Is financial globalization harmful for developing countries?

With the findings of a recent IMF staff study serving as a starting point, a panel of IMF staff and distinguished outside researchers on May 27 debated financial globalization's benefits and risks. Panelists were Eswar Prasad (IMF Asia and Pacific Department), Shang-Jin Wei (IMF Research Department)—two of the study's authors—and C. Fred Bergsten (Director, Institute for International Economics (IIE)), Jeffrey Frankel (Professor, Kennedy School of Government at Harvard University), and Daniel Tarullo (Professor, Georgetown University Law Center). Kenneth Rogoff (IMF Economic Counsellor and Director of the Research Department), also an author of the study, moderated. Participants suggested ways to contain the downsides of globalization; two of their recommendations—developing domestic financial sectors and strengthening institutions prior to liberalization—drew wide support.

Revisiting the fiscal deficit-inflation puzzle

Governments that run persistent budget deficits must sooner or later finance those deficits through money creation, thus producing inflation. So says a well-established macroeconomic theory, but empirical work has had little success proving this. A recent IMF Working Paper by Luis Catão and Marco E. Terrones of the IMF's Research Department reexamines this issue and finds evidence to support the theory. The authors talk with the IMF Survey about their findings.

IMF Survey: Macroeconomic theory tends to associate fiscal deficits with inflation. Why have most empirical studies been unable to uncover a strong connection between the two?

Catão: Most of your readers will probably find this as puzzling as we did when we started working on this topic. The inflation literature seems to suffer from a kind of split personality. Well-established theories postulate that fiscal deficits eventually lead to inflation. But living side by side with these well-established theories are empirical studies that show that there...
IMF has always delivered.

financing sector and institutions is a crucial risk of financial globalization. Development of the capital account liberalization by itself will not deliver the benefits, or protect countries from the costs, of financial globalization. Development of the domestic financial sector and institutions is a crucial precondition. This is consistent with the message the IMF has always delivered.

Assessing the impact

The IMF’s Shang-Jin Wei asked whether financial integration helps foster economic growth. In theory, he said, it can boost economic growth through direct channels (by augmenting domestic saving, reducing the cost of capital also through better risk allocation, transferring technologies, and developing financial sectors) as well as indirect channels (through specialization, inducement for better macroeconomic policies, and increased capital flows brought about by improved government policies). But empirical evidence, Wei added, has yet to verify this causal relationship. In fact, some countries have achieved fairly high growth rates without having opened their capital accounts in all dimensions, and other relatively financially integrated countries have failed to achieve high growth rates.

Recent studies suggest that most of the differences in per capita income across countries stem not from differences in capital-to-labor ratios but from differences in total factor productivity, which are strongly influenced by such variables as the degree of corruption, the rule of law, and the quality of financial supervisory and other institutions. This finding contrasts with most studies on trade integration, which find that it does indeed promote economic growth in developing countries.

Still, it is hard to argue with the facts that advanced countries tend to be financially open and that most developing countries, once they have gone down the path of financial integration, seldom reverse course. This suggests that financial globalization may provide long-run gains but perhaps at the cost of some short-run pain, notably in the form of increased macroeconomic volatility.

Economic theory is ambiguous about the effect of financial integration on income volatility but predicts that financial integration should reduce consumption volatility. Reality, however, shows a strikingly different result, Prasad said. Their study found that, while consumption volatility in industrial and less financially integrated economies was less in the 1990s than in the 1980s, it increased both in absolute terms and relative to income volatility in the more financially integrated economies—precisely those that undertook financial integration. A possible explanation for this, Prasad observed, is a threshold effect. It may be that countries experience lower consumption volatility only beyond a certain level of financial integration.

Policy prescriptions

Given that some degree of financial globalization is inevitable, the panel concentrated on offering policymakers some suggestions on what could be done to harness financial integration’s benefits and minimize the frequency and severity of the most severe manifestations of volatility—namely, financial crises.

Liberalize financial sectors first. The IIE’s Fred Bergsten suggested that more attention be paid to development of the domestic financial sector in developing countries. He argued that the IMF’s findings were “curiously unsatisfying” because the study had, in fact, “misspecified the issue.” It is more fruitful, he suggested, to differentiate between financial sector and capital account liberalization. Financial sector liberalization, he hypothesized, is much more important for growth and development, and this has a number of policy implications.

The financial sector can be opened to foreign participation, for example, without necessarily opening up the economy to capital flows. At a minimum, Bergsten added, financial sector liberalization should precede capital account liberalization, and countries should perhaps even confine themselves to liberalizing the financial sector for an extended period of time before opening up their capital account. This is what China seems to be doing, with some good results.

According to Bergsten, however, in recent years the U.S. government seems to have muddied this issue. He cited free trade agreements negotiated between the United States and Chile and Singapore, in which the U.S. government insisted not only on
opening up the financial sector, which is appropriate for a trade agreement, but also on liberalization of their capital accounts, which is extraneous to the trade deal and not necessarily of benefit to the countries involved.

**Employ compensatory policies.** Bergsten also added that a number of Asian and other emerging market economies have instituted a range of compensatory policy changes that would help them avoid, or respond more effectively to, 1990s-style crises driven by capital flow reversals. The most important of these have been greater exchange rate flexibility and large increases in holdings of foreign exchange reserves. Certainly, Rogoff said, hasty and perhaps premature capital account liberalization contributed to the Asian crisis, but had these countries adopted a flexible exchange rate before the turbulence began, it could have resulted in a mini, rather than a maxi, crisis.

**Tinker at the margins.** Financial markets are like superhighways, Jeffrey Frankel of Harvard University observed. Although they get you where you want to go more rapidly, you can, of course, have nasty accidents. On balance, the superhighways are worthwhile. But do we come out ahead with financial integration? We do, Frankel and Wei suggested, if we take safety precautions. Both stressed the value of good governance. And Frankel also emphasized the importance of transparency and the supervision of banks and the financial system, adding that reforms in these areas should take place ahead of financial liberalization.

