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The IMF's Executiv
Board will soon
consider its share o
a $16 billion loan
for Thailand.
See page 259.

Range of Indicators May Provide Warning System for Currency Crises

Recent turmoil in the Southeast Asian currency markets, as well as the earlier Mexican crisis and collapse of the European exchange rate mechanism in 1992–93, has heightened interest in the causes and symptoms of currency crises. Can early detection of symptoms allow governments to adopt pre-emptive measures? While an accurate forecast of currency crises is likely to remain elusive, a warning system would be valuable. In a new IMF Working Paper, Leading Indicators of Currency Crises, *Graciela Kaminsky, Saúl Lizondo, and Carmen M. Reinhart examine empirical literature on currency crises and propose an early warning system. Since multiple problems usually precede currency crises, the authors suggest a "signals" approach, which involves monitoring a broad variety of indicators.*

Traditionally, theoretical literature on balance of payments crises stressed that weak economic fundamentals—such as excessively expansionary fiscal and monetary policies—resulted in a persistent loss of international reserves, ultimately forcing the authorities to abandon the fixed exchange rate parity. More recently, however, some economists have argued that the authorities may decide to abandon the parity for reasons other than a depletion of official international reserves. They may, for example, be concerned about the adverse consequences of policies needed to maintain the parity (such as higher interest rates) on other key economic variables (such as the level of employment). Other models have shown that a crisis may develop without a significant change in the fundamentals.

Traditional Explanations for Crises

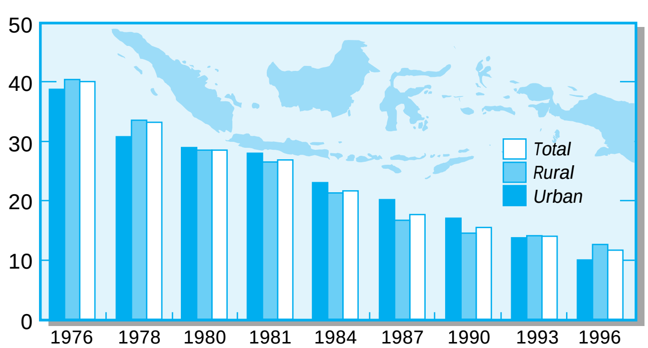
In 1979, Paul Krugman of Stanford University, in a seminal paper, concluded *(Please turn to the following page)*

Indonesian Economic Growth Accompanied by Improved Social Indicators

The following article is based on a study by Manfred Koch of the IMF's Fiscal Affairs Department in connection with the annual Article IV staff consultation with the Indonesian authorities.

Indonesia's strong economic performance over the past three decades has resulted in rapid growth of per capita incomes, a substantial reduction in poverty, and a marked improvement in many health and social indicators. Within a framework of stable macroeconomic policies, high investment and saving rates, and structural reforms to liberalize markets, the Indonesian authorities have persistently addressed poverty and income distribution problems through targeted measures. Public expenditure programs have supported improvements in education and health care, and these have contributed to human resource development and to extending opportunities for higher income earnings. Indonesia's progress in these areas has generally been faster than in other member countries of ASEAN (the Association of South East Asian Nations). *(Continued on page 263)*

Indonesia: Poverty Incidence
(percent of population)



Data: Indonesian authorities

that under a fixed exchange rate, domestic credit expansion in excess of money demand growth leads to a gradual but persistent loss of international reserves and, finally, to a speculative attack on the currency. This attack immediately depletes reserves and forces the authorities to abandon the parity. The process ends with an attack, because economic agents know that the fixed exchange rate regime will ultimately collapse and that in the absence of an attack, they would suffer a capital loss on their holdings of domestic money. The period preceding a currency crisis would thus be characterized by a gradual but persistent decline in international reserves and rapid growth of domestic credit relative to the demand for money. To the extent that excessive money growth may result from the need to finance the public sector, fiscal imbalances and credit to the public sector could also serve as indicators of a looming crisis.

A number of studies since 1979 have extended Krugman's basic model, concluding that speculative attacks would generally be preceded by a real appreciation of the currency and a deterioration of the trade balance. These results derive from models in which expansionary fiscal and credit policies lead to higher demand for traded goods (which causes a deterioration of the trade balance) and nontraded goods (which causes an increase in the relative price of these goods and, thus, a real appreciation of the currency). They also follow from models in which expectations of a future crisis lead to an increase in nominal wages, which, in the presence of sticky prices, results in higher real wages and lower competitiveness. Models that introduce uncertainty about credit policy, or about the level of reserve losses that the authorities are willing to sustain to defend the parity, show that domestic interest rates increase as a crisis becomes more likely. These results imply that movements in the real exchange rate, the trade or current account balance, real wages, and domestic interest rates could serve as leading indicators of crises.

Appreciating currencies and worsening trade balances generally precede speculative attacks.

Recent Models Cite Other Variables

Some more recent theories suggest that the decision to abandon the fixed exchange rate parity may stem from the authorities' concern about the evolution of other key economic variables. For instance, an increase in domestic interest rates needed to maintain a fixed exchange rate may result in higher financing costs for the government. To the extent that the authorities are concerned about the fiscal consequences of their exchange rate policy, the decision to abandon the parity may depend on the stock of public debt. Also, higher interest rates may weaken the banking system, and the authorities may prefer to devalue rather than incur the cost of a bailout that could result from an explicit or implicit guarantee on banking system liabilities. Therefore, the presence of banking problems could also indicate a greater likelihood of a crisis. Other models also suggest that crises may develop without any notable change in economic fundamentals. A crucial assumption in this connection is that economic policies are not predetermined but respond to changes in the economy, and that economic agents take this relationship into account in forming their expectations. The economy may initially be in an equilibrium consistent with a fixed exchange rate, but a sudden worsening of expectations may lead to changes in policies that result in a collapse of the exchange rate regime.

Some economists have focused on contagion effects as triggering balance of payments crises. One model has a devaluation by one country leading its trading partners to devalue in order to avoid a loss of competitiveness. Contagion effects also may arise if investors pay little heed to countries' economic fundamentals and thus do not discriminate properly among countries. If contagion effects are present, a crisis in a neighboring country may signal a future domestic crisis.

Identifying Leading Indicators

Economists have used various methodologies and variables in characterizing the period preceding currency crises and in assessing the probability of such crises. Using the results of 25 empirical studies covering industrial and developing country experiences with currency crises from the early 1950s to the mid-1990s, Kaminsky, Lizondo, and Reinhart attempt to identify which potential leading indicators have worked best. Given the large differences in the variables used, in the means of measuring variables, in the periodicity of the data, and in the estimation techniques, the comparison does not provide a clear-cut answer. Nevertheless, the authors find that:

- An effective warning system should consider a broad variety of indicators. Currency crises usually seem to be preceded by multiple economic, and sometimes political, problems. Evidence points to domestic and external imbalances that span the real side of the economy as well as the domestic financial sector.
- Variables that receive ample statistical support as useful indicators of currency crises include declining international reserves, currency appreciation, credit growth, and increasing domestic inflation. Deterioration in trade balances, export performance, and real GDP growth are also statistically significant, as are increases in money growth, the ratio of broad money to gross international reserves, and the fiscal deficit.
- Only tentative conclusions can be drawn regarding other indicators, primarily because they have been included in only one or two of the studies under review.

Subject to this caveat, several political, institutional, and financial variables also appear to have some predictive power in anticipating currency crises.

- Variables associated with the external debt profile do not fare well. Also, contrary to expectations, the current account balance does not receive much support as a useful indicator of crises. This may be because exchange rate changes may already reflect the behavior of the current account balance; in most of the studies where the effect of the current account balance was found to be insignificant, the real exchange rate did have a significant effect.

Evaluating Alternative Approaches

Using the studies reviewed above, the authors examine the relative merits of alternative approaches to assessing the probability of a currency crisis. Essentially, these studies provide two different methodologies that could serve as the basis for an early warning system. The most commonly applied approach is to estimate the probability of devaluation. The second approach compares the behavior of selected variables in the period preceding crises with their behavior in a control group and identifies those variables whose distinctive behavior could be used to help assess the likelihood of a crisis. A variant of the latter approach was first presented in an earlier Kaminsky and Reinhart study that constructed a warning system based on signals issued by selected variables.

