since joining the IMF's management team, came shortly after the IMF restored support for Kenya's economic recovery program after a three-year absence. The year 2002 had seen the election of a new government with a strong political mandate for reform, and the new IMF-supported adjustment program is an indication of the progress made in starting on the reform agenda.

Krueger said she had useful discussions with President Mwai Kibaki and, separately, met with Finance Minister David Mwiraria and several of his colleagues. During the course of these talks, she highlighted the need to establish a sound macroeconomic framework. "Implementation is now crucially important," she told reporters. "The government knows that the reform program on which it has embarked must be adhered to if the results that the citizens of Kenya want to see are to be delivered."

The government, Krueger said, appears determined to stick with its commitments and to maintain the momentum behind its ambitious agenda of reforms. She congratulated the government on the start it had made in its fight to eliminate corruption in the judiciary and to improve the quality of governance. She encouraged the authorities to press ahead with public service reforms and to exert tighter control of public expenditure. "Getting ambitious economic reforms under way," she said, "involves determination and not a little political courage."

While in Nairobi, Krueger also met with the leader of the opposition, Uhuru Kenyatta, and some of his team. While stressing that his party had some policy differences with the government, Kenyatta made clear his support for the program agreed upon with the IMF and underscored the need to reform the Kenyan economy.

Reducing poverty

Krueger used the occasion of her speech to the AERC to praise the quality of research being conducted under the consortium's auspices in universities across Africa, and she reiterated the IMF's commitment to the AERC-IMF Visiting Scholars program, which has allowed more than 100 scholars to spend research time at the IMF. But the main thrust of her address dealt with poverty reduction in Africa in its broadest sense. She emphasized the importance of establishing a sound macroeconomic framework, but as a means to an end: economic growth that must deliver higher living standards and reduce poverty. "No macroeconomic framework can be stable over the long term if it fails to deliver growth," Krueger pointed out. "So we in the IMF have become more focused in the way we help some of our poorest members."

She also drew attention to the IMF's Poverty Reduction and Growth Facility, but went on to challenge African countries—as she had the Kenyan government—to implement the wide-ranging reforms needed to deliver long-term growth. Krueger urged all developing country governments—in Africa and elsewhere—to press ahead with trade liberalization without waiting for the outcome of the Doha round. Trade liberalization, she said, "is an important factor in accelerating growth," and countries engaged in trade protection hurt themselves above all. "The developing world should not—and cannot afford to—wait," she said, pointing out that there were substantial benefits to be had if countries liberalized unilaterally. A successful outcome to Doha would deliver even greater benefits, two-thirds of which would flow to developing countries.

During her visit in Nairobi, Krueger presented a donation on behalf of the IMF to the Mt. Laverna Academy.

Tackling AIDS

Krueger also stressed that the IMF appreciated the extent to which AIDS has undermined economic progress. She explained that the IMF has pursued an active research agenda, in cooperation with other international institutions, that has focused on the economic, fiscal, and development aspects of the epidemic.

During her stay in Kenya, Krueger also visited a school in one of the poorer areas of Nairobi. On behalf of the IMF, she presented a donation of $5,000 to the Mt. Laverna Academy. The school, which is run by the Little Sisters of St. Francis, educates children from all religious and ethnic groups. Its has lost some of its teachers to AIDS and has opened its doors to children orphaned by the epidemic. ■

The full text of Anne Krueger's remarks to the African Economic Research Consortium and her statement at the conclusion of her visit to Kenya are available on the IMF's website (*www.imf.org*)

Openness has spurred growth in India and China

(Continued from front page) never had (and arguably does not have even to this day) a central authority in control of the whole country. Consequently, it was easier for China to focus single-mindedly on economic reform and growth. In India, attention was focused on holding the country together, thus diffusing focus on the economy.

Lord Desai speculated whether China would be able to continue combining one party rule with capitalism. The 2008 Olympic Games—and the associated global media exposure—could be a turning point in China's modern political history, he said, as had been the case in the former Soviet Union. He predicted that China would go through a political transition—not to a Western-type democracy but to a system more akin to the democracies in Singapore, Taiwan Province of China, and Malaysia. India would likely remain a soft, consensual state and would not be capable of achieving the remarkable growth rates China has attained, although Lord Desai was optimistic that both countries will succeed in eradicating poverty. He concluded by saying that China will become a great economic power, and India will become a great society.

Poverty reduction—just a matter of growth?

Although poverty reduction in both India and China has been strongly correlated with economic growth, the wide regional differences within the two countries suggest that other policies are also relevant in enhancing the "poverty-reduction efficiency of growth." In the first session of the conference, participants pointed to female literacy rates, spending on infrastructure, land reform, availability of agricultural credit, and rural industrialization as some of the factors that have led to a faster reduction of poverty.