There can be real problems, Frankel cautioned, if superhighways’ exit ramps simply dump traffic into a village where the roads are not yet paved.

In addition, Frankel suggested that policymakers should allow “some tinkering at the margins”—for example, Chilean-style restrictions on capital inflows or Malaysian-style controls on capital outflows—and encourage competition in the domestic financial system from foreign banks and other financial institutions. He also urged countries to keep a close eye on the composition of capital flows. If these flows are short term, intermediated through banks, and denominated in foreign currencies, they are much more likely to lead to a crisis than if they are long term, denominated in domestic currency, and in the form of foreign direct investment.

Also high on Frankel’s list of recommended actions is countercyclical fiscal policy. Many emerging market countries, particularly in Latin America, pursue procyclical fiscal policies. When their economies and tax revenues boom, they spend a lot more. In recessions, policymakers then find themselves with no choice but to cut back sharply, which makes the downturn worse.

**Introduce interim regulations.** Daniel Tarullo of Georgetown University took a different tack, suggesting that policymakers take another look at the challenges associated with the “transition in legal regime”—that is, significant changes in applicable laws or enforcement of those laws, or significant changes in private actor capabilities or propensities that change, in major ways, the outcomes of the application of existing laws.

Successful capital account and financial sector liberalizations entail multiple stages that usually call for different sets of regulatory approaches before, during, and after. Failure to tailor these regulatory approaches may, Tarullo said, cause a country to endure unnecessary pain in the short term or even retard its move toward the desired state.

Because problems and likely market responses will differ substantially depending on the particular legal and market context, it is very difficult to develop generalized prescriptions. The imposition of fairly inflexible rules, such as the complete elimination of capital controls, surely seems misguided. Furthermore, problems may have a range of solutions, calling into question the application of “best practices.” He cited the Basle Accord II as an example of best practices that are currently being promulgated but may not be best practices for all countries, particularly for emerging markets.

**Future trends**

Looking further ahead, Prasad noted that demographic developments, particularly the aging of industrial country populations, could lead to a resumption of capital flows to the developing countries because of pressure on pension managers to place funds where the return to capital is high—that is, in developing countries, which are typically capital-poor.

Bergsten, on the other hand, speculated that in 10 to 20 years, economists may be analyzing the impact of capital flows from emerging markets to the industrial countries as population aging leads to bigger budget deficits and, perhaps, external deficits. The United States, for one, is already heavily dependent on capital inflows, to the tune of half a trillion dollars or so a year—much of it coming from emerging markets.

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**Photo credits:** Denio Zara, Michael Spilotro, and Pedro Márquez for the IMF, pages 153–57 and 168; AFP, page 161; Georges Gobet for AFP, page 162; Jewel Samad for AFP, pages 164–65.
Do fiscal deficits lead to inflation?

(Continued from front page) Is there a statistically significant relationship between fiscal deficits and inflation across a panel of countries. At most, these studies have found a very weak relationship. Since we work for an institution that preaches the virtues of fiscal rectitude, we were rather unsettled by this dichotomy. We took it upon ourselves to take a more in-depth look at the issue, building on earlier research we did for a WEO [World Economic Outlook] chapter.

One question we sought to address is why, if there really is a significant and reasonably strong relationship between fiscal deficits and inflation, other studies have not been able to uncover it. We were certainly aware that it was no mean task to pin down this relationship, and one of our main suscepts was the econometric methodology.

Fiscal deficits and inflation should not necessarily be related in the short run because governments that run fiscal deficits can, at least temporarily, finance the deficit through borrowing. So, for a while, you may see no relationship at all. But it is bound to show up in the long run, because governments cannot accumulate debt indefinitely. We applied a state-of-the-art technique that allowed us to look at this long-term relationship in a large panel of countries, and that technique is one reason our results differ from others in the literature.

In our mind, the second culprit was that other studies did not allow for the fact that fiscal dominance—when the need to finance government deficits outweighs other policy concerns—varies widely across countries. For instance, fiscal dominance has been very weak in the United States over the past couple of decades or so, and this has also been so in several other advanced countries. In contrast, the fiscal authorities clearly call the shots in several developing countries, although it is important to acknowledge that new institutional arrangements in some of them have managed to tame fiscal dominance quite a bit in recent years. So we separated countries into groups that broadly differ in their degree of fiscal dominance.

The third culprit is the nonlinearity of the relationship between fiscal deficits and inflation. As you know, the higher the inflation rate, the higher the cost of holding cash or sight deposits, so the stock of narrow money [M1] in the economy tends to shrink as inflation rises, reducing the inflation tax base. As with any other tax, the smaller the base, the higher the tax rate has to be to maintain the same amount of revenues. As people hold less and less money, inflation has to be higher to finance a given deficit. So the higher the level of inflation, the stronger the impact of fiscal deficits on inflation. It follows, then, that an economic model that seeks to pin down the theory must allow for this nonlinearity. The paper proposes a clean and simple way to incorporate this nonlinearity in the estimates: we simply scale the fiscal deficit by M1 rather than by GDP. By doing this, we take into account the nonlinearity that has been overlooked in some previous studies.

IMF Survey: How do your results differ from others?
Terroris: As Luis has already noted, our study differs from others in three important areas: first, it models the long-term relationship between deficits and inflation as nonlinear; second, it uses a new econometric technique that allows us to distinguish between the long- and short-term effects of fiscal deficits on inflation; and, last but not least, it covers a greater number of countries—107 countries from 1960 to 2001, for a total of 3,600 observations—a far larger sample than any other study we know of.

Based on these considerations, our study finds a strong and statistically significant relationship between fiscal deficits and inflation across a broad range of developing countries. In particular, the relationship is quite precisely estimated for emerging market countries, where we found that a sustained reduction in the government deficit by 1 percent of GDP is associated with a drop in annual inflation of 2–6 percentage points, depending on private sector holdings of narrow money.