The advantage of the first approach is that it summarizes the information about the likelihood of a crisis in one number—the probability of devaluation. It considers all the variables simultaneously and disregards those that do not contribute information independent from that provided by other variables already included in the analysis. This methodology, however, has important limitations. First, while it can help pinpoint the more reliable indicators, it does not provide a metric for ranking the indicators according to their ability to accurately predict crises and avoid false signals. The nonlinear nature of these models also makes it difficult to assess the marginal contribution of an indicator to the probability of a crisis. Second, the method does not provide a transparent reading of where and how widespread macroeconomic problems are, making it less than ideal for surveillance and pre-emptive action.

In contrast, the second approach tallies the performance of individual indicators, providing information on the source and breadth of the problems that underlie the probability of a crisis. Furthermore, this approach makes it possible to estimate the probability of a crisis, conditional on the signals issued by the var-

Thai Policy Package Wins Support of IMF and International Community

On August 5, IMF Managing Director Michel Camdessus "greatly welcomed" the "important announcement by Thai authorities aimed at overcoming present economic problems in Thailand through the introduction of a comprehensive package of policies." The policy package, Camdessus said, was "rightly focused on immediate and sweeping measures aimed at assuring the solvency and strength of Thailand's financial system and on supporting fiscal measures and other welcome initiatives aimed at re-establishing a strong macroeconomic basis for stability and growth of the economy." He especially welcomed the Thai government's adoption of a comprehensive restructuring of troubled financial institutions. This was essential, Camdessus said, "to lay the basis for the re-establishment of a sound financial sector and to set the stage for effective recovery."

Camdessus noted that an IMF team was in Bangkok working with the authorities to further develop the package into a multiyear adjustment program that could be supported by IMF resources. He said he was in close touch with governments in the region and multilateral institutions to put together a supplementary financing package in support of the policy efforts of the Thai authorities.

"I am also confident that today's strong actions by Thailand and the financial support that could be extended to it will decisively contribute to stability in financial markets in Asia," Camdessus concluded.

Subsequently, on August 7, the IMF announced that it had convened a meeting of interested countries and multilateral institutions in Tokyo on August 11 to discuss their possible participation in a financing package for Thailand to support the stabilization program being discussed with the IMF. Following the August 11 meeting, Deputy Managing Director Shigemitsu Sugisaki told a press briefing that the international community was prepared to extend about $16 billon to support Thailand's "bold" adjustment measures. The Japanese government and the IMF (subject to Executive Board approval) would each provide $4 billion. For the IMF, this would represent exceptional access to its financing—more than five times Thailand's quota in the IMF. Other contributions would include: Australia, $1.0 billion; Hong Kong, China, $1.0 billion; Indonesia, $0.5 billion; Korea, $0.5 billion; Malaysia, $1.0 billion; and Singapore, $1.0 billion. In addition, Sugisaki indicated that China was "seriously and actively considering" their contribution to the financial package. Subsequently, China pledged to contribute $1.0 billion. Sugisaki said that the Asian Development Bank and the World Bank had indicated their support for structural adjustment and sectoral reform in Thailand.

On August 13, Hubert Neiss, Director of the IMF's Asia and Pacific Department, in Bangkok for negotiations, said that the Thai authorities and the IMF team had completed their work on a comprehensive policy package that would be the basis for an IMF-supported program. Neiss expected that the proposed economic program would be submitted expeditiously to the IMF Executive Board for approval.

ious indicators. Based on these considerations, the authors suggest that the "signals" approach seems to be better suited to serve as the basis of an early warning system.

Signals Approach Helps Identify Source of Crisis

Expanding on the previous Kaminsky and Reinhart study, which examines 76 currency crises from a sample of 15 developing countries and 5 industrial countries during 1970–95, the authors rank various indicators by the probability of a crisis conditional on a signal from that indicator, by the average number of months prior to the crisis in which the first signal is issued, and by the persistence of signals ahead of a crisis.

Each time an indicator exceeds a certain threshold, it is interpreted as a warning signal that a currency crisis may take place within the following 24 months. The threshold values are calculated to strike a balance between the risk of having many false signals and the risk of missing many crises. Since this method can identify the group of indicators that are issuing signals, it can also provide information about the sources of the problems that underlie the probability of a crisis.

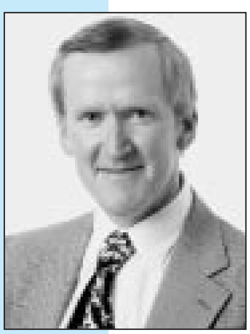
The authors find that the variables with the best track record in anticipating crises under the signals approach include output, exports, deviations of the real exchange rate from trend, equity prices, and the ratio of broad money to gross international reserves. An important area for future work, say the authors, would be to combine the information of the various indicators to estimate the probability of a crisis conditional on simultaneous signals from any set of indicators.

Although an early warning system would be a useful tool for a timely assessment of the likelihood of a currency crisis, any such system is subject to limitations, conclude Kaminsky, Lizondo, and Reinhart. A firm base for policy decisions requires consideration of a number of issues, including those of a political and institutional nature.

Copies of IMF Working Paper 97/79, *Leading Indicators of Currency Crises*, by Graciela Kaminsky, Saúl Lizondo, and Carmen M. Reinhart, are available for $7.00 from Publication Services, Box XS700, IMF, Washington, DC 20431 U.S.A. Telephone: (202) 623-7430; fax: (202) 623-7201; Internet: publications@imf.org. The full text is also available on the IMF's web site (http://www.imf.org).

Conference Explores Origins, Management of Financial Crises

On July 11–14, the London-based Centre for Economic Policy Research (CEPR) and the Economic and Social Research Council's Global Economic Institutions Research Program sponsored a conference, in London and Cambridge, on the Origins and Management of Financial Crises. IMF participants included IMF First Deputy Managing Director Stanley Fischer, Paul R. Masson of the IMF's Research Department, and James M. Boughton, the IMF's Historian. The following is a summary of the conference based on a report by Boughton and Masson.



James M. Boughton

In the 1990s, the study of financial crises has taken on new urgency. The scale of recent crises and the speed with which they now arise pose challenges for analysts seeking to understand the dynamics of financial crises, and for policymakers hoping to avoid them.

A key question for those investigating the roots of currency crises is how to apportion causality. Do financial crises spring from dramatic changes in economic fundamentals? Are they more apt to result from self-fulfilling shifts in speculative behavior? Or do they stem from some combination of fundamental and self-fulfilling factors? The answers have implications not simply for understanding the origins of financial crises but also for devising more effective strategies to avoid or manage these crises.

Crisis Triggers: Fundamentals or Self-Fulfilling?

Timothy Kehoe of the University of Minnesota argued that even when economic fundamentals are relatively sound, extrinsic or noneconomic events—called "sunspots" by economists—can play a key role in altering market expectations about whether a government will be able to service its debts. On the basis of a model that focused on the ratio of government debt to GDP at various maturities, Kehoe suggested that the 1994–95 Mexican crisis was essentially the result of such a sunspot. Because this ratio was lower in Mexico than in some other countries, Kehoe rejected the possibility that fundamentals were unsustainable.

Kehoe maintained that the attack on the Mexican peso followed a relatively lengthy period in which the peso was "ripe for attack." Mexico's stock of short-term debt was high, and this left it vulnerable to a series of noneconomic shocks that provided the market with "bad news." Interest rates rose and the government's fiscal policy became unsustainable—events that Kehoe believed were rooted in the self-fulfilling speculative attack on the Mexican peso.

Some participants questioned this interpretation of events, pointing out that Mexico's fundamentals, including the real exchange rate and the current account, were not all that favorable at the onset of the crisis. Others ascribed greater weight to Mexico's banking sector problems, believing that they played a significant role in the crisis. In any case, some argued, it was impossible to distinguish between sunspot models and models that linked crises to expectations of unobservable future changes in fundamentals.

Other participants explored the implications of multiple-equilibria models. They believed that the Mexican government could have avoided placing its economy in a "crisis zone" by issuing longer-maturity debt. Stephen Morris of the University of Pennsylvania, in a paper co-authored with Hyun Song Shin of Nuffield College, Oxford, maintained that models that focused exclusively on fundamentals or on self-fulfilling attacks ignored vital complexities in the crisis dynamic. An explanation reliant on fundamentals ignored the role of speculators' beliefs, while the self-fulfilling theory assumed that speculators knew exactly what other speculators would do. A more realistic model would allow for a unique equilibrium that depended on financial variables—such as hot money and the costs of speculative trading—as well as fundamentals. In contrast to multiple-equilibria models, this model also would provide a basis for analyzing possible policy prescriptions to curtail currency attacks.