Furthermore, differences in the sectoral pattern of development may hold some answers to the differences in poverty reduction in the two countries. Both China and India have experienced a sharp decline in the importance of agriculture in GDP over the past five decades. China followed a more typical path of development, moving people and output from agricultural to industrial activities. Also, the increase in the share of industry in GDP in China was matched by a rise in the share of employment in industry.

In contrast, the service sector in India has experienced the most rapid growth and now accounts for more than 50 percent of GDP. However, the increase in the sector's contribution to output has not been matched by an increase in its contribution to employment growth. India's relatively jobless service sector growth is unlike the experience of other countries. Typically, the service sector's share of employment tends to rise faster than its share of output—implying falling labor productivity. In India, labor productivity in services has been rising over time. The available evidence suggests that the increase in labor productivity in services could reflect the fact

The service sector in India has experienced the most rapid growth and now accounts for more than 50 percent of GDP.

Available on the web (www.imf.org)

Press Releases

03/196: Revised IMF Annual Report Data on Official Foreign Exchange Reserves, November 19
03/197: Heads of IMF and World Bank Call for Governments to Reengage on World Trade Talks, November 20
03/198: Pakistan Formally Begins Participation in the IMF's General Data Dissemination System, November 20
03/199: Statement by IMF Managing Director Horst Köhler on the Work Program of the Executive Board, November 21
03/200: IMF Managing Director Köhler Proposes Mark Allen as Director of the IMF's Policy Development and Review Department and Leslie Lipschitz as Director of the IMF Institute, November 21
03/201: IMF Approves $252.75 Million PRGF Arrangement for Kenya, November 21
03/202: IMF Approves Three-Year $72 Million PRGF Arrangement for Nepal, November 24
03/203: IMF Completes Fourth Review Under the PRGF for Republic of Armenia, Grants Waiver, and Approves Disbursement of $14 Million, November 24
03/204: IMF Completes Fifth Review of Niger's PRGF Arrangement, November 26
03/205: Statement of the IMF Mission to the Dominican Republic, November 26
03/206: Statement of the IMF Mission to Honduras, November 26
03/207: IMF Executive Board Decides to Allow Contingent Credit Lines (CCL) Facility to Expire, November 26
03/208: IMF Managing Director on the International Community's Fight Against HIV/AIDS, December 1
03/209: Representatives of the Heads of the Arab Fund for Economic and Social Development, the IMF, the United Nations, and the World Bank Schedule First Meeting of the International Advisory and Monitoring Board for Iraq, December 3
03/210: IMF Initiates Compulsory Withdrawal Procedures for Zimbabwe, December 3

that services growth in India has been in subsectors more dependent on skilled labor than on capital or unskilled labor.

Is more open better?

In the discussion of whether trade liberalization and foreign direct investment have helped spur growth, the answer from conference participants was a unanimous and resounding "yes," while in the case of broader capital account liberalization, opinions were more divided.

On trade liberalization, Nicholas Lardy (Institute for International Economics) highlighted the fact that China achieved a stunning increase in trade through unilateral trade liberalization and reform even before its accession to the World Trade Organization (WTO). Key reforms included significant reductions in tariffs and nontariff barriers to trade, unification and devaluation of the exchange rate, and the introduction of a system of rebates and drawbacks of import duties and indirect taxes on exports. These reforms allowed export processing to take place at "world prices, free from tariff or domestic pricing distortions." Greater openness to trade and foreign investment dramatically increased competition in the domestic market—the ratio of imports to GDP in China is now 30 percent, and the ratio to GDP of imports and goods produced by foreign affiliates sold in China is near 45 percent. Other indicators suggesting the beneficial effects of increased competition include declining employment in the state sector, a sharp decline in the rate of inventory accumulation, and improved profitability in China's state-owned enterprises.

Professor Arvind Panagariya (University of Maryland) outlined India's more tentative trade reforms, which nevertheless produced dramatic results in terms of import and export growth (see *IMF Survey,* December 1, page 345). He drew a distinction between the 1980s and the 1990s in terms of the intensity of trade liberalization. Much deeper trade reforms took place after 1991, resulting in a notable increase in the ratio of international trade to GDP, but India's share of global trade still remains small in comparison to China's. In 1980, the ratio to GDP of total trade in goods and services in both India and China stood at about 15 percent. By 2001, this ratio had more than tripled to about 50 percent in China, while in India it had risen to around 25 percent.