Another interesting result is that the relationship between deficits and inflation is even stronger if the sample is limited to the 26 countries in our sample with the highest inflation rates over the past four decades. This is what one would expect, given the nonlinear way in which deficits and inflation are related.

Similar to other studies, ours finds no significant relationship between fiscal deficits and inflation in advanced and low-inflation economies, which is consistent with the fiscal dominance story that Luis just mentioned. Indeed, there is increasing evidence that advanced economies adjust their primary fiscal balance in direct proportion to their stock of debt.

But, while the conclusion that fiscal deficits are not a significant cause of inflation in advanced economies is consistent with the findings of previous studies, our results for developing countries are not. For instance, a recent well-known study reports a significant relationship between deficits and inflation only for high-inflation and hyperinflation countries, while we find that this relationship holds across the board, including in countries with moderate inflation. In addition,
the effects we get for high-inflation countries are stronger than previously found.

**IMF Survey:** But presumably fiscal deficits are not the only cause of inflation. For advanced economies, for instance, oil prices may be a factor. For developing countries, a few other factors may matter, too.

**Catão:** Indeed. That’s the reason we considered oil as well as other variables that may influence inflation, such as exchange rate regimes. There is a view, for example, that holds that fixed exchange rate regimes impose discipline on policymakers. These regimes are said to prevent excessively expansionary monetary and fiscal policy, and that, in turn, contributes to lower inflation. The tricky part, however, is to sustain the peg.

In my research on the economic history of developing countries, particularly in Latin America, I have seen the pattern repeated over and over again. Governments are able to keep the peg whenever conditions in the international capital markets are favorable. Capital flows into these countries, reserves accumulate, and the economy expands, while the exchange rate remains fixed. But then, debt builds up and the foreign investor is no longer willing to continue pumping money into the country at the same rate, debt-servicing problems surface, the peg is no longer sustainable, and deficits have to be financed through seigniorage [money creation]. In other words, inflation is back in play. So, in the long run, we don’t really observe a systematic relationship between fixed exchange rate regimes and inflation.

In other words, our conclusion that fiscal balances really do matter holds up when the exchange rate regime is included in our model.

The other variable we looked at is openness. We wanted to take into consideration an influential view that followed from David Romer’s 1992 paper, which argued that countries more open to trade tend to have lower inflation. The mechanism through which this relationship is established is, again, policy discipline—the benefits of a more expansionary monetary policy are less for countries that are more open to trade, and, therefore, inflation in these countries tends to be lower.

But reality tells a different story. Take the example of two large and relatively closed economies—the United States and Brazil. The United States has experienced low inflation, on average, for a very long time, while Brazil has suffered from very high inflation, on average, for a very long time. And several small open economies have historically experienced relatively high inflation rates. Indeed, a study by Dani Rodrik argues that when a country is smaller, the government tends to be bigger as a proportion of GDP. Bigger governments are not necessarily profligate, but they do have the tendency to want to spend more. The bottom line is that we observe no systematic relationship between openness and inflation.

**IMF Survey:** Fiscal deficits may reflect other factors pertaining to institutions and macroeconomic landscapes. Wouldn’t these also help explain the different inflation outcomes across different country groups historically?

**Terrones:** Sure. First, one reason institutions matter is the extent to which countries differ in their capacity to avoid persistent deficits. Normally, countries with weak fiscal institutions and fragile political systems tend to have persistent deficits and, thus, higher of inflation. This has long been acknowledged in the literature.

For instance, in countries with decentralized fiscal institutions, the so-called province effects—when local governments increase their expenditure and overlook the impact on the consolidated budget deficit because they assume only part of the cost—are likely to be an important source of fiscal imbalances. Also, in countries with fragmented political systems and highly skewed income distribution, the diverse interests of social groups often make it difficult for a government to take corrective measures to eliminate deficits in a timely manner. In both cases, public debt will accumulate beyond sound levels.

Limited domestic financial development also constrains the amount of domestic financing that governments can obtain. Countries with thin domestic financial markets must rely on foreign financing. To the extent that foreign financing becomes costly and international capital markets are periodically closed to them, governments have no option other than to finance their fiscal gaps through money creation, thus producing inflation. The problem is obviously aggrivated when the government inherits a large external public debt from previous administrations and the country’s traded sector is small, making it difficult to produce the large trade surpluses necessary to pay the debt. Not surprisingly, a tight positive correlation is observed between high external indebtedness in relatively closed economies and inflation, especially in the 1980s.

**IMF Survey:** It’s probably fair to say that one motivation for your study is the concern over the negative repercussions of inflation on welfare. But more recently, deflation seems a more urgent concern, at least in some countries. Does your study have something to say about this?
**CATÃO:** This is an important question. We found that in advanced economies, especially low-inflation advanced economies, fiscal deficits are not significantly related to inflation. This finding suggests that fiscal deficits are not very effective tools for tackling deflation, and I understand that this is consistent with Japan's experience over the past 10 years or so. Other instruments, such as monetary policy, seem much more helpful, especially if used in a timely fashion to prevent deflation in the first place. At the same time, one important side effect of fiscal expansions is the pressure on long-term interest rates and their potential contractionary effect in the long run. Very large and persistent fiscal deficits that result from, say, a huge tax cut may do a great deal of harm to an economy in the long run without bringing about the intended effect of avoiding deflation.

**IMF SURVEY:** Overall, then, what lessons can policymakers draw from your study?

**TERRONES:** The most obvious lesson is that fiscal rectitude helps keep inflation at bay, especially in developing countries with histories of chronic inflation. Devices like exchange rate pegs are not magic bullets and, as recent developments in emerging markets have shown, can have disastrous consequences. Likewise, measures to foster trade openness and participation in regional trade arrangements, although beneficial in many respects, are not substitutes for fiscal discipline.