Olivier Jeanne of the University of California at Berkeley and Paul Masson examined the 1992–93 French franc crisis through a model that allowed for crises to be triggered either by fundamentals or by sunspots. Including the latter not only improved the model's explanatory power over the period 1987–93 but also strengthened the estimated effects of fundamentals, they found. Frederic Mishkin of the Federal Reserve Bank of New York questioned whether all the right fundamentals had been tried. He argued that multiple-equilibria models are dangerous because they seem to pass the blame for a crisis from the national authorities to the speculators, thereby removing some of the pressure on the authorities to take corrective actions. Stanley Fischer questioned whether this was the case for France, which had maintained tight monetary policies over the entire period considered and beyond.

In-Ho Lee of the University of Southampton delved more deeply into the puzzle of how cumulative small shocks can generate large and sudden asset price movements. He devised a model of "information cascades," in which investors act sequentially and partly by observing earlier trades. In this theory, market booms and crashes result from a failure in information aggregation. Transaction costs could prevent many traders with bad news from revealing their private information, particularly in a climate of predominantly good news trading. The unintegrated information then tacitly permitted unjustifiably high prices that were, in effect, vulnerable to future reversals. In such circumstances, Lee posited, a reversal need not be triggered by a dramatic turn of events. A small surprise could alter market sentiment sufficiently if large numbers of latent bad news traders unwound their positions at once.

Franklin Allen of the University of Pennsylvania and Douglas Gale of New York University examined the origin of bubbles and their role in financial crises. They stressed the potential importance of the "agency problem"—that is, the problems inherent in investments financed with borrowed money and with lenders who do not base their decisions on how the proceeds of loans are used. Such circumstances encouraged overinvestment in risky assets and led to price bubbles. Even moderately unfavorable outcomes could then burst these bubbles and trigger crises.

Paul R. Masson

Bubbles were of more than academic interest, contended the authors, because they often appear to have significant real effects on the economy. Their collapse can trigger recessions, sometimes severe enough to threaten the stability of the banking sector.

Alan Sutherland of the University of York suggested using information from the term structure of interest rate differentials to judge whether a currency crisis had its roots in a shift in fundamentals or in the self-fulfilling concerns of speculators. Thus, in a pure speculative attack, the country under attack should have a uniformly positive interest rate differential across the maturity spectrum. By contrast, in at least some fundamentals-driven attacks, the yield-differential curve should show a pronounced hump near the very short end. Commenting on Sutherland's presentation, Thierry Pujol of the World Bank presented data demonstrating that such a hump did occur during the run-up to the September 1992 French crisis.

Andrew Crockett

Barry Eichengreen and Andrew Rose, both of the University of California at Berkeley, and Charles Wyplosz of the Graduate Institute of International Studies, Geneva, presented empirical tests that strongly supported the existence of contagion effects. In looking at the origins of the contagion effects of exchange market pressure, they found preliminary evidence that these effects may take place primarily through multilateral trade linkages rather than through similarities in macroeconomic policies or conditions.

In discussing these findings, Stanley Fischer underscored the importance of contagion as a factor that would affect the need for official international intervention. While the evidence for contagion found by Eichengreen, Rose, and Wyplosz was convincing, he was surprised at the mechanism to which it was attributed. He suggested, however, that this research on how contagion effects are transmitted may have been influenced by its time span—that is, its reliance on pre-1994 data and its focus on European crises. Fischer raised the possibility that inclusion of the more recent crises in Mexico and South-east Asia might indicate that the similarity of macroeconomic policies and conditions among countries does play the more important role in contagion effects.

The IMF became, in an immediate sense, a crisis manager.

Managing Crises

In discussing policy issues related to the management of financial crises, Andrew Crockett of the Bank for International Settlements and Morris Goldstein of the Washington-based Institute for International Economics provided overviews on banking and other financial industry crises. In his examination of the theory and practice of financial stability, Crockett concluded that the integration of international capital markets and the globalization of major financial institutions have made the maintenance of financial stability more important and more complex. An external agent—a central bank—is needed to ensure financial stability, he argued, at least until a means can be found to avoid contagion or systemic effects. The search continues, he said, for a system that is stable enough to facilitate resource allocation decisions and yet flexible enough to allow prices and institutional structures to adapt over time and to provide incentives for good decisions and penalties for bad decisions.

Goldstein emphasized the need for an international banking standard as an adjunct to sound macroeconomic policies in a strategy to promote financial stability (see *IMF Survey*, May 26, page 160). Goldstein called on the IMF to play a more active role in promoting bank soundness. Some participants were skeptical about the possibility of an enforceable standard for bank soundness but generally supported the idea if it could be made practicable. Crockett suggested devising a set of standardized statistics along the lines of the IMF's Special Data Dissemination Standard (for IMF member countries having, or seeking, access to capital markets) as a possible alternative to a credit rating approach.

James Boughton examined the evolution of the IMF's role as a crisis manager. He stressed that while one of the IMF's principal aims was "to give confidence to members" by making its resources available in times of crisis, in practice that assistance changed fundamentally with the IMF's response to the 1982 debt crisis. Prior to that point, the IMF had provided resources during crises—notably the Suez crisis of 1956, the gold market crisis of 1967, and the oil and exchange market crises of the 1970s—but the nature of lending during crises did not differ substantively from its noncrisis lending.

With the 1982 crisis, explained Boughton, several elements changed decisively:

• a number of the most heavily indebted countries would have defaulted in the absence of large-scale additional lending;

• a default of such proportions would have threatened the well-being of the international financial system;

• new bank lending, and new debts, were feasible only if accompanied by strong reforms; and

• neither the financing arrangements nor the reforms would have been obtained in the absence of multilateral intervention.

Thus, in these exceptional circumstances, the IMF became, in an immediate sense, a crisis manager. This new role was warranted, explained Boughton, for several reasons, namely: in a globalized economy, financial markets can, and do, overreact to bad news; IMF policy conditionality can strengthen a country's credibility with the market and does reduce the risk of moral hazard; and organized crisis management, such as the IMF provides, offers a viable, and comparatively less costly, alternative to a solely market solution, which would entail an international bankruptcy procedure.

Michael Dooley of the University of California at Santa Cruz concluded by discussing the risks associated with an Argentina-style currency board or—by a controversial extension—the risks implicit in the transition to European economic and monetary union (EMU). He argued that both currency boards and, initially EMU, entail the use of a dual unit of account (for example, for a time, private agents in France will have contracts issued in francs and in euros). Such an arrangement contained the seeds for a speculative attack. He suggested that countries participating in EMU can reduce the risks associated with the transition by promulgating a firm commitment to maintain the monetary union.

Ultimately, as Fischer observed, a conference such as this does not reach a conclusion. The cumulative effect of the various models and interpretations is a set of partial, but mutually reinforcing, ways of thinking about financial crises. Ironically, even as conferees examined the origins of recent crises, another disturbance stirred in Southeast Asia. The timing served as a reminder that the causes of, and remedies for, these crises will continue to be of vital concern. ■

From Suez to Tequila: The IMF as Crisis Manager, by James M. Boughton, is available as IMF Working Paper No. 97/90. Copies are $7.00 and are available from Publication Services, Box XS 700, IMF, Washington, DC 20431 U.S.A. Telephone: (202) 623-7430; fax: (202) 623-7201; Internet: publications@imf.org. The full text is available on the IMF's web site (http://www.imf.org).

(Continued from the from page) Unlike many other developing countries, industrialization in Indonesia has been associated with rapid increases in agricultural productivity and growth. During the 1970s and 1980s, the agricultural sector grew by an average of more than 4 percent a year in response to improvements in irrigation and rural infrastructure. This laid the foundation for sustained poverty alleviation; during the early 1970s, more than half the population and over 80 percent of the poor depended on agriculture. Since the mid-1980s, the expansion of labor-intensive manufactures has been the main source of economic growth and poverty reduction.

Past Achievements

Indonesia's success in reducing poverty was prompted by high rates of broad-based aggregate growth, which averaged more than 7 percent a year during the 1970s and 1980s and 8 percent during the 1990s. Per capita GDP has risen by almost 5 percent a year during the last 25 years and is now at about $1,100.

Poverty Alleviation. The proportion of the population living below the officially defined poverty line declined to about 11 percent in 1996 from some 60 percent in 1970—an impressive achievement given the increase in the population to 200 million from 117 million during this period. Gains in poverty alleviation have been broadly equivalent across urban and rural areas, although the decline in the number of people in urban areas living in poverty is less marked because of a substantial increase in urbanization. Between 1976 and 1996, the proportion of the poor fell by almost 30 percentage points in both urban and rural areas. But poverty in rural areas is still proportionately higher than in urban areas. The aggregate figures also mask variations both across and within regions—in parts of east Indonesia, the incidence of poverty is still above 40 percent.

