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Shuja Nawaz, formerly the Managing Editor, is the new Editor. From Pakistan, where he worked for Pakistan Television, he has also worked at The New York Times, and the World Health Organization. He joined Finance and Development in 1975. Mr. Nawaz has a BA from Gordon College, Rawalpindi, and an MS from Columbia University.

Our New Editor

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The former Editor, Mr. Nowzad, who is Chief Editor of the Fund, becomes Deputy Director of the External Relations Department. He retains his links with the journal, as co-Chairman of the Joint Fund-Bank Committee that is responsible for the publishing policy of Finance and Development. The other co-Chairman is Francisco Aguirre-Sacasa, Director, External Affairs Department of the World Bank.
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Books in Brief

The Editor welcomes views and comments from readers on the contents of the journal. The contents of Finance & Development may be quoted or reproduced without further permission. Due acknowledgement is requested.
Reviving Growth in Latin America

Adjustment is a process as much political and social as economic. Access to external capital and debt reduction is crucial if growth is to resume. An assessment by the Bank’s Vice President for the region

S. Shahid Husain

Seven years into the debt crisis, per capita income in most of Latin America continues to stagnate. In many countries, particularly the petroleum exporters, it has declined. Almost throughout the continent, real wages are lower than at the beginning of the crisis. In Mexico, for example, real wages in industry are now only 60 percent of what they were in 1982.

Apart from El Salvador, Nicaragua, and Peru, all countries have made some effort to adjust to the changed international and domestic economic conditions they face. None except Chile and Uruguay has yet been able to resume normal relationships between borrowers and lenders, or to restore satisfactory levels of investment, growth, or improvements in living standards (see Table 1). Concern is growing about the social and political consequences of the prolonged malaise. In a number of countries, populism is on the rise and if the trend continues, the progress that has been made in establishing democratic governments and market economies may be reversed.

Origins of the crisis

What has happened since 1982 is not a mere financial phenomenon. In Latin America, as in a number of countries in other regions, the crisis is the result of the institutional makeup, policies, and relationships that for thirty years led to impressive growth and development are no longer tenable. Many of the costs associated with that development process were postponed, partly by borrowing from abroad. But by the early 1980s the huge accumulation of external debt and a fundamental change in international financial markets meant that these costs could not be postponed any longer.

One of the difficulties inherited from the past is these countries’ inflexible economic structures. Looking back, one can see that there was too much preoccupation with accumulating capital, as the engine of growth, while less thought was given to the issue of efficiency. Over time, and particularly during the 1970s, the productivity of capital declined dramatically. Distortions in relative prices were a factor, and so was the abundance of international credit, often pressed upon the borrowers by banks and exporters, which lowered the quality of screening of both private and public investment. Many countries that sharply increased their investments in the 1960s and 1970s did not see a commensurate change in their growth—actually, in many, growth declined.

Role of government. Governments expanded their role and ownership in most aspects of economic life. In Peru, public expenditure rose from 24 percent of GDP in 1970 to 60 percent in 1982. In Mexico during the same period, the increase was from 22 percent to 46 percent. In Argentina and Venezuela by 1980, public expenditures were more than half of GDP.

Massive centralization of decisions on the mobilization and use of resources, on pricing, investments, and the relationship between management and labor placed heavy demands on administrative and political machinery. Public agencies and enterprises became hosts to inefficiency, waste, and vested interests. For favored investments in particular industries or regions, various taxes were forgiven. Government regulations and subsidies became a fountain of unearned profits, essentially a transfer to favored groups from the rest of society. Decisions on such matters as public utility tariffs, discontinuance of services, and subsidies became totally politicized. In Argentina, for example, the railways now lose nearly $1 billion a year, though they carry only 6 percent of domestic cargo. The political power of the labor union and entrenched position of suppliers make change a difficult political process.

Paradoxically, while governments became overextended in production and finance, where private entities could have functioned quite efficiently, they did relatively little in the social sectors. Few resources were used for services to the most vulnerable groups in society. In Brazil, for example, 78 percent of all public spending in health is devoted to large, curative, high-cost, mainly urban hospitals. Only 22 percent is used for all forms of basic health care.

Inefficient industrialization. In industry, import substitution and limits on external competition, the proliferation of public enterprises, excessive dependence of private enterprise on subsidized credit (often not repaid), import licenses, and control on competition ultimately created closed, rigid, and high-cost structures which could not grow.
reschedulings and some new money but it cartelization of banks did initially lead to debt could not deal with individual lenders. The that while banks as a group dealt with tiated with individual countries, all ensured cartelization of commercial banks, symbolized tions, cross-default clauses, and later the cartelization of commercial banks, symbolized by the bank advisory committees that negoti with individual countries, all ensured that while banks as a group dealt with individual borrowers, individual borrowers could not deal with individual lenders. The cartelization of banks did initially lead to debt reschedulings and some new money but it lacked the flexibility to respond to a change as fundamental as we have seen. There was obviously concern to maintain the banks’ financial soundness, but not enough was done to tailor packages to the circumstances of individual countries, most of which needed time to make basic adjustments in institutions and policies. There was no true case-by-case approach.

**Table 1**

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<td>0.2</td>
<td>-1.1</td>
<td>-2.4</td>
<td>3.5</td>
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<td>-4.0</td>
<td>-3.9</td>
<td>-5.1</td>
<td>-6.3</td>
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<tr>
<td>Export volumes(^1)</td>
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<td>6.7</td>
<td>-3.0</td>
<td>7.6</td>
<td>8.1</td>
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<td>-0.8</td>
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<tr>
<td>Import volumes(^1)</td>
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<td>Terms of trade(^1)</td>
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<td>3.8</td>
<td>-2.7</td>
<td>-14.3</td>
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<tr>
<td>Trade balance(^2)</td>
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<td>33.0</td>
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<td>19.8</td>
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<td>Services, net(^3)</td>
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<td>-41.2</td>
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<td>-40.6</td>
<td>-39.0</td>
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<td>-35.3</td>
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<tr>
<td>Current account balance(^3)</td>
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<td>-42.9</td>
<td>-42.4</td>
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<td>-4.7</td>
<td>-16.9</td>
<td>-11.3</td>
<td>-11.3</td>
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<tr>
<td>Debt service ratio(^4)</td>
<td>33.3</td>
<td>41.8</td>
<td>51.6</td>
<td>40.8</td>
<td>40.9</td>
<td>40.3</td>
<td>45.0</td>
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<td>Of which: Interest service ratio(^4)</td>
<td></td>
<td>18.4</td>
<td>24.8</td>
<td>32.6</td>
<td>30.7</td>
<td>30.6</td>
<td>30.2</td>
<td>29.8</td>
<td>22.1</td>
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Source: IMF; World Economic Outlook, October 1988. 
\(^1\) Annual changes in percent. 
\(^2\) In percent of GDP. 
\(^3\) In billions of dollars. 
\(^4\) In percent of exports of goods and services.

any more: domestic markets were limited and so was the capacity of the societies to subsidize these industries. Furthermore, an industrialization process which catered essentially to the domestic market was inherently contradictory with large external borrowing: it did not, through exports, generate the foreign exchange necessary to service the debt. Simultaneously, a growing proportion of domestic public resources was used to maintain these inefficient industries. This was a fundamental reason for the drying up of funds for development, large and unsustainable budget deficits, and growing internal and external debt.

**External finance.** External capital, increasingly from commercial banks and at variable interest rates, helped to expand production capacity but also aided the postponement of adaptation to changing economic circumstances. In the 1970s, when credit was readily available, it was easy to succumb to offers of easy money. As it turned out, the costs and risks of doing so were almost entirely borne by borrowers; interest rates were variable and the burden of risk and uncertainty was the borrowers’. Syndications, cross-default clauses, and later the cartelization of commercial banks, symbolized by the bank advisory committees that negotiated with individual countries, all ensured that while banks as a group dealt with individual borrowers, individual borrowers could not deal with individual lenders. The cartelization of banks did initially lead to debt reschedulings and some new money but it complementing private investment, and toward social services for the most vulnerable groups. Sustained improvements are urgently needed in the efficiency of government administration and public enterprises. Where possible, market tests should be applied, and where necessary and feasible, enterprises should be privatized.

Third, budget deficits have become the major source of inflation and high real interest rates, stunting private investment. To reduce inflation and interest rates, a policy of deficit reduction must be seen as credible and sustainable. Moreover, the mode and speed of the reduction must be consistent with efficiency and long-term growth. There is usually a trade-off between the speed of the deficit reduction and the quality and sustainability of the adjustment program. Instruments used to cut the deficit quickly—such as increases in export or import taxes and drastic cuts in public investment—are usually inefficient. It takes time for an efficient tax reform to be implemented, to eliminate projects and programs, to cut public employment, and to privatize and eliminate public enterprises.

In the short run, the uncertainty created by high inflation is the main constraint on the recovery of private investment and growth—particularly when capital is mobile. Consequently, in the short run, the main aim of deficit reduction should be quickly to reduce the need for inflationary financing and the crowding out of domestic capital markets. The role of external financing becomes crucial
Some country experiences

Chile, Mexico, Uruguay

During the last six years, these countries have made more far-reaching changes than any other middle-income countries in the world. The Bank has supported reforms in their trade regimes and overall incentive systems to increase competitiveness. It has supported reforms to make the public sector leaner, giving up activities that compete with the private sector while concentrating on those that complement it. By aggressively supporting decisive economic teams in these countries the Bank has sharply increased its exposure relative to that of other creditors. During 1984–87, the Bank provided a fourth of the overall net financial needs of these three countries.

Chile’s economy has been almost completely deregulated, while subsidies and social expenditures are now sharply targeted toward less privileged people. The government budget deficit has been eliminated and public savings are now about 5 percent of GNP. The economy has been growing at about 6 percent a year during the last three years. Chile still has a very large debt burden, with external interest payment amounting to 9 percent of GDP. Sustaining growth will require increasing the investment rate and therefore a reduction in the negative external resource transfer.

Mexico’s most far-reaching changes have been made in the size and efficiency of the public sector and external trade. The massive budget deficit in 1982 has been replaced by a noninterest fiscal surplus of close to 8 percent of GDP. The adjustment has not been easy, particularly because during the last four years private creditors refinanced less than 20 percent of Mexico’s interest payments to them. To service the remaining portion, the public sector had to resort to inflationary finance and sharp cutbacks in investments. Inflation reached record levels and only now has sharply been reduced. Investment remains low and growth has not yet resumed. Uruguay has followed similar policies to Chile’s and Mexico’s in the reform of the domestic economy and the external trade regime.

Argentina

One of the most difficult cases of economic atrophy and indebtedness, Argentina has been in decline for much of the last 40 years. Until recently, much of the adjustment effort of the 1980s centered around reducing the budget deficit, but without addressing the underlying structural issues. During the past year, however, the Government has attempted to put in place an integrated program of adjustment, with the assistance of the Bank, emphasizing trade liberalization, reform of the banking system, privatization, tax reform, and improvement in the efficiency of public enterprises. The weight of Argentina’s debt is heavy and economic reform will be slow to produce results. Progress has been made at the sector level, both in trade and financial markets. However, more will have to be done to achieve the institutional changes required to reduce the deficit of provincial governments and public enterprises. Progress on the fiscal front is crucial to sustain the progress achieved at the sectoral level.

Venezuela

Venezuela is in the midst of a major adjustment program. The program recognizes the country’s need to adapt to lower world oil prices and to increase the productivity of resource use, both in the private and the public sector. Its main features include realignment of exchange rates, prices, and interest rates, reductions in import protection, and policies to improve the operations of public enterprises. An important component of the program is to target the remaining subsidies to foods consumed mainly by the poorest groups and to revamp institutions so that social services for these groups can be quickly expanded. External assistance will be crucial—particularly during the time it takes for these reforms to have effect.
usefully be conceived separately. The issues of adjustment cannot thus be neatly categorized as stabilization, balance of payments management, and development. Stabilization is essential for growth and development. But stability will not last long if it causes stagnation and a prolonged decline in the standard of living. The focus of policy increasingly has to be on stabilization that is consistent with the greater mobility and efficiency of resources, and with a reasonable investment rate. Similarly, balance of payments management and exchange rates have to be regarded as key elements in encouraging domestic efficiency and growth. Improvements in balance of payments which come largely from the compression of imports, and improvements in the domestic resource balance which come largely from sharp reductions in investment, cut at the root of future growth and efficiency and are not likely to be sustainable.

External finance can only complement, not replace, domestic efforts. But where domestic efforts are being made, they are vulnerable to shortages of external finance. A true case-by-case approach to the problem of debt by the international community should lead to the tailoring of finance, and the form of finance, to the specific conditions of a country and its adjustment program and performance. In commercial finance, such an approach is not yet visible. If the current trend cannot be reversed, there will be a case for greater financing by international institutions. The risk to these institutions of the failure of adjustment and growth in the debtor countries is far greater than that from increasing their exposure in support of viable programs.

In a number of countries the weight of debt relative to the economy, the gravity of the institutional and economic distortions, and the external terms of trade are such that substantial new borrowing would lead to an explosive increase in debt service. Moreover, when the debt burden is large and the needed adjustment is deep, countries need flexibility and space to maneuver. Therefore, for countries which are implementing programs of structural adjustment, debt reduction, which leads to a significant reduction in the outflow of resources, is an essential complement to domestic effort. The case for debt reduction is strengthened by the virtual absence of voluntary new loans by commercial banks to Latin American countries. The prospects for flexibility are improving as governments in creditor countries, including the United States, come to grips with the gravity of the economic situation and the need to give the debtor countries time, space, and flexibility to achieve domestic change. Flexibility on the side of the creditors will be productive only if the debtor governments pursue policies for efficiency and resource mobilization with determination and constancy.

**World Bank’s role**

Over the last three years the Bank has moved aggressively to assist the Latin American countries (see box and Table 2). In Chile, Mexico, and Uruguay the adjustment effort owes much to the analysis and framework developed jointly by the Governments and the Bank through adjustment loans. In Argentina, the Bank has worked intensively with the Government on a program of reforms supported by sector adjustment loans. In Bolivia, Costa Rica, and Jamaica we have been a key interlocutor on policy reforms and an important source of finance; in these countries, we have made strong efforts to mobilize donor support and we have been active in the social sectors to cushion the impact of the adjustment in the poorest groups. Lately, we have increased our work on Central American countries, particularly Honduras, and others such as Guyana and Trinidad and Tobago. We have tried our best in Peru but without success. In Venezuela we are helping to assemble a financing package to support the adjustment program that is in progress. In Brazil, where adjustment efforts have sometimes been interrupted, there is a constructive dialogue between the Bank and the Government on key policies and sectors and we fully expect to be a major source of finance for reform and adjustment. The International Monetary Fund has also been active in these countries and there is close cooperation between the World Bank and the IMF in stabilization, adjustment, and growth.

What of the future? In its general relationship with countries, the Bank will emphasize continuity of effort in both economic and sector studies and in lending. Experience has shown that an intermittent relationship tends to be crisis-ridden and ultimately to break down. The Bank’s lending, as of late, will be a response to countries’ own economic and sectoral programs and projects and their implementation. The core lending would be for investments that have an impact over the long run and which are vital for the development of human resources and the country’s institutional base. Typically such lending would be for education, health, the environment, and agricultural infrastructure and research. Outside this core, there will be an increased emphasis in our lending on helping to create the policy and institutional environments that encourage reasonable domestic resource mobilization and efficiency of resource use. We would support with substantial adjustment lending countries which have broader economic and sectoral programs for adjustment and growth.

Lastly, as to the Bank’s coordination with financial institutions, we attach great importance to our relationship with the IMF, and to the Fund’s assistance for well-conceived programs of structural adjustment and stabilization. We also value very highly our close coordination with the Inter-American Development Bank. We shall continue to work hard to help countries mobilize commercial and bilateral finance.

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**Table 2**

Composition of net external flows, 1980–83 and 1984–87

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<tr>
<td><strong>Argentina</strong></td>
<td>1,705</td>
<td>42</td>
</tr>
<tr>
<td><strong>Brazil</strong></td>
<td>1,203</td>
<td>257</td>
</tr>
<tr>
<td><strong>Chile</strong></td>
<td>4,499</td>
<td>457</td>
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<tr>
<td><strong>Colombia</strong></td>
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<tr>
<td><strong>Ecuador</strong></td>
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<tr>
<td><strong>Jamaica</strong></td>
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<tr>
<td><strong>Mexico</strong></td>
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<tr>
<td><strong>Uruguay</strong></td>
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<td>71</td>
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<tr>
<td><strong>Argentina</strong></td>
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S. Shahid Husain
Pakistani, is Vice President, Latin America and Caribbean, World Bank.
He joined the Bank staff as an economist in 1963, and has served as Vice President for Eastern Africa, East Asia, and Operations Policy.
Africa’s Adjustment and Growth

Countries implementing programs of economic reform and adjustment show signs of economic recovery

Charles Humphreys and William Jaeger

Sub-Saharan Africa, on the whole, is often seen with despair as a continent in unrelenting decline. Its agricultural growth has been weak. Its earnings from exports, its terms of trade, and its capacity to import have declined precipitously in the 1980s—pulling down the region’s income per capita. Aggregate GDP declined in 1987 and annual growth rates since 1984 have, on average, continued to be lower than that of population, and below those in other developing countries. Per capita incomes continued to fall in 1986-87, and were about a quarter lower than in the mid-1970s. The value of total imports shrunk by almost 40 percent in 1981-85, and has grown by only 3 percent during 1985-87.

On closer examination, however, the overall statistics commonly reported for Africa in the 1980s mask a more complex, less dismal picture. When recent trends are analyzed within the context of the past 15 to 20 years—or when Sub-Saharan Africa is disaggregated into important country groups, including those that have or have not pursued significant policy reforms—the decline seems to be less precipitous, and the path to recovery more manageable. An historical perspective shows that the sharp drop since 1980 in Sub-Saharan Africa’s export earnings, financial flows, terms of trade, and capacity to import is more a realignment with the long-term trend (after a period of unprecedented highs) than a persistent decline. For example, total export earnings quadrupled from 1973 to 1980, but have fallen by less than half since then. Africa’s export earnings, deflated by import prices, remain similar to levels in the early 1970s, although they are lower on a per capita basis.

The picture for Sub-Saharan Africa as a whole can also be misleading because of the inclusion of five oil-exporting countries whose performance dominates trends for the region. Nearly all the massive decline in export earnings and in the terms of trade for the region since 1980 has resulted from declining oil prices, and when these five countries are excluded, the initial rise and subsequent fall in export earnings from 1978-83 are much less pronounced. Indeed, nominal non-oil export earnings in 1987 were higher than the average for 1978-83, but 8 percent lower when deflated by import prices.

Sub-Saharan Africa has not faced more adverse global conditions than other developing regions. Sub-Saharan Africa’s overall terms of trade (including oil) currently are higher, by perhaps 15 percent, than before the first oil shock in the early 1970s, in spite of their sharp drop in the 1980s. Those for other developing countries have also increased, but by less. Primary commodity prices, when deflated by the price of manufactured imports, have generally declined in recent years. But since 1975, Africa’s non-oil commodity terms of trade have declined only half as much as those for all exporters of primary commodities. This is primarily because Africa’s tropical beverage prices have remained relatively high, while prices for cereals (which are not a big part of Sub-Saharan Africa’s exports) have fallen sharply. While the volatility of export revenues from primary commodities complicates economic management and planning, the variability of export revenues for African countries was actually slightly lower than that for other developing countries during 1970-85.

The international community has also given Sub-Saharan Africa special assistance to cope with its economic problems. The region has more favorable access to industrial country markets than do other developing regions. For example, Sub-Saharan exports to the European Community—which account for three fifths of the region’s exports to industrialized countries—face virtually no tariffs. Sub-Saharan Africa now receives more official foreign assistance and debt relief relative to its GDP and population than any other developing region. The share of net official development assistance (ODA) disbursements going to Sub-Saharan Africa has nearly doubled between 1970 and 1987 to about 30 percent, and it continues to rise. The region now receives about three times as much ODA per person as the average for all the developing countries. Net financial flows to the region have remained strongly positive. However, despite increased donor assistance and debt relief (see following article by Joshua Greene), the region’s debt burden remains roughly one and a half times as great, relative to its GDP and exports, as that of other developing countries, even after adjusting for the higher concessionality of loans to Africa.

Domestic difficulties

Negative external trends in the 1980s have made adjustment both more difficult and more urgent. However, the region has not kept pace with other developing countries in adjusting its economies to unfavorable external factors. Hence, Africa’s crisis cannot be satisfactorily explained wholly as the result of an adverse international economic climate or low commodity prices. Domestic factors are clearly important. Sub-Saharan Africa’s population growth is the highest of any developing region and has been accelerating. The region’s poor living conditions, such as high infant mortality and low literacy rates, make it all the more difficult for economic reforms to effect structural adjustment. Structural economic problems, including institutional weaknesses, have also limited the ability of Sub-Saharan Africa to adjust to external factors. Exports are concentrated...
in a few primary commodities, and productivity has not increased as much as in the other developing countries. Savings and investment rates remain at half the levels of other developing countries and the gap between domestic savings and investment rates is wider in Africa.

Domestic economic problems are also reflected in the region's poor export performance. Growth of its total export volume lags behind that of the other developing countries. Non-oil export volumes have stagnated, and Sub-Saharan Africa's world market share, especially in primary commodities, declined considerably over 1970–83. Manufactured exports have not grown, in contrast to the performance of some of the developing countries. If Africa's overall export growth had matched that of the other LDCs, its debt service ratio would be about half of what it is today.

Policy reforms

Policy distortions and a delay in correcting them have compounded structural weaknesses in Sub-Saharan Africa. However, this situation has now begun to change. The substantial imbalances that arose in external and domestic public accounts in the late 1970s and early 1980s compelled more than half the countries in Sub-Saharan Africa to adopt macroeconomic reform programs. By 1988, the majority of the African countries had initiated adjustment programs supported by the World Bank and the IMF. (They included 18 with structural adjustment operations and another 14 that had sectoral adjustment programs supported by the Bank.) The Bank and the IMF have coordinated their efforts with African governments, particularly in the formulation of Policy Framework Papers, to design better structural adjustment programs.

Exchange rates have been a major area of reform. Domestic currencies had become increasingly overvalued because of higher inflation than in the region's major trading partners and resistance to nominal devaluation. One indicator of overvaluation is the difference between official nominal exchange rates and parallel market exchange rates. In 1986, the average ratio of the black market exchange rate to the official rate was about a third higher than in the early 1970s. A more comprehensive measure of overvaluation, the real effective exchange rates (i.e., trade-weighted nominal exchange rates adjusted for relative inflation), strongly appreciated during the 1970s. By the mid-1980s, that index was at least 25 percent higher than before the first oil shock, while in other developing regions it had declined by a similar amount. The trend of recent progress is evident in the substantial nominal devaluations, averaging almost 50 percent, since 1980-82, and in a declining real exchange rate index, now about a quarter below the peak in the early 1980s and lower than in the early 1970s. Since the mid-1980s, the divergence between real effective exchange rates in Africa and those of Sub-Saharan Africa's competitors in other developing regions has narrowed. But compared to the early 1970s, real exchange rates in the region remain about a third higher than in other developing regions.

Agricultural policy reforms in Africa's most important sector are also significant. While most Sub-Saharan African governments set prices on export crops, some have recently liberalized their policies, either by eliminating fixed pricing or by permitting private traders to market some or all of these crops. Examples of liberalizing countries include Guinea, Malawi, Mali, Niger, Nigeria, Somalia, and Zaire. Changes in these seven countries alone potentially affect 40 percent of Sub-Saharan Africa's rural population. In all but one of these countries, incentives to farmers (in real prices paid for output) have increased as a result of liberalization measures.

Currency devaluation also has substantially increased the scope for higher farm prices. However, most governments adjust official prices with a lag, or by less than the full extent of the devaluation. Hence, governments, rather than farmers, often get most of the immediate gains from devaluation. Although nominal devaluations began to be significant in 1980, it was not until 1984 that governments began to increase nominal producer prices sufficiently to pass the gains from devaluation on to the farmers through higher real crop prices.

Government pricing and marketing policies for food crops have also been widely reformed. In the early 1980s, two thirds of Sub-Saharan African governments announced fixed prices and held a legal monopoly for marketing principal food crops. Since then at least one third of these countries, with 60 percent of Sub-Saharan Africa's population, have liberalized the marketing and pricing of major food crops. In total, about two thirds of the countries now allow the marketplace to set prices for major foods.

