A QUARTERLY PUBLICATION OF THE INTERNATIONAL MONETARY FUND AND THE WORLD BANK

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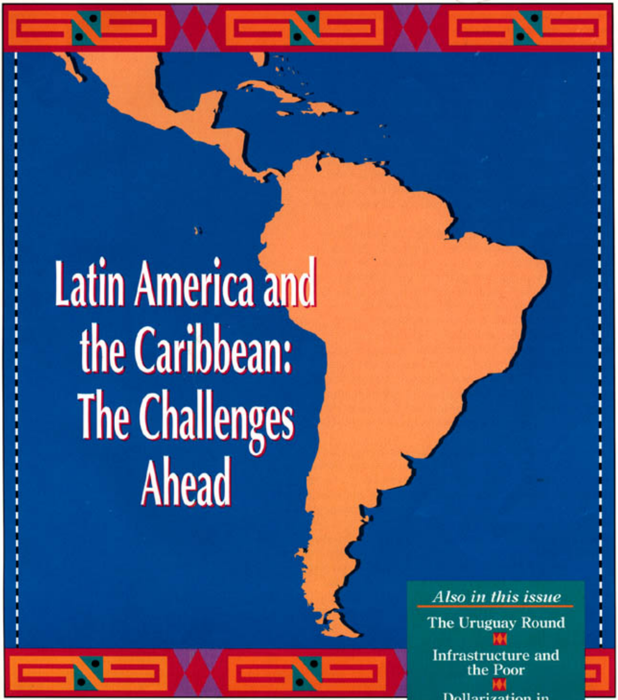

Latin America and the Caribbean: The Challenges Ahead

Also in this issue

The Uruguay Round

Infrastructure and the Poor

Dollarization in Transition Economies

Letter from the Editor

THE ECONOMIC strategy followed in most countries in Latin America and the Caribbean has changed dramatically over the past decade. The once dominant view—heavy state interventionism, inward-looking trade orientation, and disregard for macroeconomic equilibrium—has given way to a new approach based on competition and economic openness. The new strategy has produced important benefits. Not only have inflation rates dropped sharply and growth rebounded, but the wide-ranging structural reforms undertaken in a number of countries have improved their long-term economic prospects.

But, as the articles by Armando Linde and by Shahid Javed Burki and Sebastian Edwards in this issue make clear, there is no room for complacency. The region still faces a number of challenges—the most serious is the persistence of widespread poverty, particularly in the large cities. To reduce poverty, governments will have to raise economic growth rates further and design more effective social programs for the poor. This, in turn, will require policies that promote a higher level of national savings, as well as a whole range of "second generation" economic reforms that continue the task of redefining the role of the state, overhaul the education system, and make labor markets more flexible.

Governments can help raise savings in a number of ways—directly, by reducing fiscal deficits, and indirectly through, for example, pro-savings tax and financial policies. The sweeping tax reforms implemented in the region over the past decade—the subject of the article by Parthasarathi Shome—have aimed to provide better incentives for private sector activity, in general, and private savings, in particular. A few Latin American countries have opened the door to private pension schemes, mainly to reduce the drag of pensions on the government budget, but also to raise aggregate savings. The article on pension reform by G.A. Mackenzie reviews Latin American countries' experience with private pension schemes. The growing emphasis on the private sector is apparent in other areas, including financing infrastructure investment. In his article, Saud Siddique reviews how private power projects are financed in Latin America and the Caribbean.

There are other challenges as well—limiting the region's vulnerability to external shocks is especially important. Despite a reduced external debt burden for the region as a whole, external debt remains high in many countries, and difficulties in debt management could return if interest rates in industrial countries continue to rise or exchange rate policies unravel.

Over the past decade, most of the countries in Latin America and the Caribbean have succeeded in improving their long-term economic prospects by pursuing sound macroeconomic policies, combined with wide-ranging structural reforms. To carry forward this momentum into the next decade, these countries will have to consolidate and strengthen the domestic underpinnings of growth.

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Latin America and the Caribbean in the 1990s

ARMANDO S. LINDE

AFTER a decade of economic adjustment and reform, many countries in Latin America and the Caribbean are enjoying their best economic prospects in years. But the reforms must be sustained and, in many cases, deepened if the remaining challenges facing these countries are to be met.

The first half of the 1990s has seen a significant change in the direction of economic policy and major accomplishments in many countries in Latin America and the Caribbean. To be sure, much had been achieved in the initial phase of adjustment that followed the onset of the debt crisis in 1982. Many countries reduced external imbalances, slowed the growth of external debt, and developed cooperative approaches with creditors to regularize their debt situations. There was less success in reducing inflation and restoring economic growth, however. In the late 1980s, a consensus began to emerge in most of the countries in the region that a firmer commitment to lasting reforms was needed to achieve a higher growth path with price stability.

Governments began tackling fiscal imbalances in a lasting way and reduced the involvement of the public sector in the economy. Controls on interest rates and prices, and cumbersome exchange rate restrictions were abolished, and import and industrial licensing schemes were dismantled. Tax systems were made more efficient, and trade and financial sector liberalization proceeded rapidly. These reforms eliminated serious distortions in relative prices and set economies on a course that rewarded efficiency.

The new strategy has produced important qualitative as well as quantitative benefits. Growth has rebounded and inflation rates have been sharply cut, but the wide-ranging structural reforms undertaken in a number of countries have also changed the way both domestic and foreign investors view these countries' long-term economic prospects. To make the most of the progress achieved, countries in Latin America and the Caribbean need to deepen the reforms already begun. Achieving higher living standards will require a significant improvement in national savings, and inflation is still too high in many countries. There is also scope for reorienting public expenditure to make more resources available for social programs, as well as for further reducing the role of the public sector in the economy to improve the climate for private sector activity.

The policy strategy

Strengthening the public finances has been at the core of efforts to improve economic performance in countries in Latin America and the Caribbean, not only because of its positive macroeconomic effects, but also because it made possible important advances in other areas. For many governments, the process of fiscal consolidation involved major changes in tax policy and administration, a reduction in public expenditure, the elimination of quasi-fiscal losses in central banks and other official financial institutions, the privatization and restructuring of public enterprises, and a reorientation of spending priorities toward social sectors.

As regards the tax structure, the focus shifted from taxing international trade to taxing domestic transactions and improving the efficiency of the tax system (see "Tax Reform in Latin America" in this issue). In expenditure, higher priority is being given to public investment and social spending, particularly health and education. Countries also have sought to improve the targeting of subsidies and other social outlays, and to reduce public employment.

A large number of public enterprises and financial institutions have been divested to rid the state of loss-making companies and to reduce government intervention in the economy. Privatization also has served to mobilize resources for debt reduction operations and to facilitate debt-equity swaps with foreign creditors. Many enterprises that have not been sold have been restructured to make them efficient and to wean them from government subsidies. In the past, the prices of public sector goods and services were often set at uneconomically low levels, but now, long-run marginal cost considerations increasingly are being taken into account. Although some countries still price petroleum products below their opportunity cost, in most cases fuel prices have been raised to economic levels.

In the financial sector, interest rates have been deregulated in all but a few countries, direct credit allocation arrangements largely abandoned, legal reserve requirements simplified and reduced on average, and market-based instruments introduced to control money and credit. Banking legislation has been modernized, prudential standards have been raised, and many countries have sought to increase the independence of their central banks.

With more restrained financial policies, governments in a number of countries were able to slow the rate of currency depreciation, and some countries used exchange rate policy

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as part of a comprehensive program to fight inflation. In Argentina, for example, the currency was pegged to the US dollar under the Convertibility Law of March 1991. In Peru in 1990, the currency was floated, while in Brazil a floating exchange rate system exists, with the central bank setting a floor of parity vis-à-vis the US dollar—in both cases, some nominal appreciation of the currency ensued. In all of these countries, exchange rate policy has been backed by strong adjustment and structural measures, and by injunctions against various forms of indexation.

Trade liberalization has played an important role in the economic transformation that the region is experiencing. Following earlier rounds of trade liberalization in Chile in the mid-1970s and in Mexico in the mid-1980s, the trend spread to other countries as quantitative restrictions were lifted, import tariffs were reduced, and the tariff structure was simplified. Tariff rates, which averaged over 50 percent in the mid-1980s, have been cut to less than 20 percent in most countries, and tariff dispersion has been reduced. The trade reforms often were accompanied by steps to liberalize payments for invisibles and to lift restrictions on external capital account transactions.

In the 1990s, there has been a push for further global and regional economic integration. Existing arrangements such as the Andean Pact, the Caribbean Community (CARICOM), and the Central American Common Market are becoming more outward-looking through reduction in tariff rates vis-à-vis the rest of the world. New arrangements such as the Southern Cone Common Market (MERCOSUR), which involves Argentina, Brazil, Paraguay, and Uruguay in a free trade area that took effect at the end of 1994, and the North American Free Trade Agreement (NAFTA) between Canada, Mexico, and the United States are expected to increase international trade and foster growth.

In line with the trend toward liberalization, domestic price controls have been reduced or lifted in most countries, and business activity has been deregulated in a number of sectors. For example, within the transportation sector, substantial deregulation has been extended to port operators (Argentina, Brazil, Colombia, Mexico, and Uruguay), the trucking industry (Argentina and Mexico), and maritime transportation (Argentina, Colombia, and Venezuela). Attempts also have been made to create a more flexible labor market, but wage indexation, high payroll taxes, and high severance entitlements remain a problem in many countries.

Since the 1989 Brady debt restructuring initiative, nine countries in the region have reached debt restructuring agreements with commercial bank creditors. These packages reduced the countries' debt by about $37 billion, or about 8 percent of the region's debt at the end of 1988. Meanwhile, the official bilateral debt of a number of countries (including Bolivia, Guyana, Haiti, Honduras, Jamaica, Nicaragua, and Paraguay) was reduced through various debt forgiveness initiatives. Although the overall amount of debt relief is small relative to the total debt outstanding, the agreements undoubtedly helped countries to persevere with economic reforms and increased domestic and external confidence.

How it worked

Macroeconomic stabilization and structural reforms have resulted in major improvements in economic performance. In many countries, the inflation picture has improved, most notably in Argentina, Bolivia, Nicaragua, and Peru, and most recently in Brazil. Capital reflows have helped strengthen external payments positions and remonetize financial systems; and, most important, there has been a rebound in economic activity.

> ***"To sustain a higher rate of growth of per capita income than has been seen in recent years, a significant improvement in national saving will be required."***

The extent of the output response has varied from country to country, depending on a number of factors, key among which are the depth and speed of the institutional and structural changes that have taken place, the time it is taking for resources to shift in response to a new array of relative prices, and the drag that remains in the economy from activities that are no longer viable. Excluding Brazil, where adjustment has taken hold only recently, the rate of growth of output in the region rose from 1.5 percent a year in 1985–89 to about 3.5 percent a year in 1990–94 (Chart 1).

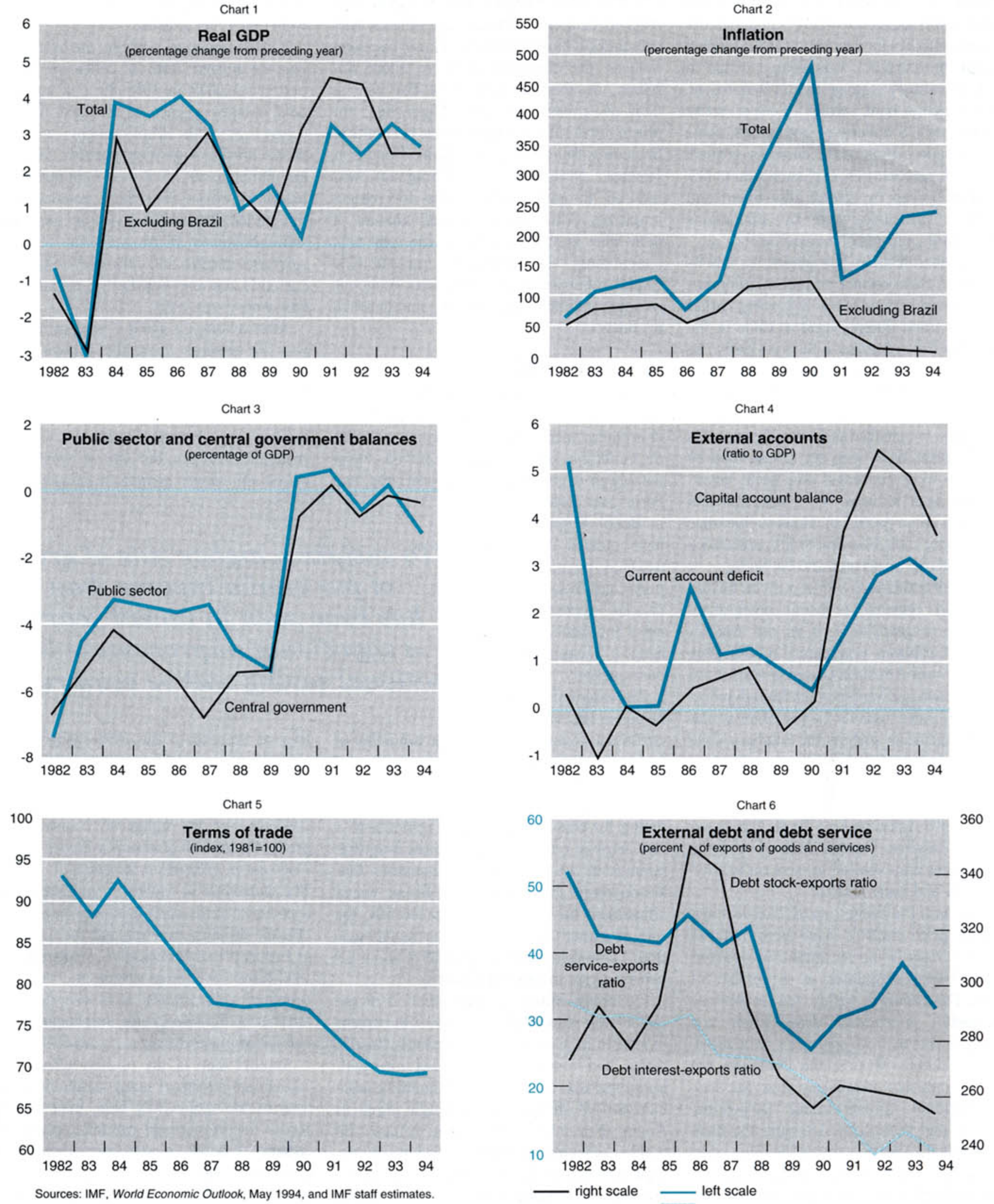
Excluding Brazil, average inflation in the region was reduced from around 130 percent in 1989 to 14 percent in 1994 (Chart 2). Brazil's recent anti-inflation program has met with initial success, and the rate of monthly price increase fell sharply to low single digits in August–November 1994. This brings the number of countries in the region with single-digit inflation to 17. Nevertheless, a sizable number of countries—with annual inflation rates of 10 to 30 percent—are reducing inflation only slowly because of indexation mechanisms established during periods when prices were rising much faster.