Human Resource Development. Indonesia achieved universal primary school education in the early 1980s. In addition, the country's secondary school enrollment rate has increased almost threefold since 1970, although it is still only about 50 percent.

Basic social indicators have also improved. Indonesia's infant mortality rate has declined to about 50 per 1,000 live births in the mid-1990s from 119 per 1,000 in 1970. Life expectancy at birth is now broadly comparable with that in the other ASEAN countries—a substantial improvement relative to the early 1970s when Indonesia lagged far behind. A reduction in adult illiteracy stands out as another achievement.

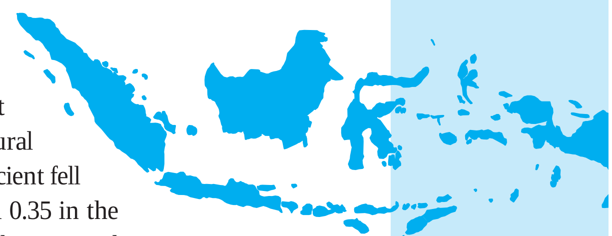
Nevertheless, broader measures maintained by the United Nations Development Program suggest that the benefits of economic growth may be uneven. The "Human Development Index"—a composite measure based on life expectancy at birth, adult literacy and primary and secondary school enrollment rates, and real per capita income—indicates that health and education indicators have improved at a slower pace than warranted by Indonesia's per capita income growth. In a sample of 174 countries, Indonesia is ranked 88 in living standards but only 102 in terms of the index.

Selected ASEAN Countries: Social Indicators

	1970	1980	1994
Infant mortality rate (per thousand births)			
Indonesia	119	90	53
Malaysia	46	30	12
Philippines	67	52	40
Thailand	75	48	35
Life expectancy at birth (in years)			
Indonesia	48	56	64
Malaysia	61	68	71
Philippines	57	62	65
Thailand	60	65	69
Adult illiteracy rates (percent of population; 15 years and above)			
Indonesia	43	33	16
Malaysia	42	26	17
Philippines	17	17	5
Thailand	21	12	6

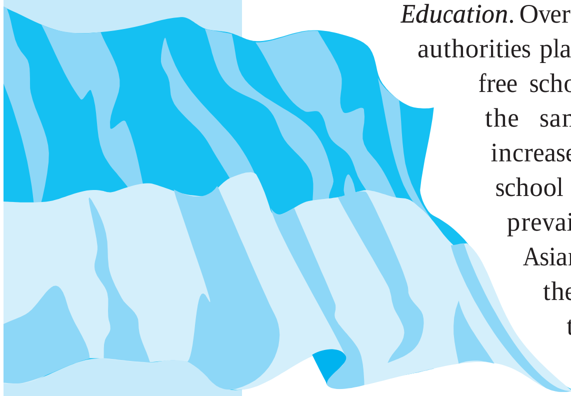
Data: World Bank, *Social Indicators of Development*

Income Distribution. Based on the Gini coefficient—a measure of income inequality ranging from zero (perfect equality) to one (perfect inequality)—income inequality in Indonesia has stayed relatively constant, at about 0.34, since 1970. Despite increased urbanization, income inequality has also remained remarkably stable in urban areas over the past three decades. In rural areas, the Gini coefficient fell to 0.26 in 1993 from 0.35 in the mid-1960s. This decline is attributable partly to migration from rural to urban areas, but it also indicates the success of development programs directed at raising living standards in the poorest rural areas. A consistent increase in the share of consumption expenditure of the bottom 40 percent of the rural population over the past two decades confirms these improvements in income distribution.



Future Directions

In its development planning, the government of Indonesia is increasingly focusing on poverty and income distribution concerns. Indeed, the next five-year development plan, beginning in 1999, aims to eliminate poverty entirely by the year 2004. Budgetary resources allocated to education and health will rise steadily during the plan period, with greater use of explicit quantified targets.



Education. Over the next 10 to 15 years, the authorities plan to provide nine years of free schooling for all children. At the same time, they plan to increase secondary and tertiary school enrollment rates to levels prevailing in other advanced Asian countries and to improve the quality of higher education. The authorities are also intensifying their efforts to reduce the relatively high dropout rate from primary schools—more than 20 percent during the 1990s—and to increase the number of primary school graduates who continue on to secondary education.

Health. Specific targets for health indicators over the next five years will include raising average life expectancy and reducing infant and maternal mortality rates. Public funding of hospitals, located mainly in urban areas, absorbs a large proportion of the health budget. Moreover, because many nonessential hospital services are heavily subsidized and the average rate of cost recovery in hospitals is only about 20 percent, public sector health expenditure does not benefit the poor proportionately. These imbalances may be reduced by allowing fewer exemptions from hospital charges and introducing differential pricing for the poor. An increase in resources for basic preventive services—especially in rural areas—is expected to improve the quality of health care.

Targeted Assistance. Remaining poverty in Indonesia tends to be concentrated in rural areas. Accordingly, the authorities are directing assistance to these underprivileged groups. A major initiative to accelerate poverty reduction, launched in 1994, provides grants to 20,000 least-developed villages—selected on the basis of social and poverty indicators—to help them increase productive capacity and employment opportunities. This initiative is one of a large number of public sector programs to help the poor; it is unique in targeting assistance directly at the village level and entrusting local communities with determining priorities. Use of the funds in each village is decided by community groups, normally comprising up to 30 households, which appraise competing projects and, with the approval of the head of the village, decide on recipients of funds. The groups are responsible for implementing projects ranging from small-scale infrastructure projects to the establishment of small business enterprises and credit schemes operated by village residents.

A new initiative to benefit the poor directly is contained in the presidential decree of August 1996. The decree requires high-income taxpayers—those with after tax incomes in excess of 100 million rupiahs (about $40,000)—to donate 2 percent of their after-tax income to finance a savings and loan program for poor households to start small enterprises.

Minimum Wage Policy. During most of the 1970s and 1980s, minimum wages in Indonesia were relatively low. Between 1990 and 1995, however, average minimum wages across the country increased about threefold in nominal terms and more than doubled in real terms, reflecting the authorities' concern that economic growth had failed to benefit the poor sufficiently. In 1996, the government raised the monthly average minimum wage by 10 percent and mandated that daily wages be paid for 30 days a month, rather than 25 days. Effective minimum wages are now about 90 percent of officially estimated basic needs; future increases in minimum wages are expected to be more modest.

Structural Policies and Governance Issues. Domestic product and financial market deregulation and reductions in trade barriers have spurred the growth of job-creating, labor-intensive manufacturing and service industries. Continued rapid structural reform is essential to accommodate a large increase in the labor supply stemming from population growth and demographic changes. Further deregulation would also help to raise the living standards of low-income groups and improve equity. External agricultural trade is still largely prohibited and, consequently, prices of commodities—such as rice, soybean sugar, and wheat—are higher than would prevail under free trade. Protection of domestic industries by tariffs and quantitative import restrictions creates opportunities to earn economic rents, which impede a fairer distribution of income. Application of the tax system in a more evenhanded and transparent manner, by reducing exemptions and improving compliance, would help to reduce income disparities.

Challenges

The main challenge for Indonesia's policymakers is to sustain the successes of recent years, especially in the context of a rapidly changing global environment. Further reductions in poverty and improvements in income distribution may be more difficult to achieve than in the past. They will require continued macroeconomic stability and structural reforms to secure fast growth and improve efficiency by minimizing policy-induced distortions. ■

Religious Groups Briefed on IMF Policy Advice, Reform Programs

Successful implementation of economic reform requires a national consensus that sustains both the process and the goals of reform. The IMF recognizes the key role that broad-based support plays in the reform process and increasingly is reaching out to wider segments of society to explain the nature of economic problems and the policies needed to secure a durable prosperity.

IMF policy advice plays an important, and constructive, role in helping governments design and implement appropriate reforms. Some critics argue, however, that IMF policy advice is not subject to wider public debate or understanding and that concerns of the numerous groups that make up civil society can go unheard. But the IMF and national authorities have come increasingly to appreciate that economic policy formulation that rests on a broad consensus of social and economic stakeholders can be a critical element in the success of a reform effort. Such a consensus would encompass, for example, the support of trade unions and social and religious groups—often subsumed under the rubric of nongovernmental organizations (NGOs).