The effect of policy reforms on food crop prices has been minimal, however, because high production in 1985 and 1986 led to surpluses that depressed market prices, and because official food crop pricing and marketing policies often were not enforced effectively before these reforms. Where food prices fell, it was usually because of good harvests that gave farmers surpluses to sell. The lower prices gave some relief to consum-
Economic performance in Sub-Saharan Africa: reformers versus nonreformers, 1980–87
(Average annual percentage change)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Period</th>
<th>All countries</th>
<th>With strong reform programs</th>
<th>With weak or no reform programs</th>
<th>Countries not affected by strong shocks</th>
<th>With strong reform programs</th>
<th>With weak or no reform programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth of GDP (constant 1980 prices)</td>
<td>1980–84</td>
<td>1.4</td>
<td>1.5</td>
<td>1.2</td>
<td>0.7</td>
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<tr>
<td></td>
<td>1985–87</td>
<td>2.8</td>
<td>2.7</td>
<td>3.8</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth of agricultural production</td>
<td>1980–84</td>
<td>1.1</td>
<td>1.3</td>
<td>1.4</td>
<td>1.8</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>1985–87</td>
<td>2.6</td>
<td>1.5</td>
<td>3.4</td>
<td>2.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth of imports</td>
<td>1980–84</td>
<td>-1.3</td>
<td>-3.1</td>
<td>-0.9</td>
<td>-4.7</td>
<td>-7.0</td>
<td>-5.7</td>
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<tr>
<td></td>
<td>1985–87</td>
<td>4.2</td>
<td>0.2</td>
<td>2.5</td>
<td>4.9</td>
<td>3.5</td>
<td>-3.3</td>
</tr>
<tr>
<td>Growth of real domestic invest.</td>
<td>1980–84</td>
<td>-0.1</td>
<td>-3.7</td>
<td>-3.5</td>
<td>-7.0</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>1985–87</td>
<td>-0.9</td>
<td>-7.0</td>
<td>1.9</td>
<td>-4.8</td>
<td></td>
<td></td>
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<tr>
<td>Gross domestic savings</td>
<td>1980–84</td>
<td>9.9</td>
<td>2.3</td>
<td>7.8</td>
<td>0.9</td>
<td></td>
<td></td>
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<tr>
<td>(percentage of GDP, period average)</td>
<td>1986–87</td>
<td>10.7</td>
<td>6.0</td>
<td>10.7</td>
<td>5.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth of per capita consumption (real)</td>
<td>1980–84</td>
<td>-2.3</td>
<td>-1.1</td>
<td>-2.4</td>
<td>-1.5</td>
<td></td>
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<tr>
<td></td>
<td>1985–87</td>
<td>-0.4</td>
<td>-0.5</td>
<td>0.7</td>
<td>-0.9</td>
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Note: Country coverage varies by indicator depending on available data over the entire period covered. Averages are unweighted except as noted. Growth rates are computed using least-squares. Periods are inclusive. Figures in parentheses are weighted averages of country growth rates for trade.

1 Countries with strong reform programs are: Burundi, Centre African Republic, Congo, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Macae, Mozambique, Madagascar, Mauritania, Mauritius, Niger, Nigeria, Burkina Faso, Comoros, Equatorial Guinea, Ethiopia, Liberia, Mali, Sierra Leone, Somalia, Sudan, Zambia and Zimbabwe. Countries affected by strong economic shocks (good and bad) are underlined. Others are excluded because special adjustment has not been needed, reform efforts are very recent, or data are lacking.

been implemented in a difficult external economic climate. Even with declining export prices, export earnings, and terms of trade since 1980, the group of countries with strong reform programs in Sub-Saharan Africa continued to improve. This contrasts with the countries with weak or no reform programs. Although most of them benefited from rising export prices, terms of trade, and export earnings since 1985, they have had relatively poorer economic performance.

Reforming countries have benefited in other respects. Multilateral and bilateral donors have gradually but significantly shifted their aid flows to give greater support to countries with strong, sustained adjustment programs, while aid to nonreforming countries has begun to decline in real terms. In 1986–87, official creditors have increased the annual amount of debt relief for reforming countries by some 50 percent compared with the previous six years, while virtually eliminating it for nonreforming countries.

Strong policy reforms, coupled with growing support by donor governments and agencies, appear to have helped offset unfavorable international economic conditions (see table). Agricultural production, exports, and GDP have all improved in Sub-Saharan Africa. The growth of agricultural production more than doubled between 1980–84 and 1985–87 in countries that adopted important reforms, while countries without such reforms have seen their agricultural growth rates stagnate at the low levels that prevailed in the early 1980s. Compared with countries where government controls food marketing and pricing, food production grew twice as fast in countries that have either recently liberalized food marketing or did not enforce controls.

Export performance in reforming countries, too, improved substantially in 1985–87. In reforming countries, annual export growth rates rose on average by five to six percentage points from the early 1980s to 1985–87. In contrast, average rates rose by only about half as much in nonreforming countries.

Excluding countries recently affected by weather, terms of trade, and other exogenous shocks (both positive and negative), annual GDP growth rates in reforming countries accelerated on average from just over 1 percent during 1980–84 to almost 4 percent on average in 1986 and 1987. By contrast, the growth rates in countries with weak or no reform programs increased only a third as much in 1986 and 1987. Preliminary estimates for 1988 reinforce evidence of stronger performance in reforming countries; average GDP growth rates in 1988 were on the rise in the reforming countries, and on the decline in the nonreforming countries.

Because of both better economic performance and a substantially increased inflow of foreign savings to finance higher imports, investment performance improved relatively more between 1980–84 and 1985–87 in countries with strong reform programs. In contrast, there is evidence of a continuing large decline of real investment in nonreforming countries. In addition, the increase in the growth rates of real consumption in 1986 and 1987, compared with 1980–84, was greater in reforming countries. Excluding countries affected by severe shocks, real consumption increased on average faster than population in reforming countries in 1986 and 1987, reversing the decline of 1980–84. It continues to decline elsewhere.

In sum, a close examination of recent trends suggests that satisfactory explanations of the crisis facing Sub-Saharan Africa in the 1980s must take account of domestic problems, including poor policies and structural weaknesses, as well as external factors. There are signs of improved policies and better economic performance overall when the past two or three years are compared to the early 1980s.

However, recovery in the region has merely begun. The improved performance in Sub-Saharan Africa is promising but fragile, and yet to be shared by many countries. The task ahead is to transform these initial, encouraging signs of recovery into significant and durable growth. Achieving this will require sustained and enhanced reform efforts, continued increases in donor support, and stronger, concerted efforts to address long-term development issues.
The Debt Problem of Sub-Saharan Africa

The magnitude of the external debt problem is limiting the capacity of the region to develop. An assessment of some proposals to help reduce this burden

Joshua Greene

During the last few years, the external debt problem facing the Sub-Saharan African countries has received increasing attention. Most of the external debt of these countries is owed to governments and international organizations (see table) rather than commercial banks, and thus does not pose a major threat to the world financial system. Nevertheless, rising debt service obligations have severely limited the ability of the region’s countries to finance critical imports and development projects. Moreover, arrears on debt service have already interrupted some aid flows, and widespread default could hamper the activities of many international organizations, which often depend on repayments of existing loans to finance new projects. This article reviews the debt situation and economic performance of Sub-Saharan African countries and analyzes a number of proposals for reducing their debt-service obligations. Because of the predominance of debt to official creditors for these countries, developments and proposals affecting their commercial bank debt are not discussed.

Dimensions of the problem

The aggregate medium- and long-term external debt of the countries of this region has grown from an estimated $6 billion in 1970 to more than $126 billion at end-1987, or more than 650 percent in constant dollar terms. Over the same period their real GDP per capita has fallen by about 11 percent. External debt as a percentage of GDP or of exports for these countries has risen more than three-fold since 1980, and now exceeds the comparable ratios both for the group of capital-importing developing countries that incurred external payments arrears in 1985 or that rescheduled their debt at any time during 1984–86) and for the group of 15 heavily-indebted countries (Chart 1). During the past five years, more than half the Sub-Saharan African countries have incurred arrears on debt-service obligations or sought debt rescheduling. In 1987, debt service payments by the region’s countries were 26 percent of exports of goods and services; after massive debt relief, the comparable ratio for debt service obligations probably exceeded 50 percent (Chart 2). This is a tremendous burden for countries whose development needs remain extensive and whose real per capita incomes have consistently averaged less than $600 a year.

Origins of the debt problem

This region’s external debt problem has its origin in government actions, in particular external borrowing for development projects. Since independence, Sub-Saharan African countries have undertaken public projects to strengthen their economies, frequently with donor support and generally with heavy use of foreign loans. Many of these projects were designed to improve domestic industry and infrastructure rather than to boost export production directly. It was expected that as these economies developed, commensurate increases in export production and favorable

<table>
<thead>
<tr>
<th>External debt of Sub-Saharan Africa, 1 1970–87</th>
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<tr>
<td></td>
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<tr>
<td><strong>Total external debt, including IMF</strong></td>
</tr>
<tr>
<td>(In billions of US dollars; end of year)</td>
</tr>
<tr>
<td>Medium- and long-term, excluding IMF</td>
</tr>
<tr>
<td>5.8</td>
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<tr>
<td>Publicly guaranteed</td>
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<tr>
<td>5.4</td>
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<tr>
<td>To official creditors</td>
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<tr>
<td>3.8</td>
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<tr>
<td>of which</td>
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<tr>
<td>Governments</td>
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<tr>
<td>2.9</td>
</tr>
<tr>
<td>International institutions</td>
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<tr>
<td>0.9</td>
</tr>
<tr>
<td>To private creditors</td>
</tr>
<tr>
<td>1.6</td>
</tr>
<tr>
<td>of which</td>
</tr>
<tr>
<td>Financial institutions</td>
</tr>
<tr>
<td>0.3</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>1.2</td>
</tr>
<tr>
<td>Not publicly guaranteed</td>
</tr>
<tr>
<td>0.4</td>
</tr>
<tr>
<td>Fund</td>
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<tr>
<td>—</td>
</tr>
<tr>
<td>Short-term debt</td>
</tr>
<tr>
<td>0.2</td>
</tr>
</tbody>
</table>

Memorandum item:

Estimated stock of arrears

— | 0.5 | 0.6 | 14.3 | 16.6 | 18.0 |

Sources: IMF, data compiled for the October 1988 World Economic Outlook exercise; IMF, Treasurer's Department; and International Financial Statistics.

Note: Totals may not add due to rounding.

1 Defined as Africa excluding Algeria, Angola, Morocco, Namibia, South Africa, and Tunisia.
trends in export prices would provide the foreign exchange needed to service these loans.

However, the two oil price shocks of 1973–74 and 1979–80, and the subsequent depression in non-oil commodities markets during the 1980s, undermined these expectations. After the oil price shock in 1973, prices for a number of commodities produced by Sub-Saharan African countries (cocoa, coffee, tea, sugar, groundnuts, sisal, phosphate, and uranium) rose sharply and then dropped steeply. Many of the affected countries responded to the initial commodity price increases by expanding public expenditure. Revenues from commodity taxation did not rise as fast, and governments used foreign borrowing to meet the remaining costs of particular projects. When commodity prices subsequently fell, expenditures were not reduced commensurately, and previous borrowing was often supplemented with new loans to maintain expenditure levels. External debt also accumulated in several oil-producing countries during the mid-1970s, while Nigeria began to borrow heavily in commercial markets after 1977.

The trend toward rising debt burdens accelerated during the 1980s. In the wake of the second oil price shock, because of anti-inflationary policies, industrial country growth during the first half of the 1980s was considerably more sluggish than during the 1970s. This led to a sharp decline in prices of non-oil primary commodities. By 1987, aggregate export earnings for Sub-Saharan African countries excluding Nigeria were 10 percent below their nominal levels in 1980, despite a 16 percent rise in export volume. At the same time, debt-service obligations more than doubled between 1980 and 1987, reflecting both the debt incurred during the 1970s and continued borrowing since then.

The failure of many Sub-Saharan African countries to adapt their policies to the changed external environment tended to exacerbate the debt servicing problem. Besides expansionary fiscal policies and borrowing against exports to maintain consumption levels, many of these countries pursued other policies that weakened their external positions. Growing fiscal deficits and surging private credit demand led to massive monetary expansion and higher inflation in many countries. Since most of these countries did not depreciate their currencies to offset the rise in inflation, their currencies became overvalued, inhibiting exports and, along with exchange controls, encouraging the formation of parallel exchange markets. Also, limiting exports was the common practice of marketing crops through monopolistic public sector agencies that offered low producer prices as a way of meeting their own administrative costs and raising government revenues.

Overvalued exchange rates and government subsidies on imported food, fertilizer, and petroleum products, also promoted imports. Meanwhile the imposition of high tariff rates or quantitative restrictions on imports of finished goods, and minimal tariffs on imported raw materials and intermediate goods encouraged the growth of inefficient, import-intensive manufacturing enterprises. In addition, the failure to adjust domestic interest rates in line with rising inflation promoted capital flight, discouraged domestic saving, and encouraged private borrowing, thereby adding to monetary expansion and further inflation.

**Initial responses**

As a result of all these factors—external as well as domestic—by 1980, a significant number of this region's countries found themselves increasingly unable to meet debt-service obligations, while maintaining existing trends in the growth of imported goods and services. Many countries responded with adjustment programs aimed at curbing domestic expenditure, reducing inflation, and boosting exports. In a number of cases, the Fund supported these programs through stand-by and extended arrangements. The World Bank, through its structural adjustment lending, initiated in 1980–81, also provided significant assistance to many countries, while bilateral donors agreed to reschedule debt for many countries in conjunction with Fund arrangements.

The net flow of Fund credit to Sub-Saharan Africa began to slow in 1984 and turned negative in 1986 and 1987, as repayments from earlier Fund arrangements fell due. However, the Fund continued to serve as a catalyst for debt rescheduling and for new commitments of donor assistance. At the same time, the Bank's adjustment lending increased substantially. Despite the availability of debt relief and the continuing attention of donor countries and international organizations, the situation continued to deteriorate economically during the mid-1980s, and by 1987 the position of most of the region's countries had become precarious. Average export earnings stood at barely 64 percent of their 1980 levels, real aid flows (in constant US dollars) were significantly lower than in the early 1980s, and real per capita GDP was estimated to have fallen below the level of 1970–71.

Partly in response to these developments, the Fund in 1986 established its Structural Adjustment Facility (SAF) to provide assistance on very concessional terms (one-half percent interest, with repayment over a five and one half to ten year period) to low-income countries undertaking programs of comprehensive macroeconomic and structural adjustment. In addition, major donor countries agreed to consider more generous terms for debt rescheduling. However, neither of these initiatives helped to reduce the debt burden of African countries with substantial obligations to international organizations. Moreover, the total funds available through external assistance left many countries with unmanageable balance of payments positions.

**Recent debt initiatives**

During the latter half of 1987, the Fund and the Bank undertook further measures to address the debt problems of very low-income countries. The Fund obtained resources from a number of member countries to allow a substantial expansion of its adjustment lending through the Enhanced Structural Adjustment Facility (ESAF), which became effective in January 1988. The Bank also secured commitments from major donors to establish its Special Program for Africa, to help countries with debt difficulties. Moreover, in 1988, the Group of 7 (G-7) industrial countries agreed on measures to reduce further the bilateral debt-service obligations of very low-income countries.

Despite these initiatives, it is uncertain whether existing aid sources can provide sufficient relief for the debt problem of Sub-Saharan Africa. The total resources available to these facilities (about $12 billion for the SAF-ESAF fund and $6.4 billion for the Special Africa program) and the estimated additional relief arising from the G-7 proposal (perhaps less than $0.1 billion a year) are small compared to the yearly debt-service obligations of these countries (estimated at $21 billion), of which these countries are now paying less than half. Unless these programs are supplemented by additional resources in...
future years, the available funds may provide significant debt relief to this region for only a few years.

Alternative debt proposals

What more could be done to help debt-distressed Sub-Saharan African countries? To supplement these recent donor initiatives, a number of other debt relief proposals have been proposed, of which three types relating to debt from official creditors are considered here.

Help with debt-service obligations to international organizations. One idea that has been suggested is to provide assistance to low-income countries in meeting debt-service obligations to international organizations. This proposal would be of particular use to Sub-Saharan African countries where, as noted earlier, a large proportion of debt is owed to international organizations. One possibility would be for such organizations to raise additional funds from member countries for the purpose of replacing existing loans with loans carrying more concessional terms. As with more formal debt rescheduling, the replacement of outstanding loans would give borrowers more time to meet their debt-service obligations.

The most direct way to reduce debt burdens would be through formal rescheduling of these obligations. However, rescheduling would represent a major policy change for international organizations, and most lack the spare capital to provide substantial debt relief without curtailing their primary objective of offering new loans and programs. Obtaining new capital from major donors would seem essential for these organizations considering formal rescheduling. Whether such funding can be secured under the current economic environment facing most donor countries is highly uncertain.

Another option would be to create a new international facility charged with buying the outstanding debt owed to international organizations and then replacing existing debt-service obligations with new loans on more concessional terms. A facility of this sort would have the advantage of providing debt relief to low-income countries without requiring international organizations to provide new loans themselves. At a minimum, this would require a large initial capitalization from donor countries to cover the difference between obligations due to international organizations and payments received from outstanding borrowers. A new international facility would also face considerable start-up costs, including the need to screen and supervise new loans to debt-distressed countries. For these reasons, it seems unlikely that this approach to meeting debt-service obligations to international organizations would be followed.

A third option for relieving the debt-service obligations of low-income countries to international organizations would be for bilateral lenders to relax their normal rules linking aid to import payments, and provide funds on a country-by-country basis to repay international organizations. This could involve either a direct transfer to the indebted country or a payment made on that country’s behalf to an international organization. This approach would have the advantage of allowing donors to oversee the selection of countries and tailor the degree of assistance to each country’s apparent needs. One possible disadvantage of this scheme would be the need for donor countries to decide, in every case, how much financial support each donor should provide to qualifying debtors in meeting their obligations to international agencies. This could prove more difficult than the alternative of giving multilateral agencies the funding to arrange rescheduling or debt replacement themselves.

One major drawback to any proposal for debt relief on obligations to international organizations is that bilateral donors would inevitably need to increase their aid flows.

The likelihood of a major increase in donor aid to support this type of activity seems uncertain, given the present budgetary positions of the leading donors. Any such program would probably thus displace at least some of the funding available for new aid programs to low-income countries. This would mean a reallocation of existing aid resources, not only among functions but also across countries in favor of those with large debt service problems.

Bilateral debt forgiveness. A second proposal for assisting Sub-Saharan African countries is to establish large-scale debt forgiveness programs among bilateral donors. This could be considered an extension of an earlier UNCTAD agreement negotiated in 1979 calling for retroactive adjustment of past official development lending to the least developed countries. A few donors have already forgiven certain debts owed by Sub-Saharan African countries, and partial debt forgiveness is among the options creditors may provide under the recent G-7 proposals. However, debt forgiveness of strictly government obligations may not provide large savings to some countries already receiving debt rescheduling, as many of these countries have already been granted full or nearly total debt relief on their current external obligations and arrears to national governments and export guarantee agencies. Savings could nevertheless arise from eliminating the moratorium interest obligations on rescheduled debt. This is particularly true for countries that have repeatedly undergone debt rescheduling, and thus accumulated a much larger stock of debt against which these interest payments are calculated.

Debt forgiveness would also eliminate the sizable administrative burdens associated with periodic debt reschedulings. In addition, it would stop the steady accumulation of bilateral debt that has come from repeated debt reschedulings and the resulting capitalization of interest and arrears. To succeed, debt forgiveness would have to be limited to very low-income countries and be conditional on pursuing appropriate economic adjustment programs, perhaps with a certain amount of forgiveness occurring each year after the successful completion of a Fund-supported economic adjustment program. These requirements are already accepted as conditions for receiving debt relief from Paris Club donor countries. To guard against future debt problems, new bilateral aid might also have to come in the form of grants, rather than loans. Donor countries might be less willing to accept this proposal, although in the last year many donors have been willing to increase the percentage of aid given as grants to some low-income countries that are

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undertaking major economic adjustment programs.

Eliminating Sub-Saharan African debt and providing only grants. Perhaps the most extreme debt relief proposal suggested is to forgive all external debts, including those to international organizations, and to restrict all future assistance to outright grants. This was also proposed in the 1979 UNCTAD agreement mentioned above. Such a strategy would, of course, eliminate the Sub-Saharan African debt problem. However, it raises difficult policy issues, including the possibility of a reduction in net flows to Sub-Saharan African countries. In addition, the resources required to forgive all outstanding external debt of this region far exceed the present or foreseeable aid budgets of industrial countries. Simply to repay the estimated end-1987 debt to international organizations would require more than $29 billion. As this is more than twice the annual sum of official grants and net official borrowing by these countries in 1987, this proposal appears financially infeasible.

In sum, some broadening of bilateral debt forgiveness seems the most likely new initiative to assist Sub-Saharan African countries. This might be accompanied by a small program of bilateral aid toward a portion of their debt-service obligations to multilateral agencies.

New adjustment strategies

Along with the policy initiatives by the creditor countries, it is essential for Sub-Saharan African countries themselves to adjust their policies to the changed external situation to alleviate their debt burdens. One way is to increase domestic savings by encouraging private savings, as well as by increasing public savings through fiscal retrenchment. Since many of these countries have very high inflation rates and negative real interest rates, encouraging private savings may require substantial increases in nominal interest rates, so that real rates become positive. As for boosting public savings, this will require measures to decrease the government’s budget deficit, through revenue increases and appropriate expenditure cuts.

It is beyond the scope of this article to suggest strategies for diversifying the exports of Sub-Saharan African countries, promoting efficient industrialization schemes, or encouraging trade liberalization among the industrial countries. Without substantial new commitments of foreign assistance provided for longer time periods, however, it is difficult to foresee an end to this region’s debt problem, much less the underlying problems of poverty and stagnation that still continue to affect many of these countries.

A longer paper on this topic is available from the author.
Technological Change in Industry in Developing Countries

The main trends, and the issues they pose for government policy

Carl J. Dahlman

T
technological change in industry has speeded up in the last few years. Five key trends are noticeable. So far these trends are most evident in the industrialized countries, and to a lesser extent in the more advanced developing countries. But they are gathering momentum, and they have profound implications for all groups of countries—not only for how goods and services are produced, but for what is produced, where, and by whom, for the distribution of income from this production, and for the nature and direction of international trade flows.

Trends

Increased rate of innovation. The past ten years have seen a tremendous rise in the rate of innovation. Much of this innovation has clustered in three areas: microelectronics, biotechnology, and new materials. On the supply side, innovations have been pushed forward by a series of advances in material sciences, solid state and plasma physics, and by substantial improvements in scientific instrumentation. On the demand side, they have been driven by technological rivalry among nations and industrial firms, arising from intense competition for world markets. Meanwhile, the industrialized economies and the most rapidly industrializing developing economies in East Asia have increased the shares of GNP that they spend on research and development.

Broader applicability of new technologies. The dramatic changes that have taken place in electronics and telecommunications, and their effects, illustrate some of the characteristics of many of the new technologies. These changes have not been confined to processes and products within the electronics and telecommunications sectors, but have opened new possibilities in a wide range of other sectors, including process control in the continuous-process industries such as steel and petrochemicals; automation in assembly-type industries such as automobiles and other consumer durables; and automated data processing and communications in service industries such as banking and insurance. In 1984, for example, in France, Federal Republic of Germany, Japan, and the United Kingdom, the sales of information technology industries accounted for only between 0.9 and 2.3 percent of GNP, but in the same year between 60 and 65 percent of manufacturing firms in those countries adopted some form of microelectronics technology.

Shorter life cycles and greater flexibility in response to customers' needs. New electronics-based technologies have made possible a move to computer-integrated manufacturing. This permits new products to be produced very quickly once they have been designed. It also permits manufacturers to respond rapidly and flexibly to the specifications of customers and to changing market conditions. As a result there is a strong trend toward more product diversification and more competition in the design, distribution, and servicing of products, in addition to production itself.

The rapidity of technological change, an increase in the number of suppliers, and the faster diffusion of technology have all tended to shorten the life-span of new technologies. There is pressure to cash in on the profits from each new product as quickly as possible before it becomes obsolete. As a result, technological development is becoming more international among industrial countries and major international firms are developing new competitive strategies, including the formation of strategic alliances to share technology. For example, of 974 international cooperation agreements made among firms between 1982 and 1985, 26 percent were for integration of R&D activities and 17 percent were for technology transfer.

Increased automation, smaller role for unskilled labor. Increased automation and the greater emphasis on product design, development, and marketing mean that being a low-cost producer, based on cheap labor, no longer assures a country of being competitive. In many sectors, competitive advantage now depends less on lower production costs than on speedy and reliable delivery, high quality, and the ability to expand the range of products and services to fit customers' changing needs. This trend tends to go against countries whose most abundant resource is cheap unskilled labor.

Meanwhile, automated technologies are replacing the work of skilled labor and even white-collar professionals in business and technical fields such as architecture and medicine. Though such technologies might potentially relieve some of the technical skill constraints which are such a problem in many developing countries, their use itself requires specialized operational and maintenance skills.

Changes in use of inputs. In energy-intensive process industries such as steel and cement, increased process control has been making energy use more efficient. In many industries, better integration between design and production and new optimization techniques are leading to material savings. Increasingly, too, synthetic and new composite materials are replacing and beginning to replace traditional materials such as rubber, jute, steel, copper, and others which are important exports for many developing countries.

Simultaneously with these changes in technology, a major change has taken place in the organizational systems and methods used for production, pioneered by the Japanese. The concepts of just-in-time inventory, zero defects, and total quality control have reduced costs, improved the quality and flexibility of products, and made the Japanese formidable competitors across a wide range of products and markets. (Under a just-in-time inventory system, a firm takes delivery of materials, parts, and components just as it needs them for production; while a zero defect-total quality control system assures that by strict control of quality, from purchasing of inputs through to production and final assembly, none of the firm's products are rejected for failing to meet quality standards.) Many other producers are scrambling to implement some of these new techniques.

The Japanese model entails different relationships between final assemblers and suppliers. For example, having supplies of inputs manufactured nearby and delivered at intervals throughout the day removes the need for a firm to tie up large amounts of capital in inventories. To the extent that the Japanese model comes to prevail over the US model—in which inputs are obtained worldwide,
from locations with low production costs—the market opportunities for developing country suppliers of some manufactured products, such as auto parts, may decrease in the future.

Implications for LDCs

For a country able to seize the opportunities offered by new technologies and new forms of organization, these trends offer tremendous potential. For others, the rapid pace of technical change can be a threat. Among developing countries, present trends show an increasing polarization between those that can successfully adjust to technical change and heightened international competition, and those that cannot. This puts a premium on developing strategies for being able to take advantage of technology and technical change.