On financial globalization and capital account liberalization, participants were more circumspect in their conclusions. Eswar Prasad (Asia and Pacific Department, IMF) said that it is hard to find a strong causal relationship between financial integration and higher growth rates in developing countries. But he also noted that there is evidence of "threshold effects"—that is, beyond a certain level, financial integration does reduce the volatility of consumption. The thresholds can be defined in terms of absorptive capacity of countries—the latter in turn being a function of human capital and financial market development, macroeconomic policies, and governance.

According to Nicholas Lardy, China achieved a stunning increase in trade through unilateral trade liberalization and reform even before its accession to the WTO.

03/211: Bulgaria Subscribes to the IMF's Special Data Dissemination Standard, December 3
03/212: First Deputy Managing Director Anne Krueger's Statement at the Conclusion of a Visit to Kenya, December 4 (see page 369)

Public Information Notices

03/135: IMF Concludes 2003 Article IV Consultation with Suriname, November 19
03/137: IMF Concludes 2003 Article IV Consultation with Gabon, November 20
03/138: IMF Executive Board Reviews the Assessment Program on Offshore Financial Centers, November 24
03/139: IMF Concludes 2003 Article IV Consultation with Austria, November 26
03/140: IMF Concludes 2003 Article IV Consultation with Vietnam, December 1
03/141: IMF Concludes Discussion of Recent Developments and Regional Policy Issues in the Central African Economic and Monetary Community, December 4
03/142: IMF Concludes 2002 Article IV Consultation with Togo, December 8

Speeches

"The Difference Is in the Debt: Crisis Resolution in Latin America," Anne O. Krueger, IMF First Deputy Managing Director, Latin America Conference on Sector Reform, Stanford, CA, November 14
"Argentina and the IMF: The Need for Perspective," Flemming Larsen, Director, IMF Offices in Europe, Pôle Universitaire Européen de Toulouse, November 18
"Maintaining the Momentum: Emerging Market Policy Reform in 2004," Anne O. Krueger, IMF First Deputy Managing Director, Asia Society Conference: Investing Across Emerging Markets 2004, New York, November 20
"Next Ten Years of Transition: The Challenges Ahead," John Odling-Smee, IMF, 110th Anniversary of Establishment of State Bank in Armenia and 10th Anniversary of Introduction of National Currency of Armenia, Yerevan, November 2

Some participants were of the view that capital account restrictions provide shelter that enables governments to maintain "bad habits." Others defended a more cautious approach to liberalization, arguing that "it is better to be safe than sorry." Unconvinced, Lord Desai recalled the words of the Pakistani economist Mahbub Ul Haq, who said the skepticism engendered by the Asian crisis was akin to "one person traveling on a bullock cart and the other in a swanky car. The car breaks down, and the person in the bullock cart asks, what is the use of having a car?"

Both India and China embarked on a gradual process of capital account liberalization during the 1990s. Jonathan Anderson (UBS) observed that these two countries now had about the same degree of capital account restrictiveness—with India's system somewhat more liberalized on paper, but with China experiencing higher volumes of flows. Another important finding was that full capital account liberalization was not a precondition for moving to a flexible exchange rate—India has operated a managed exchange rate regime in the presence of controls on inflows and outflows. A move to flexible exchange rates is desirable because nearly every emerging market financial crisis involved a "one-way" bet. The overall conclusion on capital account liberalization was "go forward—but at a rational pace."

Chen Yuan: Neither China nor India is getting the growth it needs from its financial sector.

Financial institutions and growth

Is government ownership of financial institutions necessarily inimical to efficient financial intermediation? Is there a role for development finance institutions? Are gradual reforms the only way to go in the financial sector?

There was broad agreement with the view expressed by Governor Chen Yuan (China Development Bank) that sustained, high-quality growth requires "a sound and efficient financial system that accommodates the coordinated development of three forms of finance—budgetary, bank, and securities." Participants noted similarities between India's and China's experiences in the financial sector—particularly in terms of the concentration of bank ownership, the role of specialized banks and credit institutions, and the high level of nonperforming assets. In both countries, government decisions affecting banks have been driven by a social contract to ensure a stable financial system. At the same time, there was broad agreement that neither China nor India is getting the contribution to growth it needs from its financial sector; the efficiency and quality of financial intermediation urgently needs to be improved in both countries.

Although participants agreed that public sector involvement in the financial system tended to blunt banks' commercial incentives and give rise to regulatory forbearance, opinions were divided on whether a change in ownership was material to increasing the efficiency of the financial system. Proponents of privatization argued that as long as financial institutions remained in public hands, it was inevitable that they would be governed by considerations other than those that are primarily commercial or competitive. Those opposed to privatization noted there is little empirical evidence to support the view that private banks always perform better than public banks.