For the region as a whole, the overall fiscal balance moved from a deficit of about 5 percent of GDP in 1988–89 to a surplus or near balance in each of the next five years (Chart 3). This improvement was most pronounced in Argentina, Jamaica, Nicaragua, and Panama, but 25 of the 32 countries in the region improved their fiscal position during this period. Twelve countries are expected to show balanced fiscal accounts or overall surpluses in 1994, and only a few countries are currently running deficits that are larger than they were in the 1980s.

After averaging about 1 percent of GDP a year for several years, the current account deficit of the Latin American and Caribbean countries widened to about 3 percent a year in 1992–94, owing in part to rising imports induced by higher investment and the economic recovery, but also to weak export prices and slower growth in industrial countries at the end of the 1990s (Chart 4). For example, during 1990–93, real GDP growth in the industrial countries averaged 1.5 percent a year, compared with 3.5 percent a year in 1983–89. For the industrial countries as a group, the growth of import volumes fell from 7 percent in 1983–89, to 3 percent in 1990–93. The slowdown in growth in industrial countries also had an adverse impact on the terms of trade of Latin America and the Caribbean, as export prices continued to weaken through 1993 (Chart 5). On the upside, the region has benefited substantially from the decline in international interest rates that began in 1990 and lasted until recently.

Another sign of the positive effect of the adjustment efforts of many developing countries in the region has been their renewed access to international capital markets. The issuance of bonds in international markets by Latin American private and public entities rose from $300 million annually during 1983–89, to $13 billion in 1992, and to $27

Economic transformation in Latin America and the Caribbean



Sources: IMF, *World Economic Outlook*, May 1994, and IMF staff estimates.

billion in 1993. The 1993 pace was maintained in the first quarter of 1994, though it declined somewhat in subsequent months. Argentina and Mexico were particularly successful in regaining market access, accounting for almost 60 percent of the 1993 total. Bond offerings by Brazilian and Venezuelan entities also rose considerably. Chile, Trinidad and Tobago, and Uruguay re-established their presence in these markets in 1993; and Colombia, Guatemala, and Peru have also re-entered the market for the first time in many years. International equity placements have risen from less than $100 million in 1990 to close to $6 billion in 1993, and banks also have shown renewed interest in lending to countries in the region, although activity has been subdued in comparison with bonds and equities.

Strong capital inflows contributed to the real appreciation of many currencies in the region. For Latin America and the Caribbean as a whole, currencies appreciated in real effective terms (taking into account relative prices vis-à-vis trading partners) by a cumulative 24 percent in 1990–94. The effect of currency appreciation on competitiveness has been offset in part by changes in tax systems, structural reforms, and efficiency gains from deregulation. In any event, some currency appreciation would have been expected, given the general improvement in economic prospects in most countries of the region.

The external public debt of the countries in the region has risen by about $23 billion a year during the 1990s, more than twice as fast as in the second half of the 1980s. However, in relation to GDP, the debt has been reduced from 40 percent at the end of 1989 to 32 percent at the end of 1994, reflecting, in part, the real appreciation of the currencies of many of the debtor countries (Chart 6). At the same time, the region's gross international reserves have increased threefold since the end of 1989, to $100 billion currently. Adjusted for the stock of international reserves, the net external indebtedness of the region has been rising by $6.5 billion a year over the last five years, and the ratio of net debt to GDP has fallen by 10 percentage points to 25 percent over this period.

Remaining challenges

Considerable economic progress has been achieved in the region, but many challenges remain. Several countries that have initiated adjustment programs continue to face problems of high inflation and external debt, and others have yet to begin the task, or need to restart programs that have faltered. Moreover, for the region as a whole, gross national savings are lower now than in the late 1980s. To sustain a higher rate of growth of per capita income than has been seen in recent years, a significant improvement in national saving will be required. The maintenance of macroeconomic stability should strengthen the confidence of domestic savers and help solidify the flow and reliability of foreign savings. The spread of individualized pension plans—already in place in Argentina, Chile, and Peru—should make a contribution to greater savings.

There is also a need to increase public savings further, and much can be done to strengthen fiscal positions in Latin America. In many cases, there is scope for a reorientation of government spending to increase productivity and deliver services more efficiently, as well as for outright cuts in expenditure, including a reduction in excess employment at many levels of government. The argument is often made that public sector wages fell behind in the process of bringing down inflation. If a catch-up adjustment is necessary, it should be combined with a scaling-back of public employment.

In some countries, the resources devoted to social programs are not sufficient to address needs adequately; in others, the levels may be appropriate, but the services are not delivered effectively or are targeted poorly. Resources often cannot be reallocated because legally mandated revenue-sharing or tax-earmarking schemes unduly constrain the budgetary process, and this problem needs to be addressed. There is also the example of countries in the region that have shown how improvements in tax administration have provided additional resources while making tax systems more equitable.

Some countries in the region have chosen to lower inflation gradually because of concern that deindexation risks too abrupt a change in wage/price relationships. This is one of the most difficult approaches to inflation reduction, and the task is to ensure that there is noticeable progress in reducing the rate of price increase from year to year, to strengthen the credibility of government policies, and thus avoid doubts about the future course of inflation that would adversely affect interest rate premia.

Despite a reduced debt burden for the region as a whole, external debt remains high in many countries, and difficulties in debt management could return if interest rates in the industrial countries continue to rise. A sustained recovery of economic activity in the industrial countries, however, would have a favorable effect on the region's exports.

The significant improvement in the international reserve positions that most countries have been able to achieve provides their governments with more room to maneuver. But the degree of comfort should not be exaggerated, given that these reserve gains stem, in large part, from inflows of capital that may be subject to considerable volatility. However, the capacity to attract such capital has to be viewed as a positive development that reflects in no small measure the improvement in the policies and performance of countries in the region, and the confidence that this has engendered.

In other areas, rules and regulations that apply to labor markets seem to hamper the growth of employment in parts of the region; private natural monopolies need to operate under an appropriate regulatory framework; more competition is needed in the financial systems of some countries; and improved procedures for monitoring and supervising the financial system are essential.

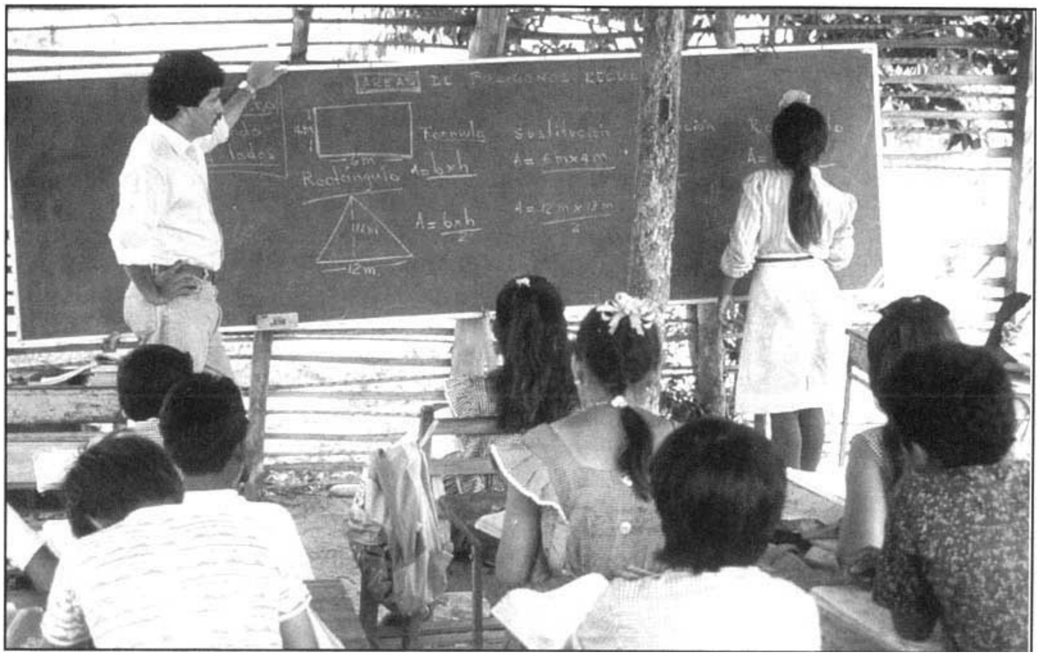
As part of the process of ensuring support for pro-growth policies and of promoting growth in the medium to longer run, equity issues are of increasing importance. A large number of people continue to live in poverty throughout the region, and countries need to continue their efforts to improve the targeting of social spending, and to give priority to cost-effective systems of education and preventive health care.

Finally, attention must also be given to providing good governance, a broad concept referring to publicly accountable and participatory government that watches over legal and regulatory frameworks that are fair, transparent, and limited to what is strictly necessary, so that the scope for arbitrary decisions is minimized. Good governance also means concern for the environment, the quality of public services, and the enforcement of contracts; and the concept extends to providing for smooth transitions of democratically elected governments, to ensure that political cycles do not affect the pursuit of sound economic policy. F&D

This article draws on material prepared for the World Economic Outlook *by the staff of the IMF's Western Hemisphere Department.*

Consolidating Economic Reforms in Latin America and the Caribbean

SHAHID JAVED BURKI AND SEBASTIAN EDWARDS



THE ECONOMIC reforms that have been sweeping Latin America and the Caribbean since the late 1980s are bearing fruit. To consolidate these reforms, governments now need to move quickly to accelerate economic growth and reduce poverty. The Mexican peso crisis lends some urgency to this approach.

The eagerness with which countries in Latin America and the Caribbean are pursuing free trade agreements today is in sharp contrast to the determination with which they pursued economic isolationism and autarky just ten years ago. Most countries in the region adopted economic policies in the 1930s that called for heavy government intervention, regulation, and protectionism. The first to abandon these policies in favor of market-oriented reforms was Chile, in the 1970s. Since the late 1980s, however, the entire region has been swept by economic reforms—interestingly enough, at a time when democratic forms of government have been restored in virtually all of Latin America.

The region is already reaping the benefits of economic modernization: productivity and exports have expanded rapidly, and personal income growth is increasing steadily. Many countries are close to achieving single-digit inflation. GDP growth rates have improved significantly—the average for the region rose to 3.2 percent in 1994. There is no reason why the crisis in Mexico, handled correctly, should leave a lasting imprint on the region's economies.

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The economic landscape in Latin America and the Caribbean has been transformed, but the region still faces a number of important challenges—the most serious is the persistence of widespread poverty, particularly in the large cities. According to a recent World Bank study, Latin America's GDP growth rate for 1994, although higher than in previous years, is still not high enough to bring about a decrease in the number of poor people. To reduce poverty, governments in the region need to develop strategies to accelerate growth significantly; they also need to design more effective social programs for the poor, or they may not be able to garner the broad political support they need to continue with economic modernization. Acceleration of growth and reduction of poverty will require a series of difficult "second-generation reforms" that involve consolidating macroeconomic stability, rebuilding the state, overhauling the educational system, and making labor markets more flexible.

Accelerating growth

If Latin America achieves improvements in three key areas—export competitiveness, domestic savings, and investment in infrastructure—its average annual rate of growth could increase substantially by the end of the decade.

More competitive exports. Latin America's new development strategy gives exports a central role, as did East Asia's during the 1960s and 1970s. Between 1987 and 1992, exports from Latin America and the Caribbean grew annually by approximately 10 percent in real dollar terms and 6 percent in terms of volume. For Latin America and the Caribbean to achieve higher economic growth rates, however, it will not be enough to maintain this momentum; exports will have to grow even faster. Historical data suggest that rapidly growing countries have enjoyed a sustained rate of export expansion that is more than double the growth rate for income.

To accelerate the growth of exports, countries in Latin America and the Caribbean will have to become more competitive by improving productivity. Future productivity gains will depend on three basic developments: prudent fiscal policies, domestic deregulation and reform of the educational system, and the continued liberalization of world trade.

Prudent fiscal policies will be necessary to maintain and consolidate macroeconomic stability. The importance of this message cannot be overemphasized: as the region's history has repeatedly shown, fiscal imbalances have often led to serious crises that encourage speculation, retard growth, and increase poverty and frustration.

Almost every country in the region has received large volumes of foreign portfolio capital during the past few years. The increased foreign resources have challenged governments' ability to manage monetary policy, pressured real exchange rates, and allowed countries to run large current account deficits and accumulate sizable international reserves.

There is little doubt that, for most countries, the current capital inflows will not continue in the long run. Once international financial conditions change—and investors have the desired amount of Latin American securities in their portfolios—the volume of foreign resources flowing into the region will decline. And that will require an adjustment. If public finances remain under control and credit policy is consistent, the adjustment is likely to be gradual and smooth. But if macroeconomic management is less than prudent, capital inflows could grind to a sudden halt, unleashing potentially serious macroeconomic dislocations. This means, among other things, that governments should strive to avoid the overvaluation of the real exchange rate and that the volume of capital inflows must remain at sustainable levels to avoid exchange rate crises, such as the devaluation of the Mexican peso in December 1994.

Recent deregulation reforms will have to be broadened and deepened; in particular, there will have to be deregulation at the local level, to reduce the controls, distortions, and red tape that still exist in states, provinces, and municipalities. The educational system and labor markets will also have to be reformed.