In what follows, we first review some general policy considerations at the country level, and then look at what such strategies entail. Technical change is defined broadly, as change in the technological knowledge, procedural methods, and organizational modes used to transform inputs into outputs. This definition lays less stress on hardware than on knowledge, organizational modes, and methods. This is because technology is to a large extent embodied in people and institutions, not just in physical objects, and hence to acquire technological capability is mostly a matter of building up skills and institutions, not of buying hardware. Technology policy in a developing economy may be defined as the network of policies and institutions that affect how the economy acquires technology from abroad, diffuses and uses technology, and improves and develops technology.

To be at the forefront of international competition one must continually develop new technology. That is why technology policy in industrial countries is concerned mainly with innovation and research and development. But developing new technology can require enormous amounts of financial and human resources, and thus one of the key elements of successful technology policy is to be able to acquire technology effectively from abroad and adapt it to local conditions.

It is important here to distinguish the benefits of producing new technologies from the benefits of using them effectively. For example, several developing countries, excited by the prospects offered by computerization, have thought it important to produce all the computer hardware domestically. But because the computer industry is advancing so rapidly, worldwide, they may end up producing less cost-effective products than they could import.

Strategies that concentrate on adopting new technologies from abroad and using them very efficiently often yield much higher returns than those that concentrate on the development of technology—at least until the gap with the technology leaders is considerably narrowed. Japan followed such a strategy, relying at first on imported technology, coupled with reverse engineering, adaptation, and improvement of that technology. Having reached the frontier, however, Japan now allocates more resources to developing new technology. Some of the other very rapid industrializers, notably the Republic of Korea and Taiwan, Province of China, have advanced by virtue of being very good at acquiring and using foreign technology.

Strategies

To develop technological capability, countries need to offer appropriate incentives through the economic policy framework, build a network of institutions and information resources, and use specific mechanisms to help develop the demand and supply of technological elements and the linkages between them. Many of these capabilities and the links between them may develop spontaneously as markets grow. In areas where there are significant differences between private and social objectives and returns, government intervention needs to play a role.

Obviously the problems and needs of upper-middle-income and relatively large economies such as Brazil, Korea, or Mexico, which already have large industrial sectors and significant technological capacity, are very different from those of small low-income economies such as Guinea-Bissau or Bhutan, which are still dominated by traditional agriculture.

Where some of the basic capabilities already exist, what is needed may be largely a matter of more and better technical information services, developing some specialized capabilities that may be missing, perhaps redirecting the focus of some institutions, and strengthening the links and interactions among research institutes, universities, engineering consultants, and firms, all under a general policy environment that fosters increased efficiency.

Where basic capabilities are not yet developed, as in most of the less developed more agricultural economies, actions will be needed to increase people’s awareness of what can be done with modern technologies, and to build up institutions that will help the economy take advantage of such technologies. Such actions will probably include efforts to expand general education and technical training, the development of some engineering capabilities, very practical hands-on technical extension services in selected industries, and the creation of a small core of technology specialists to assess and select technologies in a few sectors of particular relevance to the economy. Even the least developed economies stand to benefit from modern technology, provided it is appropriately chosen to match their needs and capabilities.

In designing a strategy in any country, it is necessary to consider the nature and efficiency of the government and the bureaucracy that is to implement the strategy. Even well-intentioned policies can have deleterious effects if improperly designed or if the people charged with their implementation do not have the relevant background or expertise.

In planning strategies to take advantage of the potential offered by technology and technical change, it will generally be helpful to consider seven interrelated factors:

Ability to determine what kind of technology is most suitable. In some instances, given relative factor prices, markets, and existing skill levels, it may make sense to acquire traditional technologies that are relatively easy to assimilate and master. In other cases, the absolute advantages of some of the newer technologies may make it advisable to acquire them. This raises the issue of possibilities for leapfrogging (i.e., acquiring advanced technologies straightaway, rather than first mastering intermediate technologies). But adopting some of the advanced technologies usually requires special skills and supporting activities and infrastructure, which may not be sufficiently well developed. These requirements, for example, extensive technical training in new fields and better telecommunications infrastructure, may make leapfrogging prohibitively expensive. Leapfrogging is most likely to work successfully in economies that do not have too much capacity invested in old technologies but at the same time have considerable ancillary capacities, as well as rapid growth of demand, allowing them to take advantage of the scale economies of the new technologies.

Probably more extensive than the opportunities for leapfrogging are opportunities for blending new with older technologies. In Thailand, for example, traditional river boats have been equipped with large old automobile engines and long propeller shafts, turning them into a very fast and efficient mode of river transport.

Ability to assimilate and diffuse technology efficiently throughout the economy. Once acquired, technology needs to be diffused and efficiently used. In almost any developing country, economic performance differs tremendously among firms within the same industry. This partly reflects differences in the technology firms use, but it also reflects differences in firms’ ability to use the
same type of equipment. Efforts to increase the diffusion of technology among firms and to encourage its efficient use can substantially increase the competitiveness of a country’s industry.

Such efforts require well-functioning information networks within a country, and effective product, labor, and capital markets. If the more price-effective products are to drive out the less price-effective ones, the market must not be encumbered with regulatory constraints on competition and pricing, and market entry and exit must be relatively free. While there are market failures that need to be addressed through government policy, there are even more instances of policies and corrupt practices that inappropriately distort price signals or otherwise misallocate resources, hindering technological improvement and economic growth. Workers must have the skills to assimilate new technologies and acquire technological mastery, and must be mobile enough to permit further diffusion of skills and technology throughout the economy. There have to be adequate sources of financing for the introduction of new products and services and for the improvement of existing ones.

**Ability to adapt, improve, and develop technology.** Even for technology acquired from abroad, countries need the capacity to adapt, improve, and develop technology locally. Local circumstances may require adaptations to cope with, say, a smaller scale of production, special raw material conditions, or special product needs. Some of the adaptations indicated may be minor changes in processes, inputs, equipment, or organizational arrangements that can be added or substituted for those in use. Others may involve completely new approaches including new products and new processes that can only be embodied in new production facilities. Countries also need to be able to improve technology as more experience is acquired in its use, and as local conditions such as price, the availability of inputs, and market requirements change over time.

Many of the publicly-funded research and development (R&D) institutes of developing countries are very academic and their concerns are quite removed from the needs of the productive sector. Often one cannot blame them for their irrelevance. Typically the ministry they are under has not stressed that they should support the productive sector and has not given them any incentives to do so, such as asking them to finance at least part of their operating costs from support services and contract research. In most developing economies, experience shows that it is most efficient for public R&D institutes to concentrate on intermediation and support for the acquisition, assimilation, adaptation, and improvement of technology obtained mainly from abroad, while undertaking some R&D focused on local topics, such as the use of particular local raw materials or specific production problems or product characteristics. It is only as an economy matures and has difficulty in obtaining technology from abroad that there is a greater role for more basic research.

**Education and training.** To be competitive, a country needs to give strong emphasis to education. First, it needs personnel qualified to monitor technological and other trends, assess the relevance of the trends to the country’s circumstances and those of its individual firms, and help to develop ways of reacting to and taking advantage of the trends. Other highly trained people are needed to assimilate, use, adapt, improve, and in some cases develop local technology that may be more useful than what can be obtained from abroad. A good part of the success of the East Asian newly industrializing countries is attributable to the heavy investments that they made in improving secondary and higher education, particularly in engineering and other technical applied areas. Higher education in many Latin American and African countries, by contrast, has been giving heavy emphasis to law, the humanities, and the social sciences.

Second, good basic education, including a strong emphasis on technical subjects and engineering, needs to be quite widely spread among the population before a country can expect new technologies to be rapidly diffused and adopted, or local adaptations and improvements to be made on the shop floor.

Trained specialists can only make their full contribution if they work in appropriately oriented institutions. Such institutions do not develop automatically or quickly. Often, special action by governments and industry associations is needed to get them started or speed their development.

**Legal framework.** Much technology from abroad can be obtained informally, for example through imitation, foreign study and training, purchase of foreign capital goods, and technical assistance from suppliers of equipment, components, and materials, as well as from users. However, much foreign technology has to be acquired through more formal means. Many countries have legislation that restricts some aspects of formal technology transfer. To acquire foreign technology efficiently, countries may need to reexamine their policies affecting technology transfer, direct foreign investment, and intellectual property protection. Excessive limits on royalty payments and other restrictions on technology licensing agreements may make foreign licensors unwilling to transfer proprietary technologies. Some of the newest and most desirable technology can only be obtained through allowing direct foreign investment in which the foreign producer retains full control and can generate and repatriate royalty/profit flows. Adequate legislation (and its enforcement) to protect intellectual property is needed to assure foreign investors and foreign licensors that their technology will not leak out to competitors.

**Information networks.** Developing countries need information not only on what is currently available but also on technological trends, in order to avoid choosing technology that may rapidly become outmoded. They need to know where to obtain technologies, with a sense of the alternatives offered by different suppliers. They also need to keep abreast of key trends in the foreign and local markets that the country plans to produce for. They thus need to combine technological information with market intelligence. Most of this information gathering and analysis has to be done at the firm level, but because of the economies of scale in this activity there is also an important role for specialized institutions, including technology agencies and special consulting organizations.

**Policy environment.** Most of the improvement and development of technology takes place at the level of the firm, in response to economic incentives and penalties. Firms need supporting networks and institutions for information, technical assistance, testing, quality control, and research and development, but these will not provide the motivation for firms to improve their efficiency and the quality of their products. It is critically important that the policy environment put pressure on firms to reduce costs, improve quality, and adopt more efficient new technology, by exposing them to foreign and domestic competition, and that it keep them free from cumbersome restrictions, so that they can use the most efficient new technology and redeploy resources.

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The Evolving Role of IDA
A review of the recent lending experience of the International Development Association

Jeffrey A. Katz

Work is in progress on the negotiation of the Ninth Replenishment of IDA (IDA9), under which donors will pledge resources for a three-year period beginning in the Bank's fiscal year 1991 (see box on IDA9). The International Development Association is the Bank affiliate that provides long-term concessional assistance to its poorest member countries. As donors discuss the future needs of IDA and its members, attention will focus on IDA's experience in recent years. This article reviews and assesses IDA operations and its changing lending strategy over fiscal years 1985-88.

Context of IDA's task
IDA aims to support efficient programs designed to foster growth and reduce poverty in the poorest member countries of the Bank. These countries face a long-term development challenge, and IDA helps build the human capital, institutions, and physical infrastructure needed to bring about growth on an equitable and sustainable basis. The economic difficulties of the 1980s deeply affected IDA recipients and heightened the need for these countries to improve the efficiency, flexibility, and management of their economies. Growth slowed in most IDA recipient countries. Countries that were highly exposed to adverse international trends or were ill equipped to adapt to the new situation suffered the most.

The problems were particularly acute in Africa. While there were important variations among African countries, some common features of their economic problems became apparent. Reduced export earnings, rising fiscal deficits, rigid price and regulatory systems, and a growing debt burden complicated economic decision making. To make ends meet, governments tended to cut investment budgets and maintenance expenditures, jeopardizing longer-term growth prospects. There were mounting signs of environmental degradation owing to pressures from increasing poverty and rising populations.

Asian recipients of IDA assistance were less vulnerable to the adverse external conditions of the early 1980s. Their exports were only about 6 percent of GDP, compared with 20 percent for Africa, while manufactures accounted for about 50 percent of exports, compared with about 10 percent in Africa. However, economic liberalization was needed to spur growth and speed progress in reducing poverty, and environmental issues needed to be addressed.

In real terms, net flows of external capital to low-income countries stagnated while needs grew. Commercial credit virtually disappeared in Africa. As a result, there was a decline in real terms of 16 percent in the total net flow of capital to Africa, despite steady increases in official development assistance over 1980-86.

Lending patterns
In the face of declining net flows to poor countries, IDA increasingly played a central role in encouraging and coordinating financial support from other sources, its ability to do so enhanced by the increase in its own commitments (see Table 1). From FY 1986 (starting July 1, 1985) IDA's regular commitments were supplemented by the Special Facility for Africa (SFA), created to help fund Africa's adjustment programs. Disbursements rose faster than commitments, reflecting in part the greater use of quick-disbursing lending instruments. Repayments, though small in relation to disbursements, rose even more rapidly; more than 40 percent of repayments in FY 1985-88 were from India.
While the SFA helped accelerate flows through IDA to Africa (see Table 2), commitments to all other IDA recipients as a group declined in terms of nominal SDRs. Within that group, the expansion of credits to China from FY 1981 onward was accommodated by a reduction in flows to India and other non-African countries.

The allocation of IDA’s resources by country has continued to be guided by the criteria of relative poverty, economic performance, and population size. Countries with adjustment programs have received per capita commitments that were about twice as high as countries without such programs. In addition, smaller countries continued to receive relatively larger per capita allocations.

In responding to country conditions and needs, IDA developed a variety of lending instruments. The bulk of IDA’s lending has remained in specific project and sector investment loans. However, in FY 1985–88 adjustment credits were used extensively to support reform programs, particularly in Africa, and accounted for 21 percent of total IDA lending. There is a strong complementarity between adjustment and other forms of lending, which support adjustment by helping to build institutions and economic infrastructure or by extending policy reforms into specific areas covered by adjustment programs.

The proportion of lending directly supporting agriculture and industry was reduced. However, almost all structural adjustment lending was made subject to conditions designed to increase the efficiency of the private sector in agriculture and industry. Lending for energy and power declined sharply in response to lower growth rates in many IDA countries and expectations of reduced energy demand. In contrast, lending for health, education, water supply, and especially urban development increased as IDA assisted governments in sustaining programs in these vital fields.

Program design and focus

The nature of IDA programs has continued to change in response to lessons learned and the needs of borrowing countries.

**Macroeconomic and sectoral adjustment.** IDA’s involvement in macroeconomic and sectoral policy issues intensified in the 1970s, mainly through economic and sector analyses and country policy discussions. In the 1980s, the scope of the operations expanded to cover assistance in the design of specific adjustment programs and support of those programs through adjustment credits. Adjustment lending was initiated in response to the serious balance of payments and debt problems of many recipient countries, to supplement and complement IMF-supported programs, given the growing need for quick-disbursing concessional assistance.

In FY 1981–84, 14 macroeconomic and sectoral adjustment credits were made to 11 countries; in FY 1985–88, 51 adjustment credits were made to 27 countries, seven of which had received adjustment lending in the earlier period.

**Demand management.** The impetus for adjustment programs in many cases came from the need to address problems stemming from excess aggregate demand, such as rising inflation and mounting arrears in domestic and international payments. IDA sought to tackle structural and institutional weaknesses in such areas as planning and control of public expenditure, resource mobilization, debt management, and the management of public enterprises, through support for adjustment efforts implemented in conjunction with IMF programs.

Measures to raise public revenues were important in some adjustment programs, such as in Bangladesh and Nepal, but revenue/GDP ratios in many other low-income countries were already high and further increases would have reduced incentives for private producers. Many programs included steps to rationalize the tax system to promote greater efficiency and equity. A number of programs included efforts to curb and rationalize public expenditures. For example, in Niger, spending on operations and maintenance, as opposed to wages, had been falling sharply as fiscal strains became more acute. The adjustment program provided for a rising share of expenditures for these items and urged that civil service reforms be undertaken to cushion the effects of wage bill reductions on the quality of services. Reforms aimed at encouraging private savings were a feature of about three quarters of IDA-supported adjustment programs, and have come to be seen as increasingly important.

**Price reform.** A key objective of adjustment programs was to realign prices to reflect

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**Table 1**

**Commitments by IDA and the Special Facility for Africa (SFA)**

(Disbursements (in millions of dollars) 2,266 3,071 3,748)

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<th></th>
<th>FY 1981-84</th>
<th>FY 1985-87</th>
<th>FY 1988</th>
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<tbody>
<tr>
<td><strong>IDA</strong></td>
<td>3,299</td>
<td>3,414</td>
<td>3,387</td>
</tr>
<tr>
<td><strong>SFA</strong></td>
<td>3,271</td>
<td>3,537</td>
<td>4,562</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6,570</td>
<td>6,951</td>
<td>7,950</td>
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<tr>
<td><strong>Repayments</strong></td>
<td>64</td>
<td>128</td>
<td>155</td>
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</tbody>
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<tr>
<th>Memorandum items:</th>
<th>FY 1981-84</th>
<th>FY 1985-87</th>
<th>FY 1988</th>
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<tbody>
<tr>
<td>In FY 1988 SDRs</td>
<td>3,299</td>
<td>3,414</td>
<td>3,387</td>
</tr>
<tr>
<td>In current dollars</td>
<td>3,271</td>
<td>3,537</td>
<td>4,562</td>
</tr>
<tr>
<td>Disbursements</td>
<td>2,266</td>
<td>3,071</td>
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<tr>
<td>Repayments</td>
<td>64</td>
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1First year of IDA8.
2Totals may not add due to rounding.

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**What is IDA8?**

Currently representatives of IDA, donors, and recipient countries are working on the Ninth Replenishment of IDA's resources (IDA8), a process began in mid-1988. When completed, this negotiation will yield funds for a three-year period, beginning July 1, 1990, to provide concessional assistance to IDA's poorest member countries; 95 percent of IDA's assistance in FY 85–88 was for countries with a GNP per capita of less than $480.

IDA was set up in 1960 with $750 million. Since demand for its assistance was so great, in its second year of operations members began a process of replenishing those resources for a three-year period, 1965–67, thus setting the pattern of replenishments for the future. Negotiations for IDA8 were completed in December 1986 to cover the three-year period beginning July 1, 1987.

The replenishment negotiations, lasting a year or more, are conducted by “Deputies,” representing donors, and are chaired by an appointee of the World Bank President; the Bank’s Senior Vice President for Finance, Ernest Stern, is the current chairman of the negotiations. The Deputies recommend the level and share of resources needed by IDA for three years to the Bank's Board of Executive Directors, which, upon approving them, seeks ratification from its Board of Governors. After that, the process of contributing to IDA is begun in accordance with national legislative procedures.
relative economic scarcities. Overvalued exchange rates, often maintained with rigid exchange controls, were a major source of price misalignment, with harmful effects on development. While the review of exchange rates is within the purview of the Fund, IDA became increasingly involved in supporting the Fund’s efforts by encouraging the reform of the institutional aspects of exchange rate management, for example in helping to establish foreign exchange auctions.

Many economists now believe that trade liberalization should begin by replacing quantitative restrictions with tariffs, then proceed to bring down levels of effective protection through first reducing the highest rates and achieving a more uniform structure overall. IDA adjustment credits are well suited to encourage sequential changes of this kind. In Burundi, the Central African Republic, Haiti, Senegal, and Togo, for example, most quantitative restrictions on trade were abolished under agreements on adjustment credits; in most cases they were replaced with tariffs which have been rationalized and progressively reduced.

Agricultural price reform featured in many adjustment programs supported by IDA and the Fund. These programs increasingly sought to improve the responsiveness of domestic prices to changing economic conditions as well as to bring them more closely in line with world levels. In Ghana, cocoa production increased by over 40 percent following price reform.

IDA’s experience with extensive price reforms has pointed to two dilemmas in the design of adjustment programs. The first is the need to reconcile incentive reforms with macroeconomic stabilization policies. Raising official producer prices toward world market levels to encourage production may conflict with the need to correct a fiscal imbalance—at least in the near term. Because decisions in these areas cut across the activities of IDA and the Fund, collaboration between the two institutions has had to be more thorough, both on procedural and on substantive grounds, to avoid inconsistencies in advice on reforms. The Policy Framework Papers, jointly produced by the borrowers and the two institutions in connection with access by individual borrowers to the Fund’s Structural and Enhanced Structural Adjustment Facilities, have helped this process.

The second dilemma is the extent to which institutional reforms and infrastructural development are needed to produce the supply response sought by price reforms. Required complementary efforts may range from provision of agricultural extension services or feeder roads to financial sector reforms that would facilitate the flow of credit to industry, so that producers can take advantage of improved incentives for exports. These institutional reforms and supporting investments require time to implement, however, and this longer time increases the risks of problem developing with the reform program.

Poverty and adjustment. Heavy social costs have been borne by countries that postponed or avoided adjustment. While there are social costs associated with adjustment programs, there are also social benefits. For example, the shifts in relative prices that are supported by adjustment programs almost always serve to boost production and employment in rural areas, where most of the poor live. Trade reforms have aimed at reducing economic rents that diverted scarce resources to a favored few.

IDA has increasingly sought to mitigate specific negative effects of adjustment programs and stabilization on the poor. For example, trade reforms may expose previously protected industries to international competition, and rationalization of these industries can lead to layoffs of workers. IDA has supported interventions, for example in Bolivia, Ghana, Guinea, and Senegal, to provide for retraining and temporary employment to reduce or help offset these transitional costs. Although incentives usually improve farmers’ incomes, landless rural poor and urban poor may be adversely affected by reductions in consumer subsidies. IDA has helped design specific interventions, such as nutrition programs, to mitigate these effects. Improved targeting of subsidies in the social sectors also helps preserve benefits for the poor. Attention has also been given to identifying long-term policy options that can help the poor (for example, through budgetary reallocation or measures to enhance the poor’s access to, and rate of return on, assets).

Public and private sectors

In many countries the public sector greatly expanded its role as a producer of goods and services in the 1970s, in addition to providing and managing most of the infrastructure. In general, the experience with state enterprises was disappointing. Operating subsidies for these enterprises often constituted a serious drain on the government budget. A large number of countries requested IDA’s assistance in developing programs to improve the efficiency of the public sector or to limit its role when it was clearly overextended.

One of IDA’s major initiatives was to help move recipients away from public marketing agencies. The effect of increased competition can be dramatic. In Niger, for example, when private traders were allowed to compete with the public food importer, not only did prices fall and foodstuffs become more widely available, but also the state enterprise improved its performance and made a profit for the first time.

Equity capital is scarce in low-income countries and access to financing is restricted. IDA tried, with varying success, to improve the financial intermediation systems and make access to resources easier for all investors. IDA supported programs to strengthen specialized financial intermediaries (e.g., development finance corporations and agricultural credit banks) and most adjustment operations included measures relating to the financial sector. However, in a number of cases (in Bolivia and Ghana, for example), a more comprehensive approach to financial sector reform was needed.

Increasing investment productivity

The recession in the early 1980s changed the environment for investment. In the public sector, some planned or current investments were no longer viable in the light of lower forecasts of market demand, but govern-
ments often were unwilling or unable to stop large or prestigious projects. Given the resource constraints faced by governments, there was little choice but to cut overall public expenditure. Large foreign-aided investment projects (including some financed earlier by IDA) found themselves starved of necessary local currency funds. Governments faced with the need to make cuts in expenditures often responded by cutting across-the-board rather than identifying priorities and rationalizing expenditure programs. For this reason, IDA greatly expanded its reviews of public expenditure and investment programs to identify “core programs” for governments to support.

A number of important themes emerged from the analyses carried out at both the overall program and sector levels. The first was the need for adequate funding of maintenance. Failure to spend adequately on maintenance has had a serious negative impact. It was estimated, for example, that by 1984 as a result of under-maintenance, the cost to restore the backlog of degraded main roads in Africa and South Asia had reached nearly $15 billion (in 1986 dollars), equivalent to more than 3 percent of GNP on average, while annual maintenance expenditure requirements to prevent further deterioration were about $1 billion. IDA substantially restructured its project lending to help ensure adequate maintenance expenditures. Increased emphasis was also placed in IDA lending on better utilization of existing capacity rather than new investment.

This did not rule out the need for carefully selected new investments to support adjustment and growth. IDA, for instance, stepped up its activities in the health, education, and population sectors, where the small scale of individual investments and the high local currency component made these less attractive to some other donors.

**Sustaining development**

In order to ensure that development is sustained over the longer term, countries must maintain a balance between their human and natural resource base. Even in the best of times many governments are reluctant to invest substantial resources in activities whose returns appear to be years away. Good economic management is a matter of balancing different objectives so that growth is maximized over the longer term. Important programs have been cut by many adjusting countries, to the point where human and institutional capital will have to be rebuilt virtually from scratch at a later time, and some of the environmental degradation which has been permitted is irreversible.

IDA has found the range of questions concerning the long-term sustainability of development programs among the most difficult to deal with. First, there is the problem of convincing governments of the importance of actions in these areas. Second, the staffing of the concerned ministries and agencies is often weak. Third, the menu of proven interventions is much smaller in these than in other sectors. Fourth, for much of the mid-1980s, IDA itself was not organized or adequately staffed to deal with these questions.

IDA’s activities in the field of population planning reflected many of the problems mentioned above. Demand for such programs was limited in the 1970s and early 1980s. In response, IDA reoriented its activities in the population sector to encompass a broader approach to maternal and child health and to increase the demand for family planning services through information and education, providing a sounder basis for an expansion of activity in this sector.

To improve its effectiveness, IDA strengthened its ties with nongovernmental organizations, leading to better monitoring of projects and more cost-effective supervision by headquarters staff. To counteract the effects of government budget cuts in health and education sectors, IDA focused on improving the efficiency of health and education systems and helping to increase resources by charging modest, equitable fees for services.

The need for environmental action has become increasingly pressing. Until recently, IDA focused its environmental work on trying to ensure that projects it helped finance were environmentally sound. However, the environment is now seen as an integral part of development strategy. In FY 1988, an Environment Department was established in the Bank to give impetus to dealing with environmental issues in this broader sense.

In the early 1980s IDA became increasingly aware of a significant gap in its programs—one that affected the results of its lending efforts. Lack of access by women to health services, education, economic services, credit, and legal rights such as land tenure, was found to be a major obstacle to improving women’s productivity and well-being. Some development projects were found to actually weaken the economic position of women. Recognizing these problems and spurred by donors, IDA began in FY 1987 to devote significant resources to the issue of women in development. A division to handle this issue was established at headquarters in the following year.