Participants agreed that development finance institutions can play a role in correcting market failures, but their history in both China and India suggests that they should adopt the highest standards of corporate governance within a commercially oriented credit culture. In this context, Governor Chen outlined his vision for the China Development Bank, a development finance institution. He pointed to the importance of high standards of transparency and financial controls, including external audits by international accounting firms, as well as strong discipline over the borrowers—the state-owned enterprises. Finally, participants generally agreed that it was sensible to undertake reforms at a measured pace in line with increased economic openness, available budget resources, and institutional constraints. ■

Selected IMF rates

Week beginning	SDR interest rate	Rate of remuneration	Rate of charge
December 1	1.59	1.59	2.10
December 8	1.59	1.59	2.10

The SDR interest rate and the rate of remuneration are equal to a weighted average of interest rates on specified short-term domestic obligations in the money markets of the five countries whose currencies constitute the SDR valuation basket. The rate of remuneration is the rate of return on members' remunerated reserve tranche positions. The rate of charge, a proportion of the SDR interest rate, is the cost of using the IMF's financial resources. All three rates are computed each Friday for the following week. The basic rates of remuneration and charge are further adjusted to reflect burden-sharing arrangements. For the latest rates, call (202) 623-7171 or check the IMF website (www.imf.org/cgi-shl/bur.pl?2003).

General information on IMF finances, including rates, may be accessed at www.imf.org/external/fin.htm.

Data: IMF Finance Department

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Can economic growth go with environmental sustainability?

In many countries, poverty and environmental problems are mutually reinforcing. The only way to break this vicious cycle is to promote sustainable economic growth, which is one of the IMF's core objectives. To highlight possibilities for sustainable growth and environmentally friendly policies, the Statistics Department and the IMF Institute hosted a seminar on the environment and its implications for the IMF. The immediate motivation for the seminar was a new handbook on environmental accounting: Integrated Environmental and Economic Accounting 2003 (IEEA, 2003), now in its final draft version. Five international organizations—the United Nations (UN), the European Commission, the IMF, the Organization for Economic Cooperation and Development (OECD), and the World Bank—worked with the London Group on Environmental Accounting (mainly composed of national statisticians with an interest in environmental accounts) to draft and publish the handbook. Adriaan Bloem and Russel Freeman, both from the IMF's Statistics Department, give an account of the seminar's main findings.

What should countries do when faced with the competing challenges of reducing poverty and debt levels, and preserving unique habitats? Bob Matthias Traa from the IMF's Western Hemisphere Department highlighted the case of Ecuador, where oil and gas reserves offer a possible solution to debt and poverty.

In its advice to the government, he said, the IMF team had to consider traditional goals such as fiscal sustainability and reducing debt, and new ones such as dealing with depletion and avoiding environmental degradation. To do this, the staff developed an extended public sector balance sheet, which shows the standard assets and liabilities but also includes all oil and gas reserves, as well as very preliminary proxies for protected forest lands and biodiversity in both plants and animals. The resulting data, which go back to 1970, indicate that Ecuador's net worth has been declining steadily over the years. Essentially, it has been "selling the silverware" rather than using the money for the kind of investment in the future, such as human capital development, that might enhance growth.

Other case studies presented at the seminar covered Nigeria and Norway. In oil-producing countries, policies should aim to protect the stability of the non-oil economy and fiscal policy from the volatility of oil revenues, while spreading the benefits of oil wealth equitably for both current and future generations. In Norway, the government achieves this mainly through the Government Petroleum Fund, which has been built up from surplus oil revenues. It was noted, however, that while the policy mix can mitigate the effects of so-called Dutch disease (currency appreciation due to high oil export revenues with an adverse impact on the non-oil sector), it is not possible to avoid them fully.

Adopting greener policies

It is issues such as these that the IEEA 2003 aims to deal with. Its chief editor, Anne Harrison of the OECD, outlined the handbook's main objectives: providing a consistent framework for assembling environmental data, establishing connections between the environment and the economy, identifying economic flows that bear on the environment, and considering what "sustainability" means in accounting terms. The IEEA does this using four approaches:

- combining physical data with the monetary data of national accounts through an input-output design;
- identifying environment-related outlays in economic accounts;
- valuing natural resources in a manner consistent with produced capital; and
- reviewing the possibility of adjusting macroeconomic aggregates such as GDP for environmental considerations.