Improvement of domestic conditions to achieve greater competitiveness is only one factor determining the performance of exports, however. Equally—if not more—important is the evolution of the world trading system. For Latin America's exports to grow faster, the region will have to be more open to trade with the rest of the world, and—as is expected to happen with the ratification of the Uruguay Round—markets in industrial countries will have to be more open to exports from the developing world.

Table 1
Infrastructure in Latin America and the Caribbean
Annual investment needs, 1995–2000

Sector	1993 prices (billion dollars)	Percent of regional GDP
Power	24	1.8
Transportation	14	1.0
Telecommunications	10	0.7
Water and sanitation	12	0.9
Total	**60**	**4.4**

Source: World Bank, *Infrastructure Initiative for Latin America and the Caribbean*, available early 1995.

Raising domestic savings. The accumulation of capital is fundamental to the growth process. Countries with high growth rates devote a higher proportion of their GDP to investment and—perhaps more important—have developed domestic capital markets that efficiently allocate funds to high-return projects. For capital accumulation to occur more rapidly, however, domestic savings must increase, and Latin America has traditionally had very low saving rates. In 1980, for example, the region saved only 19 percent of its GDP, on average; this ratio had not changed by 1994. In contrast, East Asia, the fastest-growing region in the world during this period, saved, on average, 35 percent of GDP.

Evidence from a score of countries—including the "East Asian miracle" nations—suggests that increasing private domestic savings ratios is a rather slow process. So, the most effective and direct way to increase aggregate domestic savings in the short and medium term is to raise government savings through changes in the public deficit. Recent statistical studies suggest that, although government savings crowd out private savings, the effect is not one-to-one—a 1 percent increase in government savings will generate a 0.5 percent increase in aggregate domestic savings. These studies also found that increasing public savings by reducing expenditures is more effective than increasing taxation.

The best combination of higher tax revenues and reduced expenditures to increase public savings depends on the specific characteristics of the country. If tax compliance is low, and the tax effort clearly below par, an increase in tax revenues will be called for. But, under most circumstances, some reduction in expenditure is likely to be optimal. In most countries in the region, cutting the military budget is a way to both finance the expansion of social programs and generate higher public savings.

Efforts to raise public savings should be supplemented by measures to encourage private savings—for example, establishing regulatory and prudential supervisory frameworks that make domestic financial markets more efficient, and improving the provision of financial services. Building confidence in local financial institutions will be necessary if household savings are to increase. Comparative empirical analyses have also shown that private savings are strongly affected by the extent and coverage of government-run social security systems; individuals tend to save less if they expect to receive generous social secu-

Table 2
Poverty in Latin America and the Caribbean
Percentage of population living in poverty

	Poverty			Extreme poverty		
	Early 1980s	Mid/late 1980s	1990s	Early 1980s	Mid/late 1980s	1990s
Argentina (1980, 1986, 1993)	16.2	51.1	17.6	3.3	21.1	3.4
Bolivia (1980, 1986, 1990)	--	--	72.0	--	--	--
Brazil (1992)	39.0	40.0	43.0	--	--	--
Chile (1987, 1992)	--	28.0	24.0	--	17.0	9.0
Colombia (1988, 1992)	--	33.8	32.7	--	18.7	17.7
El Salvador (1993)	--	--	41.4	--	--	36.2
Guatemala (1989)	--	75.2	--	--	57.9	--
Guyana (1992)	--	--	27.7	--	--	43.2
Honduras (1989, 1993)	--	55.0	53.0	--	36.0	32.0
Jamaica (1989, 1992)	--	26.9	34.2	--	--	--
Nicaragua (1993)	--	--	50.3	--	--	19.4
Paraguay (1990)	--	--	20.5	--	--	3.5
Peru (1982, 1989)	46.0	52.0	53.7	21.0	25.0	21.2
Uruguay (1980, 1986)	11.0	15.0	--	--	--	--
Venezuela (1982, 1989)	22.3	31.4	--	10.3	22.3	--

Source: World Bank and UN Economic Commission for Latin America and the Caribbean.
-- Data not available.

rity benefits when they retire. This suggests that a reform that replaces a government-funded pension system by a privately administered one—as in Chile, for example—could lead to an increase in private savings.

Perhaps the most important finding of recent studies on savings behavior—including those focused on East Asia's experience—is that there is a virtuous circle between growth and private savings. Higher growth increases disposable income and encourages private savings. Higher savings, in turn, permit a higher level of capital accumulation, and thus reinforce higher growth. A strategy that combines measures to increase public saving with reforms designed to improve the mobilization of private savings enables countries to take advantage of this virtuous circle.

Investing in infrastructure. Investment in infrastructure was seriously neglected in Latin America during most of the 1980s and the early 1990s. As a result, the region now faces a serious deficit in power generation, roads, water supply, and telecommunications. According to World Bank calculations, approximately $60 billion will have to be invested in infrastructure every year between now and the year 2000 to make up for past neglect and to provide the region with the infrastructure stock needed for an export-led growth strategy (Table 1). Moreover, detailed analyses in the World Bank's *World Development Report 1994: Infrastructure for Development* show that the quality of the services provided by Latin America's existing stock of infrastructure leaves much to be desired.

The volume of infrastructure investment required during the rest of the decade is substantial. It represents approximately 4.5 percent of the region's total GDP and is much larger than the annual combined total gross commitments of the World Bank and the Inter-American Development Bank for projects in Latin America and the Caribbean. The bulk of the increase in investment in infrastructure, then, will have to come from the private sector—both domestic and foreign.

To encourage private sector participation in infrastructure projects, governments will need to set up modern regulatory frameworks that serve a dual purpose. On the one hand, they should enable governments to make a credible commitment to respecting, over the long run, the rules and regulations governing tariffs, market access, and expansion plans; on the other, they should protect consumers from potential breaches in competition.

Reducing poverty

With the acceleration of economic growth, governments in Latin America and the Caribbean will be able to turn their attention to the grave problems of poverty and income inequality. Addressing the needs of the poorest citizens is a political as well as a social issue. Only to the extent that they succeed in reducing poverty and making income distribution more equal will countries be able to sustain recent structural reforms. Moreover, as a larger proportion of the population benefits from better education, nutrition, and health, growth will accelerate significantly.

In spite of progress in a number of countries (Table 2), poverty continues to be prevalent throughout the region. One characteristic that distinguishes Latin America from other developing regions is the extent and depth of urban poverty. About two thirds of Latin America's absolute poor—those who are poor not only in terms of income but who are also deprived of basic necessities—live in large cities.

Not only is poverty widespread in Latin America and the Caribbean, it has increased during the past decade. The unequal distribution of income is generally seen to be at the heart of poverty in the region—the bottom 20 percent of the population receive less than 4 percent of total income. What determines income inequality in a country at a given time? A recent World Bank study of ten countries in the region found that the four most important factors determining position on the income scale were education, sex, race, and locality.

Education appears to be the single most important determinant. In Panama, for example, people with less than five years of education have an estimated 83 percent probability of finding themselves in the bottom 20 percent of the income distribution scale. The corresponding figure for Argentina is 69 percent, for Brazil, 42 percent. In contrast, the likelihood that people with 13 or more years of education will find themselves in the bottom 20 percent is less than 5 percent in most countries in the region.

Women tend to be poorer than men. In Venezuela, for example, households headed by single mothers are significantly more likely to be below the poverty line. Age is also a factor: many poor women are older and less able to improve their skills through training and education.

Race is directly related to poverty and income inequality in many countries. For example, in 1989, almost 60 percent of Guatemala's indigenous population had less than five years of education, compared with 24

percent of the nonindigenous population. In Bolivia, 12 percent of the indigenous population had no schooling at all, compared with 2 percent of the nonindigenous population.

There are significant variations in income distribution and human development within countries, although these are often hidden in countrywide aggregate data. The starkest differences in human development can be seen in Brazil—for example, Rio Grande do Sul has social indicators comparable to those of Portugal and the Republic of Korea, while Paraiba's are closer to Kenya's. Extreme regional differences are reflected in almost all of Brazil's social indicators: illiteracy rates, for example, range from 11 percent in the urban south to more than 55 percent in the rural northeast.

More reforms needed

In contrast with past reforms, which were designed to correct gross inefficiencies and macroeconomic disequilibria, the second generation of reforms needed to accelerate growth and reduce poverty will have to be directed at political and social institutions and microeconomic incentives.

For decades, governments in Latin America failed to develop the institutions needed to handle their populations' basic problems because they concentrated most of their resources on managing their countries' economic assets and regulating almost every aspect of economic life.

But institutions determine the course of economic policy. Now that most countries have undertaken basic economic reforms and reduced the role of the state in economic affairs, they must create institutions that enable the state to be effective in areas that are more properly its domain. At the macroeconomic level, the consolidation of the procompetition reforms will be greatly helped by the creation of institutions that ensure the transparency of policymaking, help avoid short-term political pressures, and allow the authorities to credibly commit themselves to a course of action. This means, among other things, instituting clear and mandatory budgetary processes, and making central banks independent to isolate monetary policy, and in some cases exchange rate policy, from partisan short-term political battles. This is one obvious lesson to be learned from the Mexican peso crisis. Quickly and simultaneously, countries also need to reform the legal and judicial systems and the civil service, and decentralize government. Civil society also needs to be strengthened as a way of generating much-needed "social capital."

Designing and implementing programs to tackle poverty and income inequality will require resources and, perhaps more important, an overhaul of the institutions that deliver social services. In many Latin American countries—Venezuela may be the best example—the main problem is not a lack of funds, but the inefficiency and mismanagement of social programs caused by inadequate administrative capacity, the reluctance of government employees' unions to modernize, and an absence of accountability. Major administrative reforms will be required just to raise the delivery of social services to a minimally acceptable level.

Educational reform. One of the basic pillars of successful development strategies is the accumulation of human capital, by improving the coverage and quality of education. In Latin America, access to education varies greatly among different groups and regions. In every population group for which data are available, educational coverage in the East Asian "tigers" is far greater than in Latin America and the Caribbean.

The second fundamental problem of Latin America's educational system has to do with quality. A recent World Bank study found that the quality of primary education in the region tends to be dismal. For example, in an international comparative study on the reading abilities of 9-year-old children from 27 countries, Venezuela's students scored the lowest; Trinidad and Tobago's students did better, but still scored well below the average. Repetition rates in Latin America and the Caribbean (except in the English-speaking Caribbean countries) are among the highest in the developing world. In Bolivia, for example, the repetition rate ranges from 16 percent in Beni to more than 35 percent in Chuquisaca. The estimated cost of repetition for the region as a whole in 1990 was more than $4 billion.

Although there are some first-rate private schools in the region, the disparity between public and private schools tends to perpetuate inequalities, undermining the basis of democracy. Improving the coverage and quality of education is an urgent task that requires strengthening management, reallocating educational resources, increasing funding, and, most of all, making teachers accountable. Teachers should be trained using modern techniques and be required to refresh their skills periodically; salaries should be based on performance rather than on bureaucratic formulas. Parents need to become more involved in the educational process. If countries in the region continue to neglect education, the likelihood of sustaining recent structural reforms over the long term will be greatly reduced.

Labor reforms. For many decades, countries in Latin America and the Caribbean have used labor legislation as a tool for achieving various social goals. A minimum wage, job protection, and related measures were thought to be an efficient way of redistributing income and protecting the poor. However well intentioned these policies may have been, the result was overly rigid labor markets that were not responsive to changing conditions in the world economy. Unfortunately, recent market-oriented reforms have barely touched labor market legislation, and the situation has not improved. The region's distorted labor markets are in sharp contrast with East Asia's dynamic, modern labor markets. In general, East Asia's labor force is better educated, and its labor markets are flexible, allowing companies to change product mix in response to rapid shifts in comparative advantage.

In addition to improving the education of its work force, the region should implement reforms to correct the three most serious labor market distortions: high payroll taxes—especially social security taxes—that discourage employment expansion and make local firms less competitive in the international marketplace; high severance payments that make corporate restructuring difficult and slow; and confrontational labor-management relations that entail costly settlement procedures.

Sustaining reforms

The countries of Latin America and the Caribbean have made great progress during the past few years. Macroeconomic stability has been achieved and GDP is growing, as a result of deep reforms. During the next phase of the reform process, governments should seek ways to accelerate economic growth and reduce poverty.

A faster rate of growth and investment in human capital are necessary to ensure that the structural reforms of the past few years are sustained and not reversed. Poverty reduction and improvements in education, nutrition, and health will have a strong positive impact on economic growth. Faster economic growth, in turn, could cause living standards to improve and the number of poor to decrease. The twin policy goals of economic growth and poverty reduction reinforce each other and need to be tackled together. F&D

Suggestions for further reading: "Latin America and the Caribbean a Decade After the Debt Crisis," The World Bank, Latin America and Caribbean Regional Office, Washington, DC, September, 1993; Sebastian Edwards, Crisis and Reform in Latin America: From Despair to Hope, *Oxford University Press, to be published in 1995.*

Reforming Latin America's Old-Age Pension Systems

G.A. MACKENZIE

LATIN AMERICA'S public pension plans have been battered by inflation and demographic trends. A few countries have introduced private pension plans, but even if these types of plans are adopted throughout the region, public schemes will not disappear any time soon and need urgent reform.

Argentina, Chile, Peru, and Uruguay introduced the first pension plans in Latin America in the early 19th century. Since then, public pension schemes have sprung up throughout the region. During the 1970s and 1980s, many of them ran into difficulties, and by the end of 1994 most were in serious financial trouble. Payments to pensioners were often in arrears. Financed on a pay-as-you-go basis, with defined benefits, none of the pension plans had significant reserves. In many cases, contributions, made through payroll taxes, were inadequate to cover expenditures. Originally, the plans had been at least partially funded, but inflation had eroded the real value of their reserves, and many plans had been obliged to make investments in public projects with low rates of return.

The weak finances of Latin America's public pension plans were further strained by demographic trends that resulted in an increase in the number of pensioners entitled to full pensions as plans matured. The indexation of benefits—which were often too generous to begin with—proved costly during periods of high inflation. Even pay-as-you-go schemes that had a surplus were not better off, because they were often required to finance the health component of the social security system.