Like the status of women, the question of strengthening and building institutions for the long-term cuts across IDA’s activities. IDA’s longstanding support for key development agencies through the project process has been broadened to include assessments of the needs of a wide range of institutions for training, improved administration, and budgetary support. In addition, IDA has been increasingly involved in more fundamental administrative reform. Although complex and difficult to implement, public service reform in many cases is a precondition for more effective macroeconomic and sector management over the longer run.

**Coordination of aid**

The difficult circumstances of the 1980s led multilateral and bilateral donors to try to coordinate their aid programs better. IDA has provided leadership in the dialogue with countries on development policies and review of public investment and expenditure. Donors also focused their assistance on countries which adopted IDA and Fund-supported adjustment programs.

The Special Program of Assistance (SPA), which provides cofinancing with IDA credits for low-income debt-distressed countries of Sub-Saharan Africa undertaking adjustment, has taken the aid coordination process a step further. Since its establishment in late 1987, 20 bilateral and multilateral donors have pledged $2.2 billion to supplement IDA adjustment credits in 19 low-income African countries. Total official cofinancing with IDA has risen from $3.8 billion in FY 1981–84 to $5.8 billion in FY 1985–88, and formal cofinancing relationships have been established with most bilateral donors.

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Management of Interest Rate

The use of market based risk management instruments has been growing in industrial countries. Now indebted developing countries may be able to use some of these techniques.

David Folkerts-Landau

A notable characteristic of the past ten years has been the historically high volatility of short-term international interest rates. For example, the six-month London Interbank Offered Rate (LIBOR) fell from 18 percent in 1981 to 9 percent in 1983. It then rose to 12 percent in 1984, only to fall to 6 percent by 1986; it currently stands at 11 percent. Prior to the mid-1970s, interest rate variability had relatively little effect on the debt-service payments of developing countries, both because conditions in the international credit markets were relatively stable and because a large proportion of outstanding debt, particularly for the low-income countries, had been contracted from official sources at fixed rates and on concessionary terms. By the late 1970s, this picture had changed sharply. Developing countries became much more dependent on private external financing as both the public sector and private residents borrowed heavily in world capital markets. There was a marked shift from nondebt-creating flows—official transfers and private direct investment—to debt-creating, interest-sensitive borrowing in world capital markets. As a result, the share of total external debt that was subject to floating interest rates increased from one quarter in 1973 to more than three quarters in 1985.

Since fluctuations in international asset prices can potentially have a strong impact on the economic performance of indebted developing countries, periods of increased international price variability have often created difficulties for the formulation and implementation of adjustment policies. Recent experience with Fund-supported adjustment programs suggests that such variability is more likely to have an impact on an adjustment program as the time horizon of adjustment programs is extended to the medium term. Further, interest rate volatility assumes an added dimension when the indebted developing country faces the possibility of illiquidity or insolvency in the event of very unfavorable movements in interest rates.

The uncertainties created by the increased interest rate volatility have spawned new official and private sector arrangements for dealing with the associated risks. In industrial countries, active risk management has generally become an important element of financial management. Participants (i.e., private and central banks) in the major financial markets have resorted to a large variety of hedging instruments and techniques, most notably financial futures, options, and interest rate swaps (see glossary). In light of the positive experience of industrial countries, this article examines the possibilities for indebted developing countries to make use of similar market-based hedging instruments.

Market based hedging

The increase in interest rate volatility of the 1970s stimulated the search for new instruments and techniques to transform and reallocate financial risks. This search was facilitated by the more general process of financial innovation and liberalization (see box), the weakening or elimination of capital controls among the major industrial countries, and the emergence of global trading of some of the more liquid financial assets, as well as advances in information and communications technology.

A basic instrument for dealing with interest rate variability is the refinancing of floating rate debt in the international fixed rate debt markets. However, concerns about the creditworthiness of indebted developing countries, particularly countries with rescheduled debt, have meant that such countries do not generally have access to the international fixed rate debt markets. However, concerns about the creditworthiness of indebted developing countries, particularly countries with rescheduled debt, have meant that such countries do not generally have access to the international fixed rate debt markets and thus are denied the possibility of lowering their exposure to international interest rate volatility through a lengthening of the interest rate reset period, that is, the period during which the interest rate remains fixed.

Risk by LDCs

The search for more flexible instruments and techniques of interest rate risk management has produced three instruments.

**Interest rate cap.** Medium-term protection against a rise in short-term interest rates may be gained by purchasing an interest rate cap. These are currently provided by several major international banks and securities houses. If the market interest rate exceeds the cap, then the writer of the cap will reimburse the holder for the difference. The purchaser of the cap pays a premium related to the level at which the interest rate is capped, the length of time over which the cap is in effect, and the expected volatility of the capped rate.

An important advantage offered by caps is that they can provide protection for up to ten years, though liquidity in the market for caps with a maturity of over five years is limited. The use of caps provides some flexibility in the amounts of protection needed for a range of interest rate values. For example, an indebted country may seek only partial interest rate protection for interest rates between 10 and 13 percent; and be willing to forgo protection when rates exceed 13 percent, as the cost of interest rate caps increases with the length of the coverage and the difference between the interest rate cap and the actual rate.

Caps allow a country to benefit from a decline in rates, while limiting the upward movement of rates. However, a lack of sufficient foreign exchange reserves has generally made developing countries unable or unwilling to purchase this method of interest rate protection.

**Interest rate swaps.** In such an arrangement, the indebted developing country would pay fixed rate interest payments to a counterparty, usually a bank, and receive in return a stream of floating rate payments over an agreed time period. No actual principal would be exchanged either at the beginning or at the termination of the contract. For example, at current swap rates (i.e., the fixed interest rate payments payable in exchange for variable interest payments at LIBOR), the country would have to pay a fixed 10.5 percent on a notional principal of, say, $100 million for five years and receive in return six-month LIBOR payments based on the same notional principal. A floating-rate borrower can thus achieve any desired medium-term lengthening of his interest rate period through the use of an interest rate swap. The conventional interest rate swap market has become one of the most successful markets for interest rate risk management with a total amount of notional principal outstanding in excess of $1 trillion.

A swap is an effective hedging instrument only if each counterparty fulfills its debt servicing obligations. Since in a typical interest rate swap the developing country commits itself to make future fixed interest payments at regular settlement dates, up to a specified maturity date, the counterparty incurs credit risk. The swap participant's credit risk depends on the potential movement of interest rates over the period of the swap, and on the likelihood of a failure by the country to make its fixed swap payments as a result of other causes. Most borrowers, therefore, will engage in a swap only when credit risk is perceived as low. As a result, indebted developing countries with debt servicing difficulties have not had access to this market.

**Financial futures contract.** Since much of the floating interest rate debt of the indebted developing countries denominated in US dollars is indexed to LIBOR, the Eurodollar futures contract is the most useful of several futures contracts available. The Eurodollar futures contract represents an obligation to buy or sell at a predetermined price on a specified future date a Eurodollar time deposit with a maturity of three months which is indexed to the three-month LIBOR. It has a face value of $1 million. The position of the holder of the contract is considered "long" because the contract implies that he will buy a Eurodollar time deposit at some point in the future. The position of the writer of the contract is "short" because he has sold a Eurodollar time deposit, which he may not yet own, with delivery occurring at some future date.

Using Eurodollar futures contracts to hedge against an unanticipated change in LIBOR prior to the next date on which the interest rate on a country's external debt is to be reset would involve writing an appropriate number of Eurodollar futures contracts. In this way, any increase in interest rates that resulted in higher debt servicing payments would also generate offsets profits on the country's futures position. However, writing Eurodollar futures contracts also means that a decline in LIBOR, which would reduce debt service payments, would also generate losses on the country's future position. As a result, lower interest cost would be offset by losses on the futures contract thereby keeping the total cost of Eurodollar funds equal to the interest rate contracted for in the futures contract. A futures hedge has the advantage of requiring no premia to be paid in advance. It locks in a given cost of funds no matter which way interest rates move; that is, it is a symmetric hedging instrument.

The credit risk associated with the obligation to make future delivery under futures contracts has successfully been minimized through institutional features, such as daily resettlement, margin requirements, and futures clearing houses. Any gains or losses that arise on the futures contract because of changes in the price of the contract are realized the next morning through cash settlements among the contracting parties, and the futures price is marked-to-market.

For example, assume a country sells 1,000 contracts ($1 million per contract) for delivery of three-month Eurodollar deposits at a specified future date at 92 cents per dollar. If on the next day the futures interest rate on the three-month Eurodollar deposits has decreased by five hundredths of a percentage point, then the country will have suffered a $125,000 loss on its short futures position. The resettlement procedure provides for the $125,000 to be paid to the holder of the contracts and for the interest rate at which the Eurodollar deposits will be supplied to be adjusted upward by five basis points. Thus, the performance period has been reduced to one day.

In addition, market participants are required to post margins in the form of a performance bond related to the volatility of intraday futures prices to cover any intraday
losses. Thus, the incentive to renege on the futures contract has been virtually eliminated. Also, a clearing house interposes itself between transacting parties in all contracts, such that all contracts have the clearing house as counterparty, which further reduces the risk of nonperformance.

The futures market is most liquid in the contracts for delivery of three-month Eurodollars up to one year and would be able to accommodate substantial participation by indebted developing countries. However, the markets for longer-dated contracts or for contracts for future delivery of six-month or one-year Eurodollars are not sufficiently liquid to accommodate substantial participation by indebted developing countries.

Interest hedging with Eurodollar futures beyond 12 months is, therefore, not yet generally effective on a large scale. In addition, the hedging of interest rate risk with shorter-term financial futures requires continuous adjustment in contract positions. Such activity requires skilled personnel capable of dealing in wholesale hedging markets on a continuous basis. While these risk management services can to some extent be purchased from various financial institutions, even the evaluation of the quality and cost of these services requires considerable knowledge of market instruments and techniques. A further problem arises in designing and implementing an internal control mechanism that effectively limits the activities of risk managers to legitimate hedging operations. Recent experience in some financial firms has shown that inadequate internal controls could result in potentially large trading losses. For this reason, indebted developing countries have been cautious in using this market for hedging interest rate risk of the near term. A recent example of the use of the financial futures to hedge an interest rate exposure arising from floating rate external US dollar liabilities is the hedging program undertaken by Chile. Using various hedging techniques, an effective rate of 7.3 percent was locked in by this operation, thereby eliminating interest rate uncertainty for 1988. The central bank is currently engaged in a new hedging operation aimed at reducing the uncertainty of the LIBOR rates prevailing at the 1989 reset dates.

**Appropriate instruments for LDCs**

The special circumstances of indebted developing countries, particularly those with rescheduled debt, demand that an interest rate risk management tool satisfy a number of conditions before it can be used successfully. First, access to the risk-management tool should not be influenced by the markets’ perception of the creditworthiness of the country. Second, the instrument should provide cover over the medium term (e.g., from two to five years). Its use would add certainty to medium-term financial programs, as well as smoothing out cyclical movements in interest rates. Third, the use of the risk management instrument should not require significant fees to be paid up-front. Fourth, the risk management technique must be easy to use and not require active management of contract positions or monitoring of delegated trading activity. Lastly, the market for the risk management product must be sufficiently deep to allow large-scale participation by indebted developing countries.

From the earlier discussion, it is apparent that none of the existing risk management techniques satisfies these five requirements simultaneously. Hence, indebted developing countries have made limited use of them so far. Instead, a recent innovation taking the form of a modified interest rate swap contract appears to be more suitable to the special circumstances of these countries. The swap market possesses the necessary depth over the medium term to accommodate substantial participation by indebted developing countries. Further, entering into a medium-term swap contract does not require an advance premium and can be done in a single transaction without a need for continuous monitoring. However, indebted developing countries have not yet gained access to the conventional swap market because of the reluctance of participants to expose themselves to the greater performance risks of such countries over the medium term.

Recent experience in the US dollar markets has shown, however, that an identification of the gains and losses occurring in swap contracts due to changes in the swap rate makes it possible to transfer such changes in the swap’s value from the losers to the gainers followed by a “marking-to-market” of the swap interest rate. This mechanism, which is analogous to that employed in the futures market, is a way to greatly reduce the credit risk from the swap contract. By making such transfers of the previously unrealized changes in the value of the swap contract at the beginning of each interest rate period, and by resetting (i.e., “marking”) the original swap rate to the then prevailing market rate, it is possible to reduce the size of losses to changes in the swap’s market value occurring during a single interest rate reset period. While the practice of periodic resettlement and marking-to-market of swap rates may expose the indebted developing country to potentially large variations in cash flows, such flows occur in the opposite direction to interest rate movements. As rates rise, the country receives payments, and as they decline, the country makes payments. Further, the internal rate of return of the net payments of the fixed-rate payor remains equal to the initial swap rate (i.e., the fixed interest rate payable). Since indebted developing countries have generally made interest payments on their external obligations, there would appear to be scope for facilitating the solution of the technical problems associated with the cash-flow management generated by converting floating rate payment into fixed-rate payment through a marked-to-market interest rate swap.

**Conclusion**

Over the medium term, high variability of external interest rates makes the financing gap less predictable and can make the design and implementation of adjustment programs more difficult. In such circumstances, obtaining some degree of insurance before the fact against interest rate volatility through the use of market-related hedging instruments can make an important contribution to the continuity of the adjustment effort.

Some creditor banks have also argued that the use of hedging instruments by indebted developing countries could potentially help forestall the need to reopen restructuring agreements in the event of unanticipated movements in the LIBOR index. Having bank creditors supply interest rate hedges in the form of LIBOR caps as part of restructuring agreements has also been seen by some as an attractive addition to the menu of techniques for resolving debt problems. Such a step could be part of a more general approach to structuring loan (or rescheduling) agreements to allow for more adequate hedging of financial risks.

Finally, while the use of financial hedging markets would not directly increase the scale of financing available to indebted developing countries, it would be analogous to restoring some access to international capital markets for debt management purposes. In particular, a country could regain some influence over the proportions of its external liabilities with either floating or fixed (or capped) interest rates.  

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**Futures contract.** An exchange-traded contract generally calling for delivery of a specified amount of a particular grade of commodity or financial instrument at a fixed date in the future. Contracts are highly standardized and traders need only agree on the price and number of contracts traded. Traders’ positions are maintained at the exchange’s clearing house, which becomes a “counterparty” (i.e., a participant) to each trade once the trade has been cleared at the end of each day’s trading session.

**Interest rate cap.** The buyer pays a fee or premium to obtain protection against a rise in a particular interest rate above a certain level.

**Interest rate swap.** A transaction in which two counterparties exchange interest payment streams of differing character based on an underlying notional principal amount. The three main types are coupon swaps (fixed rate to floating rate in the same currency), basis swaps (one floating rate index to another floating rate index in the same currency), and cross-currency interest rate swaps (fixed rate in one currency to floating rate in another).

**Long position.** (1) In the futures market, the position of a trader on the buying side of an open futures contract; (2) in the options market, the position of a trader who has purchased an option regardless of whether it is a put (right to sell) or a call (right to buy). A participant with a long call-option position can profit from a rise in the price of the underlying instrument, while a trader with a long put option can profit from a fall in the price of the underlying instrument.

**Margin.** An amount of money deposited by both buyers and sellers for futures contracts to ensure performance of the terms of the contract. Margin in futures markets is not a payment of equity or down payment on the commodity itself but rather is in the nature of a performance bond or security deposit.

**Notional principal.** A hypothetical amount on which swap payments are based. The notional principal in an interest rate swap is never paid or received.

**Option.** The contractual right, but not the obligation, to buy or sell a specified amount of a given financial instrument at a fixed price before or at a designated future date. A call option confers on the holder the right to buy the financial instrument. A put option involves the right to sell the financial instrument.

**Position.** A market commitment. For example, one who has bought futures contracts is said to have a long position, and conversely, a seller of futures contracts is said to have a short position.

**Short position.** (1) In the futures market, the position of a trader on the selling side of an open futures contract; and (2) in the options market, the position of a trader who has sold or written an option regardless of whether it is a put or a call. The writer’s maximum potential profit is the premium received.

**Underlying instrument.** The designated financial instruments which must be delivered in completion of an option contract or a futures contract. For example, the underlying instrument may be fixed-income securities, foreign exchange, equities, or futures contracts (in the case of futures option).

**Volatility.** The price “variability” of the instrument underlying an option contract, and defined as the standard deviation in the logarithm of the price of the underlying instrument expressed at an annual rate. Expected volatility is a variable used in pricing options.
Improving the Bank's

Over the past few years, the impact of exchange rate movements on the World Bank and its borrowers has prompted the Bank to improve the way it manages its currencies and thereby help its borrowing members better manage their liabilities. The Bank raises funds in international capital markets in many different currencies and lends to developing member countries at interest rates that reflect its own borrowing costs. Financial prudence and the dictates of its Articles of Agreement lead the Bank to pass through to borrowers the exchange risk inherent in its own funding.

The Bank's Currency Pool of individual currencies that are lent to borrowing member countries was created in 1980 in order to spread exchange risk equally across all borrowers. Before 1980, loans had fixed currencies and fixed interest rates. The Currency Pool, in effect, redistributes every day all of the currencies in the system equiproportionally to all outstanding Bank loans. This means that the set of currencies that a borrower owes on a loan depends on the disbursements and repayments on all pooled loans. Each loan in the Pool continuously has exactly the same currency composition as every other loan.

The Bank recently changed its operation of the Currency Pool and variable lending rate system to make their functioning more transparent. This includes setting targets for a broadly balanced Currency Pool that will be sufficiently stable in composition to permit borrowers to manage their repayment obligations more effectively than before. The target ratios for the currencies in the Pool are 1 US dollar for every 125 Japanese yen and 2 deutsche marks (or, in place of the deutsche mark, the equivalent composition of deutsche marks, Swiss francs, and Netherlands guilders). These five major currencies will comprise 90–95 percent of the Pool's value, with the remainder in other currencies.

Currency Pool

The Bank recognizes that the management of currencies on loan can and should be made more responsive than it has been to the needs of borrowing countries. It lends to borrowers in currencies other than the borrower's own. This unavoidably creates an exchange risk for borrowers, since the value of the borrowed foreign currencies may fluctuate in terms of the borrower's own domestic currency. The issue is whether the exchange risk of the Bank's borrowers will be in one set of foreign currencies or another. The operation of the Currency Pool has no effect on the impact of exchange rates on all loans taken together. The system is not meant to modify or manage exchange risk; it assures only that all loans are affected equally by exchange rate changes.

Yet the Pool, as previously operated, created uncertainty about a borrower's exposure at the time of repayment. The Pool might contain one set of currencies when a loan was disbursed, but quite another set several years later when it was time to repay. A borrower had no way of knowing with reasonable certainty the currency composition of its obligations, and hence was in no position to manage the exchange risk.

A second problem with the operation of the Pool was the volatility of the US dollar, the currency in which many Bank borrowers plan and budget foreign exchange. Because the dollar constituted no more than 20 percent of the Pool over 1980–88, the effects of exchange rate changes were large. For example, in fiscal year 1985, Bank borrowers saw their debt-service obligation reduced by $800 million (in dollar equivalent terms) because of the rise of the dollar against other currencies. In FY 1987, the fall in the dollar caused their debt-service obligations to be some $2 billion higher.

Targeted Currency Pool

In order to give borrowers greater certainty about their currency exposure and reduce volatility in terms of the dollar, the Bank will now set targets for a broadly balanced Currency Pool that will be sufficiently stable in composition to permit borrowers to manage their repayment obligations more effectively than before. The target ratios for the currencies in the Pool are 1 US dollar for every 125 Japanese yen and 2 deutsche marks (or, in place of the deutsche mark, the equivalent composition of deutsche marks, Swiss francs, and Netherlands guilders). These five major currencies will comprise 90–95 percent of the Pool's value, with the remainder in other currencies.
Loan Currency Pool

These targets will be achieved by July 1, 1991. At current exchange rates, this provides a rough balance among currencies in the Pool that have moved independently in the past. This particular currency mix may not be perfect from the vantage point of every single borrower, but it does represent realistically the possibilities of Bank's borrowings. A higher dollar fraction will tend to stabilize debt service measured in dollars.

The target ratios for each of the major currencies are specified in terms of the units of the currencies themselves, rather than specifying that each currency contribute a set share of the Pool. This makes it easier for borrowers to predict the exchange exposure underlying their obligations to the Bank, allowing them more scope for planning, transforming, and guarding against the exchange risk associated with Bank loans.

Variable lending rate

The Bank has also changed its policies relating to the variable lending rate. Before 1982, the Bank tended to borrow in the medium term but would make loan commitments with fixed lending rates for up to 20 years or more, therefore making the Bank extremely vulnerable to interest rate risk. The variable lending rate system introduced in 1982 brought the interest rate risk problem under control. The lending rate was recalculated every six months on January 1 and July 1 of each year. The variable lending rate was 50 basis points greater than the average cost of all borrowings undertaken since 1982.

In the past, the Bank generally invested the currencies it obtained at high nominal interest rates, such as the US dollar and pound sterling, and lent out the currencies with low nominal rates, such as the yen, deutsche mark, and Swiss franc. This meant that the Bank's borrowers were charged an interest rate that was based on a higher-cost basket of currencies than they actually received. The resulting "currency twist" contributed to a lack of transparency and led some borrowers to complain that the spread they were actually paying on pool-based variable rate loans was higher than the 50 basis points prescribed in the Bank's lending rate policy.

Starting July 1, 1989, the Bank will introduce a new lending rate system that will be different from the present system in two ways. First, the average cost of each currency will be weighted by its share in the loan Currency Pool. This will ensure that the borrowers only pay for the currencies they actually receive. Second, the Bank will allocate currencies separately for investment and lending. As a result, the cost of each currency to borrowers will be based on the Bank's own costs relating to currencies allocated for lending.

These changes in the Currency Pool and lending rate system are expected to give Bank borrowers greater certainty, manageability of their obligations, and a fairer cost of borrowing.

For more information, contact the author.

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**Evolution of the Global Petroleum Market**

1965-87

**Petroleum consumption**

(In million tons of oil equivalent)

- World
- Industrial
- Centrally planned
- Developing
- of which OPEC

**Petroleum production**

(In million tons of oil equivalent)

- World
- Industrial
- Centrally planned
- Developing
- of which OPEC

**OPEC average petroleum price**

(Per barrel)

- Current dollars
- Constant 1986 dollars

**Proven oil reserves**

(In billions of barrels)

- Asia-Pacific
- Western Europe
- Middle East
- Africa
- Western Hemisphere
- Centrally planned economies

**Net imports**

(In million tons of oil equivalent)

- Industrial
- Centrally planned
- Developing


Note:Minus sign denotes exports.

*Includes Albania, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, and the USSR.

*Includes OPEC.

*Deflated by US GNP deflator.

*Also includes China.
Can movements in primary commodity prices be used to help forecast consumer price inflation?

James M. Boughton

By most measures, the prices of primary commodities—such as food, fibers, other agricultural products, and metals—have declined throughout much of the 1980s. For some two years beginning in mid-1984 the declines were especially dramatic. During that period the price of wheat, as measured in a basket of major currencies, fell by nearly 40 percent; those of tea and of cotton fell by half; and that of petroleum by nearly two thirds. The IMF's broad index of primary commodity prices, including oil prices, declined by some 46 percent in those two years; excluding oil prices, the index fell by nearly 30 percent (see Chart 1).

Did this decline in commodity prices presage a slowing down of inflation at the retail level in industrial countries? Or were commodity prices merely reacting to a more general decline in inflationary pressures? The relationship between changes in commodity prices and more general price changes, if indeed one exists, may help us to understand the forces shaping inflation and thus to forecast changes in inflation more reliably. This article, based on a longer study (see box), examines the nature of this relationship.

Why look at commodity prices?

As Chart 2 shows, turning points in commodity price movements usually precede those in consumer prices. There is thus a prima facie case for treating commodity prices as a leading indicator of inflation. The top panel of Chart 2 shows the average inflation rate for consumer prices in the seven largest industrial countries. The vertical lines mark the major cyclical turning points over the past twenty years. The bottom panel of the chart shows comparable data for the IMF's broad index of primary commodities, with the vertical lines marking the same CPI turning points as in the top panel.

Chart 2 also shows, however, that the commodity price cycles are far wider and are more or less symmetrical around zero, while consumer prices are much less volatile and always rise. Thus it seems unlikely that there is a stable relationship between the levels of commodity and consumer prices, either in the short run or the long.

**Determination of commodity prices.** The feature that distinguishes primary commodity prices from the prices of most other goods, and which makes these prices a good candidate for a leading indicator of inflation, is that they are determined largely in "auction" markets. These auction markets, which are actually financial markets that trade commodity contracts, contrast with markets for industrial goods, in which prices are set by sellers and adjusted gradually in response to changing conditions. Thus commodity prices can be expected to react immediately to news about events that might affect future inflation, whereas industrial prices will generally respond more gradually.

The sensitivity of commodity prices to such news does not necessarily make them a reliable leading indicator, however. First, the relationship between commodity and other prices depends on the nature of the news (i.e., the type of shock that disturbs the initial level of prices). Second, the underlying relationship between commodity and industrial prices may not be stable.

The first difficulty may be illustrated by comparing two types of events: a monetary disturbance, such as a general rise in the stock of money outstanding or a decline in the demand for holding money, and a disturbance in real output, such as a bad harvest or other production difficulty in a major commodity market.

In response to a monetary disturbance, most theoretical models suggest that prices determined in auction markets—such as commodity prices—are likely to overshoot. That is, they may jump to a higher level and then settle part way back toward their initial level, or at least back toward the path they would otherwise have followed. Meanwhile, industrial prices, and the general level of consumer prices, will rise gradually toward a new higher level. Therefore, if the world is subject mainly to monetary disturbances, large movements in commodity prices are likely to signal that more general price changes will follow.