Kirk Hamilton of the World Bank's Environment Department explained how his organization allows for environmental factors. The Bank uses an adjusted measure of national saving that accounts for outlays on education, use of produced assets, exhausting oil and mineral reserves, forest depletion, and pollution damage. The resulting adjustments can be large. For example, for Ecuador in 2001, standard gross saving was 22.9 percent of GDP but adjusted saving fell to –4.4 percent after allowing for these factors and removing depreciation.

The IMF, for its part, is looking at different ways of "greening the tax system." Jim Prust of the IMF's Fiscal Affairs Department explained that governments can encourage environmentally sound development by taxing both the use of natural resources and the activities that pollute the environment. However, they have to do this with care as each situation is different. For example, natural resource taxation may be difficult to apply, and property rights may be unclear or unenforceable.

The final draft of the handbook *Integrated Environmental and Economic Accounting 2003* is being circulated for information prior to official editing. It will be published jointly by the United Nations, the European Commission, the IMF, the OECD, and the World Bank, and is available at unstats.un.org/unsd/environment/seea2003.htm

The OECD's Anne Harrison, chief editor of *Integrated Environmental and Economic Accounting 2003*, presented the handbook's main objectives.

World military spending on the upswing

Some suggested that the events of September 11, 2001, would spark an increase in military spending through higher outlays on security, and thus reverse the fall in military spending since the mid-1980s. Recent data confirm that this has happened.

According to the IMF's *World Economic Outlook* (*WEO*); Stockholm International Peace Research Institute (SIPRI); and International Institute for Strategic Studies (IISS), world military spending, as a share of GDP, increased to between 2.4 percent and 2.6 percent in 2002 depending on the data source (see table, at right) from between 2.3 percent and 2.4 percent in 2000 largely because of rising outlays in advanced economies (see top chart, page 376). As a share of government expenditure, worldwide military spending increased to between 6.7 percent and 7.3 percent in 2002 from between 6.5 percent and 7.0 percent in 2000. While the overall increase is small as a share of GDP, it is sizable in absolute terms—approximately $32 billion to $64 billion. This compares with estimates of additional resources required to achieve the Millennium Development Goals ranging between $40 billion and $60 billion annually.

Most of the recent increase in military spending is attributable to major industrial countries, which account for more than 60 percent of world military spending. They increased their military outlays by an average of 0.2–0.3 percentage points of GDP between 2000 and 2002, representing more than 80 percent of the total increase in world military spending in absolute terms. Developing countries and transition economies also increased their military spending somewhat during the two-year period.

Military spending as a share of GDP remained highest in the Middle East where spending increased by 0.2–1.6 percentage points of GDP between 2000 and 2002. Military spending was lowest for developing countries in the Western Hemisphere and for transition economies in Central and Eastern Europe. *WEO* data indicate that military spending in Africa and Asia remained stable during 2001–02, with the decline in the number of conflicts in Africa contributing to this trend.

IMF program countries hold the line

Military spending in countries with IMF-supported programs stabilized in the latter half of the 1990s and remained at about 2.3 percent of GDP in 2002. Spending in countries pursuing programs supported

World military expenditures, 1996–2002

	1996	1997
World Economic Outlook		
All countries	2.6	2.5
Advanced economies	2.7	2.6
Major industrial countries	2.8	2.7
Other advanced economies	1.8	1.8
Newly industrialized Asian economies	3.3	3.2
Developing countries	2.2	2.2
Africa	2.5	2.2
Asia	1.7	1.7
Middle East	5.8	5.9
Western Hemisphere	1.3	1.4
Countries in transition	2.5	2.5
Central and Eastern Europe	1.9	1.8
CIS countries and Mongolia	2.9	3.0
Memorandum items[3]		
Countries with IMF programs for two years or more	2.3	2.2
PRGF eligible countries[4]	3.0	2.5
Countries with ESAF/PRGF programs for two years or more	2.2	2.2
All HIPCs[5]	2.5	2.0
HIPCs reached decision point	1.7	1.6
HIPCs reached completion point	1.9	2.0
SIPRI		
All countries	2.4	2.4
Advanced economies	2.4	2.3
Major industrial countries	2.4	2.4
Other advanced economies	1.9	1.9
Newly industrialized Asian economies	3.3	3.3
Developing countries	2.3	2.3
Africa	2.3	2.4
Asia	2.1	2.0
Middle East	5.4	5.8
Western Hemisphere	1.3	1.4
Countries in transition	3.0	3.2
Central and Eastern Europe	2.2	2.2
CIS countries and Mongolia	3.7	4.0
Memorandum items[3]		
Countries with IMF programs for two years or more	2.2	2.2
PRGF eligible countries[4]	2.8	2.7
Countries with ESAF/PRGF programs for two years or more	2.1	2.1
All HIPCs[5]	2.6	2.7
HIPCs reached decision point	1.7	1.6
HIPCs reached completion point	1.9	1.9
IISS		
All countries	2.9	2.9
Advanced economies	2.4	2.4
Major industrial countries	2.4	2.3
Other advanced economies	2.1	2.1
Newly industrialized Asian economies	3.7	3.7
Developing countries	3.4	3.5
Africa	2.9	2.9
Asia	4.1	4.2
Middle East	6.4	6.7
Western Hemisphere	1.7	1.9
Countries in transition	4.5	3.9
Central and Eastern Europe	2.4	2.2
CIS countries and Mongolia	6.2	5.1
Memorandum items[3]		
Countries with IMF programs for two years or more	3.2	3.2
PRGF eligible countries[4]	3.2	3.6
Countries with ESAF/PRGF programs for two years or more	3.1	3.1
All HIPCs[5]	2.7	2.8
HIPCs reached decision point	2.1	2.2
HIPCs reached completion point	2.1	2.1