Although several Latin American countries are considering pension reform, so far only Argentina, Chile, Colombia, and Peru have introduced new systems: defined contribution plans that are administered by private pension

Commonly used terms

Defined benefit: a guarantee by the insurer or pension agency that a benefit based on a prescribed formula will be paid.

Defined contribution: a pension plan in which the periodic contribution is prescribed and the benefit depends on the contribution plus the investment return.

Pay-as-you-go: a financing method whereby current outlays on pension benefits are paid out of current revenues from an earmarked tax, often a payroll tax. The tax is meant to be adjusted as necessary to ensure that current revenues do not fall short of current benefits.

Replacement rate: the value of a pension as a proportion of a worker's wage during some base period.

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companies but regulated by the government. The advantages seem obvious—lower public sector deficits, a closer connection between an individual's savings and pension benefits, and more vibrant financial markets.

Defined contribution schemes are not a panacea, however. Benefits under such schemes are determined by the value of contributions and the pension funds' investment returns, and, as Latin America has learned from its experience with earlier funded plans, financial instability and mismanagement can wreak havoc on pension fund earnings. Moreover, the introduction of private plans does not lessen the urgency of reforming public pension plans, which will continue to exist for at least the foreseeable future.

Problems of public plans

The main problems afflicting public pension plans in Latin America are evasion, overly generous benefits, adverse demographics, and inflation. To a large extent, the laws and regulations governing the pension plans have laid the foundation for the plans' present plight.

Contributions. Public pension schemes in Latin America are financed through a payroll tax, whose size varies greatly from country to country (Chart 1). In the Southern Cone countries, which have had pension systems for many years, and where life expectancy is the same as, or greater than, in Europe, payroll taxes for old-age, sickness, and disability pensions can reach 35 percent of wages or salary. In the northern Latin American countries, where systems have not yet fully matured and life expectancy is shorter, rates are typically in the range of 5–10 percent. Rates in the Southern Cone countries have been going up in response to, among other things, the increase in the dependency ratio—the ratio of pensioners to contributors. Higher rates are an incentive for evasion, however, and tend to result in a vicious circle: as rates go up, evasion increases, creating pressure to raise rates again. If workers can see little relation between contributions and benefits—that is, if they perceive contributions as a tax rather than as compulsory saving—they have another incentive to evade the payroll tax.

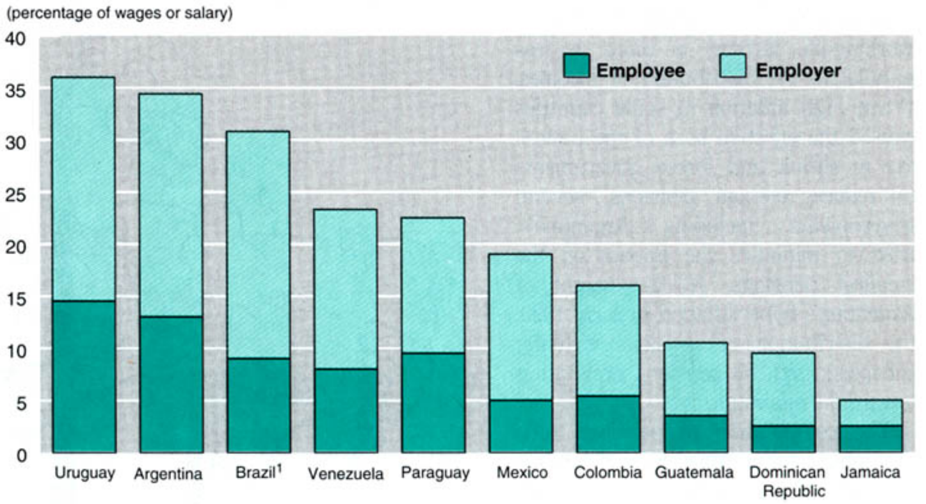
Benefits. When inflation is high and indexation less than perfect, as has generally been the case in Latin America, there can be a big discrepancy between statutory, or legally stipulated, benefits (Chart 2) and benefits actually paid out.

Statutory benefits under Latin America's public pension systems have tended to be very generous in a number of respects. Retirement ages are low compared with the industrial world, and qualification periods (the number of years an individual must work to be eligible for a pension) tend to be short. Pensionable salary is usually determined on the basis of a relatively short period just prior to a contributor's retirement; this practice can be abused by employees who overstate their income or arrange to be paid an abnormally high salary in this period, and under-report earnings in earlier periods.

Actual benefits have tended to be less generous, however. Demographic trends have put pressure on Latin America's public pension schemes by reducing the real value of the average pension the systems can pay, given the average real wage and the contribution rate. In addition, the real value of pensions has often fluctuated widely even over relatively short periods—a surge in inflation causes the real value of benefits to drop, even when they are indexed, because of the delay or lag in indexation.

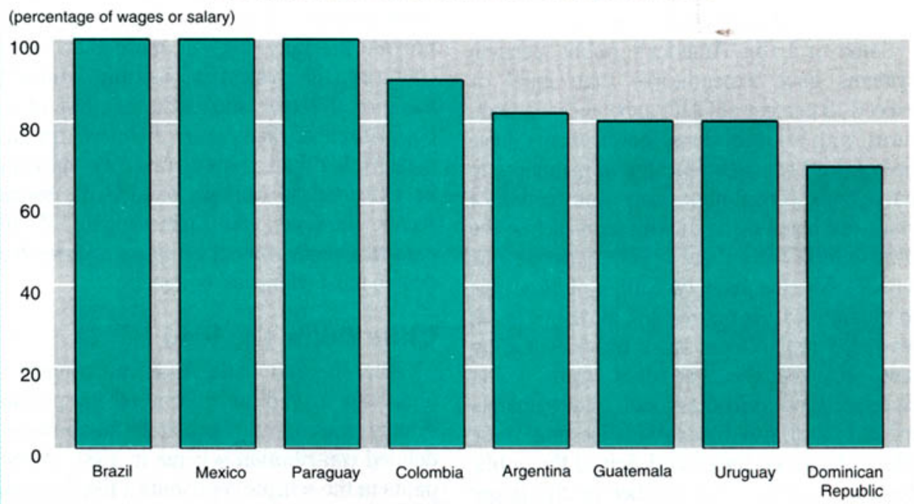
During the bouts of hyperinflation that

Chart 1
Payroll taxes finance pensions
Contributions to social insurance programs



Source: US Department of Health and Human Services, *Social Security Programs Throughout the World*, 1993.
Note: Rates include that part of the payroll tax that is earmarked to finance old age, disability and death, and sickness and maternity pensions. Payroll taxes earmarked for public housing and other social programs are excluded. An average has been calculated when there is a range of contributions. (Rates may finance other social expenditure. Different rates may apply, depending on family situation and occupation of contributor.)
[1]Additional 1.5 percent for thirteenth month's salary.

Chart 2
Generous statutory benefits
Maximum replacement rates for old-age pensions



Source: US Department of Health and Human Services, *Social Security Programs Throughout the World*, 1993.

beset Argentina in 1989–90, for example, there were huge variations in the real value of pensions from one month to the next. In March 1990, when the monthly inflation rate rose to more than 100 percent, the real value of the average pension dropped to less than one half its 1989 value—and that value was already low. This decline took place in spite of a law providing for full indexation. (The law later served as the basis for court actions by pensioners' associations against the government. Similar legal actions have been adjudicated in other Latin American countries.)

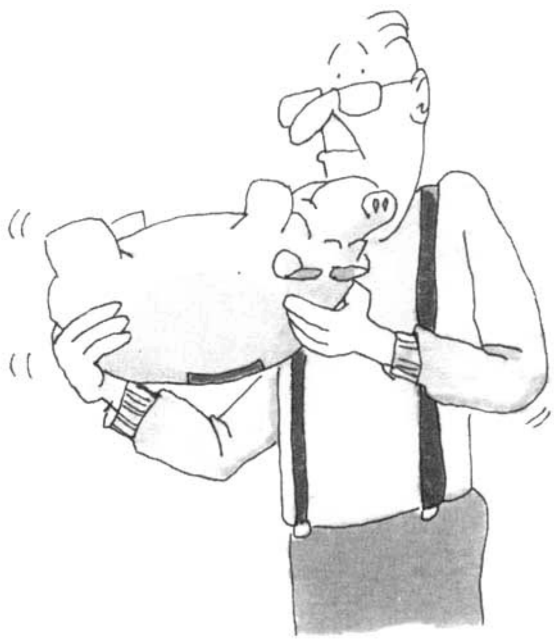
Inflation also affects the dispersion of pensions. Under normal conditions, the dispersion of pensions paid out under a system based on the replacement principle (that is, the pension replaces a certain fraction of working-life income) is more or less parallel to the distribution of incomes. When high inflation in some countries caused the effective base of the payroll tax to shrink and forced governments to reduce average pensions, several governments, including Argentina's, tried to minimize the impact on the smallest pensions. At the height of Argentina's hyperinflation in early 1990, the distribution of pensions virtually collapsed, with all pensions gravitating toward the minimum.

The compression of pensions seen throughout Latin America is the result not only of hyperinflation but also of erosion of the salary base (in Peru, for example, where cost of living adjustments were not taken into account in establishing the salary base) and of long-term pressures on pension systems. Replacement principle systems have been converted, in part, into systems paying out flat-rate, or minimum, pensions; participants all receive virtually the same benefits, regardless of what they contributed.

Some of Latin America's public pension systems have expenditures that equal or exceed 10 percent of GDP; to balance expenditures with contributions, governments have been forced to make repeated adjustments to payroll tax contribution rates and to reduce statutory benefits. Even with increases in the contribution rate, these systems, as well as smaller systems, have typically not been able to guarantee their pensioners, in real terms at least, the replacement rates provided for by law. To keep expenditures from going completely out of control, many governments try to avoid full indexation. Despite these efforts, however, the cash deficit of the public pension systems of a number of the larger systems has accounted at times for a significant part of the overall public sector deficit.

Coverage. The percentage of the population covered by Latin America's pension plans varies widely from country to country. In some countries, broad coverage has contributed to the financial woes of public pension plans with generous benefits but inadequate administrative capacity. Leaving aside Cuba and some of the small Caribbean islands, the Latin American countries with the highest coverage rates are Argentina and Chile, where about 85 percent of the work force is covered. Coverage in Mexico is about 40 percent; in Colombia and Ecuador, about 25 percent. Rates in Bolivia and some Central American countries are below 20 percent.

The number of workers covered is, to some extent, related to the size of a country's formal sector. Coverage is higher in countries with relatively strong labor movements. So few people are covered by the pension system in some countries that it can hardly be said to provide a safety net—in more than a few countries, the system is basically limited to the formal sector and excludes most of the population. If plans were financed through means other than a payroll tax, coverage could be extended to workers outside the formal sector; however, the achievement of 100 percent coverage would impose a great burden on most countries' budgets.



Chile takes the lead

Chile, the first Latin American country to undertake a radical reform of its pension system, introduced a privately administered, defined contribution scheme in 1981. Participants in the scheme contribute a fixed proportion of their salary to a personal account plus a commission to the company administering the account. The ultimate value of the pension is determined by the length of time workers contribute and the average rate of return their pension company earns for them. Participation in the new system is compulsory for workers just entering the labor force, but optional for persons who are already contributing to one of the existing funds. Once contributors move to the new system, however, they are barred from returning to the state system.

To encourage long-time contributors to the state pension system to change over to the new system, the government issued *bonos de reconocimiento* (recognition bonds) to those wishing to move. The value of a *bono* is determined by the recipient's salary and contribution history; the amount of the annuity to which the recipient is entitled upon retirement is determined by the value of the *bono* plus accumulated contributions and interest on the recipient's pension fund. The annuity is indexed.

Contributors had an incentive to move to the new system because, when they did, their take-home pay went up. Under the old system, employers and employees were both legally responsible for a part of the payroll tax. The reform eliminated the payroll tax entirely, but employers were obliged to pass on their share to employees by increasing gross salaries; the employees' contribution rate under the new system is less than the total payroll tax for both employers and employees under the old.

The new system has proved to be very popular. After five years, about 60 percent of Chile's labor force was participating in the new system; by the end of 1990, about 79 percent was. As the new system matures, and those still contributing to the public pension system retire, the number of contributors to the old system will dwindle to zero.

Real rates of return enjoyed by the pension fund companies have been very high, particularly in the early years. If returns continue to be high, most contributors will enjoy a high replacement rate. Judged only by its apparent popularity and the rates of return realized thus far, the new system can be called a success. However, it has only just begun to pay out pensions, and it would be premature to judge Chile's reform a success before the system has matured. Reforms in Argentina, Colombia, and Peru are far too recent to assess.

Possible drawbacks. It is a truism that a defined contribution system cannot guarantee a given rate of return. And, like the funded or partially funded schemes that were the precursors of Latin America's pay-as-you-go

systems, a defined contribution plan is vulnerable to an unstable financial environment. Unexpected inflation can permanently lower the real value of the plan's reserves. The effect of unexpected inflation would not be reversible as under the pay-as-you-go system. Mindful of this, the Chilean Government established a limited safety net for the elderly, in the form of a minimum pension whose real value is guaranteed. Although the system falls far short of providing a guaranteed replacement rate, it may protect the most vulnerable. The guarantee of a minimum pension creates a contingent liability for the government—and one that is difficult to estimate—but the public pension system also entailed a huge contingent liability.

Advocates of the new system point to the close link it establishes between contributions and benefits. This link is weak, however, for the poor or for people with limited work experience when the state guarantees a minimum pension. If workers with low wages cannot contribute enough to entitle them to a pension that is above the minimum, it is in their interest to contribute as little as they can get away with to qualify for the minimum. The higher the minimum, the less the incentive for workers to make the full statutory contribution. The participation of the self-employed in Chile's new system is voluntary, which is understandable, given the difficulty of enforcing compulsory participation.

Can the Chilean system provide better coverage of the informal sector than older Latin American plans have done? Leaving aside the incentive created by the minimum pension, the new system will have to offer relatively high rates of return to attract workers in the informal sector. Since contributions cannot be withdrawn until retirement age, the returns would have to be high enough to make the pension funds more attractive than assets that are more liquid or that earn a more immediate return.