In response to other types of news, quite different results might be expected. In the absence of monetary accommodation, a bad harvest or other real shock affecting commodity markets will mainly affect relative prices, leaving the overall price level unchanged. In this case, the rise in commodity prices, far from being a harbinger of inflation, will in fact be a signal of downward pressure on other prices. Of course, if that downward pressure is great enough, it might induce some monetary accommodation as central banks attempt to prevent the disturbance from leading to a real economic contraction.

It appears that commodity prices would not be a reliable indicator of future price developments in the presence of unaccommodated supply shocks, unless reliable information were available about the nature and effects of those shocks. In other words, since it is difficult to know how much of a given movement in the price of a good was part of a general inflationary trend and how much was caused by events specific to the market for that good, it is also difficult to judge what that movement implies for the general level of prices. A more general problem is that there may not be a stable relationship...
between broad indexes of commodity and industrial prices. Chart 1 shows how differently commodity and consumer prices have behaved. Over the 20 year period depicted, the relative price of nonoil commodities declined by 30 percent; within the period, it more than doubled in 1973–74. Whatever the underlying relationship, it is not readily discernible.

**Empirical tests**

Four types of questions have been examined in order to evaluate the empirical relationships between a broad index of commodity prices and the aggregate consumer price index for the large industrial countries.

**Long-run relationships.** Is there a stable long-run relationship between the levels of commodity and consumer prices? As already noted, the long-run behavior of commodity and consumer prices appears on the surface to be somewhat different. To formalize this difference, the study underlying this article tested the behavior of the two data series for three periods between 1960 and 1987. (The first period spans the full 27 years; the second is 1972–87, eliminating the data before the onset of major inflationary pressures; and the third is 1974–87, eliminating data for the period of the 1973 commodity price boom.)

We first tested whether percentage changes in the price indexes were negatively related to the price level in the previous period; for, if so, changes have tended to be reversed over time and the price level may be said to have been stable. Then we tested whether changes in the inflation rate were negatively related to the inflation rate in the previous period, to establish whether there has been a stable inflation rate, even if the price level was not stable. Third, where neither the price level nor the inflation rate was found stable, we tested whether the rate of change in the inflation rate was stable.

Regardless of the sample period, the tests showed that for the commodity price index the inflation rate has been stable, in the sense just described, but for the consumer price index, only the rate of change in the inflation rate has been stable. This difference implies that the levels of the two indexes are not statistically linked over the long run, and that the ratio of the commodity price index to the CPI varies over time. Whatever relationship there may be between the two types of price index, it does not seem to limit the long-run independence of the price levels.

The finding that consumer prices and commodity prices seem to be independent in the longer run may simply reflect the fact that the relative prices of many primary commodities have been subjected to sustained downward pressures over long periods of time. Factors that may have contributed to such a downward drift include “green revolutions” in the production of many agricultural commodities, increasing industrialization, rising real global incomes, health concerns regarding a few important commodities such as coffee and sugar, and the sectoral development of manufactured substitutes for primary commodities (such as synthetic fabrics and fuels, or chemical sweeteners). Because factors such as these have put downward pressure on primary commodity prices, the general upward drift in consumer prices has not been emulated by commodity price indexes and the long-run behavior of the two types of price indexes has been very different.

**Direction of causality.** If the levels of the two types of prices are related, which way does the causality run? This question was addressed by testing whether the values of commodity prices in one period contributed significantly to predictions of aggregate CPI inflation in a subsequent period, in comparison with predictions made only on the basis of past changes in the CPI. As a check against the results of such a test, predictions of commodity price movements were also made using the CPI as the additional variable. Like the long-run stability tests discussed above, these tests were run over three overlapping samples, starting in 1960, 1972, and 1974. These tests, of course, do not really tell us whether one variable “causes” another in the usual sense of that word; commodity prices and prices of processed goods both respond to a variety of economic forces, and the causal relationships between them are no doubt complex and work in both directions. The
tests do indicate whether movements in one variable normally precede those in another in a statistically significant way.

The results give no evidence that changes in CPI inflation cause changes in commodity price inflation, regardless of the sample period. The results do show that commodity price movements seem to cause changes in CPI inflation, but not necessarily when oil prices are removed from the commodity price index; for the full time period 1960–87, and for any sample with oil prices included in the commodity price index, lagged commodity prices did contribute significantly to changes in the CPI inflation rate. Overall there is some, though not overwhelming, support for the notion that the 1984–86 decline in commodity prices was an independent event contributing to a more general decline in inflation.

**Predictive ability.** Can forecasts of consumer price inflation be improved by considering information about past commodity prices? Predictions were made of CPI inflation rates over six different forecast periods. The “baseline” forecast was made purely on the basis of past movements in the CPI inflation rate itself. A second forecast was then made, in which past movements in commodity prices were taken into account along with the past behavior of the CPI. A third forecast used a measure of the aggregate rate of money growth in these countries, instead of past movements in commodity prices. Initially the equations were estimated for a sample period ending in 1975 and used to generate forecasts for the following 24 months (1976–77). Similar forecasts were then generated for five succeeding 24-month periods, using updated equations.

The average forecast error was reduced by the inclusion of commodity prices in only two of the six forecast periods, that is, in 1984–85 and 1986–87. Throughout those four years, the prior weakness in commodity prices provided useful information about how much consumer price inflation would slow down. For the earlier periods, the forecasts were actually worsened by the inclusion of commodity prices in the calculations. The equations using monetary growth did somewhat better in the earlier periods but less well in the last two.

**Turning points.** Qualitative relationships may be as important as quantitative ones if commodity prices are to serve as a leading indicator of inflation. That is, one may be as interested in predicting turning points in CPI inflation as in predicting the value of the future inflation rate. Can commodity prices help predict turning points in CPI inflation? As Chart 2 shows, the commodity price index displays cyclical patterns that are similar to those of the aggregate CPI, though with differing amplitudes, and these patterns frequently foreshadow turning points in the CPI. This tendency is examined more closely in the table.

The first two columns of the table list the major turning points in the aggregate CPI since the beginning of 1970. These turning points were defined as shifts in direction that were sustained for at least three months. To be defined as a peak, prices were required to have exceeded their previous trough by at least 3/4 of one percentage point; troughs had to be at least 1/2 of one percent below the previous peak. These requirements are obviously rather arbitrary but they do capture the major turns in CPI inflation, taking account of the general upward drift in prices.

The last two columns of the table indicate the lead times for prediction that were yielded by looking at turning points in commodity prices or money growth. These prediction times are shorter than the actual lead times, usually by two or three months, because in practice those making forecasts need time to identify a turning point. (For example, when commodity prices reach a peak, one cannot immediately identify it as such; only after prices have fallen for 2–3 months can one know that a peak has occurred.) These turning points in commodity prices and monetary growth were defined as for the CPI, except that the required magnitudes are larger and are symmetric, reflecting the different patterns in the data. A lead time of zero months may be interpreted as a successful prediction, because the commodity price data are available a few weeks earlier than the CPI data.

The main conclusion to be drawn from the table is that commodity prices are reasonably successful predictors of turning points. The commodity price index predicted six of the nine turning points, with only two false signals; in contrast, growth in the aggregate stock of money predicted only two turning points. No single variable can be expected to be completely reliable as a leading indicator, but these results are quite encouraging.

**Conclusions**

This article has argued that commodity prices might serve as a useful leading indicator of inflation. Empirical evaluation of movements in a conventional trade-weighted commodity price index over the past two decades leads to several conclusions. First, there does not seem to be a stable relative price between primary commodities and other goods and services; equivalently, there does not seem to be a reliable long-run relationship between the level of commodity prices and the level of consumer prices.

Second, changes in commodity prices tend to lead rather than follow changes in consumer prices. Third, although the inclusion of commodity prices somewhat improves the forecasts of inflation in a multi-country consumer price index for the most recent years analyzed, the results may not be sufficient to be reliable for practical application. Fourth, turning points in commodity-price inflation frequently precede turning points in consumer-price inflation for the large industrial countries as a group.

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The Case for Open Foreign Exchange Systems

Increasingly, developing countries are finding that controls on foreign exchange transactions are counterproductive. Some of the reasons why, and a review of issues in moving to more open systems

Peter J. Quirk

Governments manage and intervene in foreign exchange systems in essentially two ways: (1) by pegging or managing the exchange rate, as opposed to allowing it to float (be set by the market); and (2) by imposing restrictions or taxes and subsidies on the use of foreign exchange. Restrictions—particularly exchange restrictions—that limit the openness of the external sector may be aimed at keeping a pegged or managed exchange rate at a desired level, or at influencing the level of a floating exchange rate. Policies for the exchange rate and for exchange and trade restrictions are therefore two sides of one coin.

Even though their exchange and trade restrictions remain more widespread and intense than those of industrial countries, developing countries have taken a leap forward in freeing these restrictions in recent years (Chart 1). Restrictions have had well-publicized effects in distorting the allocation of resources. But there is a growing realization, too, that they simply have not worked: evasion has been endemic and black markets for goods and currencies have flourished.

Developing countries have also been shifting away from fixed exchange rates. Here too, much of the impetus has been practical: governments have run out of the international reserves needed to support fixed or managed exchange rates, even temporarily, and controls have been ineffectual in providing this support. The fiscal and monetary reversal needed to lower the price level, and thus to restore competitiveness without depressing the exchange rate, has also been out of reach in almost all cases.

This article briefly reviews the practical aspects and policy implications of the main techniques for managing exchange systems and then discusses arrangements for liberalizing such systems.

Exchange rate regimes

The major forms of exchange rate regime are distinguished from one another by their degree of flexibility, that is, the frequency with which the rate is permitted to adjust. An increasing number of countries have floated their exchange rates in recent years (Chart 2). A major reason has been a desire to shed political responsibility for devaluing the exchange rate, because discrete adjustments to managed or fixed rates often have unpopular results, particularly for groups in society favored by the previous exchange rate regime.

Currency pegs. About one half the developing countries have single currency pegs. In most of these cases the country attempts to stabilize the value of its currency by pegging it to a major currency (often the US dollar or the French franc), adjusting the parity infrequently on the basis of discrete decisions by its authorities. About a quarter of all developing countries have currency composite pegs, designed to stabilize the value of the currency against some average of major trading partner currencies. Some countries use the Fund's Special Drawing Rights, based on a basket of major currencies, as a composite peg.

Currency pegs generally have not achieved their purpose of preventing exchange rate variability, first because they must be adjusted from time to time and second because pegged currencies float against currencies outside the peg. Pegging has also, in many instances, led to incentives for increasing use of the parallel or black market exchange rate, which exchange controls have proved ineffectual in preventing.

Managed indicator arrangements. Under this type of arrangement, the basis on which exchange rate changes are made is formalized. A common form is the inflation-adjusted "real exchange rate peg," which has the aim of achieving continuous competitiveness against a basket of the currencies of major trading partner countries. Another form of indicator arrangement is the preannounced exchange rate or "tablita," by which the exchange rate crawls at a predetermined rate.

The problem with both forms of indicator arrangement is the resulting predictability of exchange rate movement, which may create obvious profit-making opportunities and adversely affect expectations of future price movements, even if they are only used for relatively short-run management of the exchange rate.

Chart 1

Developing countries' main changes in exchange and trade systems, 1986-87

(Number of changes)

Managed floating arrangements. In a managed float, the central bank raises the rate, but it does not set the rate. The difference between this and pegged or indicator arrangements is that broad judgmental factors are used to set the rate, and adjustments are made frequently though not automatically. The rate may be set with regard to many factors, such as the real effective exchange rate, or developments in the balance of payments, international reserves, or parallel black markets for foreign exchange.

Because the rate does not completely clear the market at all times, a parallel black market may emerge, but it is less likely to do so than under pegged arrangements.

Independent floating. A key feature of this approach is that the exchange rate responds directly to exchange market pressures. The form of intervention associated with independent floating is purchases or sales of foreign exchange by the authorities. Generally speaking, the intervention is aimed either at stabilizing the market against periodic unsustainable movements in either direction, or at slowing down the rate of change by leaning against market pressures.

There are two main types of market arrangements for an independently floating exchange rate system: the auction and the interbank spot exchange markets. The participants in an interbank market are commercial banks and in some instances licensed foreign exchange dealers; in this system the exchange rate is determined in negotiations between banks and their clients and in transactions between the banks, and is therefore free to vary from hour to hour and day to day. Under an auction system, receipts from specified exports and services are surrendered to the central bank at the prevailing exchange rate and are auctioned by the authorities on a regular (say weekly) basis.

It often used to be argued that independent floating was not an option open to developing countries, given their limited state of institutional development. However, markets in these countries have proved themselves capable of managing floating exchange rates and also smoothing out considerable seasonality in the balance of payments. They have operated efficiently even in countries with only one or two commercial banks.

Exchange and trade restrictions

An exchange rate that cannot be sustained on the basis of economic fundamentals can be maintained in the short run by running down international reserves, or by placing restrictions on the use of foreign exchange. Such restrictions take diverse forms.

Import licensing and controlled allocation of imports through the use of foreign exchange budgets are used by most developing countries to restrict imports, whether for balance of payments support, industrial protection, health, security, sanitary, or social reasons. Of those countries maintaining import licensing systems, more than half require licenses on all imports. In some cases import licenses are granted more frequently if financed with the importer’s “own” foreign exchange, obtained outside the official exchange market (for example from retained export earnings). The most efficient way to operate a relatively free import licensing system is to permit all payments and transfers to proceed unless they are specifically prohibited or subject to prior approval—the so-called “negative list” approach.

Taxes on imports include tariffs, import surcharges, and stamp duties, and are applied by virtually all developing and industrial countries. Tariffs are generally applied very broadly. Nonetheless, the system can be designed with more specificity, for example to promote domestic industry. Duty drawback schemes (whereby importers receive partial refunds of the import duties they pay) may be allowed for imported raw materials, if local raw materials are not competitive in price and quality. Certain import duties may be earmarked for export promotion purposes, taxes on capital or consumer goods may be used to finance an export subsidy fund, and tariffs may be geared to protecting “infant” industries. Support to domestic industry may also be qualified and indirect: raw materials may be exempted from customs duties and commercial taxes, providing that products in which they are used are exported within a specified period, while tax exemptions for joint ventures and special economic zones may be used to encourage investment.

Advance import deposits and multiple exchange rates may also be used to tax or subsidize imports, although such practices have grown less widespread in recent years. The effective tax or subsidy is the difference between the (usually appreciated) official exchange rate and the exchange rate that would clear the market in the absence of the restrictions or, for import deposits, the ratio between the forgone interest and the value of the import.

Restrictions on international service transactions include those on foreign exchange for payments for travel and transportation, and services rendered by nonresidents. These latter payments include remittances, investment income, and wages. In some service sectors (such as computer services, some forms of insurance, construction, communications), where trade can be a substitute for foreign direct investment, restrictions on capital transactions may affect trade so much that they make foreign direct investment unattractive, or provide promotional incentives to encourage it.

Surrender requirements and retention allowances (whereby exporters are allowed to keep some of the foreign exchange they earn) influence the supply of foreign exchange to the domestic economy in many developing countries. Most often the retention allowances are aimed at promoting certain export industries. In evaluating an export earnings retention scheme, it is important to look both at the restrictions that may be placed on the uses of retained foreign exchange and, if the exchange is saleable, at the exchange rate that is applicable. Retention allowances are a recognition that the exchange rate is unrealistic and that surrender at the official rather than the parallel exchange rate cannot be enforced.

International capital transactions are subject to restrictions in most developing countries, but about one in three of these countries maintain free or relatively liberal capital control systems. Capital controls, where maintained, tend to be comprehensive, affecting commercial banks’ international transactions and the portfolio, direct, and real estate investments of residents other than banks. Capital receipts are typically less controlled than payments, as might be expected in view of the present widespread foreign exchange scarcities in developing countries, but they are generally subject to repatriation and surrender requirements, as noted above. Most foreign direct investment controls include case-by-case scrutiny of proposed investments by a government review board.

Exchange controls on capital movements, though widespread, have not succeeded in stemming large capital outflows. In some of the major debtor countries, the flight capital
would have been sufficient to refinance a sizeable portion of the debt incurred by the country as a whole, and to avoid rescheduling.

Designing reforms

An important reason why developing countries have been liberalizing restrictions in recent years is the growing internationalization of information about incentives, with all Fund member countries being increasingly integrated into a global market place. This has made it more difficult for individual countries to isolate their systems from those of other countries, because it has made more evident the financial disadvantages created by the controls. Even in the industrial countries which have relatively sophisticated methods of administering control systems, capital controls have been abandoned in part because they are no longer effective.

The ineffectuality of import controls in meeting the social objectives for which they were designed is clear in several respects. To the extent that controls are designed to limit the overall import bill, the question of their efficacy in fact has two parts: (1) Were imports limited to the level sought or did smuggling result? and (2) If the controls did indeed limit imports to that level, were they more efficient than raising the price of imports through a depreciation of the exchange rate—or has the depreciated exchange rate in fact been reflected in the price of the goods?

In a number of countries, prices of essential imports of food and raw materials at the final point of consumption or input are much higher than would be calculated by converting the international dollar import price at the official exchange rate in the country concerned. The difference reflects the parallel or black market exchange rate, and accrues to importers, or in some countries (and illegally) to officials administering the import control system. This outcome is at odds with the aim of ensuring cheap foodstuffs for lower income groups or of supporting a productive industry through inexpensive raw materials. The same aim could be achieved without distorting the structure of relative prices, by valuing the exchange rate at a realistic level and, in the case of food, using more targeted measures such as a food stamps program or a more progressive income tax structure. In a number of countries, foodstuffs subsidized by an overvalued exchange rate have destroyed the domestic agricultural base, and capital goods so subsidized have shifted the production function away from labor, adding to underemployment.

In practice, the choice of exchange rate policy, and of exchange and trade controls, is dominated by issues of political economy. In liberalizing restrictions and moving toward a flexible exchange rate, the political and social consequences in the transitional period are often of concern to governments. It is feared that exchange rate adjustment will raise the prices of key imported goods, adversely affect politically sensitive sectors of the economy, and speed the general rate of inflation. Without exchange and trade restrictions, imports, including those of luxury goods, may flood in. Out of such fears, a number of countries have delayed adjustment in the exchange rate and complementary macroeconomic policies. The balance of payments has then weakened to the point where they have no longer been able to meet their payments obligations. Credit lines have dried up and the forced adjustment has then been even harsher. Concerns that the general price level will rise, as a result of exchange rate adjustment and the liberalization of import controls, are often allayed by looking at true retail prices or wholesale prices at the point of consumption or input into production. The effect can be made explicit by examining the expected depreciation of the exchange rate, say, to the parallel exchange rate level, in terms of the ratio of imports to GDP, adjusted for prices that already reflect the parallel exchange rate.

Generally, such calculations show that the free market exchange rate is already embodied in the prices at the point of consumption or input. Because the free or black market exchange rate is the point to which a floating rate tends to move, after the system is liberalized, this gives some indication of the overall inflation effect—which is often much less than feared by politicians and officials. This inflation effect, such as it is, should then be offset by adjustments in macroeconomic policies that accompany the exchange rate adjustment.

Exports may take two to three years to respond to the liberalization of the exchange and trade system. Import effects may be more immediate but less politically tolerable.

In these circumstances, a major consideration in the short run is the effect of the liberalization package on capital flows. Evidence is mounting that a combination of freeing interest rates and allowing the exchange rate to find an equilibrium level (both on the spot and forward exchange markets) can serve as a strong incentive for the repatriation of capital (see Peter Quirk and Viktor Schoofs “Forward Foreign Exchange Markets in LDCs,” Finance & Development, September 1988). This can effectivley smooth the transition toward the new set of relative prices resulting from the liberalization package by providing early support to the balance of payments.

Techniques

In the movement toward more open and flexible systems several techniques seem to hold particular promise.

Auction and interbank exchange markets, used in association with an independently floating currency, were described above. Here it is worth noting that the authorities need to play a much more active role under the first of these options than under the second; if a government adopts an auction system it is less likely to be seen as shedding political responsibility for movements in the exchange rate. Another potential disadvantage of an auction market is that, because foreign exchange is only partly surrendered to the market, less information tends to be available on the overall supply of foreign exchange under this system than under an interbank market. In some instances where the authorities have borrowed short-term funds heavily to sustain an appreciated rate, and then have had to repay those loans, volatility has risen and the consequent sharp corrections in the exchange rate under an auction system have led to its abandonment. Being less centralized, interbank markets have been less prone to such destabilizing actions by governments.

Forward exchange markets reduce the risk associated with foreign trade, to the extent that importers' demand for and exporters' supply of foreign currency are matched in the market at a given exchange rate, or the risk is shifted to speculators who are willing to assume it. Forward exchange markets, when combined with realistic domestic interest rates, make borrowing abroad more attractive to importers. They are an important development where trade lines are open to a country experiencing temporary balance of payments difficulties, and where importers have previously been unwilling to assume the exchange risk in the absence of forward cover. Forward foreign exchange markets also facilitate some of the more sophisticated
financial transactions that are necessary if the domestic banking sector is to develop an appropriate share of the international services market.

There are several variants of market-determined forward systems. In developing the market, it is clearly preferable to have commercial banks handle transactions as much as possible, and to have the central bank withdraw both its support for or regulation of the rate as early as possible. Central banks' losses from nonmarket import cover have been extremely large. Experience suggests that outright forward contracts for commercial cover are usually the most desirable point at which to begin operations. Futures and options markets may well emerge later.

**Import license auctions** are useful if import licensing is retained for a period following an exchange reform. Under these arrangements, importers bid for licenses up to the total value available but with no limitation on the type of goods. Efficiency results, because licenses go to those importers who place the lowest bids, and flow to the goods for which there is most demand. Government revenue from the auction of import licenses has been an important element in narrowing the fiscal deficit in some countries.

**Open general licensing.** This approach helps the import system to be liberalized through selective decontrol of categories of imports. The list of OGL commodities (i.e., commodities not requiring specific import licenses) can be progressively broadened as liberalization proceeds. The major issues relate to the level of the exchange rate for goods on the OGL list; an overvalued exchange rate could lead to serious overimporting of these goods and consequent deterioration of the balance of payments. Exchange rate or equivalent action on pricing should therefore accompany the adoption of such a system.

**Tariff reforms** undertaken by developing countries in recent years have had several common elements. Most have been combined with, or preceded by, a reduction of quantitative import restrictions. Most included a simplification of the tariff structure, and a reduction in the dispersion of tariff rates—usually in tandem with the lowering of the average tariff rate. Simplifying and redirecting tariffs is important for appropriate resource allocation, and for fiscal revenues. Tariff systems in some developing countries are complex and capricious.

**Capital liberalization** can play an important role in reversing capital flight in the initial stages of exchange and trade liberalization. As noted above, severe controls on capital movements have not been able to stem widespread capital flight in recent years. Indeed, a case can be made that the presence of controls has contributed to capital outflows because, even where exchange and interest rates are realistic, and exchange risk cover is offered, problems of transfer resulting from the controls have induced residents to hold currency abroad. A country's residents will not repatriate capital if by doing so they lose flexibility in its use thereafter. This suggests that simultaneous liberalization of the exchange rate, interest rates, and capital controls is likely to provide the strongest incentive for reversing capital flight and supporting the balance of payments in the short term. Given that the real sector takes time to adjust to changes in the exchange rate regime, the short-run effects may be critically important for the success of a liberalization program.

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Finance & Development / June 1989 33

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Export Processing Zones and Trade Policy

Experience in some Asian countries indicates that EPZs have a limited role in export promotion, but they are far from being “engines of development”

Peter G. Warr

Since the mid-1960s, many developing countries have initiated policies designed to stimulate exports of nontraditional manufactured goods. One form of such export promotion efforts has been the establishment of export processing zones (EPZs). Many of these zones were set up in the early 1970s. By the mid-1980s, over 40 such EPZs existed in Asia alone, with an aggregate employment approaching half a million. Globally, their number and importance was far greater.

Many developing countries established EPZs hoping for economic gains through foreign exchange earnings, employment, and technology transfer. This article assesses the record of EPZs to date, drawing partly upon a detailed study of EPZs in four Asian countries: Indonesia, the Republic of Korea, Malaysia, and the Philippines (see box). The finding, in brief, is that EPZs can make a limited contribution to the growth of exports, especially in the early stages of industrialization. However, a much more effective strategy is to create a liberal economic environment conducive to export-oriented development.

EPZs in the world economy

EPZs are special enclaves, outside a nation’s normal customs barriers, within which firms, mostly foreign manufacturers, enjoy favored treatment on the import of intermediate goods, company taxation, provision of infrastructure, and freedom from industrial regulations applying elsewhere in the country. Although the details of these provisions vary, a universal feature is the almost complete absence of either taxation or regulation of imports of intermediate goods into the zones. These privileges are subject to the conditions that almost all the output of EPZ firms is exported and that all imported raw materials and intermediate goods are fully used within the zones or are re-exported.

In the early 1970s, Japan’s relaxation of restrictions on investment abroad led to competition among Asian countries hoping to attract Japanese and other foreign investors. Light manufacturing activities, intensive in the use of unskilled and semi-skilled labor, were identified as targets for investments in EPZs. These activities allow low-cost goods to be produced with the help of inexpensive local labor. They include electronics assembly, garment production, and assembly of light electrical goods.

A notable feature of the firms producing within the zones is their international mobility. The rate of turnover of firms is high and firms leaving an EPZ in one country often migrate to an EPZ in another, where conditions are more favorable. The EPZ was an economic environment especially designed to attract these “footloose” or mobile activities.