Data: *World Economic Outlook* Database 2003, *SIPRI Yearbook* 1997–2003, and *IISS Yearbook: The Military Balance 1997–2003*
[1]Weighted by GDP, unless noted otherwise.
[2]Weighted by general government expenditure except for Republic of Korea (central government expenditure is used due to data availability), unless noted otherwise.

Percent of GDP					Percent of total expenditure							Countries	Countries
1998	1999	2000	2001	2002	1996	1997	1998	1999	2000	2001	2002	with available data (number, latest year)	covered (number, (1996–2002)
2.5	2.4	2.4	2.5	2.6	7.0	7.1	6.9	6.9	7.0	7.1	7.3	137	136–137
2.5	2.5	2.5	2.6	2.7	6.8	6.9	6.8	6.7	6.8	7.1	7.3	25	25
2.7	2.6	2.6	2.7	2.9	7.3	7.4	7.2	7.1	7.2	7.6	7.9	6	6
1.7	1.7	1.7	1.6	1.6	3.8	3.9	3.8	3.7	3.8	3.7	3.7	19	19
3.4	3.1	3.3	2.9	3.1	15.1	14.0	13.5	12.9	13.7	11.7	12.3	3	3
2.3	2.3	2.2	2.2	2.3	9.2	9.0	8.8	8.9	8.4	7.9	8.1	89	88–89
2.5	2.6	2.5	2.3	2.3	9.3	7.9	8.8	9.3	8.3	7.4	7.6	41	41
1.7	1.7	1.8	1.7	1.7	10.2	9.4	9.0	8.7	8.5	7.9	7.5	13	12–13
5.8	5.6	5.0	5.2	5.2	19.5	20.2	19.9	17.0	14.6	13.6	14.2	13	13
1.5	1.5	1.5	1.5	1.6	4.5	4.9	4.9	5.2	5.3	5.1	5.3	22	22
1.5	1.5	1.6	1.6	1.7	5.8	5.7	3.8	3.8	4.4	4.3	4.3	22	22
1.2	1.0	1.0	1.0	1.1	4.5	4.3	2.8	2.3	2.4	2.4	2.5	12	12
1.9	2.2	2.4	2.3	2.3	6.8	6.7	4.9	6.6	7.3	6.9	6.6	10	10
2.2	2.3	2.4	2.1	2.2	8.7	8.6	8.3	8.3	8.3	7.5	7.8	59	59–60
3.1	3.5	3.2	2.7	2.7	11.1	10.4	10.9	10.9	10.4	9.4	9.2	51	51–52
2.1	2.3	2.3	2.0	2.1	9.1	9.2	8.9	8.9	8.8	7.9	7.9	36	36–37
2.2	2.7	2.3	2.0	2.0	10.5	9.4	9.7	10.0	9.0	8.2	8.0	31	31–32
1.6	1.8	2.0	1.6	1.5	7.8	7.5	7.3	7.6	7.3	6.0	5.7	22	22–23
1.8	1.9	1.6	1.5	1.4	9.4	9.1	7.9	8.0	6.2	5.9	5.2	6	6–7
2.3	2.3	2.3	2.3	2.4	6.5	6.6	6.5	6.3	6.5	6.5	6.7	106	106–138
2.3	2.2	2.2	2.3	2.4	6.0	6.2	6.1	5.9	6.1	6.1	6.3	28	28–29
2.3	2.3	2.3	2.3	2.5	6.2	6.3	6.3	6.1	6.3	6.4	6.6	7	7
1.9	1.8	1.8	1.8	1.8	4.1	4.2	4.2	4.1	4.1	4.1	4.0	18	18–19
3.5	3.1	2.9	3.0	2.9	15.1	14.5	14.0	12.7	11.9	11.8	11.3	3	3
2.4	2.4	2.4	2.5	2.6	9.8	9.7	9.6	9.5	9.0	9.0	9.5	55	55–86
2.3	2.6	2.3	2.1	2.2	10.3	10.4	9.7	10.7	9.1	6.6	8.6	24	24–44
2.0	2.1	2.1	2.2	2.4	12.2	10.9	10.7	10.2	9.9	9.7	10.3	11	11–15