At the request of the Religious Working Group on the IMF and the World Bank—and as a follow-up to a suggestion made by the IMF's senior management in an earlier meeting on the evolution of IMF conditionality—the IMF held a half-day seminar in late July to explain to a group of religious leaders the principles of structural adjustment and the elements that go into the design of a reform program. The Religious Working Group—formed in 1994—is a Washington-based coalition of more than 40 Protestant denominations, Catholic religious orders and agencies, national faith-based organiza-

The IMF recognizes the importance of broad-based support for the reform process.

IFS Yearbook Expands Country and Data Coverage

The 1997 edition of the *International Financial Statistics (IFS) Yearbook* has widened country and data coverage to include three new country pages and national statistics on the international investment position and on the labor market.

New Features

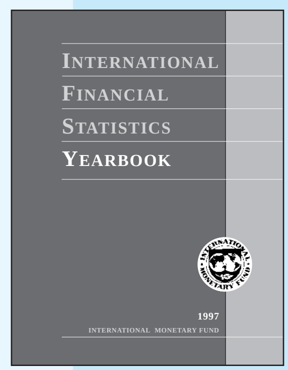
The 1997 *IFS Yearbook* includes data for 163 countries, including IMF member countries and associated territories. The three countries added this year are Albania, Belarus, and Kazakhstan. In 1996, data were added for seven new countries—Cambodia, Croatia, Lao People's Democratic Republic, Latvia, Lithuania, Russia, and Ukraine.

The *IFS Yearbook* also presents three major changes in the balance of payments section:

- International investment position data are included for the first time. A country's international investment position is a balance sheet of its external financial assets and liabilities.
- Within the balance of payments accounts, portfolio investment now includes subcategories for equity and debt securities, and other investment is now broken down by sector (monetary authorities, general government, banks, and other sectors).
- The item "liabilities constituting foreign authorities' reserves" has been eliminated from the presentation. Figures previously shown under this heading are now reclassified under portfolio investment liabilities and other investment liabilities, according to the subcomponents previously contained in liabilities constituting foreign authorities' reserves.

Also new in the 1997 *IFS Yearbook* are labor market statistics, included in the country sections on prices, production, and labor. Data comprise series on the labor force, employment, unemployment, and unemployment rate. Data for these time series are provided by the International Labor Organization.

Main Features of *IFS Yearbook*



The *IFS Yearbook* presents detailed macroeconomic data on a country's exchange rates, international liquidity, money and banking, interest rates, production, prices, international transactions, government accounts, and national accounts.

Data are presented on individual country pages. In addition, to facilitate international comparison, selected series are drawn from the country pages and published in the form of area and world tables in the first part of the yearbook. World tables are provided, for example, on exchange rates, measures of money, interest rates, and GDP (or GNP) at constant prices.

The 1997 *IFS Yearbook* reports annual data for the years 1967 through 1996. The available data from 1948 are maintained in the IMF's Economic Information System. These earlier data can be consulted in previous issues of the yearbook and are available on CD-ROM.

Copies of the 1997 *International Financial Statistics Yearbook*, prepared by the IMF's Statistics Department, are available in English, French, and/or Spanish for $60.00 and may be ordered from Publication Services, Box XS700, IMF, Washington, DC 20431 U.S.A. Telephone: (202) 623-7430; fax: (202) 623-7201; Internet: publications @imf. org.

tions, and social policy groups active on issues of global economic justice. Many members are opinion leaders, with grassroots contacts in developing countries.

IMF staff sought to explain the basic formulation of adjustment programs and policy options and how reforms are designed, using Zimbabwe's experience during 1991–95. Zimbabwe offered a useful example because Africa remains the poorest of continents and therefore continues to attract worldwide concern. In addition, its record of economic reform was uneven. While the country moved forcefully in pursuing structural reforms and improving social welfare, its stabilization efforts during this period were disappointing.

NGO participants posed several questions. Does free trade really benefit all countries at all stages of development? Can countries with very low wages really claim cheap labor as a comparative advantage? Was this, as one participant argued, "comparative advantage without value"? And how can the demands of social equity and social justice be reconciled with economic growth and stability? The seminar provided for a fruitful exchange of ideas. IMF staff were able to clarify the organization's objectives and dispel some of the common misconceptions about the nature of the IMF's involvement in an economy. They emphasized, for example, that while the IMF provides advice in support of its financial assistance, it cannot assume the government's activities, nor does it micromanage a member country's economy. For their part, NGO participants welcomed the opportunity to review a real-life application of an adjustment program and to raise broad issues about the goals and policies of the IMF. They hoped that similar seminars would be organized more regularly in the future.

The IMF maintains communication with interested groups in civil society, including NGOs, in the belief that an ongoing dialogue with such groups can lead to more informed debate and help disseminate information more widely. ■

Gita Bhatt
IMF External Relations Department

Members' Use of IMF Credit
(million SDRs)

	July 1997	Jan.–July 1997	Jan.–July 1996
General Resources Account	742.5	2,750.7	3,478.0
Stand-By Arrangements	100.0	594.9	1,780.5
EFF Arrangements	642.5	2,048.2	1,522.9
CCFF	0.0	107.6	174.6
SAF and ESAF arrangements	72.9	334.0	373.4
Total	815.3	3,084.7	3,851.4

Note: EFF = Extended Fund Facility.
CCFF = Compensatory and Contingency Financing Facility.
SAF = Structural Adjustment Facility.
ESAF = Enhanced Structural Adjustment Facility.
Figures may not add to totals shown owing to rounding.

Data: IMF Treasurer's Department

From the Executive Board

Following are excerpts of recent IMF press releases. Full texts are available on the IMF's web site (http://www.imf.org) under "news" or on request from the IMF's Public Affairs Division (fax: (202) 623-6278).

Guinea-Bissau: ESAF

The IMF today approved a request by the government of Guinea-Bissau to extend the period of the three-year arrangement under the Enhanced Structural Adjustment Facility (ESAF) to end-March 1998, and to augment the amount available by SDR 1.1 million (about $1.4 million). This will provide SDR 4.7 million (about $6.5 million) to support the government's economic program for 1997–98. The IMF had approved a three-year ESAF loan for Guinea-Bissau equivalent to SDR 9.45 million (about US$13 million) on January 18, 1995 (see Press Release No. 95/3, *IMF Survey*, February 6, 1995).

Medium-Term Strategy and 1997–98 Program

The basic economic objectives for 1997–99 are to maintain annual economic growth of about 5 percent, to lower inflation to 5 percent in 1999 from about 66 percent in 1996, and to reduce the external current account deficit (excluding grants) by about 5 percentage points to 16 percent of GDP by 1999. The program aims to maintain the level of investment at 22 percent of GDP, while enhancing its efficiency, through a projected rise in gross domestic saving to 4 percent of GDP in 1999 from 1 percent of GDP in 1996.

Within this medium-term framework, the 1997–98 program, supported by the third annual ESAF loan, seeks to raise annual real GDP growth to about 5 percent, to contain annual inflation (on an end-period basis) at about 10 percent in 1997 and 7 percent in 1998, and to reduce the external current account deficit (excluding grants) to 18 percent of GDP in 1997 and to 16.4 percent in 1998.

Selected IMF Rates

Week Beginning	SDR Interest Rate	Rate of Remuneration	Rate of Charge
August 4	4.13	4.13	4.53
August 11	4.15	4.15	4.55

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 U.S. dollar, weighted 39 percent; deutsche mark, 21 percent; Japanese yen, 18 percent; French franc, 11 percent; and U.K. pound, 11 percent). The rate of remuneration is the rate of return on members' remunerated reserve tranche positions. The rate of charge, a proportion (currently 109.6 percent) 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.
Data: IMF Treasurer's Department

To achieve these aims, fiscal policy will be the key focus of the authorities' economic policy, with a twofold objective of further raising the current primary surplus through an increase in the revenue/GDP ratio, and overhauling the tax system. The program seeks a reduction in the central government deficit to 12.3 percent of GDP in 1997 from 18 percent of GDP in 1996. On the revenue side, a general sales tax and a major reform of external tariffs will be introduced, export taxes will be reduced, and excise taxes will be revised, particularly on petroleum. On the expenditure side, the program focuses on containing nonessential outlays and on further streamlining the civil service in order to provide room for