I should also emphasize that while developing countries have made great strides toward fiscal consolidation over the past decade, significant imbalances remain, and long-term fiscal solvency issues are by no means an issue of the past in many countries. History has shown, time and again, that fiscally dominant governments with sizable debts and shaky fiscal positions are a sure recipe for inflation, even if not immediately. Another important lesson is that the success of new monetary arrangements, such as inflation targeting, hinges partly on the stance of fiscal policy. This is a direct consequence of the strong interlinkages between monetary and fiscal policies resulting from the government's budget constraint. Accordingly, the success of institutions and of relatively new arrangements, such as central bank independence in many developing countries, depends not only on well-drafted laws but, more important, on firm political commitment to fiscal discipline.

Copies of IMF Working Paper No. 03/65, “Fiscal Deficits and Inflation,” by Luis Catão and Marco E. Terrones, are available from IMF Publication Services for $15.00 each. See page 166 for ordering details. The full text is also available on the IMF’s website (www.imf.org).

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**Managing the reform process**

**Budgeting for results**

Over the past two decades, most advanced economies have fundamentally restructured their budget management systems to strengthen the link between resource allocation and desired results. This new approach has also attracted attention in many middle-income and emerging market countries. But are they in a position to implement performance budgeting? A recent IMF Working Paper examines how advanced economies successfully implemented performance budgeting and explains what other countries need to know to emulate them. One crucial lesson: management skills are key.

Traditionally, countries managed their budgets in a highly centralized fashion. They created a set of policy objectives—albeit usually poorly articulated with little quantification—and then allocated resources to meet these objectives. The focus was on the resources being distributed and on the centralized control and compliance devices that ensured that resources reached their intended destinations. Typically, however, there was little follow-up to see whether spending departments actually performed as expected.

But, beginning in the United States, and spreading to nearly all them by the early 1980s, advanced economies began to rethink how they managed their budgets. They experimented with allowing greater flexibility in return for a new emphasis on performance and accountability.

Just what did that mean in terms of managing budgets? Within a hard budget constraint, performance budgeting gave spending agencies greater scope to access and use funds, largely by allowing them to reallocate funds between types of resources that had previously been controlled as line-item expenditures. Unnecessary constraints on resource management were removed, and agencies and managers were granted greater freedom to make operational decisions. Spending agencies also gained greater certainty that the funds they needed would
be available. In many advanced economies, the shift to performance budgeting was accompanied by more medium-term budget planning. Typically, three- or five-year budget frameworks replaced the customary one-year fiscal targets.

But this greater freedom and predictability came with strings attached: agencies and managers were held more accountable for outcomes. Performance budgeting was expected to pay off in greater efficiency and effectiveness.

The transition to performance budgeting also reflected a growing consensus in advanced economies that improved performance played a more crucial role in promoting a stable and healthy macroeconomy than did detailed controls on resources. Experience suggested that cutting certain types of spending across the board was less effective than allowing managers to achieve efficiencies by adjusting their resource use on the basis of relative resource prices and changes in technology. As a result, the advanced economies increasingly moved to integrate budgeting with other management processes, develop new guidelines and methods for holding managers accountable for results, and design information bases and reporting systems that could enforce this accountability.

Getting there from here
The experiences that advanced economies have had in designing and implementing performance budgeting hold potentially valuable pointers for middle-income and emerging market countries looking to make a similar transition. Experience underscores the importance of taking an evolutionary approach, developing a broad consensus on the desirability of the change, placing budget reforms in an overarching reform strategy, ensuring adequate fiscal controls, and—perhaps above all—having in place essential management skills.

Taking an evolutionary approach. There is widespread agreement that modern budget systems must ensure control over expenditures, so that they are consistent with the budget law; stabilize the economy through timely and efficient adjustment mechanisms for the fiscal aggregates; and promote allocative and technical efficiency in service delivery by providing incentives for greater productivity.

To meet these requirements, the advanced economies avoided discrete jumps from compliance to performance models. Instead, they chose an evolutionary approach, progressively placing different emphases on the three requirements. More recently, many transition economies took a similar approach. As they emerged from compliance controls and initially faced severe macroeconomic instability, they adopted suitable budgetary policies and procedural adjustments that allowed them to review the efficiency and effectiveness of government operations and sequentially embrace elements of performance budgeting.

Reaching consensus. Confronted with the prospect of a widespread and long-term deterioration in public finances and increasingly aware of the need to achieve fiscal sustainability, the advanced economies typically reached broad consensus on the need for reform. In addressing these structural problems, they

Role of technical assistance
What should the IMF’s Fiscal Affairs Department counsel when a country asks for advice on whether to pursue a new generation of performance budgeting reforms? Undertaking a risk assessment and developing a checklist enable the department to determine whether the country has the resources needed to carry out such a fundamental institutional change and whether appropriate technical assistance can successfully be delivered.

Among other things, a checklist should ask the following:

How well are the agents of change identified?
- How deep is the recognition of the need for change?
- How far up in government is the need recognized—at the minister of finance level or lower?
- How stable or established is the reform team?

Do the reformers have an adequate base from which to work?
- Is there adequate fiscal stability?
- Is there sufficient political and administrative stability?
- Can the up-front costs of reform be borne by the government in the short term?
- Does the existing system have basic levels of fiscal control and financial management to support reform?

Does the overall environment provide the incentives needed to support reform?
- Is the general level of managerial capacity sufficient to implement reform?
- Is the regulatory framework adequate for reform, or will it need to be changed?
- What is the level of governance in the country?
- How empowered are consumers of government services? Can they demand better performance from government agencies?
also became aware of the limitations of traditional compliance-oriented budget systems.

At the same time, the wider use of more flexible budget management procedures convinced the authorities that ensuring macroeconomic stability and promoting a more efficient economy were complementary rather than competing objectives. As this view took hold, concerns deepened about whether traditional budget systems, based on short-term and detailed control of resources, were an effective tool for promoting public sector performance (which, by definition, focuses on the impact of those resources).

In the end, growing suspicion that the fiscal objective of achieving a stable economy was coming at the cost of poorer performance led many advanced economies to shift from instruments of simple macro control to budget systems that provided the means to manage performance.