6.5	6.1	6.0	6.6	7.6	18.5	20.0	22.2	18.5	17.3	17.4	20.1	9	9–12
1.4	1.3	1.2	1.3	1.1	4.7	5.1	4.7	4.4	4.2	4.4	3.8	11	11–16
2.6	2.4	2.6	2.6	2.7	7.2	7.3	6.3	6.3	6.9	6.9	6.9	23	23–25
2.2	2.1	2.0	2.1	2.0	5.2	5.1	5.3	4.9	4.9	4.9	4.8	14	13–14
3.0	2.9	3.2	3.2	3.5	8.7	8.9	7.5	8.7	9.8	9.7	9.9	9	9–12
2.3	2.3	2.5	2.3	2.4	8.4	8.5	8.6	8.3	8.0	7.9	7.6	45	45–65
3.0	3.2	2.4	2.3	2.3	10.4	10.3	10.9	10.7	9.5	8.7	8.3	33	33–55
2.2	2.3	2.3	2.2	2.1	8.7	9.1	9.3	9.1	8.7	8.5	7.7	23	23–40
2.6	3.2	2.6	2.7	2.7	10.6	10.4	11.3	12.0	10.2	8.7	7.7	16	16–32
1.9	2.2	2.2	2.0	2.0	7.5	7.6	8.5	8.8	8.4	7.5	6.3	12	12–21
1.9	2.0	2.1	1.9	1.4	9.8	9.3	9.2	9.0	8.3	7.5	5.0	4	4–6
2.8	2.8	2.7	3.0		8.3	8.6	8.4	8.3	8.3	9.1		153	150–153
2.3	2.2	2.2	2.4		6.1	6.2	6.1	6.0	6.1	6.3		27	26–27
2.3	2.2	2.2	2.4		6.2	6.3	6.2	6.1	6.1	6.6		7	7
2.0	1.8	1.9	1.8		4.5	4.5	4.3	4.1	4.4	4.1		17	16–17
4.8	4.1	4.1	3.3		17.0	16.6	19.5	16.8	16.8	13.4		3	2–3
3.8	3.8	3.2	3.3		14.5	14.6	14.9	14.7	12.2	12.1		100	99–100
3.5	3.5	3.5	2.8		12.1	12.1	14.0	14.2	13.4	10.4		46	45–46
4.5	4.1	3.3	3.3		23.8	22.9	23.3	20.0	15.3	14.6		16	16
7.4	7.5	6.4	7.8		21.8	22.8	25.2	22.7	18.7	20.5		14	14
1.9	2.0	1.7	1.7		6.0	6.6	6.3	6.8	6.1	5.7		24	24
3.4	3.1	3.2	3.0		10.7	8.9	8.2	7.9	8.5	7.9		26	25–26
2.1	2.0	2.4	2.2		5.6	5.1	5.0	4.6	6.0	5.3		14	13–14
4.7	4.6	4.0	3.8		14.7	11.5	12.1	13.6	12.1	11.4		12	12
3.3	3.3	3.2	2.9		12.6	13.1	12.9	12.5	12.0	10.5		71	71
4.2	4.1	4.2	3.3		14.2	15.2	15.4	14.2	13.9	11.6		61	60–61
3.1	3.0	3.0	2.3		13.6	14.6	13.8	12.9	12.7	9.5		45	45
3.2	3.1	2.9	2.6		12.4	13.2	13.9	12.6	11.0	10.1		35	35
2.3	2.2	2.3	1.7		10.1	10.8	10.9	9.7	9.3	6.9		23	23
2.3	2.2	2.3	1.9		10.6	10.2	10.7	9.8	9.5	7.5		7	7

[3]Data in this section are in simple average.
[4]Based on the list of countries eligible for loans under the Poverty Reduction and Growth Facility as of July 1, 2003. Macedonia, FYR, is also included, since it had a loan under the Poverty Reduction and Growth Facility during this period.
[5]Based on the list of countries participating in the Heavily Indebted Poor Countries Initiative and their status as of March 2003.