Stand-By, EFF, and ESAF Arrangements as of July 31

Member	Date of Arrangement	Expiration Date	Amount Approved	Undrawn Balance
			(million SDRs)	
Stand-by arrangements			2,783.45	1,759.95
Argentina	April 12, 1996	January 11, 1998	720.00	214.00
Bulgaria	April 11, 1997	June 10, 1998	371.90	348.70
Djibouti	April 15, 1996	March 31, 1998	6.60	2.63
Egypt	October 11, 1996	September 30, 1998	271.40	271.40
El Salvador	February 28, 1997	April 27, 1998	37.68	37.68
Estonia	July 29, 1996	August 28, 1997	13.95	13.95
Hungary	March 15, 1996	February 14, 1998	264.18	264.18
Latvia	May 24, 1996	August 23, 1997	30.00	30.00
Lesotho	September 23, 1996	September 22, 1997	7.17	7.17
Pakistan	December 13, 1995	September 30, 1997	562.59	267.90
Papua New Guinea	July 14, 1995	December 15, 1997	71.48	36.14
Romania	April 22, 1997	May 21, 1998	301.50	241.20
Uruguay	June 20, 1997	March 19, 1999	125.00	125.00
EFF arrangements			10,500.63	5,721.87
Algeria	May 22, 1995	May 21, 1998	1,169.28	337.68
Azerbaijan	December 20, 1996	December 19, 1999	58.50	44.46
Croatia	March 12, 1997	March 11, 2000	353.16	324.38
Gabon	November 8, 1995	November 7, 1998	110.30	49.63
Jordan	February 9, 1996	February 8, 1999	238.04	98.08
Kazakhstan	July 17, 1996	July 16, 1999	309.40	309.40
Lithuania	October 24, 1994	October 23, 1997	134.55	10.35
Moldova	May 20, 1996	May 19, 1999	135.00	97.50
Peru	July 1, 1996	March 31, 1999	300.20	139.70
Philippines	June 24, 1994	December 31, 1997	791.20	245.95
Russia	March 26, 1996	March 25, 1999	6,901.00	4,064.74
ESAF arrangements			3,546.47	1,421.40
Armenia	February 14, 1996	February 13, 1999	101.25	50.63
Azerbaijan	December 20, 1996	December 19, 1999	93.60	52.64
Benin	August 28, 1996	August 27, 1999	27.18	18.12
Bolivia	December 19, 1994	December 18, 1997	100.96	33.65
Burkina Faso	June 14, 1996	June 13, 1999	39.78	26.52
Cambodia	May 6, 1994	August 31, 1997	84.00	42.00
Chad	September 1, 1995	August 31, 1998	49.56	16.52
Congo, Republic of	June 28, 1996	June 27, 1999	69.48	55.58
Ethiopia	October 11, 1996	October 10, 1999	88.47	73.73
Georgia	February 28, 1996	February 27, 1999	166.50	83.25
Ghana	June 30, 1995	June 29, 1998	164.40	109.60
Guinea	January 13, 1997	January 12, 2000	70.80	59.00
Guinea-Bissau	January 18, 1995	March 31, 1998	10.50	2.36
Guyana	July 20, 1994	April 17, 1998	53.76	8.96
Haiti	October 18, 1996	October 17, 1999	91.05	75.88
Honduras	July 24, 1992	July 24, 1997	47.46	13.56
Kenya	April 26, 1996	April 25, 1999	149.55	124.63
Kyrgyz Republic	July 20, 1994	March 31, 1998	88.15	16.13
Macedonia, FYR	April 11, 1997	April 10, 2000	54.56	45.47
Madagascar	November 27, 1996	November 26, 1999	81.36	67.80
Malawi	October 18, 1995	October 17, 1998	45.81	22.91
Mali	April 10, 1996	April 9, 1999	62.01	31.01
Mauritania	January 25, 1995	July 13, 1998	42.75	7.13
Mongolia	July 30, 1997	July 29, 2000	33.39	33.39
Mozambique	June 21, 1996	June 20, 1999	75.60	37.80
Niger	June 12, 1996	June 11, 1999	57.96	38.64
Senegal	August 29, 1994	January 12, 1998	130.79	—
Sierra Leone	March 28, 1994	December 31, 1997	101.90	5.06
Tanzania	November 8, 1996	November 7, 1999	161.59	110.18
Togo	September 16, 1994	June 15, 1998	65.16	21.72
Uganda	September 6, 1994	November 17, 1997	120.51	—
Vietnam	November 11, 1994	November 10, 1997	362.40	120.80
Zambia	December 6, 1995	December 5, 1998	701.68	40.00
Total			16,830.55	8,903.21

EFF = Extended Fund Facility.
ESAF = Enhanced Structural Adjustment Facility.
Figures may not add to totals owing to rounding.

Data: IMF Treasurer's Department

Performance criteria under IMF arrangements allow the member country and the IMF to assess progress and may signal the need for further corrective policies.

raising the salaries of skilled personnel, in particular teachers. A major strengthening of budgetary procedures is being introduced in 1997; prior authorization of the Ministry of Finance Budget Directorate will be required for all expenditure commitments. In the monetary field, domestic credit policy will remain tight in order to quell inflationary expectations.

Guinea-Bissau: Selected Economic Indicators

	1995	1996[1]	1997[2]	1998[2]	1999[2]
			(percent change)		
Real GDP	4.4	5.1	5.1	4.9	4.9
Consumer prices (end of period)	49.7	65.6	10.3	7.0	5.0
			(percent change)		
Overall fiscal balance (excluding official transfers)	–17.7	–18.0	–12.3	–12.7	–12.2
External current account balance	–23.6	–20.5	–18.0	–16.4	–15.5
			(months of imports)		
Gross international reserves	2.7	2.6	2.7	. . .	. . .

[1]Estimate.
[2]Program.

Data: Guinea-Bissau authorities and IMF staff estimates and projections

Structural Reforms

Progress in structural reforms will continue to focus on accelerating the process of public enterprise privatization; increasing efficiency in the energy sector; enhancing the role of the private sector in agriculture, fisheries, and forestry; improving social services; and reforming the civil service.

Addressing Social Needs

The economic growth strategy continues to rely on a broad-based and export-led development of the agricultural sector and on important contributions from the fisheries and forestry sector.

Guinea-Bissau joined the IMF on March 24, 1977, and its quota is SDR 10.5 million (about $14 million). Its outstanding use of IMF financing currently totals SDR 7 million (about $10 million).

Press Release No. 97/34, July 25

Niger: ESAF

The IMF approved the second annual loan under the Enhanced Structural Adjustment Facility (ESAF) for Niger in an amount equivalent to SDR 19.3 million (about $26 million) to support the government's 1997/98 economic program. The loan is available in two semiannual installments, the first of which is available immediately.

Medium-Term Strategy and 1997/98 Program

The authorities' medium-term strategy seeks to further reduce financial imbalances, establish conditions conducive to sustainable economic growth, and significantly reduce poverty. The economic objectives for 1997/98 are to raise real GDP growth to 4–5 percent a year, thereby allowing real per capita income to increase by at least 1 percent a year; reduce inflation to 3 percent by the end of 1997; and contain the external current account deficit (excluding official transfers) at 11.1 percent of GDP in 1997, and lowering it to 10.5 percent GDP in 1998.

To these ends, the government is determined to improve its financial position by reducing the overall budget deficit to 7.3 percent of GDP by 1998 through enhanced revenue mobilization and a very cautious expenditure policy.

Structural Reforms

The government plans to undertake family planning initiatives and other programs aimed at promoting the quality of life for women. The main reforms will address the public enterprise sector and civil service, as well as education, health, and the environment. The government is also taking steps to streamline the regulatory framework and to reduce its involvement in those areas of interest to the private sector.

Addressing Social and Environmental Issues

The government is committed to increasing the elementary school enrollment rate to 35 percent in 1999 from 29 percent in 1996, and current budgetary expenditures allocated to health and education will be increased by 10 percent a year in real terms over the period 1997–2000. The government will also identify the most ecologically threatened locations and implement priority measures with respect to environmental planning for sustainable development.

Niger joined the IMF on April 24, 1963, and its quota is SDR 48.3 million (about $66 million). Niger's outstanding use of IMF financing currently totals SDR 42 million (about $57 million).

Press Release No. 97/35, July 28

Niger: Selected Economic Indicators

	1995	1996[1]	1997[2]	1998[3]
		(percent change)		
GDP growth	2.6	3.3	4.5	4.5
Consumer prices (end of period)	5.4	3.6	3.0	3.0
		(percent of GDP)		
Overall government balance (excluding grants)	–8.6	–5.4	–9.1	–7.3
Current account balance (excluding grants)	–9.4	–8.8	–11.1	–10.5

[1]Estimate.
[2]Program.
[3]Projection.