Achievement of universal coverage may require an element of compulsion (and the means to enforce it). One indirect means of increasing coverage would be to make participation in the pension plan a condition for coverage in the plan's health component. The risk of indigence in old age may be less real to the young, and young middle-aged, than the risk of catastrophic illness.

Impact on the economy. The new private system has had two important beneficial side effects for Chile's economy. First, the private pension funds have contributed to the development of securities markets in Chile, although the extent of the contribution is uncertain. Second, to the extent that the contribution to the new system is perceived as forced saving, rather than a tax, it may have helped reduce labor costs and thus may promote employment.

It is too early to gauge the long-term impact of the new pension system on aggregate saving. Private saving increases automatically when private pension funds start operating, because the funds are receiving contributions without making payments; but public saving drops because of the loss of revenue from the payroll tax that would have been paid under the public system by contributors who have moved to the private system. This loss in revenue must be made up by the government.

Regulation and economies of scale. For defined contribution plans to function well, they must be regulated by the government. Strict guidelines need to be established for the pension funds' investment activity and accounting and reporting standards. Because the government also has an interest in seeing that the new system covers as many people as possible, it would be justified in monitoring the system's provisions as to coverage. A case can also be made for state regulation of the pension companies' marketing activities.

The indirect evidence on the administrative costs of the Chilean pension funds is hard to interpret, but the costs of promotional and other administrative activities appear to be quite high. In principle, it should be possible to achieve greater economies of scale in some of the pension companies' operations—notably the collection function. The industry is relatively concentrated—at the end of 1990, there were 14 companies, of which the three largest accounted for about 65 percent of the market; one or two of the companies were quite small, however. Economies of scale could be achieved by establishing an industry-wide collections agent, whose operations and collection fees would be regulated by the government. Although it may be less important to seek economies of scale with respect to investment operations, the unit costs of some investment-related operations—research and analysis, for example—should fall as a company's portfolio grows.

Other directions for reform

Latin America's pay-as-you-go schemes are based on a European model, which may not be appropriate for the circumstances in which they operate. Perhaps in Latin America the risk of destitution in old age is less than the risk of a catastrophic loss of income as a result of illness, disability, or unemployment during a person's working life. If so, a shift of resources away from pension schemes into basic health care and public health, as well as public works schemes, might be justified.

If an old-age pension remains an important goal for Latin American governments, however, perhaps the state should aim to provide a minimum old-age pension—a flat-rate pension—rather than one that provides a certain replacement rate. Replacement-income schemes have enormous information requirements, which make them particularly difficult to implement for workers in the informal sector. Even the most sophisticated administrations in the region typically do not have the information necessary to calculate the size of the pension to which contributors are entitled; they must rely on employers for that information. At the very least, it may be necessary to impose certain conditions on workers in the informal sector. If their participation in pension schemes is voluntary, for example, it may be necessary to make the qualifying conditions for a minimum pension stricter—for example, by increasing the minimum length of time people must work to qualify.

Today's public pension schemes do not work well even for workers in the formal sector. However, many of their problems are not the result of inherent flaws in pay-as-you-go plans, but rather of faulty design and administration, and could be corrected. For example, the link between contributions and benefits could be reinforced by lengthening the period over which the pensionable salary is calculated, and by increasing the number of years people must work to be entitled to a full pension. The retirement age should be raised in some countries. These types of changes, however, must be accompanied by administrative reform. A well-functioning pay-as-you-go system requires administrations capable of maintaining records for each individual participant. This requires, in turn, that employers submit returns giving each employee's name, a social security identification number, and amounts withheld, instead of simply making a collective return for their entire work force.

Could countries avoid administrative reform by following Chile's example? Unfortunately, the Chilean model requires a well-developed financial system and a climate of financial stability and is thus not suited to all countries, nor would it work well in countries with large informal economies. And even if it were possible to introduce private plans like Chile's in all of the other Latin American countries, public pension plans will not vanish overnight, but will gradually fade away. Some workers—particularly middle-aged ones—may choose not to switch to new plans, so the old public systems will have to continue paying the pensions of already retired workers as well as of future retirees for some time. This makes it imperative for Latin American governments to correct the administrative and structural problems of public pension systems. F&D

Tax Reform in Latin America

PARTHASARATHI SHOME

TAX REFORM has swept Latin America over the past decade, complementing the structural changes in the region's economies. But reform must be deepened to make the most of the economic progress achieved in the region and to help integrate Latin American countries even more closely into the world economy.

The past decade has witnessed wide-ranging economic reform in several Latin American countries. Tax reform was not only an integral part of this overall reform effort, but often its strongest element. In combatting fiscal deficits, governments often found that tax policy was an instrument that was relatively easier to wield than politically difficult expenditure cuts, and its effects were more immediate and more directly measurable than those of other economic policies, at least in the short to medium term.

Governments also realized that as their countries' economies became more integrated with the rest of the world, their tax systems could not be viewed in isolation. The phenomenal growth of the emerging financial markets, as well as the surge in direct investment in a number of Latin American countries and more open trade and payments regimes, gave impetus to the reform movement. Competitiveness was also an issue; governments realized that they had to reduce or eliminate taxes that raised business costs and thus placed domestic firms at a disadvantage in world markets. In the higher-income countries, governments perceived the need to widen the universe of taxpayers through tax reform, as economic growth began to give rise to an expanding middle class. Finally, the constraints put on fiscal management by the dearth of tax and expenditure responsibility at lower levels of government, and the emergence of new and dynamic concerns such as the environment, are giving further impetus to tax reform.

How reforms evolved

At the beginning of the 1980s, most Latin American tax systems were complex and cumbersome—loaded with hundreds of taxes, with little revenue being collected from any of them. Consumption and production taxes suffered from multiple rates and were difficult to administer. These taxes were also inefficient because of "cascading," that is, they taxed not only the value of production but also taxes paid in earlier stages of production. Often levied at the manufacturing, rather than the retail, stage, they harmed competitiveness by adding to production costs. Income taxes were riddled with high and multiple rates, exemptions, and incentives, and were generally not indexed to inflation—leading to narrow tax bases, inequities, and low revenue productivity.

Tax reform in Latin America over the past decade has been implemented in a variety of ways. In Colombia, for example, tax reform was carried out as a series of steps over a number of years. In a few countries, such as Argentina, tax reform took the form of a radical redesign of the entire system (see box). In general, though, the experience was one of steady formulation of reform policies and their sequenced application. Reform-minded countries simplified their tax systems by focusing on income taxation in the early years of the reform process and, increasingly, on the taxation of production and consumption in

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later years. As the economies of the region matured and became more integrated with the rest of the world, attention was also given to fine-tuning particular aspects of the tax system that had international ramifications, such as the exchange of information, foreign tax credits, and transfer pricing issues.

The most important changes in the tax structures of Latin American countries involved:

• ***Personal income tax.*** During 1986–92, simplicity and greater neutrality were the norms for reform. The number of rates was reduced and the rates themselves were scaled down from an average of 7–47 percent of taxable income to 5–34 percent. There was also a tendency to reduce the burden of taxation on low-income groups through an increase in the personal exemption level, while the level of income (measured in multiples of per capita GDP) at which the highest marginal tax rate was applied fell by half. Although the reforms led to a small reduction in the share of the income tax in total revenue (see chart), this was consistent with the growing emphasis on consumption taxes as the mainstay of government revenue.

• ***Corporate taxes.*** Here too, simplicity and neutrality, as well as equity (through attempts to reduce evasion), were important objectives. Between 1986 and 1992, the rate dispersion of the corporate income tax was reduced and tax rates were scaled back from a maximum of 42 percent to 35 percent. Greater simplicity was achieved as most countries began to treat capital gains as ordinary income. Withholding taxes on foreign remittances fell, thereby bringing closer the domestic and foreign components of corporate taxation. A law requiring a minimum contribution, based on gross assets, to the income tax was enacted in a few countries to bolster revenue—Argentina (now abolishing the law), Ecuador, Mexico, and Peru—while other countries continued with taxes on net worth and the like. The reduction of tax evasion was pursued by rapidly computerizing collection procedures and the processing of taxpayer information, facilitating tax payments through banks, auditing selected returns, and setting up large taxpayer units.

• ***Consumption taxes.*** The value-added tax (VAT) was an important part of the reform effort; between the early 1980s and 1994, the number of countries with a VAT doubled from 10 to 20. In the early 1980s, some countries had either a rudimentary VAT up to the manufacturing-importing stage, or a production-type VAT that disallowed credit for capital goods purchases. In the second half of the decade, these countries began to reform their VATs, by reducing the number of rates (Bolivia, Chile, Colombia, and Mexico); expanding the base by reducing exemptions and raising coverage, particularly of services (Argentina, Bolivia, Chile, Colombia, and Mexico); converting to consumption-type VATs (Argentina, Chile, Colombia, and Mexico); and improving tax administration. Countries that achieved large increases in their tax-to-GDP ratios, such as Argentina, Bolivia, and Colombia, often did so through the VAT. As VAT revenue rose, countries relied less on excises, taxing only a few items such as beverages, tobacco, petroleum products, and automobiles instead of a broad range of goods and services.

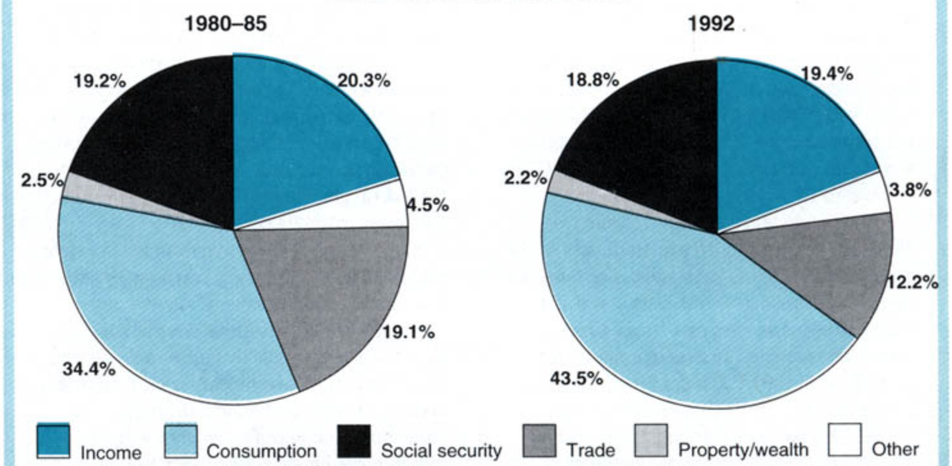
• ***Taxes on international trade.*** All of the major countries in the region have basically done away with export duties, which were an important source of tax revenue a decade earlier, and most have reformed import tariffs. The dispersion of tariff rates was reduced and tariff levels fell significantly. Tariff reform was carefully sequenced, with some countries speeding up the reform compared with original plans (Colombia), some introducing a single tariff rate (Chile with 11 percent), and some even considering the elimination of import tariffs (see "The Case for Low Uniform Tariffs" by Arvind Subramanian, in *Finance & Development,* June 1994).

A number of countries that carried out tax reform saw their tax revenue-to-GDP ratios rise by 2 to 5 percent of GDP at the central government level between 1980 and 1993. In other countries, however, tax revenue as a share of GDP fell, reflecting in some cases the effects of deliberate policy decisions—for example, promoting private savings or tariff reform (Chile and Mexico)—and in others, the effects of macroeconomic problems (Peru). The composition of tax revenue also shifted. On average, the share of consumption taxes in total tax revenue rose sharply from 34.4 percent in 1980–85, to 43.5 percent in 1992 (see chart). This shift was mainly at the expense of trade taxes, reflecting the growing emphasis on trade liberalization.

The experience of Latin American countries suggests a common philosophy on tax reform. Nevertheless, there were perceptible differences. Neutrality of the tax system was a stated objective in some countries; in others, income taxes were used for the express purpose of encouraging savings and investment. Colombia and Mexico, for example, focused to a far greater extent on income taxes than did Argentina or Bolivia, which concentrated on the VAT. In Chile, attention was paid

Tax reform in Latin America: before and after

Shares in overall tax revenue



Source: IMF, *Government Finance Statistics Yearbook.*
Note: Countries included are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Uruguay, and Venezuela. Figures for 1980–85 are for selected years.

to both areas. Differences also appeared as economies matured at different rates. Those that developed faster became more concerned with equity, international compatibility, and modernization of the tax administration.

Next steps

Important tasks remain despite the sweeping reforms that have taken place. Most important, tax policy should continue to serve as a key instrument to further the economic reform agenda which includes, inter alia, providing an attractive investment climate, maintaining competitiveness, and raising domestic savings. Governments can further these objectives by reducing the efficiency cost of taxation and by reforming the tax system to provide an appropriate economic environment to the private sector. For example, tax reform can help to reduce the "wedge" added to business costs by indirect, trade, and payroll taxes. This has been done in Argentina—to partially offset the real appreciation of the exchange rate—where the government has pushed hard to reduce both federal and local government taxes that have an impact on business costs.

Even among reforming countries, inefficient or inadequate features of the tax system remain to be addressed. Countries will have to watch that inefficient taxes—such as levies on financial transactions and import surcharges, for example, that are imposed for the sole purpose of generating revenue in a fiscal crisis—do not creep back into the system. A number of Latin American countries are moving rapidly toward developed country status. Property and agriculture are two areas that are inadequately taxed; they cannot go untaxed for too long if tax systems in Latin America are to become fully comparable to those of the developed countries.

Environmental concerns are becoming increasingly important in Latin America. While considerable attention has been given to sustainable forestry (see "Sustainable Forestry: Can it Compete?" by Nalin Kishor and Luis Constantino, *Finance & Development,* December 1994), roughly 80 percent of Latin America's population is urbanized, and issues such as air pollution, inadequate sewage treatment, and lack of access to clean water are far more serious. Latin American countries should consider how their tax systems can be shaped to provide incentives to reduce environmental degradation. So-called ecotaxes (carbon taxes, taxes on industrial waste, etc.) should be considered—not so Latin American countries can follow in the footsteps of industrial countries, but so they can harness the double dividend of ecological taxes, which generate revenue while encouraging firms to clean up the environment.