The footloose manufacturer

EPZs exploit the mobility of capital goods owned by internationally mobile manufacturing firms. The zones are essentially devices for attracting these firms and their capital equipment into the host country. Within the zones these capital goods are combined with domestic labor to produce traded goods which the firm sells abroad. The firm tries to move its capital equipment to countries in which it can earn the highest rate of return.

In its most simplified form, this process can be viewed as an indirect form of labor export. The foreign firm producing within the EPZ receives the services of domestic labor. In return, the domestic workers receive wages and some training. It is no coincidence that many of the countries that established EPZs have also been involved in the direct export of temporary labor to the Middle East and elsewhere. In the case of EPZs, the capital goods move where the labor is; with direct labor export, the movement is reversed. Of course, the goods produced within the zones must be internationally mobile—that is, capable of being exported. No such restriction applies where the labor is exported directly.

The processing activity within the zones produces final traded goods using three kinds of inputs: traded intermediate inputs, capital goods, and labor. The traded intermediate inputs include, for example, the electronic components, plastic casings, and electrical circuitry used in producing electronic goods, and the textiles, buttons, and cotton thread used in producing garments.

Over time, competition in product markets depresses the market price of the final good produced, and in turn lowers the market rate of return to capital used in producing that
manufactured good. This implies that unit labor costs, as distinct from unit capital costs, become an increasingly important determinant of the international location of the production of that good. This chain of events is consistent with the product cycle process previously identified in the 1960s. It suggests a gradual migration of newly-developed manufacturing processes from rich countries—where unit capital costs are lower because capital goods are used more efficiently—to poor countries—where lower wages cause unit labor costs to be lower. The driving force behind this migration of economic activity is that international competition forces the unit value added generated by these manufacturing processes downwards.

Characteristics of EPZs

The detailed characteristics of EPZs are numerous and varied, but five universal features are: duty-free import of raw materials and intermediate goods; company income tax holidays; streamlined administration; specially provided infrastructure; and subsidized utilities. The following account describes these features in a “typical” EPZ.

Raw materials and intermediate goods required for the production of exports may be imported duty-free and without regard to any quantitative restrictions applying within the domestic economy. Products may be exported without payment of export taxes or sales duties. EPZs may be physically located anywhere within the host country, but the processing activities undertaken within them occur “outside” the country insofar as the jurisdiction of normal customs provisions is concerned.

Goods produced within EPZs may not normally be sold within the domestic economy. However, when consignments are rejected by foreign buyers or fail to meet delivery deadlines, permission may be given for domestic sale. These sales are usually treated as imports and attract the normal customs duties.

Purchases by EPZ firms of raw materials and intermediate goods from the domestic economy are frequently subsidized in an attempt to encourage backward linkages between EPZ firms and the domestic economy. The subsidies, commonly called “rebates” or “drawbacks”, are intended to counteract the effects of domestic protection. The rates of subsidy are in principle equal to the tax (import duty, excise tax, sales tax) component of the domestic prices of these goods.

Tax exemptions from normal income tax provisions are frequently offered on a temporary basis with an official duration of about three to ten years. It is common for EPZ firms to negotiate successfully for continuation of these fiscal incentives long beyond their official expiration. Firms can often threaten to relocate to an EPZ in another country if the host country does not extend the tax-free period. Once relocated, the firm’s tax holiday begins again.

The Philippines offers a generous schedule of deductions instead of income tax holidays. Very little tax revenue has been raised from the Philippines’ EPZs because most firms declare overall trading losses. Many firms have declared annual losses for over a decade while still producing and, in some cases, even expanding operations considerably. It is well understood that vertically integrated firms (i.e., where the various stages of production from raw materials into final goods are undertaken by the same firm or its subsidiaries) relocate their profits internationally by using transfer pricing—that is, underpricing goods for export while selling them at market prices within foreign markets. Minimizing global tax burdens and avoiding political risk are motives for this behavior. The Philippines experience suggests that methods to monitor such transfer pricing are ineffective and that tax holidays are consequently somewhat less important than they may appear.

Streamlined administration. EPZ firms typically face less demanding requirements for customs documentation, for imported raw materials and capital goods, and for exported final products than do other firms. In most countries establishing EPZs, a separate branch of the administration has been created to mediate between EPZ firms and the government. The aim is to reduce EPZ firms’ administrative costs and to prevent unnecessary delays. The degree to which these bodies are empowered to act on behalf of the government varies, but other departments often resent interference with their normal functions and occasionally become uncooperative with the EPZ bodies.

EPZ firms are typically exempted from regulations applying within the domestic economy on foreign ownership of firms; repatriation of profits; employment of foreign nationals in managerial, supervisory, and technical roles; and import of capital equipment. EPZ firms may also be granted access to the host country’s allocation of import quotas.

Infrastructure. An EPZ consists of a heavily fenced area with a perimeter and gates policed by customs officials to prevent duty-free materials from being smuggled into the domestic economy. While infrastructure facilities such as roads, and telephone and telex communications are normally superior to those outside, they are generally inferior to those found in the industrial areas of developed countries.

Subsidies. Utilities are sometimes subsidized in EPZs. Electric tariffs are especially important in this regard because the light manufacturing enterprises in EPZs are heavy users of electrical power. Rates charged within EPZs are frequently below, and never above, rates charged to industries elsewhere in the host country.

EPZs usually include standard-construction factory buildings, constructed and managed by government authorities, within which investing firms may rent floor space. Rental rates are generally lower than commercial industrial rates elsewhere within the country. Alternatively, firms may lease land within the zone and construct their own buildings. If they leave the zone, firms may sell or lease these buildings.

Links to local economy

When the zones were established, one of the anticipated benefits was that EPZ firms would gradually increase their purchase of local raw materials, components, semi-finished goods, and machinery and that this interaction with the local economy would benefit domestic firms through technology transfer. The record has been disappointing. Local raw materials typically comprise no more than a third of total raw material use, and often much less. In Malaysia, local raw materials comprise only a small percentage of total raw material use; purchases of raw materials and intermediate goods produced by other EPZ firms are more than three times as important. In the Philippines, the share of local raw materials in total raw material use in the EPZ has declined to less than 10 percent.

Managers of EPZ firms report that the main obstacle to purchase of local raw materials is their low and unreliable quality. Entire shipments of finished goods may be rejected if the raw materials or intermediate goods used are inferior. The changing industrial composition of the EPZs is another explanation for the declining use of local raw materials. Garment and footwear manufacture uses a much higher proportion of local raw materials than does electronics assembly. As the composition of the EPZ shifts toward electronics, the proportion of local raw materials declines.

Reluctance to rely upon local raw materials also derives from the global strategies of the corporations involved. Parent firms wish to preserve a high level of international mobility for their processing operations, and developing long-term commercial relationships with local suppliers in the host countries does not serve this goal.
Moreover, to attract foreign firms into the infrastructure costs of constructing an EPZ, the limited benefits from EPZs can be in foreign exchange and in this respect EPZs tax revenue. This has been equally true in countries which have granted company income countries establishing the zones have consequently found it more difficult than they had expected to attract foreign investment. Especially in the initial years after establishing the zones, the rate of intake of investing firms has been disappointing. Nevertheless, to the extent that firms were attracted to invest in such zones, the first two objectives were met.

The zones contribute significantly to the employment of unskilled and semi-skilled workers. Moreover, the foreign exchange required to pay domestic workers adds to the host countries' foreign exchange earnings. This amount of foreign exchange, necessary to meet the firms' obligations with the host country, is what determines the host country's net foreign exchange earnings from the EPZ. Indirectly, EPZ workers and other domestic factors of production are being paid country, is what determines the host coun-

Costs and benefits

Governments establishing EPZs in the early 1970s invariably had three objectives: foreign exchange earnings, employment, and technology transfer. The competition among host countries for footloose processing activities has become intense and individual countries establishing the zones have consequently found it more difficult than they had expected to attract foreign investment. Especially in the initial years after establishing the zones, the rate of intake of investing firms has been disappointing. Nevertheless, to the extent that firms were attracted to invest in such zones, the first two objectives were met.

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EPZ firms have made little contribution to tax revenue. This has been equally true in countries which have granted company income tax holidays and those which have not. In the latter case (e.g., the Philippines) transfer pricing practices have been used to minimize the firms' global tax burdens.

The example of the Philippines shows that the limited benefits from EPZs can be extremely costly. The Philippines' first and largest EPZ, the Bataan EPZ, was an instrument of regional decentralization. The infrastructure costs of constructing an EPZ in the isolated site chosen were very high. Moreover, to attract foreign firms into the zone, the government granted EPZ firms preferential access to the Philippines' capital market at subsidized interest rates and with government guarantees of the loans. Not surprisingly, most of the firms' investments in the zone—over 90 percent—were financed in this way. The subsidy that was implicit in this policy led to a heavy social cost for the Philippines.

In contrast, the example of Malaysia shows that EPZs can be established and operated at much lower cost than was the case in the Philippines. Moreover, both the Malaysian and Korean examples show that, viewed as public investments, EPZs can yield acceptable social rates of return. Of course, in these benefit-cost calculations, all other policy instruments, and in particular all other instruments of trade policy, are held constant. It is possible to look at the EPZs in this partial manner, but this exercise raises the question of whether it would have been possible to achieve the same benefits in another, more cost-effective way.

EPZs and trade policy

As already indicated, export processing zones always permit the duty-free import of raw materials and intermediate goods. In recent years, several of the countries that established EPZs in the 1970s have extended this provision to firms producing for export but located outside the EPZs. The duty-free raw materials are held in bond on the factory site until required for production. The Philippines, Malaysia, and Korea each provide good examples. This change of policy undermined the advantages of the EPZs to some extent but showed that construction of expensive special zones was not necessary for the duty-free characteristic of EPZs to be made available to other firms, whether producing for export or not.

Duty-free import of raw materials and intermediate goods is not the only attraction of EPZs. Reduced "red tape", through the introduction of customs procedures, clarification or elimination of regulations, and the upgrading of industrial infrastructure are also important. There is no need to confine these provisions to the EPZs. A point that managers of foreign firms mention frequently is the importance of stable and clear policies to attract foreign investment. This obviously applies as much outside the EPZs as within. Most of the features that have enabled EPZs to attract foreign investment could be applied outside the zones, presumably with similar effectiveness, and without establishing new special enclaves.

The features of the domestic economy which impede foreign investment, and which EPZs are intended partly to counteract, also impede the development of efficient domestic industries. To the extent that a liberalized environment within the EPZs deflects attention from these matters, the net outcome could be worse than what would have occurred in the absence of the zones.

Conclusion

Most of the examples presented in this article have been taken from East and Southeast Asia, but the experience of EPZs elsewhere has been similar. The benefits from EPZs often fall short of popular expectation. For countries in the early stages of development, the zones can provide an efficient and productive means of absorbing surplus labor. Even then, the zones could never be expected to provide more than a modest part of the solution to the vast employment problems of these countries. EPZs also provide the domestic business community with nearby examples of internationally competitive industrial enterprises. This is useful, especially in the early stages of industrialization, as are the indirect benefits of on-the-job training of local middle-level managers and other workers. It is difficult to assemble hard evidence on these matters but close observers of EPZs generally consider that these earlier expectations have been realized only partially at best.

As industrial development proceeds, and the surplus labor which characterized the earlier stages of industrialization is absorbed, interest in EPZs has tended to wane. This transition coincides with rising labor costs. Taiwan, Province of China and Korea, pioneers in the establishment of EPZs in the late 1960s and early 1970s, have recently become considerably less interested in this type of enclave development. Perhaps in the next two decades a similar change of attitude can be expected in many of the LDCs now actively promoting EPZs. Other LDCs, currently thought of as being pre-industrial, will presumably replace them.

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The Common Agricultural Policy of the EC

The heavy costs of the CAP on the European Community and its adverse effects on international trading relations have prompted a movement toward reform.

Sanjeev Gupta, Leslie Lipschitz, and Thomas Mayer

The European Community (EC) as a group is the leading importer and the second largest exporter of agricultural commodities in the world. The Community’s share of world exports is not only large, but has grown since the inception of the Common Agricultural Policy (CAP) in the 1960s. This article assesses the impact of the CAP on trade and production patterns in EC member countries as well as the rest of the world and discusses the reform measures.

Origin of the CAP

The Treaty of Rome, which came into force in 1958 and laid the foundation for the EC, listed the adoption of a common agricultural policy as among the steps needed to establish a common market between member states, and a common commercial policy toward third countries. The objectives of the CAP were: an increase in the productivity of farmers; a fair standard of living for producers; stabilization of markets; food security; and reasonable prices for consumers.

The recovery of agricultural output after World War II was remarkable; by 1957–58 agricultural output was 28 percent above the prewar level, despite a 20 percent reduction in workforce and slightly less acreage under cultivation. It is therefore not surprising that in the 1958 Stresa conference, held to deal specifically with agriculture in the EC, the issue of market imbalances was high on the agenda. The conference participants acknowledged that as a result of a low income elasticity of demand for agricultural goods and strong productivity gains in the post-war period, problems of pricing and market clearing were inevitable. However, in the general enthusiasm for progress, these issues were glossed over.

Detailed operational proposals on agricultural policy were submitted by the Commission in June 1960. At that time it was accepted that agricultural prices in the EC would be shielded from world markets to avoid excessive fluctuation, and also because world market prices reflected intercation by other governments. These views still guide the operation of the CAP.

Three prices are used as the main instruments for agricultural support. The EC target price limits the upper end of the range within which producer prices may fluctuate. The threshold price sets the lowest internal price for imports, and a variable levy is imposed to raise import prices to this level. Similarly, a variable subsidy (“export refund”) lowers export prices to world market levels. In order to ensure full protection of domestic producers from competing imports, the intervention price is kept below the threshold price.

There are, however, various unusual aspects of the price support mechanism—chiefly a variety of “stabilizers” (i.e., measures to limit spending on price support). Co-responsibility levies, designed so that producers bear part of the cost of disposal of surpluses, serve as disincentives to production for some products (sugar, and more recently, milk and cereals). Guarantee thresholds, which reduce price support with a lag when a certain level of production is exceeded, have been tried for milk, cereals, rapeseed, and sunflower seeds. These mechanisms will, of course, reduce output only if subsequent generous price increases do not nullify their effects. In addition, there have been quotas for entitlement to CAP support (e.g., milk, since 1984); their effectiveness, however, has been limited by the extent to which they have been circumvented. Finally, intervention has at times been limited in time or scope to give greater sway to market forces.

To minimize price discrepancies resulting from exchange rate changes that give rise to trade distortions, a system of monetary compensatory amounts (MCAs) was introduced, although subsequently reformed and modified several times. By allowing countries to phase in slowly domestic price changes that result from exchange rate realignments, MCAs are equivalent to a system of import levies and export subsidies for countries with appreciating currencies, and export levies and import subsidies for those with depreciating currencies. In practice, however, the objective of uniform prices has never been achieved, and pricing policies have had to be considered at each realignment of EC currencies. In addition, the desire to dismantle MCAs has impinged on the annual pricing decisions.

Effects on EC members

An important objective of the CAP, as noted earlier, is to ensure stable and adequate incomes for farmers. The principal instru-
ment for achieving this objective is agricultural producer price support. The pursuit of this policy under the CAP has direct effects on consumers and producers, as well as on government budgets. For an importing country, this usually implies a loss to consumers that exceeds the sum of gains of producers and any tariff revenue that may accrue to the government. Thus, there is a net welfare loss to the country.

The indirect effects of agricultural price support stem from absorption of more factors and inputs by the agricultural sector than would otherwise be the case. Production and exports, or stockbuilding, rise while imports fall. Factor and input prices increase as a result of higher demand from the agricultural sector and raise costs for the other sectors of the economy. Consequently, other industries producing tradable goods could lose sales to foreign competitors in their home market and abroad. Producers of nontraded goods, such as services, could pass on their higher costs to consumers. This, and the higher prices for agricultural products, could raise the general level of costs and prices, and hence wages, and reduce external competitiveness. These various effects are likely to lower real GDP and income growth. But, are these conjectures supported by facts?

There are several ways to test these hypotheses. In the so-called historical analysis, the effects of economic policies are studied by comparing the developments of economic variables before and after the measures are implemented, or by comparing developments between economies affected and those not affected by these measures. Two problems may distort this analysis. First, EC countries already had national policies in place to support the agricultural sector before the adoption of the CAP. Second, other major agricultural producers also give support to their agricultural sectors.

The pitfalls of historical analysis can be avoided by using models that compare simulations assuming the presence of the policy under review with those assuming the absence of the policy. Two approaches are available for this: in the first approach, which is based on partial equilibrium analysis, agricultural markets in several countries or country groups and the world at large are modeled, and simulations with and without price support policies in EC countries are compared. However, this methodology does not capture the indirect effects that operate through the other sectors of the economy. For this, the second approach, of full equilibrium analysis, must be used. Here, all the interactions between agriculture and the rest of the economy are captured, and a full assessment of the effects of agricultural policies is in principle possible. However, the available models are often based on simplistic assumptions. Although there is no single technique that can be exclusively relied upon to estimate the effects of the CAP on EC countries, reasonable inferences can be drawn from a combination of these various techniques.

A review of a number of key economic variables in EC member countries before and after the CAP became effective leads to the following conclusions:

- Agricultural prices have at times been considerably above world market prices or prices of low-cost suppliers, with the degree of protection varying significantly over time.
- Labor productivity in the agricultural sector has increased more rapidly than total labor productivity, because of the restructuring of the agricultural sector toward larger farm sizes and the rapid pace of mechanization.
- In response to the higher producer price support given under the CAP, self-sufficiency of the EC (defined as ratio of domestic production to consumption) in most products has increased rapidly.
- As a result of the rapid increase of production relative to consumption, the EC’s agricultural exports and stockbuilding have risen rapidly, while agricultural imports have grown at a rate below that of total imports.
- Despite the higher support given under the CAP, agricultural producer prices have declined relative to industrial prices or the general price level in EC economies, and relative productivity gains have not been large enough to prevent farm incomes from deteriorating in recent years.

It therefore appears that the CAP has failed to ensure adequate income levels for small-scale farmers, while producing windfall gains for large-scale producers and costly distortions in the EC economies as a whole.

Indeed, many partial equilibrium studies surveyed in the detailed study on which this article is based (see box) suggest output losses in the EC in the order of 0.3 percent to 1.3 percent of GDP due to the CAP. The results differ because of differences in the number of commodities included in the analyses, differences in the base year chosen for the exercise, and differences in the models that were used. But all these studies unequivocally point to the fact that for every ECU transferred to farmers under the CAP, consumers and taxpayers lose significantly more than one ECU.

A review of evidence from general equilibrium analyses suggests larger losses. In these studies, the cost of the CAP is estimated at between 1 percent and 3 1/2 percent of GDP. Simulations carried out by Fund staff with a computable general equilibrium model for Germany, indicate a rather strong response of the German economy to an abolition of the CAP.

In the Fund analysis, lower agricultural prices reduce consumer price and consequently nominal wage growth. The competitiveness of the other sectors of the economy is enhanced by cheaper labor and agricultural inputs, so that output and employment in these sectors rise significantly. Altogether, the simulations of a complete liberalization of agricultural policies produce a consumer price level that is about 1 3/4 percent lower and an aggregate level of employment that is 5 1/2 percent higher than is the case of no change in the CAP. Real income and domestic demand are increased by some 3 1/2 percent.

Effects on the rest of the world

In the mid-1970s, the EC became a net exporter of most temperate zone products (e.g., livestock and crop products). This development had a significant effect on the two-way trade in agricultural commodities between the developing countries and the EC, with the developing countries as a group becoming a net food importer and the EC a net exporter. Against this background, there are three major effects on other countries that have been attributed to the CAP.

First, pricing policies and protection in the EC have led to excessive production, reducing imports and expanding exports. With growing output in other parts of the world and with no corresponding shifts in demand, the rising farm output in the EC has depressed world prices. This effect has been exacerbated by subsidized exports of EC surpluses. The resulting trade flows at “distorted” prices have influenced the real incomes of the Community’s trading partners.

Second, it has been argued that the EC’s variable import and export levies have tended to insulate the EC markets from external price fluctuations, thereby amplifying the variability of world commodity prices. As a result, world price developments do not generate demand and supply responses within the EC countries. This means that the rest of the world must adjust more to any quantity shifts.

Third, the greater instability of prices, mentioned above, renders the incomes of primary producers and exporters unstable. When combined with risk-averse behavior by farmers in production, this instability causes farmers to contract output, thereby lowering their incomes. Since farmers have a reduced access to the insurance markets in poorer countries, this effect is expected to be stronger there.
Prices and trade. The debate on the CAP depressing world prices has centered on its impact on the terms of trade of importing and exporting countries. It is held that countries exporting CAP commodities (chiefly the US and the industrial British Commonwealth) are disadvantaged by the excess production of the EC, while developing countries, whose exports do not compete with those of the EC, benefit because of lower prices for imported food and high prices within Europe for CAP substitutes. A number of studies have attempted to estimate the effect of eliminating the CAP on world prices. All of them conclude that the CAP has indeed exerted downward pressure on prices. The effect is stronger for commodities that face high rates of protection such as dairy products, grains, and beef. For instance, according to these studies, prices of dairy products would rise by as much as 28 percent with an abolition of the CAP. These studies further indicate that an abolition of the CAP would lead to an expansion in world commodity trade. For some commodities (e.g., beef and sugar), a lowering of consumer and producer prices in the EC would turn the developing countries into net exporters and the EC into a net importer.

Income. Two conclusions on the effects of the CAP on the real income of the Community’s partners emerge from studies based on partial analysis. First, the size of the total effect on each of the two country groups is not large in proportion to GDP or total exports. Second, developing countries as a group stand to lose from the abolition of the CAP, while the effect on industrial countries is ambiguous. These conclusions, however, should be treated with caution: first, the aggregate results conceal the distribution of gains or losses among the individual countries (Japan loses among the industrial countries; the Republic of Korea and Pakistan within the developing countries’ group lose, while Argentina is a gainer); and second, the estimation is based on the existing trade pattern in which developing countries emerge as net importers of food. But higher world market prices, after a liberalization of the CAP, might induce developing countries to produce temperate zone commodities and, ultimately, may even provoke a switch from their being net importers to net exporters. The potential for such a switch is difficult to assess, but the success of some developing countries (particularly in Asia) in expanding food output suggests that it may be considerable. Third, estimates made in a partial equilibrium setting ignore the repercussions on nonagricultural sectors. Studies using general equilibrium methodology suggest that a liberalization of trade in agricultural commodities in the EC would raise the income of developing countries as a group in the medium term.

Price stability. Various studies attribute a significant part of the variability in world prices to the CAP; this is especially true for wheat and dairy products. Even when compared with price support schemes in other countries, the CAP has been found to be a significant destabilizing factor in world markets.

Movement toward reform

Surplus production was already identified as a potential problem in 1958 during the Stresa conference. There has been a broad appreciation of this problem, however, since the 1968 Mansholt Plan, which advocated price restraint to eliminate surplus production coupled with structural support to facilitate larger holdings and greater efficiency. The problems have not changed much, nor has the debate on reform.

The present process of reform began, somewhat hesitantly, in 1982–83 and led, in 1985, to a Green Paper by the EC Commission which argued that constraints on the budget and in the area of foreign trade made it imperative to reduce agricultural surpluses. The Green Paper led to the proposal of a two-pronged reform strategy: (1) less generous support with a larger role for market forces, and (2) structural measures to make agriculture more competitive and less dependent on support. The reform process then culminated in the policy package of February 1988. The reforms so far implemented comprise four major elements:

- Pricing policy has been made more restrictive.
- The monetary compensatory arrangements have been changed with a view to eliminating their inflationary bias.
- Restrictions have been introduced on entitlements to support.
- Complementary measures have accompanied these price and market reforms.

These measures have tried to lower employment in agriculture (e.g., early retirement schemes), reduce production directly (e.g., financial incentives for set-asides of arable land), and supplement incomes with direct financial assistance where a tightening of access to CAP benefits causes hardship.

The February 1988 reform package, in addition, addressed two problems. First, budgetary appropriations in the past had not been binding because, in practice, intervention was open-ended at given support prices. Second, budgetary rules did not prevent the level of support from being raised in the annual review of pricing policy. This meant that the effects of guarantee thresholds, having been exceeded in one period, could be nullified by generous pricing policy in the next. To control the CAP finances, increases in expenditures for agricultural price support were therefore limited to no more than 74 percent of the rise in Community GNP. This would curb expenditure growth, and reduce the ratio of such expenditure to GNP. In order to achieve this target, the existing agricultural stabilizers were reinforced and new measures were introduced. In particular, guarantee thresholds were set for cereals, oilseeds, and protein products and supplementary co-responsibility levies were imposed for cereals. Stabilizers for beef were subsequently introduced in February 1989. These measures supplemented the arrangements for milk, mutton and lamb, wine, sugar, tobacco, cotton, fruit, and vegetables, which were adopted at a Council meeting in Copenhagen on December 1987.

Most of the reforms implemented over the recent years sound promising. Their success, however, will depend critically on the extent to which budgetary limits are respected and world price movements are reflected in EC markets.

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The idea of a single, integrated market among the member states of the European Community (EC) by 1992 is not a new one; it was originally envisaged in the Treaty of Paris in 1951 and in the Treaties of Rome in 1958. Since that time, substantial progress toward this goal has been made primarily in the goods market. Tariffs and quantitative restrictions to intra-Community trade were eliminated in 1968. However, a number of non tariff barriers, which hindered the trade in manufactures and in the area of services, particularly financial services, still remained.

In March 1985, the European Council, (where heads of government and state meet periodically to deal with matters arising out of the treaties and with general issues relating to political and economic cooperation) called upon the European Commission, the EC’s executive body, to draw up a detailed program with a specific timetable for the complete removal of all existing barriers impeding the free flow of goods, services, capital, and labor among member countries. Consequently, in June 1985, the Commission issued the White Paper, listing 300 essential legislative proposals or draft directives (subsequently changed to 279), on “Completing the Internal Market.”