Making budget reform a major part of an overall strategy. Once the need to reform the budget system was recognized and accepted, advanced economies commonly made this reform a part of the government’s fiscal strategy and a central element of government policy. As such, the reform initiative was “owned” and supported by all ministers, not just the ministry of finance or the budget office. This high-level commitment facilitated the required changes in administrative procedures and made central agencies more willing to devolve budget management.

Ensuring adequate fiscal controls. Before they moved toward a more flexible and decentralized budget model, however, all of the advanced economies had reached adequate levels of fiscal control. That meant delivering actual expenditures in line with the approved budget and adjusting fiscal aggregates if the macroeconomic environment changed.

All three aspects of performance budgeting—managerial flexibility, greater certainty in budget funding, and increasing pressure to perform—were essential. Allowing one element to slide threatened the success of the entire reform. In particular, giving greater flexibility to spending agencies without ratcheting up the pressure for improved performance made it more likely that budgeted funds would be used inefficiently.

Stressing management of the reform process. Even in advanced economies, reform programs had to be “engineered.” A reform plan needed to be formulated, an implementation strategy agreed upon, and implementation managed if the desired objectives were to be achieved and the reform initiative sustained.

The reform program also had to be “sold” to the main stakeholders in the budget system. And, perhaps more important, a reform team had to be identified and empowered to carry out the reform. It is this aspect of the process—the management of change—that holds the most risk. Put another way, it is essential to focus on how the government shifts from a compliance culture to a performance culture.

Lessons to be learned

What lessons, then, can be drawn from the advanced economies? Their experience seems to yield four clear messages:

• First and foremost, never underestimate the management skills that will be required. Who will manage the reform process? Who will manage the new budget system? Effectively answering these questions can make a critical difference in emerging market countries where managerial expertise in government is in limited supply.

• Second, sequence the reforms properly. Management skills must be strengthened before budget management can be devolved. Solid managerial foundations are essential, especially at the agency level.

• Third, begin modestly and avoid “big bang” solutions. In designing the reform, take a gradualist approach. In implementation, use a sequenced rather than a blanket approach. And, when possible, make do with current technology rather than opting for more advanced technologies. The familiar is likely to pay dividends, at least initially.

• Fourth, identify the right management teams. Performance budgeting involves allowing management teams some discretion. The combination of discretion and practical limits in holding managers fully accountable for all dimensions of their agency’s performance implies some risk. The team managing the transformation needs to share objectives that are fully congruent with the government’s. The more fully the government can trust the management team, the more likely the reform is to achieve its objectives.

Of course, it can be daunting to find managerial leadership that has the requisite vision, technical competence, authority to spearhead the reform, ability to sell the reform to those most affected, and commitment to the reform’s goals. But many countries have found the right people for the job, and their experience proves that the human factor can be the key to effective budget reform.

Jack Diamond
IMF Fiscal Affairs Department
Global food aid serves as a critical safety net for poor countries. But does food aid reach those who most need it when they most need it? And, more broadly, has it generally been effective in “smoothing” consumption patterns—that is, averting sharp changes in the overall availability of food? In a new IMF Working Paper, “Foreign Aid and Consumption Smoothing: Evidence from Global Food Aid,” Sanjeev Gupta, Benedict Clements, and Erwin R. Tiongson examine the cyclical properties of food aid and evaluate how successful it has been in helping the economies it targets.

For decades, the international community has supplied food aid to developing countries to help them meet shortfalls in their domestic food supplies. This aid has proved to be crucial in averting famine and preventing malnutrition, disease, and associated social problems that, over the long term, exact a heavy economic toll.

Few would argue with the goal of food aid, but is it as effective as it could be? In an examination of the experiences of some 150 developing and transition countries from 1970 to 2000, the authors evaluated whether global food aid did, in fact, stabilize consumption, whether it targeted those countries most in need, and whether ill-timed disbursements of food aid actually had negative fiscal consequences.

Problems with aid disbursement
Research on foreign aid often looks at assistance in the aggregate rather than examine its component parts, such as disaster relief, humanitarian assistance, and food aid. The research that has looked specifically at the food component of aid has tended to concentrate on individual country programs. This new working paper, by contrast, focuses on global food aid and its cyclical pattern.

In particular, the paper assessed the timing of global food aid disbursements and whether they suffered from the same unfortunate pattern identified in earlier research on individual programs—that is, a “procyclical” pattern. Such a pattern implies that food aid falls as the recipient country’s food production contracts, which means that less is available exactly when it is most needed. More desirable would be a countercyclical distribution of food aid, which means that food aid increases at the same time food production falls in recipient countries.

Pitfalls of poor timing
A procyclical pattern to the distribution of food aid can have serious macroeconomic consequences in recipient countries. While some food aid is distributed directly to households, a substantial portion is sold in domestic markets at below-market prices. These food sales generate counterpart funds in local currency, providing critical budget support for the country. When food aid is procyclical, it creates problems for fiscal management, as these counterpart funds are not available to stabilize the budget at a time when other revenues are weak. This fluctuation is especially problematic in countries where the size of counterpart funds is substantial. A procyclical pattern of food aid also aggravates fiscal management problems on the expenditure side because of the increased pressure on the budget caused by intensified spending on programs designed to offset the adverse consequences of food shortages.

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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).

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

Data: IMF Finance Department

North Korean schoolchildren eat a lunch that includes fortified foods supplied by the UN World Food Program.
A mixed record
When the authors analyzed the statistical relationships between global food aid and cyclical fluctuations in food availability, they found that roughly two-thirds of the countries indicated slight, but not significant, countercyclicality. Overall, food aid is acyclical—neither significantly procyclical nor countercyclical. Thus, the timing of the disbursement of food aid is not optimal. But global food aid was found to be progressive—targeting those most in need—and responsive to absolute shortfalls across countries. For African countries, and the poorest countries in all regions, the authors found that food aid was significantly progressive and countercyclical. But for the majority of the countries that were only moderately food insecure, food aid was acyclical. And even in those countries where food aid was found to be both progressive and countercyclical, the quantities of food aid disbursed were woefully inadequate to cover the shortfall in supply.