Fiscal relations between federal and local governments and the determination of rules for tax assignment and revenue-sharing continue to need resolution in many countries. This is a major issue, for example, in Argentina, Brazil, and Colombia, where prevailing revenue-sharing arrangements and provincial tax structures are under examination. Decentralization needs to proceed not only for taxes but also for government expenditures if sustainable fiscal positions are to be maintained.

Finally, the Latin American experience has highlighted the importance of combining reform of the tax structure with a strong effort to improve tax administration. Imaginative measures have been taken in many countries, but in others, improvements have lagged behind. Business closures and legislation making evasion-related behavior a criminal act have been very effective in curbing evasion in a number of countries. Personnel reform and consolidation of tax and customs administration are also important because they make it possible to bring better-qualified officials into the tax service and to realize efficiency gains that leave tax inspectors more time to pursue serious cases of evasion. Although it is often a slow process, strengthening the tax administration is a must if governments are to reap the full benefits of tax policy reform. F&D

Argentina: A Radical Approach to Tax Reform

Argentina's tax reform has been one of the most revolutionary in Latin America. During the 1980s, successive economic crises and the lack of political resolve to enforce tax laws progressively eroded the tax structure and administration. Revenue reached only 11 percent of GDP in 1989, compared with 14 percent in 1985.

Beginning in 1990, the Government implemented radical changes in both the tax system and administration. The strategy was to improve the quality as well as the quantity of revenue mobilization by eliminating taxes that were easy to collect but growth-inhibiting, such as export taxes and taxes on financial transactions, and to concentrate instead on a few major taxes, such as the VAT, and on overhauling the tax administration. This strategy was highly successful, and the ratio of tax revenue to GDP climbed to 16 percent in 1993.

For example, Argentina's VAT went from being one of the least revenue-productive in the world to being highly productive. The base of the tax was broadened and evasion was cut sharply. Businesses failing to make timely or correct declarations are closed promptly for three days. In 1990, 700 taxpayers were penalized in this way. In 1992, the number rose to 12,000. This has had a strong impact on VAT compliance. New invoicing requirements and controls were introduced, and expanded information on VAT taxpayers helped improve collection of other taxes by permitting tax inspectors to cross-reference tax data.

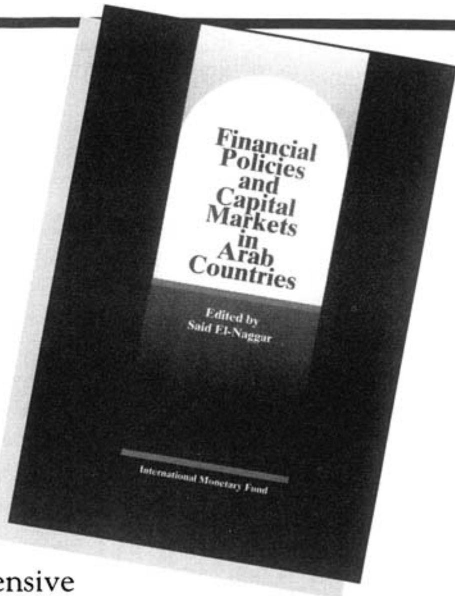
Since the second half of 1992, the Government has focused increasingly on using the tax system to improve enterprise competitiveness. Foreign trade taxes have been lowered, and other taxes such as the federal stamp tax and the tax on companies' gross assets have been or are scheduled to be abolished. In the drive to improve the cost structure of the economy as a whole, the federal government is also encouraging provincial governments to reduce or eliminate local taxes that impinge directly on enterprise costs. As part of a 1993 federal-provincial agreement, provincial governments have begun to eliminate a number of local taxes, including the turnover tax, while, for its part, the federal government has begun to reduce employers' payroll taxes.

The concurrent effort to reform the tax structure and the tax administration undoubtedly accounts for the phenomenal success of the Argentine tax reform. Moreover, the tax reform was implemented quickly and was closely integrated with the Government's overall macroeconomic and structural reform strategy. Argentina's successful experience with tax reform holds important lessons for other countries.

THE INTERNATIONAL MONETARY FUND PRESENTS

Financial Policies and Capital Markets in Arab Countries

Edited by Said El-Naggar



Recent developments at both the international and national level—including the globalization of financial markets and the wave of liberalization, deregulation, and privatization—have pushed the issue of financial markets to the forefront of the development agenda. This book comprises the proceedings of a seminar held in Abu Dhabi in January 1994. It provides a comprehensive analysis of various aspects of capital markets in general and particularly in the Arab countries.

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Publications From The World Bank

Financing Private Power in Latin America and the Caribbean

SAUD SIDDIQUE

THE ELECTRIC power sector in Latin America and the Caribbean is being opened to competition and private ownership in response to the growing demand for electric power in the region. Meeting the capital needs of the sector will require development of local capital markets and support from multilaterals to mobilize long-term debt from commercial banks as well as institutional investors.

The electric power needs of the Latin American and Caribbean countries are large and growing fast. It has been estimated that these countries will require additional generating capacity of approximately 70,000 megawatts between 1994 and 2000 (see chart), as well as thousands of miles of new transmission and distribution lines, or an annual investment for the electric power sector of $20–25 billion through the end of the decade. This is expected to lead to a substantial increase in per capita consumption of electricity in the region. The region's electric sector, currently financially weak and unable to meet the projected demand growth, is being reorganized under improved regulatory structures designed to encourage a greater role for the private sector in generating and delivering electric power and to ensure that adequate investments are made to meet projected demand.

An important structural change that is occurring in many countries is the separation of generation from the transmission and distribution of power, and the development of the IPP (independent power producer) industry. An IPP is an electric generation company owned and operated independently of the local utility or electric distribution company. IPPs generally sell their entire output to integrated utilities (and in some cases directly to industrial users) under long-term contracts. Since IPPs operate under a competitive bidding system and have a strong financial incentive to operate reliably both in their power sales agreement with the utility and in agreements with lenders, the development of IPPs should greatly contribute to making the electric power sector competitive and cost efficient.

The improved economic environment and the introduction of power sector reforms have made the sector more attractive to both domestic and foreign private investors. International commercial banks and private institutional investors are showing increasing interest in providing long-term financing to power projects in the region. While foreign sources of financing, including funding from multilaterals and export credit agencies, are essential to meet the power sector's large capital needs, the limits to accessing such funds underscore the urgency of developing local capital markets as an important element in satisfying the power sector's demand for capital.

Traditional power sector

Until 1950, the power sector in most Latin American and Caribbean countries was privately owned and served only the major population centers. During the 1950s and 1960s, there was a great wave of nationalization as electric utilities began to be viewed as natural monopolies that had to be controlled by government to prevent monopoly profits and ensure that capacity was available when and where needed to promote economic and social development. The nationalized utilities undertook massive investment programs to expand capacity and extend service coverage, with impressive success. During 1971–89, electricity service coverage in Latin America and the Caribbean increased from 42 percent of the population to 70 percent.

However, electricity was produced and delivered at a high cost, which ultimately proved to be unsustainable. For political reasons, major projects were built without full consideration of their economic costs and benefits. For example, rural electrification was extended to areas where it was not financially viable, electricity tariffs were set below long-run marginal costs, and many utilities were used to generate employment (without considering the implications for efficiency). Poor management of the sector was also reflected in neglected maintenance, high transmission and distribution losses, brownouts, and electricity rationing even in countries that enjoyed excess generating capacity. By the late 1980s,

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the electricity sector, like many other state-controlled sectors, was in a weak financial position, with a heavy foreign debt burden and large operating deficits.

Sector reforms

The dramatic economic and political changes in many Latin American and Caribbean countries included a new economic policy framework, which emphasized better fiscal management and a smaller state role in the economy. Recognizing that the growing demand for electricity could act as a bottleneck to economic growth, a number of governments decided to open up the industry to the private sector. This decision reflected the need to assure adequate resource flows to the industry and to induce greater efficiency by opening it up to competition, modern management techniques, and the profit motive.

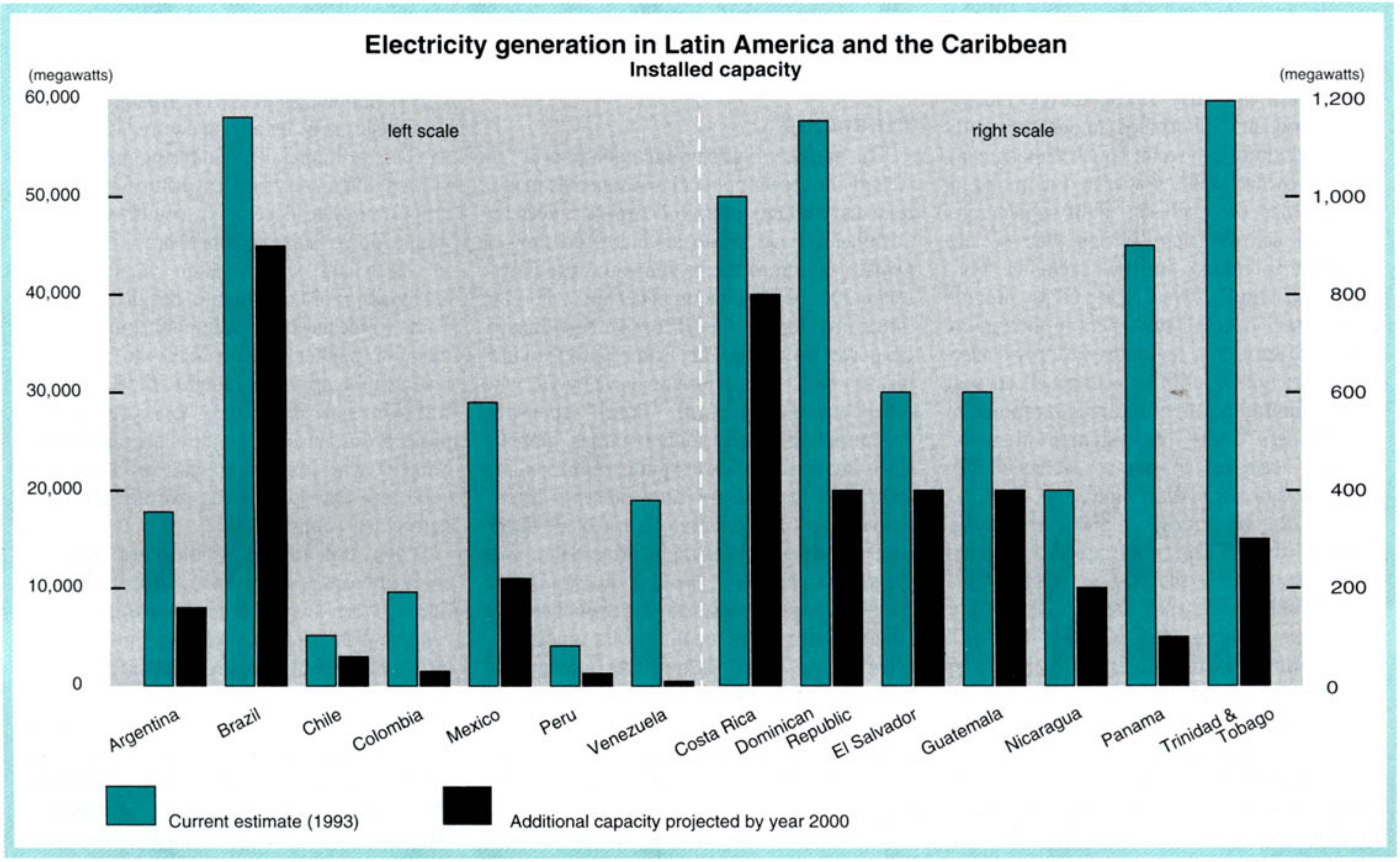
Chile was the region's forerunner in introducing electric power sector reforms. Chile's privatization program during the early 1980s involved the reorganization of the state power utilities and the sale of their assets to private investors to form a system of competing generation and distribution companies, with concomitant changes in pricing and management policies. Chile has sold most government-owned power plants, and only 15 percent of generating capacity remains in public hands. The legal framework of the sector allows for the free inflow of new private capital for capacity expansion.

In Chile, large customers, which are not subject to regulated prices, may negotiate prices freely with distribution and generation companies. All other customers are subject to regulated tariffs. In such instances, a generation company can sell power to a distributor at a price up to the maximum tariff, which is determined on the basis of the estimated long-run marginal cost of producing electricity. The distribution companies are allowed to recover their costs of operation plus a return on investment, but are subject to a maximum tariff to the final customer, which is determined by the regulatory authority based on certain efficiency guidelines. This allows for greater rates of return for distribution companies that are more efficient than the average.

In Argentina, privatization of power utilities started in 1990; more than half of installed capacity has been privatized and there are plans to privatize the remainder. The new electric regulatory structure created in 1992 allows generation, transmission, and distribution to be carried out by any private company. Under the law, generating companies are not regulated as to price (which is determined by the forces of supply and demand) but distributors are regulated based on an assumed fixed spread over the cost of power. Generators are utilized in inverse order of marginal cost (lowest cost first). The marginal cost of the last generator used determines the spot market price for electricity. The price-based tariff structure for the distributor provides an incentive for efficient delivery. As in the Chilean system, the costs paid for the marginal units of power (the most expensive of the private producers) signal the market prospects for investment.

Several other countries have introduced or are close to introducing new electric power laws, including Bolivia, Colombia, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Jamaica, Peru, Trinidad and Tobago, and Venezuela. In Mexico, landmark legislation was passed in 1993 opening the electric power industry to private sources for the first time. Private generators are now allowed to produce electricity for sale to CFE, Mexico's state-owned utility, which will continue to own and operate the national transmission and distribution lines and determine tariffs. In Brazil, several electric utilities are slated to be privatized, and recent legislation allows private firms to build new power plants.