Data: Nigerien authorities and IMF staff estimates and projections

Mongolia: ESAF

The IMF approved a three-year loan for Mongolia under the Enhanced Structural Adjustment Facility (ESAF), in an amount equivalent to SDR 33.4 million (about $45 million), to support the government's economic program during 1997–2000. The first annual loan, in an amount equivalent to SDR 11.1 million (about $15 million), is available in two equal

Mongolia: Selected Economic Indicators

	1995	1996	1997[1]	1998[2]	1999[2]	2000[2]
			(percent change)			
Real GDP	6.3	2.6	3.0	5.0	6.0	6.0
Consumer prices (end of period)	53.1	58.8	31.0	13.0	6.2	6.0
			(percent change)			
Overall fiscal balance	–6.4	–9.0	–10.5	–8.5	–7.0	–6.0
External current account balance (excluding official transfers)	–5.5	–10.9	–11.2	–11.2	–10.9	–9.0
			(weeks of imports)			
Gross official reserves	12.2	10.0	11.2	13.3	14.9	15.4

[1]Program.
[2]Projections.

Data: Mongolian authorities and IMF staff estimates and projections

semiannual installments, the first of which can be drawn on August 6, 1997.

Medium-Term Strategy and 1997–98 Program

The authorities' medium-term strategy focuses on rapidly completing the transition to a full market economy and strengthening the foundation for strong and sustainable private sector-led growth by reducing the size of the public sector and fostering the development of private sector activity. The program's medium-term objectives are to reduce inflation to single-digit rates, achieve an annual real growth rate of 6 percent, and increase official gross international reserves to the equivalent of over 15 weeks of import cover. To raise national savings over the medium term, the budget deficit will be reduced to 6 percent of GDP in 2000 from 10.5 percent in 1997. The fiscal adjustment will be achieved by reducing the size of the public sector and reforms in public administration and taxation.

Consistent with the medium-term strategy and objectives, the key macroeconomic goals for 1997–98 are to achieve a real GDP growth rate of 3 percent in 1997 and 5 percent in 1998, reduce inflation from a monthly rate of 3½–4 percent during the first half of 1997 to 1½ percent by end-year; and an annual rate of 13 percent by end-1998, and increase official gross international reserves to the equivalent of over 13 weeks of import cover by the end of 1998.

Structural Reforms

Under the program, the objectives of reducing the size of the public sector and fostering private sector development are being supported by wide-ranging structural reforms. The government has already eliminated virtually all import duties and begun implementation of a major tax reform. Public administration reforms are aimed at improving expenditure control and accountability to set the stage for decentralized decision making. Under the new privatization strategy, the government has announced that it will divest itself of nearly all public enterprises and commercial assets by the end of the decade. Finally, the government has begun to restructure the banking system and is providing a transparent and neutral investment environment.

Addressing Social Needs

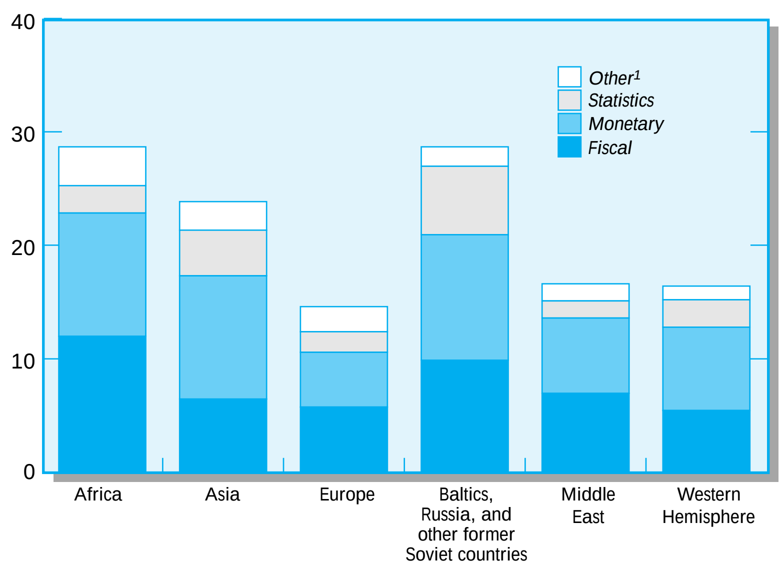
The government is committed to reforming education and health to improve the delivery of services; moving toward a self-financing pension system; and restructuring other aspects of the social welfare system to reduce budgetary costs and improve targeting.

Mongolia joined the IMF on February 14, 1991, and its quota is SDR 37.1 million (about $50 million). Its outstanding use of IMF financing currently totals SDR 29.7 million (about $42 million).

Press Release No. 97/36, July 31

IMF Technical Assistance: November 1996–April 1997

(person years)



Note: IMF technical assistance is conducted under the IMF's own grant resources and through financing arrangements with the United Nations Development Program, the World Bank, the European Union, the Japanese government, and other donors.
[1]Including legal and computer services.

During November 1996–April 1997, IMF staff, long- and short-term experts, seminars, and workshops (excluding IMF headquarters seminars provided by the IMF Institute) delivered approximately 136 person-years of technical assistance. The period saw continued strong multilateral and bilateral donor interest in providing technical assistance, in cooperation with the IMF, to strengthen economic and financial management.

In addition to the design and implementation of fiscal and monetary policies, the IMF provided assistance in institution building, collection and refinement of statistical data, and training of officials. As needed, IMF technical assistance reviewed legislation and offered drafting assistance.

In the monetary area, IMF technical assistance addressed central banking and exchange system issues, as well as the design and improvement of monetary policy instruments. In the fiscal sector, it provided policy advice on tax and expenditure reform and helped modernize and streamline operations in tax administration and budget preparation. IMF technical assistance also helped members produce timely and reliable statistical data, which provide a critical tool in formulating and implementing appropriate macroeconomic policies.

Data: National authorities and IMF staff estimates

Photo Credits: Denio Zara and Padraic Hughes for the IMF, pages 260, 261.

Assessing the Strong U.S. Economic Performance

The following article is based on the recent Article IV consultation discussions by the staff of the IMF's Western Hemisphere Department with the U.S. authorities.

The United States is currently enjoying one of the longest economic expansions since World War II, marked by a combination of strong growth, high rates of job creation, and low inflation. The successful implementation of fiscal and monetary policy over the past four years underpins this robust performance. In FY 1996 (October 1–September 30), the federal fiscal deficit reached its lowest level relative to GDP in over twenty years, and it is expected to decline further in FY 1997. At the same time, monetary policy has held inflation at a relatively low rate while promoting continued expansion of the economy. Flexibility in labor and product markets has helped foster job creation, bringing the unemployment rate down to its lowest level in decades and restraining inflationary pressures. Real GDP growth in the United States rose to 2.8 percent in 1996 from 1.6 percent in 1995. It reached an annualized rate of 4.9 percent in the first quarter of 1997, before easing to an annual rate of 2.2 percent in the second quarter of 1997. The unemployment rate hovered between 5.2 and 5.4 percent from the second half of 1996 through early 1997, before falling below 5 percent on average during May–July 1997. At 4.8 percent in July 1997, unemployment is well below most estimates of the natural rate. At the same time, there is little evidence of inflationary pressures. Excluding volatile food and energy prices, inflation measured by the consumer price index (CPI) fell to an annual rate of around 2½ percent during 1996 and the first six months of 1997 from 3 percent in 1995.

Flexibility in labor and product markets has helped foster job creation in the United States.

Apart from the successful implementation of macroeconomic policies, Federal Reserve Chairman Alan Greenspan—in his recent testimony before the U.S. Congress—attributed the exceptional performance to possible improvements in long-term economic efficiency and to temporary factors restraining inflation:

• Technological advances appeared to have boosted productivity growth.

• A heightened sense of job insecurity has held down wage demands.

• Changes in the health care industry have curbed the growth in the cost of benefits and, hence, overall labor compensation.

• Increasing globalization has enabled greater specialization, allowing comparative advantage to contain costs and enhance efficiency.

• A strong U.S. dollar has restrained the rise in import prices and constrained the pricing power of import-competing firms.

Measurement Problems Complicate Analysis

A major challenge facing U.S. policymakers is to safeguard against the emergence of inflationary pressures and prolong the life of the current economic expansion. At present, inflationary pressures are absent, despite the high level of resource utilization. However, the task of assessing the current economic situation and prospects for the emergence of capacity constraints and potential pressures on prices is complicated by problems in measuring economic activity. In particular, changes in the statistical discrepancy in the national income and product accounts suggest difficulties in measuring the value of national output; other problems lie in measuring prices, especially in the consumer price index. These can, in turn, introduce errors in the measurement of real output and other statistical indicators, such as productivity, which are derived from real output estimates.