The authors concluded that, for global food aid to have the maximum positive impact, its quantity must be increased and its timing improved. For this to occur, the international donor community needs to pay attention to, and understand, the economic cycles of its aid recipients. Because food aid programs are sometimes hampered by slow implementation and bureaucratic inertia, the development of early warning systems could prove vital to triggering their mobilization. Better coordination among donors is also critical. The IMF’s Poverty Reduction Strategy Papers, the authors indicated, could serve as a tool for devising and coordinating food aid strategies and agricultural development.

Explaining the IMF’s financial resources and liquidity position

How much does the IMF have available to lend? The IMF recently introduced a more transparent measure of its capacity to make new loans. The FCC, or one-year-forward commitment capacity, gives a concrete figure of the resources that the IMF has available for lending in the coming year. The IMF computes the FCC from the total resources in its balance sheet as follows (see table).

The total resources of the IMF comprise holdings of its members’ currencies; SDRs; gold; “other assets,” such as buildings and receivables; and unused amounts under lines of credit (when activated) that the IMF has with a number of its members—the General Arrangements to Borrow (GAB) and the New Arrangements to Borrow (NAB). Some of these resources are not usable for lending. For example, the use of gold is severely restricted by the IMF’s Articles of Agreement. In addition, the currencies of members that have outstanding IMF loans or relatively weak external positions are not usable because these members are not in a position to make foreign exchange assets available in exchange for their currencies. “Other assets” are also nonusable.

When nonusable resources are subtracted from total resources, what remain are the usable resources from which the IMF can finance its operations and transactions. The usable resources consist of the currencies of financially strong members (as determined by the IMF’s Executive Board), SDR holdings, and unused amounts under activated lines of credit.

The IMF’s capacity to commit new loans a year ahead is smaller than its base of usable resources because some of the usable resources have already been committed to upcoming loans. The measure of the uncommitted usable resources excludes the undrawn balances under existing lending arrangements.

The FCC includes the amounts that member countries will be repaying on their existing IMF loans in the year ahead, which add to the IMF’s capacity to make new loans, and it excludes a prudential balance. This balance safeguards the liquidity of creditors’ claims on the IMF and takes into account the possibility of a weakening of some members’ financial positions that would make their currencies nonusable.

The prudential balance is set at 20 percent of the quotas of members whose currencies are used in financing IMF transactions and any amounts activated under the IMF’s lines of credit. The balance does not represent a rigid minimum, and IMF resources available for new lending could, on a strictly temporary basis, fall below this level.

In brief, the FCC is equal to uncommitted usable resources, plus repayments in the coming 12 months, minus the prudential balance. This measure of liquidity expresses concretely the resources the IMF can use for new lending in the coming year.

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**IMF’s financial resources and liquidity position, 2001–2003**

(billion SDRs, unless otherwise indicated; end of period)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total resources</strong></td>
<td>217.1</td>
<td>218.1</td>
<td>218.5</td>
<td>302.0</td>
</tr>
<tr>
<td>Members’ currencies</td>
<td>209.0</td>
<td>210.3</td>
<td>210.7</td>
<td>292.0</td>
</tr>
<tr>
<td>SDR holdings</td>
<td>1.5</td>
<td>1.2</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Gold holdings</td>
<td>5.9</td>
<td>5.9</td>
<td>5.9</td>
<td>8.0</td>
</tr>
<tr>
<td>Other assets</td>
<td>0.7</td>
<td>0.8</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Available under GAB/NAB activation</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Less: Nonusable resource</td>
<td>114.7</td>
<td>117.9</td>
<td>120.5</td>
<td>167.0</td>
</tr>
<tr>
<td>Of which: Credit outstanding</td>
<td>53.5</td>
<td>63.6</td>
<td>66.0</td>
<td>91.0</td>
</tr>
<tr>
<td>Equals: Usable resources</td>
<td>102.5</td>
<td>100.2</td>
<td>98.0</td>
<td>136.0</td>
</tr>
<tr>
<td>Less: Undrawn balances under GRA¹ arrangements</td>
<td>25.8</td>
<td>31.9</td>
<td>23.6</td>
<td>33.0</td>
</tr>
<tr>
<td>Equals: Uncommitted usable resources</td>
<td>76.7</td>
<td>68.3</td>
<td>74.4</td>
<td>103.0</td>
</tr>
<tr>
<td>Plus: Repurchases one-year forward</td>
<td>15.2</td>
<td>19.0</td>
<td>19.1</td>
<td>26.0</td>
</tr>
<tr>
<td>Less: Prudential balance</td>
<td>30.9</td>
<td>32.6</td>
<td>32.6</td>
<td>45.0</td>
</tr>
<tr>
<td>Equals: One-year forward commitment capacity (FCC)</td>
<td>61.0</td>
<td>54.7</td>
<td>60.8</td>
<td>84.0</td>
</tr>
</tbody>
</table>

Note: Details may not add due to rounding.

¹General Resources Account

Data: IMF Finance Department

For more information about the IMF’s finances, see its website (www.imf.org).
Few would dispute that, on average, economic growth benefits the poor and that poverty reduction is a product of economic growth. However, data from developing and transition economies show that, for a given growth rate of per capita GDP, some countries achieve more poverty reduction than others. Understanding why this is so can help countries identify which economic policies are most effective in reducing poverty. A new IMF Working Paper, “Macroeconomic Performance and Poverty Reduction,” studies the link between growth and poverty reduction and concludes that there is no trade-off between them.

A recent empirical study of the relationship between the annual change in countries’ poverty rates and their annual growth rates (see box, page 165, for details about the study) finds, as have many earlier studies, that, on average, growth reduces the poverty rate by the same amount that an economic downturn or crisis increases it. This result is important because it does not support the view that economic downturns hurt the poor more than growth helps them as a result of irreversibilities and the existence of poverty traps. According to this view, getting out of poverty is much more difficult than falling into it because of a potentially irreversible loss of wealth, health, or opportunity. A youth who drops out of school, never goes back, and thus never learns how to read is an example of irreversibility. Similarly, in a poverty trap, regardless of the growth rate, the poor never make it out of poverty because they lack basic skills or opportunities to participate in economic activity.