It is still too early to measure the full



complement of benefits of the reforms being implemented. In some countries where transmission and distribution operations, commonly considered to be natural monopolies, are still under government control, the lack of transparency governing access to markets through the transmission system has inhibited private investments in generation. However, there are indications in Argentina and Chile, where reforms are most advanced, that the pricing system and the competitive and free enterprise framework are providing adequate incentives for investments in generation. With increasing competition, downward pressure on electricity rates is expected. After a generally upward trend, Chile's electricity rates have stabilized since 1990 and have even declined slightly. Rates in Argentina have been increasing since privatization to reflect economic cost-of-service, but are expected to stabilize and possibly decline as a result of more competition in the sector. In Argentina and Chile, the reforms are fostering financially self-sustaining power companies with improved overall reliability of service.

Development of IPPs

With the separation of generation from transmission and distribution of power, private power projects in Latin America and the Caribbean are being structured as IPPs. A well-developed model exists for private financing and ownership of IPPs in the United States, where IPPs have become major sources of incremental electricity generation. Until the early 1970s, the US electric power industry flourished under the traditional regulatory system. Under this system, investor-owned utilities operated as monopolies and had the exclusive right to generate, buy, and sell electricity within their service territory. In return for this exclusive franchise, each utility was expected to provide reliable service to all customers in the region. Although subject to regulatory approval, electricity pricing by utilities was based on cost plus a minimum rate of return guaranteed to shareholders. Under this system, utilities had limited incentives to pursue technical efficiency and financial discipline.

After the oil shocks of the early 1970s, however, the US Congress passed legislation aimed at reducing the cost of energy. This legislation, known as the Public Utility Regulatory Policies Act of 1978 (PURPA), reduced many barriers to entry for IPPs and introduced a competitive bidding system for these facilities to generate and sell electricity to utilities. Traditionally, it was believed that only a large vertically integrated utility could achieve the economies of scale necessary to generate power economically. However, technological advances made it possible to generate electricity economically at smaller facilities. PURPA required utilities to pay up to their avoided cost (the incremental costs avoided due to not having to build, finance, and fuel new capacity or power facilities) when they purchased electricity from the IPPs. PURPA provided a major impetus to the growth of IPPs, which today account for more than half of the new generation capacity in the United States.

When compared to the traditional integrated utility model, IPPs provide a number of important advantages. The project structure provides a powerful incentive to ensure reliability. Performance-based contracts, in which profits are directly related to plant availability (with severe financial penalties if commitments are not met), give IPPs strong incentives to operate plants at optimal standards. Utilities are under less pressure for reliable and efficient operation because they are generally able to pass on the costs of their mistakes to customers unless the regulatory authorities object. Since contracts are market-tested through competition, IPPs are cost-efficient. Each IPP typically goes through four independent engineering evaluations: those of the developer, the construction-lender, the equity participant, and long-term creditors. This review is generally more comprehensive than for an integrated utility company. There are also diversification benefits to having a number of small producers instead of one large plant.

Financing

The market-oriented regulatory reforms, as well as the recent political and macroeconomic reforms throughout Latin America and the Caribbean, have led to an increased flow of private capital to the region—and the power sector has been a major beneficiary. Foreign direct investors in the IPPs have been mostly US power companies, and some European utilities as well. These foreign developers, who often team up with local sponsors, are pursuing project opportunities globally since markets in developing countries are growing much faster and offering higher returns than more mature markets in developed countries. For example, projected annual growth in electricity demand in the United States through the year 2000 is only about 1.9 percent, with investment returns amounting generally to 8–12 percent per annum. In contrast, the average annual growth rate for Latin America and the Caribbean for the same period is about 5.5 percent with projected investment returns of 20–25 percent per annum or more.

Traditionally, an electric utility attracts funds on the strength of its balance sheet, established customer base, financial track record, and tangible assets. Loans are typically backed by the full faith and credit of the utility. As a new "company," with no credit history, IPPs are financed according to the classic "nonrecourse" or "limited recourse" project-financing model. Under this model, lenders and investors rely primarily on project revenues to satisfy debt service and provide equity returns.

A major difference between traditional and IPP project finance is that the latter has many more contractual arrangements that attempt to mitigate market risk and regulate as many aspects of the project as possible. IPP financing is "nonrecourse" or "limited recourse" because lenders agree to give up or significantly limit their recourse to IPP assets, other than those of the project, in exchange for close contractual control over the elements that affect the "riskiness" of the project's cash flow. An IPP is financeable to the extent that its construction, equipment, fuel, operating and maintenance contracts, and power purchase agreements (which can be between 15 and 20 years or longer) are of sufficient credit quality. IPPs are highly leveraged to provide attractive returns to equity investors (since the cost of debt is cheaper than the cost of equity). Typically, long-term debt accounts for 75 percent to 80 percent of the total financing requirement (electric power utilities are less leveraged; debt comprises around 60 percent of the financial structure).

IPP financings in Latin America and the Caribbean are being structured according to the traditional IPP financing model with certain differences aimed at addressing project risks unique to developing countries. For example, power sales contracts are denominated in US dollars or indexed to changes in the exchange rate to mitigate devaluation risk. Some projects have required upfront payments to offshore escrow accounts, providing reserves for up to six months of debt service. Investors have been most comfortable with projects that have power purchase agreements directly with multinationals, or with local exporters that have access to offshore hard-currency accounts.

When state-owned utilities are involved, analyzing credit risk is more difficult. In addition to their weak financial condition, the concern has been that political pressure on tariff setting could jeopardize the utility's ability to service its obligations. In such instances, lenders and investors have asked for performance guarantees from the government. Of course, this practice conflicts with government objectives to reduce sovereign guarantees. However, until a state-owned utility has estab-

lished a track record of financial viability and operating independence, it will be difficult to attract investors without government support. Like most infrastructure or project finance transactions in developing countries, project documents have provided for international arbitration for resolution of disputes. Similarly, projects have also required insurance for political violence, expropriation, and inconvertibility from national and multilateral institutions including the Overseas Private Investment Corporation (OPIC) and the Multilateral Investment Guarantee Agency (MIGA).

Funding alternatives

In addition to direct investments by foreign and local developers and sponsors, there is a trend toward providing equity financing to IPPs through international private equity funds. Institutional investors, and some international utility companies, attracted by high returns and the opportunity to diversify risk, are considering investing in equity funds as an alternative to direct investments. The International Finance Corporation (IFC) recently helped establish the first specialized fund designed to mobilize risk capital for investments in private power projects in Latin America and the Caribbean. The fund's manager (a private firm) is required to present all project investment proposals for approval to an investment committee consisting of the fund's four lead investors, thereby helping to assure sound investment and management decisions.

The successful development of IPP projects entails adequate mobilization of long-term debt. International commercial banks are being very selective in making long-term loans to IPP projects in the region, often requiring participation from multilaterals and export credit agencies through cofinancing loans. Projects that are not able to attract commercial lenders have stalled. As a result, meeting the financing needs of the private power sector in the region will require developing local sources of long-term capital.

With the exception of Chile, which pioneered the development of private pension funds in Latin America, local long-term sources of credit are practically nonexistent in the region. This may change as several countries in the region are encouraging the development of private pension systems (e.g., Argentina and Peru). However, finding local long-term financing for power projects remains difficult. An appropriate regulatory framework is also needed to encourage the growth of institutional investors such as insurance companies. Though bound to develop slowly, contractual savings institutions such as pension funds and insurance companies can eventually become an important source of long-term funds at competitive rates.

Role of multilaterals

Multilateral institutions have played an important role, both through policy advice and structural adjustment loans, in introducing market-oriented systems and open regulatory structures in the region. Where the reform process has been slow, because of the significant economic and social costs involved in restructuring government-held monopolies, eliminating cross-subsidies, and rationalizing labor laws, policy-based loans from the multilaterals can continue to play an important role in accelerating the transition period. Direct lending and guarantees by multilaterals will continue to be important in mobilizing additional capital from the commercial banks as well as institutional investors. Multilateral support will particularly be needed for large hydropower projects because of the higher project risks and irregularity of the large investment requirements. IFC played an important catalytic role in mobilizing risk capital through private equity funds for the sector. A similar role can be played by multilaterals in attracting debt funds from international institutional investors through innovative capital market vehicles. ■

The Growth of Latin America's Equity Markets

GRAEME LITTLER

THE COLLAPSE of the Mexican peso in December 1994, triggered by social unrest in Chiapas and a massive outflow of capital, caused Mexico's stock market to plummet: IFC's share price index for Mexico lost 34 percent in US dollar terms in December, to end the year down 39.7 percent. Stock markets also dropped in Argentina (down 13.4 percent in December and 26 percent for 1994) and Venezuela (down 16.4 percent for 1994). As a result, IFC's regional index for Latin America, which covers seven stock markets, fell 10.9 percent in US dollar terms in 1994, after gaining 56.6 percent in 1993 (Chart 1).

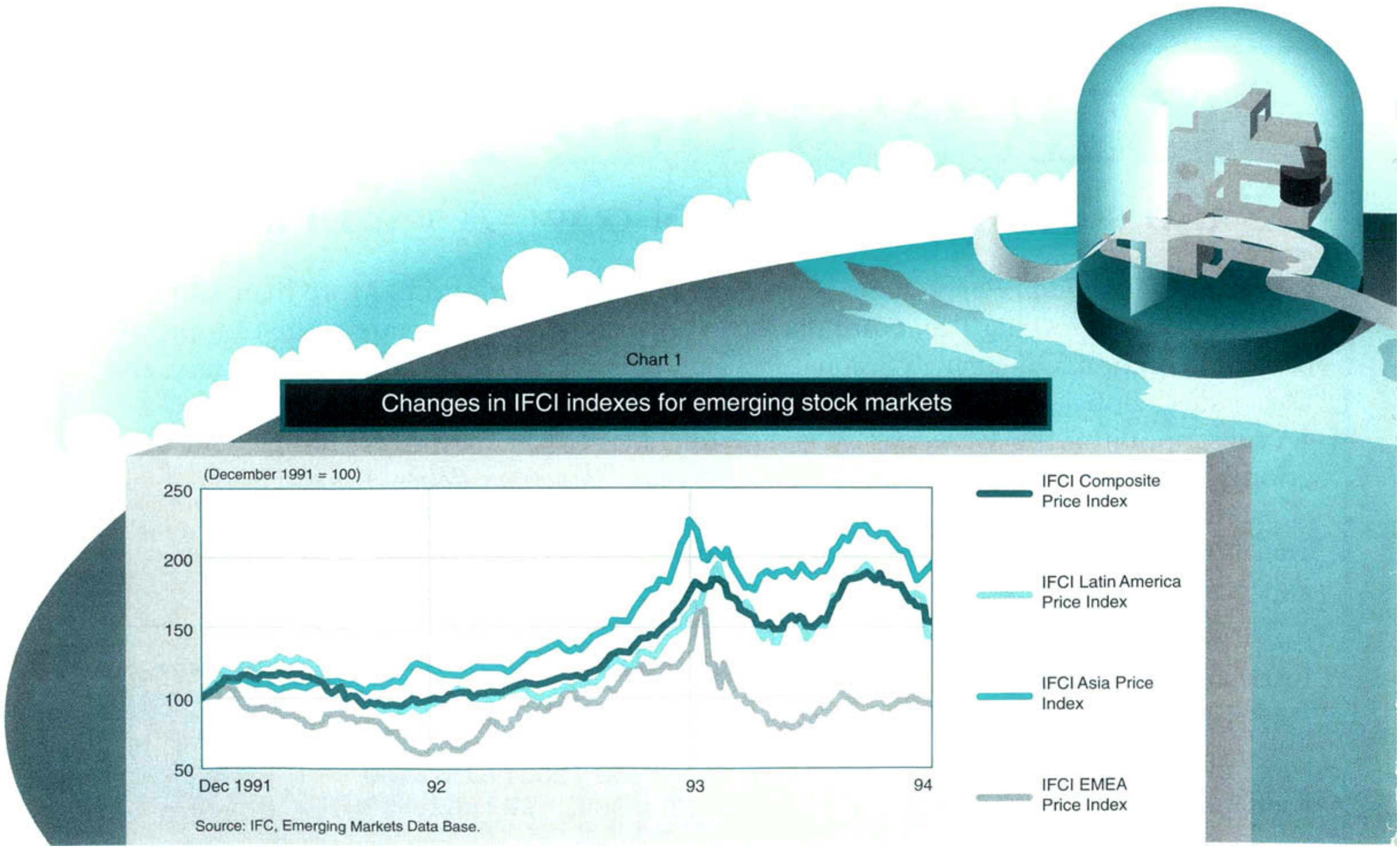
While the overall index for Latin America performed poorly in 1994, several markets performed very well. IFC's index for Brazil rose 64.9 percent. Peru's stock market gained 47.5 percent, Chile's 42.3 percent, Colombia's 25.9 percent.

By way of comparison, markets in industrial countries ended mixed for the year, with the Morgan Stanley Capital International World Index showing a 4 percent gain. Finland ended sharply higher, up 51.3 percent, followed by Norway (up 22.1 percent) and Japan (up 20.7 percent). The US Standard & Poor's 500 index lost 2 percent, while the *Financial Times'* FT-SE 100 dropped 5.1 percent for the year.

Graeme Littler,
from Canada, is editor of the Monthly Update on Emerging Markets, *published by IFC's Emerging Markets Data Base Unit.*

Chart 1

Changes in IFCI indexes for emerging stock markets



Source: IFC, Emerging Markets Data Base.

Although the picture presented by Latin America's stock markets was mixed in 1994, it was still brighter than for other developing regions. After soaring in 1993, the IFC Investable Composite Index (IFCI) for stocks in developing countries dropped 13.8 percent in US dollar terms in 1994. The IFC regional index for Asia was down 14.6 percent; for Europe, the Middle East, and Africa (EMEA) 30 percent. Poland's market, the best performer of 1993, with share prices going up 717.9 percent, dropped 42.6 percent in 1994; China's plunged 49.2 percent, Turkey's 42.7 percent.

Index performance is not the only measure of equity market development. Other measures include market capitalization (the value of listed shares) and the volume of shares traded—both of which grew substantially in Latin America in 1994 (see table). This "deepening" of the region's markets bodes well for the long term.