Income Versus Expenditure Measures of Output. National output is measured both in terms of expenditures on currently produced final goods and services and the total income generated in the production of goods and services. In principle, the two measures should be equal, but in practice, measurement difficulties give rise to a statistical discrepancy. Analysts now suspect—as suggested by indirect evidence—these estimates may be seriously understating GDP. For example, the growth of real GDP over the last several years has been roughly in line with potential; yet, during this period, the unemployment rate, surprisingly, has declined. In contrast, growth in GDP based on the income estimates is consistent with the declining unemployment rate. Changes in the "real product wage"(hourly compensation divided by prices received by producers) also tend to track labor productivity growth. Since 1995, the average annual rate of growth of the real product wage has been about 1½ percent—about equal to productivity growth based on the income estimates of GDP—but well above the ½ percent annual rate of productivity growth derived from expenditure estimates. Moreover, the relatively strong income estimates of nominal output are more consistent with the higher-than-expected personal income tax revenues in 1996 and 1997.

CPI Bias. The CPI as an indicator of changes in the cost of living is biased in several ways. The CPI measures the cost, at current market prices, of purchasing the same basket of goods consumed in a base period. A cost-of-living index measures changes in the minimum cost of consuming a basket of goods today at current market prices that would provide the same standard of living as a representative basket of goods purchased in the base period. Thus, the composition and relative weights of the basket of goods measured by a cost-of-living index would change over time to reflect the effects of movements in relative prices on the consumption basket. Because the CPI fails to capture the substitution of goods as relative prices change, it has a commodity substitution bias relative to a cost-of-living index. An "outlet substitution bias" also may result if changes in relative prices cause consumers to adjust their shopping patterns, and these changes are not picked up; such a bias may also result if new retail outlets are not surveyed. Both types of substitution biases would cause the CPI to overstate changes in the cost of living.

Other sources of bias in the CPI represent mismeasurement of prices. A "quality bias" may arise because the attributes of goods change over time, and measured price changes may fail to reflect these changes appropriately. "New goods bias" results when discontinued goods are matched to close, but not perfect, substitutes and the resulting break in the price series is recorded as a price change. New goods bias also arises because new goods tend to become part of the commodity basket some time after their introduction; as a result, the CPI routinely misses the price reductions that typically take place soon after new goods are introduced. The report of a recent advisory commission (the Boskin Commission) estimates that the CPI overstates changes in the cost of living on average by 1.1 percentage points annually, with a little more than half of the overall bias attributed to problems in measuring prices (see *IMF Survey*, March 10, page 65).

Output and Productivity Mismeasurement. Problems in measuring nominal output and prices lead to commensurate difficulties in measuring real output and

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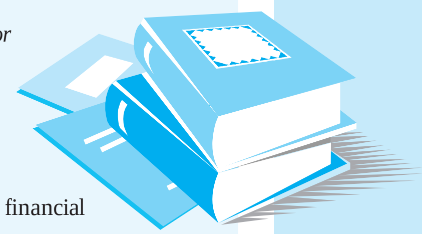

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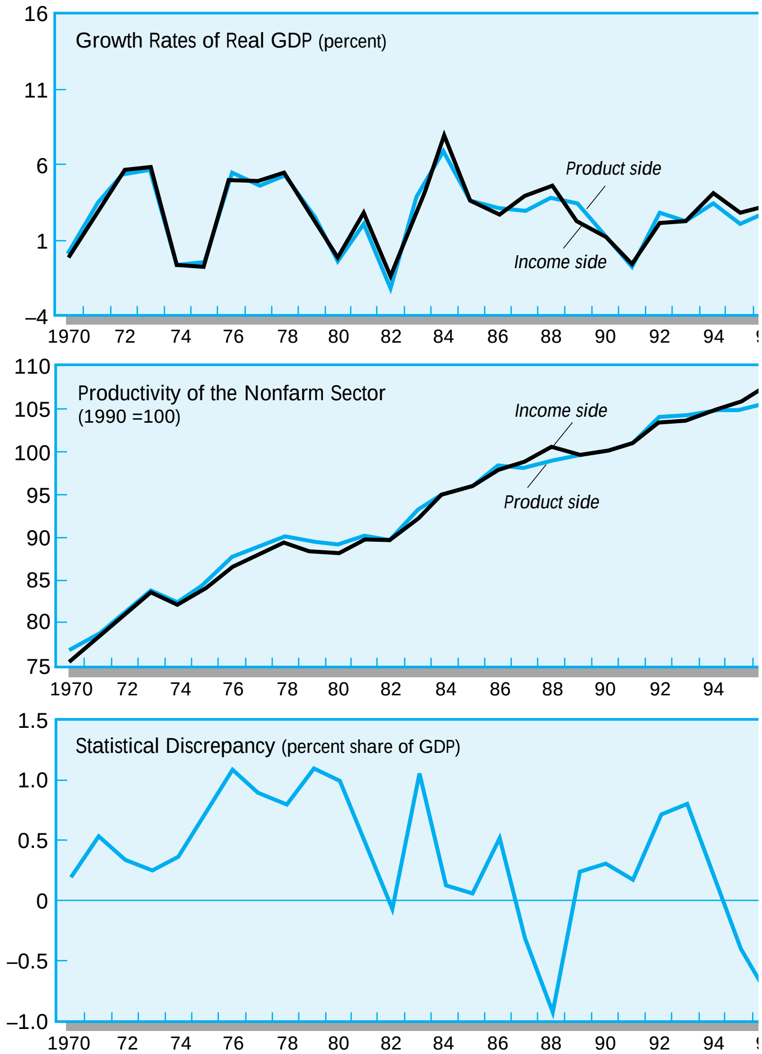
productivity. Because units of output are less easily identified in service sectors, measuring output in these sectors is particularly susceptible to error. As the service sector has grown in importance over the past few decades, the potential for mismeasurement of national output is likely to have increased, giving rise to speculation that some of the productivity slowdown that began in the mid-1970s may be attributable to measurement problems. A Federal Reserve Board study supports this view, noting that measured productivity growth in most service sectors was flat to negative since the mid-1970s, while profitability in these sectors has been well maintained. After examining and rejecting a number of alternative explanations for this apparent inconsistency, the study concludes that mismeasurement of prices, and, hence, output and labor productivity, is the most compelling explanation.

United States: Alternative Measures of GDP Growt Productivity, and the Statistical Discrepancy



Data: Bureau of Labor Statistics, U.S. Department of Labor; Bureau of Economic Analysis, U.S. Department of Commerce, and IMF staff estimates

Job Uncertainty

Despite declines in the U.S. unemployment rate to levels that in the past have been associated with rising inflationary pressures, recent years have recorded relatively low rates of price and wage increases. Some analysts have suggested that the recent behavior of wages and prices may reflect workers' increased concerns about job security, which have limited their demands for wage increases. An internal IMF staff study, however, finds that a variety of standard measures of job uncertainty do not help explain the recent behavior of prices and wages. Instead, the recent favorable performance of inflation may be attributable to factors influencing production costs other than wages and salaries and to the pricing behavior of firms for a given increase in costs. In particular, firms have moved aggressively to rein in the costs of benefits in recent years, successfully slowing growth in their total labor costs. Since the end of 1994, the employment cost index has increased at an average annual rate of about 2¾ percent; while increases in wages and salaries have risen to an annual rate of 3½ percent during this period, the rise in benefit costs has slowed to well below the rate attained at the same point in the previous expansion. At the same time, as suggested above, labor productivity growth may be higher than measured, holding down the rate of increase in unit labor costs and helping to account for the subdued behavior of prices. In addition, the appreciation of the U.S. dollar and weakness in commodity prices have held down materials costs. The pricing behavior of firms may also have been restrained by the competitive effects of the dollar's appreciation and, more broadly, by the ongoing process of globalization of markets. The rise in the profitability of U.S. firms, however, would seem to suggest that competitive pressures may not have had a substantial restraining effect on prices. ■

The next issue of the *IMF Survey* will appear on September 15, 1997.

Following the recent Article IV consultation, the U.S. authorities consented to the release of a Press Information Notice (PIN). PINs are issued, on a voluntary basis, for member countries seeking to make known the views of the IMF to the public. The full text of the U.S. PIN may be found on the IMF's Internet web site (http://www.imf.org) or may be obtained from the IMF's Public Affairs Division (fax: (202) 623-6278).