But even if the empirical evidence suggests that these effects are not strong, the simple relationship between growth and poverty reduction leaves unexplained a large part of the observed changes in poverty rates. How can the picture be completed?

Significance of income inequality
Apart from growth, both the initial level of development and initial income inequality explain a significant part of poverty reduction. This was shown by a test that was set up in which nothing was known about a country but its initial income distribution (measured by the Gini coefficient, a measure of income inequality, where the higher the number, the greater the level of inequality) and level of development (measured by real per capita GDP). Using this information and assuming that income distribution is log-normal (that is, the distribution of income is bell-shaped and has additional statistical characteristics in line with actual income distribution), it is possible to predict approximately how much each percentage point of growth will reduce the poverty rate in a given country.

More specifically, it is predicted that the greater the income inequality or the lower the level of development, the less growth reduces poverty. Is this prediction in line with the data? Indeed, the statistical test showed that when income inequality and the level of development, along with the growth rate, were used to predict actual poverty changes, the predictions were much more accurate than if only the growth rate had been used.

For example, countries that have a low Gini coefficient and relatively high income per capita will need less growth to halve their poverty rate. Thus, countries in the Middle East and North Africa would need only 33 percent growth in real per capita incomes (an annual growth rate of 2.9 percent for 10 years) to halve their poverty rate, whereas sub-Saharan African and Latin American economies would need 50 percent growth (or an annual growth rate of 4 percent for 10 years) to achieve the same result. Despite these disparities, the two regions both have relatively low growth rates.
elastics of the poverty rate with respect to economic growth—African economies because of their low level of development, and Latin American economies because of their high income inequality.

**Is there a trade-off?**
If there were a trade-off between growth and poverty reduction, it would be because countries with high growth achieved less pro-poor growth than countries that grew more slowly. But even then, because their growth rates were higher, such countries ultimately achieved as much poverty reduction as the slow-growing countries. Can the existence of such a trade-off be tested with the sample restricted to countries with positive growth rates?

Two statistical tests of the trade-off hypothesis yielded no clear evidence that countries that achieved a certain measure of poverty reduction for each percentage point of growth (after controlling for their initial income distribution) did so at the expense of growth. If anything, the tests showed the opposite: not only was there no trade-off between growth and poverty reduction, but countries that were most efficient at reducing poverty for each percentage point of growth, given their initial distribution, exhibited higher growth rates as well.

**Inflation is bad for the poor**
It is commonly recognized that inflation under a certain level does not affect long-term growth but that inflation rates above a certain level impede growth. As far as poverty is concerned, the evidence is that this relationship between growth and inflation means that annual inflation of more than 10 percent hurts the poor through its negative effects on growth. There are additional channels through which inflation may harm the poor. First, inflation may cut into their real wages because of the rigidity of nominal wages; second, because the poor have limited access to banking services, they cannot insulate the real value of their cash savings from inflation and thus suffer more than wealthier people who earn interest. The data compiled for this study can help measure the additional effect of inflation on the poor.

Tests showed that, when growth was negative, a very high annual rate of inflation (above 80 percent) increased the poverty rate. Not only did economic recession (possibly associated with crisis) increase the poverty rate, but, when it was accompanied by high inflation, it increased the poverty rate even further. But there is no evidence to suggest that when growth is positive and accompanied by inflation, the poverty rate drops by less than when growth is not accompanied by inflation.

It seems reasonable to think that high adult literacy and primary enrollment rates would enhance the link between growth and poverty reduction and that longer life expectancy would also be associated with pro-poor growth. But tests of these hypotheses did not find meaningl link between these human development indicators and the pace of poverty reduction. Nor was there evidence that growth is more efficient in reducing poverty in countries with less corruption.

**Policy implications**
For policymakers, these findings confirm that economic growth is the most important source of poverty reduction. But also countries with more even income distribution have been found to achieve greater poverty reduction through growth than economies with greater income inequality. This means that when countries establish their targets for poverty reduction, they need to take into account not only prospective growth but also the initial level of development and income inequality. Moreover, although inflation above a moderate rate is bad for the poor, keeping inflation low is not enough to strengthen the link between growth and poverty reduction.

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Copies of IMF working Paper No. 03/72, “Macroeconomic Performance and Poverty Reduction,” by Anne Epaulard, are available for $15.00 each from IMF Publication Services. See page 166 for ordering details. The full text is also available on the IMF’s website (www.imf.org).

**Measuring poverty**
Poverty can be measured many ways. In this paper, the poor are defined as those who live on less than $2 a day (in 1993 prices), a measure that makes it possible (given World Bank data) to study a large number of countries, including some transition economies. It is important to include transition economies in the data set because they have specific characteristics—high average income and low income inequality (measured by the Gini coefficient)—that might influence the link between growth and poverty reduction.

Indicators for the poverty rate and income distribution are taken from a data set put together by the World Bank. In the sample of 99 episodes of growth or economic downturn in developing and transition economies, the initial poverty rates range from 0.4 percent to 90 percent, with a mean of 42 percent.
The IMF has long recognized that including collective action clauses (CACs) in international bond instruments can facilitate more orderly and rapid debt restructuring in the rare cases when a sovereign needs to restructure its debt. The IMF has recently stepped up efforts to promote the use of such clauses. And recent bond issuances indicate they are growing in popularity and are not affecting bond prices.

Faster, less costly crisis resolution is an IMF objective. Over the past decade, the IMF has been actively engaged in strengthening the framework for crisis resolution and, over the past two years, has devoted particular attention to exploring how unsustainable sovereign debt can be restructured in a rapid and orderly manner.