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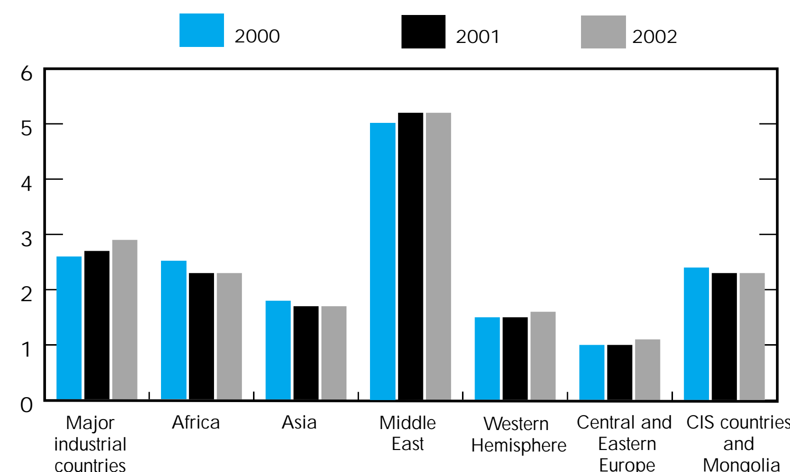
by the IMF under the Poverty Reduction and Growth Facility (PRGF) was lower than the average for all PRGF-eligible countries by 0.2–0.7 percentage point of GDP in 2001–02. At the same time, the heavily indebted poor countries (HIPCs) that reached the decision point under the enhanced HIPC Initiative spent between 0.2 and 0.5 percentage point of GDP less on military outlays in 2001–02 than the average for all countries with PRGF-supported programs.

Greater transparency of military outlays in the budget, as a result of reform of public expenditure management systems, may have contributed to lower military spending in Africa. Military spending in Africa was between 7.6 percent and 8.6 percent of government expenditure in 2002 compared with between 8.3 percent and 9.1 percent in 2000. A recent study by the Organization for Economic Cooperation and Development (OECD) concluded that the introduction of medium-term expenditure frameworks has helped promote transparency of military budgeting in some African countries.

Regional variations persist

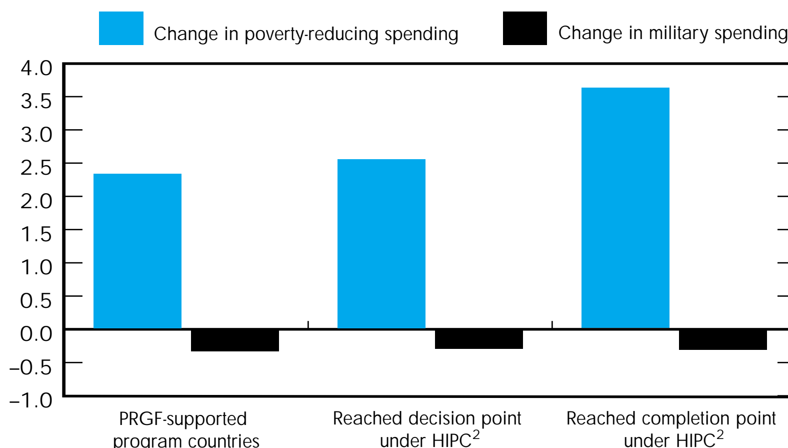
(percent of GDP)



Data: IMF, *World Economic Outlook* database

More resources for poverty reduction

(change in percent of GDP)[1]



Data: IMF, *World Economic Outlook* database and IMF staff reports
[1]From pre-Poverty Reduction and Growth Facility (PRGF) year to the latest year.
[2]All countries that participate in the Heavily Indebted Poor Countries Initiative have PRGF programs.

Poverty budgets reap the benefits

Countries with PRGF-supported programs increased allocations for poverty-reduction programs while reducing military spending. Based on a sample of 26 countries for which data for both military spending and poverty-reducing spending are available, military spending fell, on average, by 0.3 percent of GDP in 2002 compared with 1999, while poverty-reducing spending increased by 2.3 percent of GDP (see chart, bottom, this page). As a share of government expenditures, military expenditures declined by 1.9 percent and poverty-reducing spending increased by 6.9 percent over the same period, reflecting increased emphasis on pro-poor spending in PRGF-supported program countries. Spending increases in HIPCs benefiting from debt relief were slightly larger than those for PRGF-supported program countries as a whole. ■

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Next issue of the *IMF Survey*: January 19, 2004