The Single European Act (SEA), which became effective in July 1987, provided the legal instrument necessary to facilitate European integration. The Act, an amendment to the Treaties, introduced voting by qualified majority in the EC Council of Ministers on decisions relating to the completion of the internal market which had hitherto required unanimity. However, unanimity will be still required on such issues as the harmonization of tax policies and professional qualifications. Another measure that facilitated the adoption of the Commission’s proposals was the introduction of the principle of mutual recognition. This principle will be implemented through directives adopted by the Council of Ministers which ensure that rules and laws in force in one country are recognized by and acceptable to other members.

Barriers to trade

The White Paper proposals essentially center on abolishing existing physical, technical, and fiscal barriers. These include border controls, technical standards and regulations, and disparities in tax regulations. The important objectives of the proposed directives include:

- Removal of all internal border controls—especially eliminating delays at frontiers for customs purposes and related administrative burdens for companies and public administrations;
- Elimination of technical barriers to trade by applying the principle of mutual recognition of standards, and harmonization of technical standards with respect to health, safety, consumer protection, and the environment;
- Opening up government procurement to competitive bidding;
- Recognition of professional qualifications within the Community;
- Harmonization of indirect taxes (e.g., value added and excise); and
- Liberalization of capital movements and the related liberalization of financial services.

Implications of unity

The implications of full elimination of barriers to intra-EC trade and the creation of a large market of 324 million consumers are significant. A single market will turn the EC into the world’s second largest economy, with an annual GDP in 1987 of 3,869 billion ECU (just below the US market with a GDP of 3,869 billion ECU). Such unification, according to the Commission’s White Paper, would create a growing and expanding market that would be much more effective and efficient in directing resource flows (of labor, capital, and materials) to areas of maximum economic advantage, from both the national as well as the Community’s point of view.

A major study for the EC—the Cecchini report—published in 1988 analyzed the cost of “non-Europe,” that is, the costs of not completing the internal market, and conversely, the potential benefits (direct and indirect) of a single market. The total costs of frontier formalities and the associated administrative costs were estimated to correspond to 1.8 percent of the value of the goods traded within the Community, while those relating to technical regulations and standards were put at about 2 percent of the business sector’s total production cost in 1985.
The total gains that can be expected from integration of the product market are substantial in the branches of industry for which government procurement is large, (e.g., energy, transport, office and defense equipment). According to the report, annual savings of roughly 20 billion ECU would result from free competition within this field. The potential benefits of a single financial market are also impressive. The Commission estimates that competitive pressures could lead to savings of up to 20 percent on the cost of financial transactions in the EC. Additional benefits could also be derived by the European industry from exploiting potential economies of scale at the Community level. About one third of European industry could profit from cost reductions ranging from 1–7 percent, depending upon the sector concerned. Savings from economies of scale would thus amount to about 2 percent of member countries’ GDP.

In terms of macroeconomic gains, the report concluded that a completely free and competitive internal market could, over a period of 5–6 years, increase the Community’s GDP by 4.5 to 7 percent, reduce consumer prices by 4.5 to 6 percent, and create 2–5 million jobs. Increased economic activity would contribute to an increase in government budget revenues by 2.2 percent of GDP, and enhanced competitiveness of member countries could improve the aggregate balance of payments by 1 percent of GDP. The report also stressed that the realization of full economic growth potential would depend upon the nature of the macroeconomic policy being pursued.

Progress . . .

As of December 1988, about one half of the 279 internal market proposals drafted by the Commission had been adopted by the Council of Ministers (the only Community institution which directly represents the member states’ governments). Once a directive is adopted, each state is responsible for translating it into national law, although a sufficient time period is allowed for member countries to revise their national legislation and implement necessary administrative changes. Considerable progress has been made in the areas discussed below.

Border controls have been simplified considerably with the introduction of a Single Administrative Document in January 1988. This one page customs document replaces some 70 different forms in several languages previously required by member governments at the border, and will serve as an export declaration, transit document, and import document. At the same time, the EC has also introduced a common tariff nomenclature that will be adopted by all member states.

Technical standards. The most significant progress has been made in harmonizing technical standards relating to pharmaceutical products, emission controls on large passenger cars and on commercial vehicles, and food regulations (i.e., rules for food additives and packaging, plus regulations regarding production, storage, and distribution of frozen food). There was also agreement on safety requirements and standards for industrial machines, and liberalization of air and road transport markets.

Public procurement. A directive opening up bidding on government contracts to EC-wide firms was adopted in March 1988 with the aim of improving publicly available information about potential contracts, and increasing access of EC firms to tenders, thereby expanding intra-EC competition. Currently, government contracts amount to 20 percent of all economic activity in the EC, but only 2 percent of them go to companies from other member states. In June 1988, a further extension to the directive liberalizing public procurement was presented to the Council of Ministers to include four sectors currently excluded from the Community rules—energy, transport, water supply, and telecommunications. It is expected to be adopted in 1989.

Free movement of labor. Although non-professionals are able to move freely to other EC countries for work, the acceptance of academic and professional qualifications acquired in different member states has always been a contentious issue. In June 1988, a directive providing for the mutual recognition of higher education diplomas was adopted by the Council of Ministers; university degrees acquired in each member state will be accepted by all members of the EC.

Free capital mobility. The creation of a unified financial market depends on, inter alia, the liberalization of capital movements. Various liberalizing measures have been taken. The Commission issued a directive in 1980 requesting members to dismantle restrictions on long-term capital flows. However, limited progress was made as many EC countries reintroduced capital restrictions during 1968–73. A directive requiring the liberalization of capital movement in connection with long-term commercial transactions, bond issues, and unquoted securities was adopted in 1986.

In November 1987, the Commission submitted to the Council of Ministers comprehensive proposals for liberalizing all remaining barriers to capital movements. Based on these proposals, the Council adopted in June 1988 a directive liberalizing exchange controls on all short-term and long-term capital transactions, and on direct investment and securities. Under this directive, restrictions on the movement of capital between residents of EC countries will be abolished. A resident of one EC member country will have access to banking services, stock exchanges, real estate markets, and other financial services in all EC countries. In addition, the directive generally extends the liberalization of capital movements to economic agents on a worldwide basis. The directive is to be implemented by July 1, 1990 by most member states.

The Federal Republic of Germany, the Netherlands, and the United Kingdom have already abolished capital controls completely. France and Italy, which in the past maintained relatively strict capital controls, have considerably relaxed them in recent years, and aim to eliminate them by 1990. (The latest measure by France, effective March 1989, is the complete removal of capital controls on companies.) Of the remaining member states, Greece, Ireland, Portugal, and Spain have until 1992 to remove restrictions, while Belgium and Luxembourg will unify their dual-exchange markets by 1992. Greece and Portugal may be allowed a further extension, not to exceed three years, beyond 1992.

The directive contains a safeguard clause which allows member states to reintroduce, for a maximum period of six months, restrictions on short-term capital movements in case of disturbances to money and foreign exchange markets.

Financial services. So far, efforts to liberalize financial activity have concentrated on areas such as insurance and banking.

Considerable change has taken place within the insurance sector. The agreement on the draft non life insurance directive in November 1987 (formal adoption of this directive may be delayed until 1989) will reduce national regulatory controls and allow European companies to insure “big risks” with any insurance company based anywhere in the Community. In order to qualify as a “big risk,” a company will need to satisfy one of three conditions: 250 or more employees; turnover of more than 12.8 million ECU; or total capital of 6.2 million ECU. It is estimated that companies eligible to purchase insurance Community-wide constitute nearly 70 percent of the total market of insuring company risks. Greece, Ireland, and Portugal have been exempted from this directive until 1999, while Spain has been exempted until 1998.

The main directive for liberalizing banking activities has been the draft “Second Banking Coordination Directive,” scheduled to be adopted in June 1989, and to become operational in 1990. This directive provides for a single banking license, enabling banks to
might lose tax revenue due to a lowering of and also to countries with high VAT rates such as Denmark, Ireland, and Italy. However, this has been unacceptable to countries tries. The Commission, in an attempt to limit systems do not distort the allocation of capital among member countries. As mandated by the June 1988 directive liberalizing capital movements, the Commission has presented proposals to the Council in this area. The Council is expected to respond by end-June 1989.

Impact on the rest of the world

The possibility that a single European market could lead to protectionistic trade policies after 1992 has been a source of anxiety among the EC’s trading partners. The Community has still to formulate its policies relating to trade and capital movements with respect to the rest of the world; but there have been assurances that a move to protection would not occur.

One area of concern among the non-EC countries, however, is the so-called reciprocity clause of the draft second banking directive, which can be triggered by the European Community when deciding whether to permit non-EC banks’ access to its liberalized financial markets after 1992. This principle essentially implies that before a non-EC bank is granted a licence to operate across the Community, the Commission will check to see whether all EC countries have equal access to the home country market of the bank in question. More broadly, the reciprocity rule requires that EC firms abroad should enjoy the same rights as foreign firms in the Community. This clause is not applicable to financial institutions already established within the EC.

Several northern countries with strong financial sectors, including West Germany, Luxembourg, the Netherlands, and the United Kingdom have expressed reservations about the principle and practice of reciprocity in international banking. France and Belgium, on the other hand, strongly support reciprocity requirements as a means of opening up world financial markets. Application of this principle might pose a problem since many countries have significantly different financial structures and different laws separating banking and securities activities (e.g., United States and Japan), regional limitations on banking (e.g., United States), and restrictions on equity ownership of commercial ventures (e.g., United States and Japan). Hence, strict reciprocity arrangements might restrict the participation of some financial institutions with their base outside the EC area in EC markets as EC financial institutions would not be able to undertake strictly corresponding activities in the non-EC countries. In the debate, it has been suggested that continued reliance on “national” treatment, where financial institutions, both domestic and foreign, continue to operate under the laws of the host country, would avoid this problem.

The Commission believes that liberalization of financial services should be a global process, as is the case in the current negotiations in GATT for trade in services. There is thus an underlying link between the efforts of the Community to accomplish the internal market and GATT negotiations. In sum, 1992 presents European countries with a challenge of implementing coordinated reforms that will create a truly common market, and a set of common social and institutional arrangements affecting many aspects of daily life.
Women’s contribution to economic progress is increasingly acknowledged throughout the world. Yet in many societies their control over their own lives remains relatively limited. For historical and practical reasons, they are still at a disadvantage in getting the information and resources that they need to work more productively or to improve family welfare.

Even where national policies encourage equality of opportunity, women still generally lag behind men in educational attainment, earning capacity, and other respects. Traditional constraints not only tend to limit the supply of opportunities for women; they also limit, directly or more subtly, women’s own demand for such opportunities. This vicious circle depresses both productivity and welfare.

Kenya’s experience suggests that some of these disadvantages for women can be substantially overcome at modest cost. The Government has established economic policies, development programs, and a legal framework to strengthen incentives and productive capacity for women. Investments in women’s education, health care, including family planning, and agricultural extension directly benefit women and can have a strong impact on economic performance, family health, and population growth. Kenya has also begun to improve access for women to productive resources, particularly water, fuelwood, and credit.

The policies and programs Kenya is using seem particularly effective, not only in improving women’s welfare and that of their families, but also in increasing their productivity and contribution to economic development. Kenya’s longstanding harambee or self-help tradition and its local women’s groups, some federated nationally, play an important role in these efforts.

Demographics

Of Kenya’s female population of roughly 10 million, about 60 percent are below age 20. The great majority of women live in rural areas (see box). With improved health care and broader development, women now live on average 56 years, up from 46 in 1965. Most marry before age 20, though later than they did 20 years ago, and remain married, though many women’s husbands are absent. About 25 percent of those married are co-wives, with lower proportions among younger and more educated women.

Childbearing begins at an average age of 18 in rural areas, and 19 in urban areas. Kenya’s total fertility rate is higher than seven and most couples want large families, but attitudes are beginning to change, particularly as women’s education expands and family planning services are beginning to improve. Seventeen percent of couples of childbearing age practiced contraception in 1984, compared to only 7 percent in 1977. This is of crucial importance in this country where population growth is still roughly 4 percent a year.

With Kenya’s massive investments in education, today more than 60 percent of women living outside Nairobi are literate. More than 80 percent of men are literate but the male-female disparity almost disappears among the young. Women make up about a fifth of the formal employed labor force. Most of them are agricultural workers, while women with “modern” jobs are mostly teachers and secretaries.

Organization

The Ministry of Planning and National Development provides overall guidance and direction for Kenya’s efforts to improve the condition of women. In 1976 the Government created the Women’s Bureau as a division within the Ministry of Culture and Social Services, to “uplift the status of women and to increase their involvement in the national development process.” The Bureau concentrates on developing innovative approaches—partly through providing assistance for specific projects at the local level—that the line ministries can use and expand upon, and on obtaining feedback from local women as approaches that do and do not work, to influence the design of future projects.

In Kenya, as in many other African countries, women from all walks of life have traditionally banded together in small self-help groups, often to generate savings or to improve family welfare. Many such groups earn and save for joint projects, such as a well or cistern, and for individual needs such as weddings or new seeds. Some 16,200 of these groups throughout the country are registered with the Government as eligible for assistance.

Women’s groups give government ministries the capacity to work with women in communities. Building on tradition, the Government successfully uses these groups as conduits for services in such fields as...
A rural woman in Kenya is likely to be a young farmer. She is likely to be literate, the wife of a man who is often absent, and mother of several young children. Compared to her grandmother, she probably has a substantially higher standard of living, better health and education, and more independence. She spends 12-14 hours a day working at home or in the fields. Like her grandmother, she is largely responsible for growing, storing, and preparing the family’s food, and she probably helps grow and market cash crops (food and others). She is responsible for finding the family’s fuelwood and water, and for most household chores. And in Kenya as elsewhere, it is primarily women who care for young children and see to their health and learning.

Progress has not come without costs. With the social changes accompanying economic transformation, political evolution, and the spread of education in the past three decades, Kenya’s family structure has shifted considerably. Men traditionally headed Kenyan families, and when they died, widows often remarried within the network of kin. Today, as more men work away from home, roughly two fifths of Kenyan families are for practical purposes headed by women, and many others rely on women much of the time. Husbands are more mobile and better educated than their wives, who stay behind with the children to run the farm and preserve family ties to the land. Most men return periodically, but others drift away. Female-headed households are typically poorer than those headed by men.

Rural women and social change

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agriculture, rural water, health, and family planning. The groups also provide feedback from users to program managers and planners.

Some women’s groups have had difficulty with income-generation projects such as producing craft work for sale, because the activities promoted by the projects lost the competition for time with women’s other responsibilities, including farming. But experience shows that delivering health and family planning services through such groups can dramatically improve family planning practice and family health at quite low costs, and can encourage more efficient use of clinics and hospitals. Experience with women’s groups in agricultural extension and water supply is also promising.

Efforts being made to strengthen women’s groups include measures to improve their management and logistical capacity, and to federate local groups into larger entities that are more easily dealt with by government or large nongovernmental organizations.

Women farmers

The central challenge to sustaining growth in Kenya is to equip its farmers for higher productivity. Agriculture employs three quarters of the Kenyan labor force and supplies about 70 percent of export earnings. Smallholdings are the core of Kenya’s agriculture, producing three quarters of the agricultural output including almost all of the food consumed at home and much of the output of cash crops (led by coffee and tea).

Women manage at least two fifths of Kenya’s smallholdings and provide three fourths of the labor used on them. As male migration to towns has increased, women have increasingly taken charge of cash as well as subsistence crops, deciding how much to grow, how to grow it, and how much to market. But they often do not have access to the necessary support services.

It appears that, on average, women’s agricultural productivity in Kenya is roughly 85 percent of men’s. However, comparisons from Western Kenya, of men and women farmers where both have similar access to education, land, and agricultural services and inputs, show women farming slightly more efficiently than men.

Kenyan agricultural policies and services provide a framework through which both men and women farmers are meant to gain access to information and inputs. Nonetheless, Kenya’s experience shows that without additional policies and programs, targeted specifically toward women, women farmers may not realize their potential for higher productivity.

Extension. Kenya has instituted a national agricultural extension system targeted at women as well as men farmers. While the effort is still quite new, more than half of the farmers actually met by agents—contact farmers, wives of contact farmers, and members of women’s groups—are women. Studies show that women farmers generally adopt the advice given by extension agents; where they do not, the principal reasons they cite are lack of credit and income to buy inputs, and lack of enough land. Kenya’s experience in reaching women farmers through extension has influenced similarly organized efforts in other African countries, including Cameroon, Nigeria, Somalia, and Zimbabwe.

The efficiency of agricultural extension work can often be increased by working with farmers in groups. Kenya’s experience shows that groups of 15-20 women farmers are willing to meet regularly with extension agents, while men farmers prefer to meet in groups of three or four. By working more with women’s groups, the reach of extension in Kenya could probably be doubled and the costs actually reduced through savings in agents’ travel and increased time on task. The Government has therefore directed the extension staff to work more with women’s groups.

Credit. Women’s demand for credit for productive purposes is strong in Kenya, judging from the high interest rates they pay in the informal credit market and from their own statements. Credit from banks and other major credit institutions is, in principle, available to men and women alike, yet most women rely on much more expensive credit from money lenders. An important reason is that land title is still generally required as collateral for formal credit, and land is generally registered in men’s names. Husbands are reluctant to borrow for their wives or for their wives’ crops. Another reason is that for women with little education, the practical requirements of loan application and account management can be daunting. Evidence from various developing countries suggests that even poor women can be good credit risks. On a small scale, the Government is considering measures to expand credit through women’s groups, with less reliance on land as collateral and more on peer pressure and ability to pay.

Rural water

Nine out of ten rural women, or their girl children, fetch their water from traditional natural sources—often more than an hour’s journey away—several times daily. Better access to water saves women time to devote to farming, family, or other pursuits. Many of the traditional water sources are unreliable during dry seasons or are polluted; where safe water is made available, whole communities benefit from better health.

The Government’s earlier efforts to improve rural water supplies relied largely on relatively centralized and highly engineered approaches. Practical difficulties in operating and maintaining the systems often led to substantial water losses, and many of them fell into disrepair and disuse. Promising community-based approaches, using technically simpler means and giving a prominent role to women, have recently been emerging through joint efforts of the Government and Kenyan nongovernmental organizations, with some external support. Under these projects, women villagers contribute to the planning process, including the choice of technologies, for community water facilities. They are also
schools. The Government is making efforts to strengthen science education for both girls and boys, and to try to change attitudes that may especially discourage girls in science.

Third, in Kenya, as in much of the world, girls tend to drop out of school sooner than boys. One of the significant causes of high drop-out rates is pregnancy. To counter this problem, the Government is intensifying its "family education" programs, which now include some information on family planning, at the primary and secondary education level.

The Kenyan Government cannot afford to do the whole job either of delivering or of financing education. At present growth rates, the country's population doubles every 20 years. Given that more than a third of the Government's recurrent budget already goes to education, careful consideration of existing expenditure patterns and of alternative financing patterns (including cost recovery from students) will be needed. It will be particularly important to improve teacher training for girls' schools, and to upgrade basic equipment and supplies, as well as to improve science education.

Women's health, family planning

Women of course face the general health concerns remaining in Kenya, as well as some difficulties in getting adequate nutrition, but this article concentrates on women's special concerns in reproductive health. Maternal mortality accounts for about a third of deaths among Kenyan women aged 15—35, at the height of their family responsibility. Illnesses connected with motherhood, sexually transmitted diseases, and other reproductive health issues are also of concern.

Maternal mortality is linked to high fertility. Very young mothers and women with several previous births are at especially high risk: the timing and frequency of pregnancy both matter. If Kenyan women had no more than four children, about half the maternal deaths would be averted. Experience shows that maternal mortality can be substantially prevented at low marginal cost, through better prenatal care, more effective help with childbirth, and better family planning.

The Government is addressing family planning and other reproductive health issues as part of its broader and impressive efforts to put basic health care within reasonable reach of the people. Communities, and particularly women, are being successfully encouraged to play a greater role in maintaining their own health and in delivering basic health care and family planning and education services. The innovative approaches being used, including government support for the work of nongovernmental organizations (NGOs), build on the tradition of women's self-help and are essential to the Government's expanding efforts to improve maternal health and extend family planning. The Government plans to further strengthen the approach of community-based health care, including family planning, and to expand it into all communities.

Each year, there are about 100,000 new acceptors of modern family planning methods. Large-scale family planning programs that reach out to women through the community have modest costs and typically achieve twice Kenya's national level of family planning practice, while encouraging more efficient use of the primary health care system. The community-based family planning and health programs of KANU/Maendeleo ya Wana-wake, Kenya's oldest and largest women's organization, and of the Kenya Family Planning Association, in conjunction with the Government's primary health care organization, and other private outreach programs, show that much can be achieved.

World Bank's role

Many UN organizations, bilateral donors, and international nongovernmental organizations support Kenya's development efforts that address women's potential and needs. Within this context, the Bank's experience gives it a comparative advantage in supporting promising agricultural extension programs and related research, particularly to encourage more involvement with women's groups and greater attention to crops and livestock of interest to women; improvements in secondary education for girls, especially in science; "safe motherhood" programs, including maternal health and broader family planning efforts; innovative options in credit; and expansion of rural water supplies, using community-based approaches.

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Urban Labor Markets in Developing Countries

These markets function much more efficiently than believed earlier. Their contribution to development can be improved with suitable policies.

Subbiah Kannappan
Consultant, World Bank

Economic growth and the distribution of its benefits depend on how well the labor market mobilizes human resources and allocates them among new activities, locations, and skills. Since the early 1970s, most studies of the urban economies of developing countries have been based on the assumption that the urban labor market is segmented into a high-wage formal and subsistence-level informal sector, resulting in open unemployment (i.e., labor force without any productive work). Empirical research, however, indicates that this is a partial and misleading view. Open unemployment is not very large. Further, earnings in several of the informal sector trades and occupations compare favorably with lower-level jobs in the formal sector. Of course, the functioning of urban labor markets and their impact on employment can be enhanced by policies that accelerate the pace of development and reduce social inequities.

Urbanization

The urban population in developing countries is estimated to have grown by 400 million between 1950 and 1975, and a further increase of one billion is expected by the year 2000. As a proportion of total population in the developing countries, it increased from 24 percent in 1965 to 31 percent in 1985. (Among the developed countries, this increase was from 70 percent to 75 percent during the same period.) This shift in balance between rural and urban sectors is closely linked to economic growth and changing patterns of employment. The development of commerce and industry, and the growth of transportation, communication, and educational infrastructure are important determinants of urbanization. Thus, urban growth provides many diverse economic opportunities and gives rise to associated labor requirements and to rural-urban migration. Hence, the nature of urban labor markets assumes strategic significance in developing countries.

Nature of employment

Much of the theoretical work on urban employment emphasized its dualistic structure, consisting of (1) a dominant but slow-growing modern sector, characterized by capital-intensive technology and high productivity, and (2) a traditional sector, mostly small in scale and limited by simple technologies and little capital. The former, it was assumed, provided the main attraction for migration while the latter absorbed the overflow. These became known as the formal and informal sectors. It was also widely accepted that open unemployment in urban areas was of serious proportions.

However, according to economic theory, continued rural-urban migration will dampen, if not eliminate, open unemployment. It would tend to depress urban wages and equalize rural and urban earnings, thus removing the incentive for migration. This requires that wages be flexible. Hence, a dualistic urban labor market could only emerge if the urban areas maintained their superiority in wages despite the excess of job-seekers.

It has been widely believed that a combination of institutional pressures—government regulation, corporate largesse, and union activity—have pushed formal sector earnings much above rural wages, thereby attracting migrants. But institutionally determined wages would restrict the growth of employment and limit the number of migrants that can be absorbed. Migrants who sought a job in the formal sector and failed would thus have three options: they could return to their villages; they could stay in the urban area and accept work in the informal sector; or they could swell the pool of the urban unemployed.

With continued migration, the chances of getting an urban job in the formal sector would fall as more rural workers joined the ranks of the unemployed. Although this would discourage migration at some point, high unemployment and a sharply polarized urban income distribution would persist.

The assumption that urban labor markets are divided into formal and informal sectors emphasizes that:

- formal sector earnings for comparable jobs are higher than informal sector earnings,
but not because of any differences in the personal or household characteristics of the labor force;

- formal sector units are large, capital-intensive, organized in a corporate form or as government enterprises, and have stable employment policies;
- government regulation of wages and employment, and related union pressures, are paramount in determining formal sector wages; and
- migrants from the rural areas are attracted to the urban formal sector by the expectation of higher wages, even if they are unlikely to find jobs in the formal sector immediately.

This analysis produced gloomy forecasts of worsening urban unemployment and income inequality. The picture of a segmented urban economy and labor force, one part prosperous and the other increasingly deprived, became dominant. Economic theory had traditionally stressed the favorable consequences for growth and equity of labor mobility from low to high productivity employment. One could hardly applaud rural-urban migration if much of it ended up in unemployment or less-than-subsistence earnings.

Many of the empirical studies since the 1970s, though undertaken within the analytical framework just outlined, cast doubt on many of the earlier assumptions and even contradict some of these ideas dominating urban economies. Their findings are examined below.

**Empirical studies**

**Size of the informal sector.** Studies, most of them sponsored by the International Labor Office, indicated that the share of the informal sector generally exceeded 40 percent of total urban employment in developing countries. However, it is difficult to draw any generalizations since all the studies had certain weaknesses, and their inclusion of workers in one sector rather than the other was arbitrary. Several studies assigned workers to the formal sector, but gave no complementary information on wages or earnings. Others placed workers in the formal sector despite misgivings over including many, who because of the social structure could not have access to formal sector employment. One study (in Gujarat, India) noted that many formal sector units (apart from textiles) were small and not effectively covered by law or by unionization. Another (in Brazil) included criteria on both a minimum wage and establishment size, but again without information on whether wages were higher in the formal sector. A later study in India automatically placed in the informal sector all workers below a specified income threshold without regard to their institutional affiliation.