There is now widespread recognition that collective action problems can impede debt restructuring. The large number and considerable diversity of creditors make it difficult to coordinate debt restructuring and more likely that some creditors (“free riders”) will attempt to manipulate the process for their own benefit. In the absence of a legal framework that resolves this collective action, or free rider, problem, a sovereign with an unsustainable debt burden can find it difficult to reach agreement with its creditors. While creditors, as a group, recognize that rapid restructuring may be in their best interests, they may hesitate to agree to a restructuring for fear that holdout creditors would fare better—that is, they might successfully press for full payment after the restructuring agreement has been reached.

The IMF has long recognized that the inclusion of collective action clauses in international bond instruments can help resolve this problem. For this reason, since July 2002 the IMF has, in the context of its annual country and multilateral surveillance efforts, encouraged the use of such clauses. In light of the recent decision by several emerging market issuers to include collective action clauses in bonds issued in New York, the IMF has pursued a more active dialogue with members on this important issue.

What are CACs?

Collective action clauses are provisions in bond contracts that enable the sovereign that issues the bond and a qualified majority of those who hold the bond to make decisions that become binding on all bondholders of that particular issuance. Perhaps the most important provision of these clauses is majority restructuring, which enables a qualified majority of bondholders to bind all bondholders within the same issuance to the terms of a restructuring agreement, either before or after default. In addition, majority enforcement enables a qualified majority of bond-
holders to prevent individual creditors from taking disruptive legal actions after a default takes place but before a restructuring agreement is reached. Majority restructuring provisions currently exist in sovereign bonds governed by English, Japanese, and Luxembourg law. But bonds governed by New York law, which currently represent the largest portion of the emerging market sovereign bond market, have traditionally not included majority restructuring provisions. For this reason, the recent decision by a number of emerging market countries to include these provisions in bonds issued under New York law represents an important breakthrough.

**IMF policy on CACs**

International sovereign bonds are bonds issued or guaranteed by a government or a central bank and either governed by a law other than the law of the sovereign issuer or subject to the jurisdiction of a court outside the territory of the issuer. The IMF encourages member countries that issue—or intend to issue—such bonds to include collective action clauses in them. The IMF extends this advice to all issuers of international sovereign bonds, whether they are mature or emerging market countries.

The IMF, of course, recognizes that, given the contractual nature of collective action clauses, any decision on their design will ultimately be made by the issuer and its creditors. It nonetheless encourages issuers in the New York market to use such clauses that are “broadly in line with” the provisions included in bonds recently issued by Mexico and recommended by the Group of 10 Working Group on Contractual Clauses. With respect to majority restructuring provisions, the IMF’s Executive Board deemed it reasonable for the issuer to set the voting threshold at 75 percent of outstanding principal. Regarding bonds governed by English law, the Executive Board considered the continuation of existing practice in that jurisdiction to be appropriate.

In the context of IMF surveillance of member countries’ economic policies, the staff actively encourages the use of collective action clauses in international sovereign bond instruments. The IMF also closely tracks developments in the use of these clauses in the context of its surveillance of the global economy, including through its Global Financial Stability Report. It also maintains a dialogue with capital market participants and creditor associations.

**Rising support for CACs**

In recent years, a number of mature market countries have taken steps to introduce collective action clauses in their international sovereign bonds. In January 2000, the United Kingdom included a majority amendment clause in its euro-denominated treasury note program, with no discernible impact on price or liquidity. In April 2000, Canada announced that it would include collective action clauses in its future foreign-jurisdiction bond and note issues. And, in September 2002, European Union (EU) finance ministers stated that their member countries intended to
include such clauses in new sovereign bonds issued under a foreign jurisdiction. Although the bonds represent a small part of the bonds issued by EU countries, the EU represents a sizable portion of the global bond market. Since 1996, it is estimated that EU countries have issued over €37 billion in bonds through New York and roughly €6 billion through the German market—a possible indication of how the future use of collective action clauses could change market practice in these jurisdictions. Austria, Finland, Italy, Portugal, and Spain are among the EU countries that have issued bonds in foreign jurisdictions in the past few years.

Among emerging market issuers, Egypt (2001), Lebanon (2000), and Qatar (2000) have included majority restructuring provisions in bonds governed by New York law. At the time these bonds were issued, the inclusion of majority restructuring provisions went unnoticed by the markets. But even in recent months, as the general discussion of collective action clauses made investors more aware of their inclusion in the Egyptian bonds, there was no indication in the market that these bonds were being priced differently.

In March and April 2003, amid much discussion within the official and capital markets communities about the use of collective action clauses, Mexico twice issued bonds governed by New York law. These issuances included both majority restructuring provisions and majority enforcement provisions. These issuances were successful: they were oversubscribed, and an analysis of the Mexican sovereign yield curve provided no evidence that the price, either at the launch or in secondary market trading, reflected a yield premium for the inclusion of such clauses. (Calculations on Mexico’s March issuance have varied, depending on the methodology used, in particular in light of the complexity of the Mexican sovereign yield curve. Some calculations show a small yield premium of up to 10 basis points.)

Similarly, subsequent global bond issuances by Brazil, South Africa, and Korea—governed by New York law and including collective action clauses—were heavily oversubscribed and again offered no evidence that there was a cost associated with the use of the clauses. This recent evidence is in line with broader evidence. Studies comparing bonds governed by English law (traditionally with collective action clauses) to bonds governed by New York law (traditionally without majority restructuring provisions) show no systematic difference in price between the two.

Collective action clauses have also been included in Uruguay’s recent steps to change its debt profile. In May 2003, in an effort to improve its debt sustainability, Uruguay exchanged almost all privately held debt instruments governed by foreign law for instruments with longer maturities. The new bond instruments that are governed by New York law contain both majority restructuring provisions and majority enforcement provisions. In addition, these bonds were issued under a trust structure that gives the trustee a limited monopoly over litigation and ensures that any recovery arising from litigation is distributed on a pro rata basis among all bondholders.

For more detailed information on CACs, please also see “Collective Action Clauses—Recent Developments and Issues,” which is available on the IMF’s external website