**Unemployment.** Investigations of unemployment were guided by the consensus that urban unemployment was large and that migrants were particularly disadvantaged. Typical assertions emerging from this research had been that the rate of open unemployment in many developing countries was as high as 15 to 20 percent in major urban areas, and that unemployment rates were considerably higher in the 1980s than in the 1960s.

These were not supported by analysis of reported figures or estimates. The data are for the most part inadequate, highly aggregated, and often unreliable. The usefulness of unemployment data is also limited by the absence of essential complementary information, for example on the duration of unemployment.

A few of the studies based on disaggregated data showed interesting, but not necessarily unfamiliar, relationships. Young, educated people, and older unskilled workers seem to have higher unemployment rates. Manual workers in the prime working-age group tend to have lower rates. The contrast between the educated and manual workers has been explained on the grounds that educated people have both the means and the motivation to wait for better-paying jobs. Those with no education or with only primary school education have the lowest unemployment rates. However, many poor people suffer from high unemployment due to handicaps inherent in being poor—such as reliance on inadequate public transport to get them to employment sites.

The evidence shows that most newcomers to the city find a job soon after their arrival. A large proportion of those who get a formal job do so directly, without having worked in the informal sector. Entry into many parts of the informal sector—small-scale enterprises, family businesses, and traditional trades and crafts—is difficult for the less privileged, however long they have been in a city.

**Comparative earnings**

Contrary to the traditional assumptions, research shows that (1) rural earnings are not uniformly lower than urban earnings; (2) these earnings cannot be ordered into a consistent urban formal/informal sector hierarchy; and (3) the earnings of the self-employed are not necessarily lower than those of wage earners in the urban informal and formal sectors.

**Urban/rural.** The available information on earnings reflects changing and diverse market conditions. Aggregate data show that urban earnings exceed rural earnings. However, closer comparisons among workers, and between specific villages of origin and corresponding segments of the urban labor markets, reveal income similarities. Although average urban earnings are high and average rural earnings low, income differences are much smaller for comparable work and workers, particularly after adjustments are made for "compensating" differences. These differences include cost of living and the number of earners in each household.

**Formal/informal.** Contrary to the view held earlier, earnings in several urban occupations and activities (for skilled and manual workers) appear to be above the urban subsistence fringe and overlap earnings in the formal sector. The same is true for some traditional skills. A recent study in Calcutta, for example, identified nearly 100,000 Muslim tailors in family businesses whose incomes were distinctly higher than incomes in other activities also placed in the formal sector. Likewise, returns from home-based businesses in Lima compare favorably with alternatives in the formal sector. Specialties in India based on traditional learning and apprenticeship were also reported to be doing well. The list included music and dance instructors, astrologers, and specialists in traditional medicine. Although data on incomes are limited, some findings revealed that their earnings would be the same as, or higher than, those of high school teachers or clerical workers in regular paid employment.

**Self-employed wage earners.** Generalizations about the low levels of earnings from self-employment are often misleading. A recent study in Thailand is instructive. Of a representative sample of 79 people who were interviewed, 49 were vendors (food and fresh produce), 19 were brick haulers and brick carriers, and 15 were shopkeepers (hairdressers, tailors, barbers, dressmakers, and restaurant owners). The study showed that their average daily earnings were substantially higher than those of unskilled workers in government, manufacturing, and construction; more than three times the minimum wage; and 50 percent higher than the manufacturing wage after 80 percent had been added to it to represent the value of fringe benefits. This was true for both men and women. Such studies of small-scale enterprises and of home-based businesses show the great diversity of enterprises in the urban economy with variable economic returns and dispel the gloomy stereotypes of the informal urban economy.

**Improving urban labor markets**

Empirical evidence challenges the a priori notion that urban economies in developing
countries are dominated by segmented labor markets which do not function efficiently. According to studies conducted in the 1970s and 1980s, urban labor markets in developing countries are fairly efficient in equalizing earnings in comparable occupations and jobs, matching labor supply and demand through variations in wage rates and earnings, and promoting labor mobility. The exceptions are in the upper and lower extremes of both wage employment and the subsistence fringe. However, this apparent efficiency is no ground for complacency; it is still necessary to have appropriate policies that would reduce the inequities resulting from the stratification of the social structure.

Fostering economic growth. Productive and remunerative employment depends ultimately on the growth of the economy. With appropriate economic policies, such employment can be raised more than the increase in labor force. Since the employment potential of many of the diverse activities placed in the informal sector is quite high, it would be desirable to encourage their growth by policies aimed at facilitating resource mobility.

Experience in Brazil shows the favorable effects of rapid economic growth on the urban labor market. Rapid economic and agricultural growth from about 1966–74 was accompanied by high rural-urban migration. Within cities, the ratio of average wages of workers in the formal sector to those of others declined, reflecting increases in the demand for the services of the latter. Among the factors contributing to these outcomes was the spread of education; the proportion of the population without schooling dropped from 51 percent in 1960 to about 35 percent in 1980. This gives credence to the need for supporting social sector policies to enhance growth and job opportunities.

Reducing economic inequalities. The functioning of urban labor markets in developing countries is still far from satisfactory because the conditions which govern access to jobs and income are highly unequal. In most developing nations, this reflects the pervasive role of the social and economic structure which favors the socially privileged classes and groups. Since this hampers growth, policies that reduce economic and social inequities assume critical significance.

Economic growth and distributional outcomes are not separate processes; they are intimately linked by the behavior of individuals and households in response to emerging opportunities. Public policy must aim at broadening access to the labor market to foster growth as well as equity. Labor market research has generally tended to rely mainly on institutional or establishment data, and has rarely gone beyond literacy or schooling in recognizing the importance of the quality of human capital. More information is also needed on the social rules that affect household behavior. There is as yet no economic analysis of urban labor markets that takes into account the role of the social structure as has been the case in the work done on rural labor markets. The strong rural-urban parallels and links indicate that this gap will need to be bridged if the understanding of both urban and rural markets is to be improved.

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This is another of the excellent NBER conference volumes on trade policy issues. The papers are stimulating and the discussants’ comments first rate.

Four of the essays relate to imperfect competition. Levinsohn develops a clever product-differentiated model with the number of cross effects limited by the specification of “neighbours” defined by characteristics. He applies it to the US automobile market and explores the relative efficiency of protection through subsidies and tariffs, reinforcing the economist’s usual preference for subsidies. Richard Baldwin and Krugman apply the industrial organization approach to trade theory to one of the industries for which it appears to be best suited: wide-bodied jet aircraft. With a number of acknowledged heroic assumptions they conclude that the subsidies for the Airbus which imposed costs on European taxpayers and Boeing were not fully offset by the substantial gains to air travelers. Importantly, they conclude that models of strategic trade which neglect the effects on consumers “are likely to be misleading when applied to real situations in which a sizable fraction of production goes to satisfy domestic demand.” The comments by Harris and Mann are valuable.

Following Thursby’s analysis of trade policy when there are both private traders and state marketing authorities, with application to the world wheat market, Rodrik looks at the trade policies of developing countries in light of their economies of scale and problems of exit from industries. He discusses the Pandora’s Box aspect of the “new” trade theories and concludes that protection of manufacturing in most developing countries greatly exceeds that which could be justified by economies of scale, even with exit difficulties. The problems with exit undermine the costs of introducing protection and a “let’s try it and see” approach.

Lemer attempts to measure openness to trade through the specification of a model of trade which would leave deviations from “predicted” trade as being due to trade barriers, an approach which he acknowledges draws on art as well as science. The paper reflects the scientific honesty he has advocated elsewhere; he concludes that “in the absence of direct payments, as well as “Expectations and Exchange-Rate Dynamics,” the paper that made “overshooting” a household word. There are also several other well-known (and some lesser-known) theoretical papers and survey articles.

The volume is not organized chronologically, but is loosely structured according to four broad themes: Exchange-Rate Theory, Special Topics in Exchange-Rate Economics, Equilibrium Real Exchange Rates, and Inflation and Stabilization. There is a brief introduction to each section, in which the author outlines what he considers to be the contribution of each paper.

The collection also conveys the flavor of Dornbusch’s theoretical approach. Most of his models are not derived from what he calls “the rituals of maximization”; he claims that the intertemporal approach, favored by the generation of theorists that followed him, has been characterized by “near-complete sterility.” Indeed, in introducing two of his papers, in which he does use an intertemporal optimization frame-work, he says, somewhat acerbically, that this framework adds little to the results. Furthermore, most of his models do not have an explicit stochastic structure. Instead, his theory focuses on asset-market equilibrium, with particular attention to the role of expectations and to the interaction between stocks and flows. He uses this general approach to analyze a considerable range of issues, such as exchange-rate movements, international asset flows, exchange-rate risk, dual exchange rates, and the black market in foreign exchange.

Most of these papers are essential reading for an international economist. The fact that some of them now seem dated is to Dornbusch’s credit, since it is partly due to the pervasive influence his work has had on the profession. The period covered by the collection has seen rapid change in the way that international macroeconomic issues are analyzed; Rudiger Dornbusch is one of those economists whose work has helped to accelerate the pace of change.

Richard H. Snape

Timothy D. Lane
The Acquisition of Technological Capabilities by India
Sanjaya Lall


This excellent book is a revealing study on how India’s technological capability has been nurtured but, more importantly, also misdirected by inappropriate government policy. Efficient industrialization requires a broad range of technological capabilities that are acquired not only through formal education, but also through learning at the enterprise level.

This detailed study shows how varied and complex the learning process can be across different sectors and within firms in the same sector; and how it is affected by internal firm constraints, external constraints beyond the control of the industry and the government, and by factors beyond the control of the industry but within the control of the government. It is the last which is the most interesting for a policy analyst, and ultimately the most sobering.

The study argues that the technological capabilities of Indian firms are broad and in most cases also relatively deep. Indian firms have learned to select and implement new foreign technologies, adapt them to local materials and market needs, and improve them over time. The depth of some of these capabilities has been, in part, the result of government policies that have encouraged the development of local capabilities by promoting technical education and restricting access to foreign capital, technology, equipment, inputs, and products. However, these restrictive policies toward foreign technological inflows have also constrained efficient development and deployment of technological capability. They have forced firms to develop technology to use inappropriate local inputs even though they had deleterious effects on productivity. Moreover, lack of competition in the Indian industrial environment did not create incentives to upgrade constantly technologies in line with international developments, while sluggish industrial growth created by the government’s policies held back the pace of learning.

The key implicit lesson from the study is that the development of technological self-reliance is not an end unto itself but a means to more rapid and efficient development. Too much emphasis on technological self-reliance is very costly.

Carl Dahlman
American economies continue to stagnate, Saharan Africa, and most of the Latin steadily decreased in most of Sub-

The authors have drawn mainly upon their present readers with an informative and enjoyable chapter is included on Jakarta’s tiny—and until recently, comatose—stock market. Most chapters contain an impressive blend of the theory, formulation, and implementation of government policy toward multinational enterprises.

The free-and-easy writing style of the authors provides a refreshing change for those who are used to guarded discussions of these issues. For example, the book does not hesitate to discuss the implications of foreign investment for issues related to corruption, race, religion, and politics.

The fabric of the Indonesian economy is changing rapidly these days and to a certain extent this book’s policy-related conclusions have been overtaken by recent events. By way of illustration, virtually all of the authors’ thoughts on promoting development of the financial sector were included in a Financial Deregulation package released in October 1988. In addition, restrictions on foreign ownership were eased significantly in December 1987, as were some of the most constraining procedures concerning operations of the Jakarta Stock Exchange. In a similar vein, rapid international developments have also worked against this book’s authors and publishers in a few areas. For instance, one does not come away from this book with any sense for the rising importance of Japanese and Korean investment—and their special problems—in Indonesia.

Although a little dated already, this book clearly presents the issues of foreign investment in the Third World, particularly Indonesia. Its audience should include both academics and practitioners who are seeking to improve their understanding of key issues of future relations between multinational corporations and developing countries.

Patrick A. Messerlin

Robert B. Dickie and Thomas A. Layman

Foreign Investment and Government Policy in the Third World

Forging Common Interests in Indonesia and Beyond


The authors have drawn mainly upon their respective experiences in Indonesia, citing some examples from other countries, to present readers with an informative and highly readable account of major issues associated with foreign direct investment in a key region of the developing world.

The book is carefully researched and well organized. It begins with descriptions of developments and policies in the financial and extractive sectors, followed by two chapters covering broader issues of nationalism and foreign ownership, as well as criteria for success in striking an optimal middle ground between these two. An

Even while making net positive transfers on a steadily increasing debt burden. Partly because of these considerations, there has recently been a resurgence of interest in analyzing issues within a North-South (N-S) framework. N-S models may be traced to Ricardo, though the recent impetus in theory stems from Bacha, Findlay, and Taylor. Empirical work, however, has been lacking. This book, based on a conference at the University of Sussex in September 1987, is one of the first attempts to redress this imbalance.

Macroeconomic Interactions Between North and South


During the 1980s per capita incomes have steadily decreased in most of Sub-Saharan Africa, and most of the Latin American economies continue to stagnate, and offer a thorough analysis of what can be done.

The Feketekuty volume addresses the fundamental questions: what is international trade in services and why has it become so important; why does it induce governments to control sales of services through domestic regulations; and why does it raise so many controversial questions such as immigration, information, and finance? He also examines whether international trade theory can be applied to trade in services, and how principles such as national treatment, the most-favored-nation clause, and other binding commitments can be introduced to services.

Two main lessons emerge from this volume. First, trade policy and regulatory policy should be kept distinct for services as they are for goods. Second, a series of unilateral, bilateral, or multilateral partial trade liberalizations have opened the road to the Uruguay Round negotiations.

The Walter volume focuses on financial services. The author describes the financial services industry (i.e., financial products) and reviews the sources of comparative advantage in that industry. He describes how trade in financial services is impeded by vested interests—where public regulations are used to distort trade patterns and restrict international trade. Lastly, he examines the chances for trade liberalization in financial services.

The book highlights three important episodes: the 1985 Australian unilateral experience of liberal foreign bank entry; the Canadian opening of the securities markets; and the 1987 US-UK agreement on standards with respect to capital requirements and its progressive “multilateralization.” The general lesson which emerges from these experiences is: unilateral liberalization benefits the country doing it, and puts other countries under pressure to do the same.

Finance & Development June 1989

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and financial linkages between North and South. Lack of a capital structure in this model, however, prevents the South from benefiting from the expansion of aggregate demand in the North. This deficiency also precludes the analysis of alternative debt scenarios. Currie and Vines use their model to suggest how some strategic options in resolving the debt crisis might be analyzed. They flag the possibility of welfare gains from certain cooperative strategies. However, without any account of capital accumulation or the possibility of introducing debt repudiation, the present version of their model is of limited value. The Hughes-Hallett model introduces OPEC as a third region, suggesting the possibility of forming cooperative scenarios to improve the prospects of the South. However, their cursory treatment of bilateral flows precludes its use for practical analysis.

Other topics include the use of commodity futures markets for stabilization, treated by Gilbert and Powell. It would have been useful to extend the discussion to the financial engineering of debt as many of the highly indebted countries still continue to hold much of their debt at variable interest rates, with very little allowance for interest or exchange rate risk. A study of disequilibrium in N-S trade by Samiei offers insights into patterns over the period 1956–84, though its treatment of the terms of trade as exogenous limits its applicability in policy analysis. Vos provides an interesting paper on the use of an accounting framework to analyze global financial flows; he outlines some of the adjustment problems for the South that could be caused by credit rationing and by excessive inflows of capital. An analysis of the recent Brazil experience by Fritsch emphasizes the role of capital flows, but makes little allowance for other shocks, such as those caused by changes in the terms of trade or domestic consumption policy.

This book is welcome in that it provides some empirical results to support the theoretical efforts in N-S modeling, but at this stage, the usefulness of these results lies more in indicating the directions for future research than in providing a basis for policy work.

F. Desmond McCarthy

## BOOKS in brief

### Robert D. Stevens and Cathy Jabara

**Agricultural Development Principles**

John Hopkins University Press, Baltimore, MD, USA, 1988, xxi + 478 pp., $45 (cloth), $17.50 (paperback).

Despite the enormous changes in agriculture, and in our understanding of how these changes occur, a comprehensive up-to-date account, accessible to the non-specialist, has not been available. This book, written primarily as a university textbook, fills the gap. Clear and sometimes elegant in its exposition of theory, and fair in its representation of different schools of thought, it is nonetheless guided throughout by a practitioner's concern to distinguish what works from what doesn't. To its evaluation of theory—and also of popular myths and stereotypes—it brings an impressive knowledge of the empirical literature over a wide range of subjects, and a deeply felt but never sentimental humanitarian concern. The authors' own perspective is neoclassical, and the book makes a persuasive case for the (Hyami-Ruttan) induced-innovation theory in analyzing the economics of agricultural modernization and identifying the types of changes needed to create a science-based agriculture. Part III of the book focuses on how these changes are brought about; it analyzes the economics of investment in various types of technological and institutional change and in human capital to enable rapid increases in agricultural growth. Parts IV and V discuss the role of government policies and programs in transforming agriculture and influencing the distribution of its benefits.

### John P. Lewis and contributors

**Strengthening the Poor: What Have We Learned?**

Overseas Development Council, Washington, DC, 1988, xii + 226 pp., $12.95 (paper).

Convinced by the start of the 1970s that “trickle down” was not enough, many developing country governments and many of the aid agencies assisting them pursued programs against poverty under a series of rubrics: employment generation, appropriate technology, redistribution with growth, smallholder-based integrated rural development, and basic human needs. In the 1980s, policy makers’ urgent concerns with external adjustment pushed poverty issues aside. But the problems of poverty are as urgent as ever. Particularly as it becomes clearer that, without special planning, the burden of adjustment falls hardest on those least equipped to bear it, the debate on how to alleviate poverty has been rekindled. This book’s thirteen contributing authors draw lessons from the past two decades of experience. The collection is comprehensive in scope, ranging from approaches to rural and urban poverty, through issues in institutional development, self-reliance and community participation, women’s role in strategies against poverty, ways of safeguarding the poor during adjustment, to the role of aid in efforts against poverty. As Lewis says in an excellent concise Overview, the concern in producing the collection was “more with timeliness than with harmony of viewpoints” or, one might add, with even quality among the individual essays. On the whole a stimulating and worthwhile collection.

### Peter Nolan

**The Political Economy of Collective Farms**

Westview Press, Boulder, CO, USA, 1988, viii + 259 pp., $44.50 (cloth).

When Chinese communes were in full bloom during the 1960s and early 1970s, they were said to have largely solved the problems of rural poverty and income distribution; raised agricultural savings and investment infrastructure; and provided economic managers with a vehicle for diffusing new techniques throughout the sector. This was before much was known first hand about the working of communes. Today, a decade after the Chinese began dismantling the commune, the large collective farm has few supporters and is widely viewed as an experiment that failed. Peter Nolan’s book effectively crystalizes the “new view” on collective agriculture. Nolan first encapsulates the beliefs and expectations regarding commune agriculture enunciated in the Soviet Union during the 1920s. He then traces the experience with Chinese collectives under Mao, describing the pressures that led to reforms starting in 1977–78 and the changes that have occurred in the first half of the eighties. Finally, he analyzes issues related to the demise of communal agriculture in China. Nolan concludes that, on balance, the nature of agricultural production favors small family holdings. The passing of the commune and the parceling of leasehold rights to households certainly led to a great spurt in agricultural growth. But Nolan recognizes that their disappearance has left a vacuum in the spheres of education, health, and social security, and resulted in a neglect of irrigation facilities as well as land conservation which only some form of state intervention can ultimately remedy. This balanced approach makes his book a valuable addition to the literature on collective agriculture.
Price flexibility is no miracle cure

In her article “Economic Reform in a Planned Economy: The Case of Poland” (June 1988), Karen A. Swiderski advocates “firm demand management.” Her theory is that reforms have hitherto foun-
dered because prices were inflexible and did not reach market-clearing levels. This resulted in excess demand. She cites the role of parallel markets, where prices are higher than in the socialist sector, as playing an important role in absorbing the excess demand in Poland. However, the author overlooks the fact that the persons deriving an income from parallel markets also exercise demand on the socialist sector. Thus we are dealing with mere transfer effects and not with the absorption of money. In fact, parallel markets in Poland actually tended to stimulate excess demand.

Several misinterpretations concerning the role of prices, money, and excess demand underlie the author’s theory. Excess demand in planned economies cannot be explained using neoclassical paradigms. This is because a flexible price system and functioning markets is a result of mobilization of resources. In planned economies, resources are static, that is, there are no mobilizable real factors to counter excess demand. Hence price increases can lead initially only to a redistribution of excess demand through the transfer effect. Subsequently, inflationary pressures contribute to an increase in excess demand through the dissolution of voluntary savings. In this respect, even a sufficient increase in interest rates on savings, as suggested by the author, would scarcely lead to a reduction in monetary imbalances. Rather, there would be a risk that the high interest return on surplus money would create even more surplus money. The problem lies in the lack of markets, not in inflexible prices or “soft” financial and monetary policies.

Hubert Gabrisch
Austrian Institute for Economic Research
Vienna, Austria

Ms. Swiderski responds:
A closed economy where official prices are set below market clearing levels is by definition characterized by an excess demand for goods and corresponding excess supply of money. A common response to situations in which officially controlled prices do not allow markets to clear is the development of parallel mar-

kets. Dr. Gabrisch, however, appears to argue that such markets only involve transfer effects and thus do not contribute to reducing any excess demand pressures. He, in fact, goes as far as to suggest that parallel markets in Poland actually tended to stimulate excess demand. He ignores the important fact that the higher prices in the parallel markets serve to absorb excess liquidity by reducing the real stock of money balances. Of course, parallel markets may well have other features that are socially undesirable such as their possible impact on income distribution.

Dr. Gabrisch also suggests that increases in interest rates may be destabilizing by further adding to the excess supply of money. This statement is questionable for several reasons. First, the total money supply in the economy (i.e., the liquidity held by both households and enterprises) need not necessarily be affected by an increase in nominal interest rates; the size and direction of any such effects would, among other things, depend on the relative importance of interest-bearing deposits and credits. In Poland, where domestic credits extended are larger than the deposit base, the effect on the total money supply could even be contractionary. Dr. Gabrisch also neglects the very important influence of interest rates on the demand for money.

A shortcoming of resettlement experience

In his excellent article on “Involuntary Resettlement and Development” (September 1988), Michael Cernaîa raises several significant issues; one in particular deserves special attention.

Engineering bias, or the tendency to concentrate on engineering matters while delegating social planning to someone else, is one of the pitfalls which inevitably produce unsatisfactory results in resettlement efforts. Based on my own experience over the past twelve years as a practicing sociologist and planner, I can certainly confirm this as a problem. Of greater concern, however, is the new trend on the part of engineering consultancy firms to address “the social component” themselves.

In order to improve their market position, engineering consulting firms have tried to integrate the engineering, environmental, and socio-economic aspects of develop-

ment projects. However, the socio-economic studies that are done tend to be superficial and oriented toward satisfying minimum requirements usually without adding qualified social planning professionals to their staff.

This tendency on the part of engineering consulting firms to take on the social planning task is apparently being reinforced by their clients who are willing to trade-off sound social analysis for the convenience of a “one-stop” service. What they are buying into is the appearance of integrated planning. And, sadly, unless this is recognized, it will be the people who will pay.

Audrey Armour
York University, Canada

Evidence please?

I enjoyed amongst others the article “Educational Development in Sub-Saharan Africa” (March 1988) by Peter R. Moock and Dean T. Jamison. However, having studied in Africa for 17 years, I find the authors’ assertion that there are “high levels of absenteeism of teachers and students and a general lack of order and discipline” unfair. Empirically analyzed data, if at all available, proving this assertion might have convinced me otherwise. Nonetheless, kudos to the authors for this educative and interesting article.

Adewuyi Alabi
Nigeria, Africa

Peter Moock responds:
We have no firm data to back up the assertion regarding absenteeism in African classrooms, although there is plenty of anecdotal evidence that Bank project officers working on education have provided. The problem has been mentioned in sector work and appraisal reports. On the question of “order and discipline,” I regret that the statement in the article was misleading, as it suggested that there is a lack of discipline among students in classrooms, and this is usually not the case in Africa. The statement was intended to refer again to the absenteeism of (poorly managed and often underpaid) teachers.
The Federal Republic of Germany: Adjustment in a Surplus Country

by Leslie Lipschitz, Jeroen Kremers, Thomas Mayer, and Donogh McDonald

Number 64 in the Fund's Occasional Paper series, this study reviews German economic developments during the 1980s. It focuses on the policies adopted to deal with the country's two major economic imbalances—high unemployment and large external surpluses—and it assesses the country's medium-term prospects under various policy scenarios. The study underscores the importance of structural policy measures in dealing with German economic disequilibria.


The Common Agricultural Policy of the European Community: Principles and Consequences

by Julius Rosenblatt, Thomas Mayer, Kasper Bartholdy, Dimitrios Demekas, Sanjeev Gupta, and Leslie Lipschitz

This study, Occasional Paper Number 62, traces the evolution of the Common Agricultural Policy (CAP) of the European Community. The CAP, which has failed to attain its goals and has incurred costly inefficiencies, has created tensions in international trading relations and come under increasing criticism in recent years. The study assesses the CAP's effect on EC members and on the rest of the world, and discusses progress toward its reform.

Available in English. (paper) vii + 70 pp. ISBN 1-55775-036-X

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