The capitalization of the seven Latin American stock markets covered by IFC's indexes rose sharply, by 28 percent, between December 1993 and November 1994, from $411.1 billion to $526.4 billion (Chart 2). Capitalization in Brazil nearly doubled, from $99.4 billion to $190.6 billion; capitalization also surged in Colombia (up 60.7 percent to $14.8 billion), Peru (up 63.5 percent to $8.4 billion), and Chile (up 59.6 percent to $71.2 billion). However, capitalization of the region's largest stock market—Mexico—dropped slightly, by 2.3 percent, to $196.1 billion.

The growth of share turnover in Latin America's markets was even more impressive (Chart 3). The volume of shares traded skyrocketed to $180.6 billion in the first 11 months of 1994, from $99.1 billion and $82.1 billion for the same periods in 1993 and 1992. The biggest gains were in Colombia (up 206.6 percent to $2 billion), Brazil (up 142.9 percent to $81.6 billion), Peru (up 101.9 percent to $2.8 billion), and Chile (up 91.6 percent to $4.7 billion). Venezuela was the only Latin American country to register lower turnover (down 35.9 percent, to $1.1 billion).

How will emerging stock markets perform in 1995? Much hinges on how investors perceive domestic policies in the countries concerned and how US interest rates move. If rates in the United States continue to go up, interest rates in a number of emerging markets will follow. This will encourage capital to flow from equities to interest-bearing securities. However, many analysts are betting that emerging markets will remain an important element in a diversified investment strategy, given the deepening of these markets in 1994 and their strength in recent years. F&D

Through its Emerging Markets Data Base, the International Finance Corporation (IFC) monitors the performance of 1,600 stocks in 26 developing countries. Based on a sample of stocks in each market, IFC calculates weekly and monthly indexes of stock market performance that are consistent across national boundaries; the regional index for Latin America covers stocks in Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. IFC's Investable Indexes *take into account restrictions on foreign investors. Emerging Markets Data Base products are available in both print and electronic form. Call (202) 473-9520 for more information, or write to EMDB, 1850 I Street, NW, Room I-3175, Washington, DC 20433.*

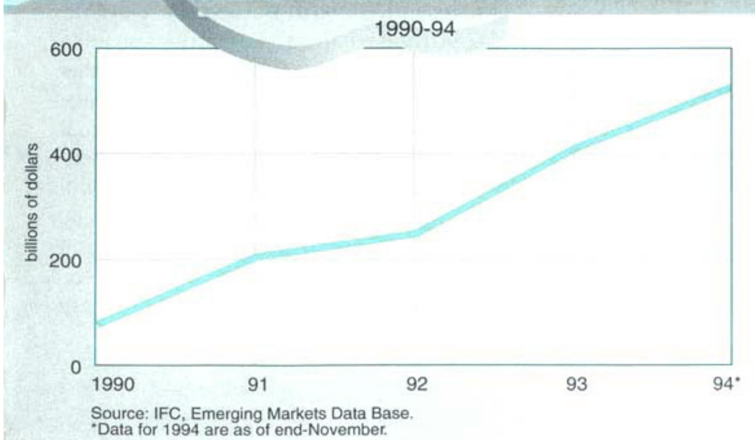
Profile of Latin American stock markets
at November 30, 1994

	Number of companies	Market capitalization (billion dollars)	Value of traded shares (billion dollars)
Argentina	168	41.6	9.9
Brazil	542	190.6	81.6
Chile	304	71.2	4.7
Colombia	90	14.8	2.0
Mexico	198	196.1	78.5
Peru	215	8.4	2.8
Venezuela	93	3.7	1.1
Total	**1,610**	**526.4**	**180.6**

Source: IFC, Emerging Markets Data Base.

Chart 2

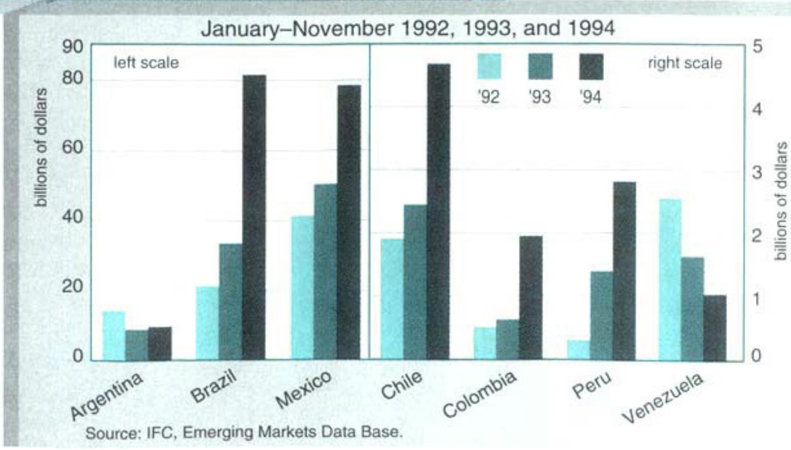
Market capitalization in Latin America



Source: IFC, Emerging Markets Data Base.
*Data for 1994 are as of end-November.

Chart 3

Volume of shares traded in Latin America



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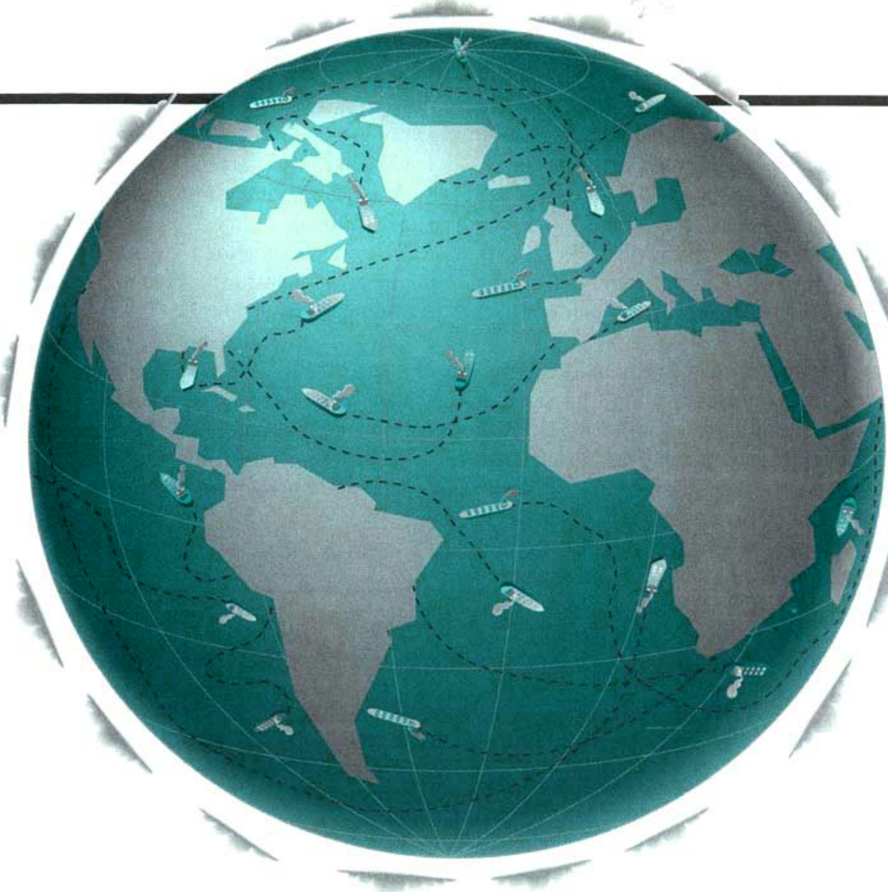

The Uruguay Round: A Boon for the World Economy

RICHARD HARMSEN

ALTHOUGH it is too early to tell what the impact of the Uruguay Round agreement will be, the outlook is positive. Developing countries stand to gain more than they lose, and world income could grow substantially.

The Uruguay Round multilateral trade agreement, which took effect on January 1, 1995, after more than seven years of intensive negotiations, is the most comprehensive pact since the 1947 General Agreement on Tariffs and Trade (GATT). The Uruguay Round accord covers trade in goods as well as areas not covered under GATT, such as trade in services, trade-related intellectual property rights, and trade-related investment measures. It strengthens international trade rules and provides for the creation of the World Trade Organization (WTO), which will monitor the trade relations of the more than 120 countries that signed the agreement.

The agreement, whose aim is to create a more open international trading environment, has far-reaching implications for the world economy and should lead to new opportunities for developing countries. Although some may lose advantages afforded by current trading arrangements, most should benefit substantially from a more competitive environment.

Liberalizing trade in goods

Under the agreement, both the industrial and the developing countries have made significant commitments to open their markets by reducing import tariffs and increasing the number of "bound" tariffs that cannot be raised above specified levels without concessions in other areas. The agreement also covers nontariff barriers.

Industrial products. According to IMF and GATT data, industrial countries agreed to reduce import-weighted tariffs on industrial products from the currently applied average rate of 5 percent to 3.6 percent in five equal steps, starting in 1995. The largest proportionate cuts range from 60 to 70 percent and will affect tariffs on wood and wood products, metals, nonelectric machinery, and mineral products. In absolute terms, cuts will be modest because the average tariff on these

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products—3.8 percent—is already low, but at least 50 percent of the products in these less-protected sectors will enter industrial countries duty free.

Sensitive sectors now protected by higher tariffs in industrial countries—for example, textiles, clothing, transport equipment, leather, rubber, footwear, and travel products—are, in general, subject to smaller proportionate cuts. In absolute terms, however, many of these cuts will be large, especially in the textiles and clothing sector, where average import-weighted tariffs will drop from 15.5 percent to 12.1 percent. But it is expected that more than 25 percent of textile and clothing imports will still be subject to tariffs of more than 15 percent.

Most of the developing countries' import tariffs were not bound under GATT. This undermined the security of market access for foreign producers. Under the Uruguay Round agreement, many developing countries will increase the number of imported industrial products subject to bindings; some have accepted bound tariffs on all imports. However, in most countries (India is an exception), current tariffs are below the levels set out under the agreement, so actual reductions will be negligible. All of the transition economies participating in the Uruguay Round, except Romania, agreed to reduce tariffs on imported industrial products and to increase the number of tariffs subject to bindings. Reductions will range from 15 to 37 percent, depending on the country.

Agricultural products. The industrial countries have made practically all categories of agricultural products now covered by tariffs subject to bindings and will reduce current tariff bindings in six years by 36 percent on average, using 1986–88 tariffs as a base; quantitative restrictions have been converted into tariffs that will be reduced by the same percentage. Actual reductions, however, are expected to be small, mainly because tariffs in the base period were historically high, and, in many cases, new bound tariffs are well above current rates. They also seem to be higher than the tariff equivalents of the quantitative restrictions being eliminated.

More important, therefore, is the industrial countries' commitment to reduce, from a 1986–90 base, the value of mainly direct export subsidies by 36 percent, and the quantity of subsidized exports by 21 percent. Selected domestic supports will be reduced by 20 percent over a six-year period. The reduction of subsidies may be seen as an important first step toward liberalization of world trade in agricultural products; the cost of current protection will drop, and opportunities will open up for efficient producers in industrial, developing, and transition economies.

For developing countries, reductions of tariffs, selected domestic supports, and export subsidies have been set at two thirds of the level for industrial countries. The implementation period is ten years. Developing countries are exempted from the tariffication commitment on certain staple products; the poorest countries are exempted from all reductions. Practically all tariffs for agricultural products will be bound.

Nontariff barriers. The Uruguay Round may have an even greater impact on nontariff barriers than on tariffs. While developing countries tend to rely on import tariffs and formal quantitative restrictions as instruments of trade policy, rather than on measures such as voluntary export restraints, the industrial countries have increasingly relied on nontariff measures since the late 1960s, partly in reaction to tariff reductions resulting from several rounds of multilateral trade negotiations. In 1993, on average, 14 percent of the goods imported by the European Union, Japan, and the United States were covered by core nontariff measures, mainly quantitative restrictions, "voluntary" export restraints, and antidumping measures. Less transparent than tariffs, nontariff measures offer more room for discretionary action by governments and create considerable uncertainty. The high cost of import restrictions is usually borne by domestic consumers. Under the Uruguay Round agreement, the most harmful practices—voluntary export restraints, orderly marketing arrangements, and similar measures—will be banned. Existing arrangements will be phased out in four to five years at most.

Phasing out the MFA. Another important achievement of the Round is the 10-year phase-out of bilaterally negotiated import quotas on textiles and clothing under the Multifiber Arrangement (MFA), which came into existence in 1974 and was originally slated to exist for only four years. A large share of world trade in textiles and clothing had been subject to a special regime under arrangements similar to the MFA since 1961. During the phase-out of the MFA, products subject to MFA quotas will be gradually integrated into GATT, in several phases. Growth rates for quotas not integrated into GATT will be increased over the phase-out. The impact of the phase-out is expected to be limited in the first years, however, because the schedule is heavily weighted toward the end of the implementation period, and because importing countries have considerable leeway in choosing which products to integrate into GATT first. The progressive widening of market access will nevertheless gradually strengthen the position of efficient producers and reduce the high cost of import restrictions.

Guidelines in new areas

The Uruguay Round agreement marks the first attempt to set rules for international trade in services and intellectual property rights, as well as for trade-related investment measures.

Trade in services. The inclusion of services in the agreement reflects their growing weight in the world economy. During 1982–92, world exports of services grew annually by an average rate of 9.5 percent, merchandise exports by only 7.1 percent. The General Agreement on Trade in Services (GATS) introduces a number of general obligations in the services area, in particular the principle of most-favored-nation treatment (according the best terms offered to any nation to all nations) and transparency requirements with respect to national laws and regulations. Provisions on market access and national treatment (offering foreign companies the same treatment as domestic ones) are included in the schedules submitted by participating countries. Although the Uruguay Round did not lead to wider market access as hoped, because agreement was not reached on a number of areas, including financial services, maritime transport, and audiovisual services, GATS provides a basis for future negotiations.

Intellectual property rights. The importance of intellectual property rights in international trade is also increasing—in the Group of Seven countries, total intellectual property income from foreign sources grew from $7.1 billion in 1980 to $30 billion in 1991. The agreement on Trade-Related Intellectual Property Rights (TRIPs) establishes standards for the protection of intellectual property rights (including patents, industrial designs, trademarks, geographic indications, and copyrights) and introduces the principles of national and most-favored-nation treatment in this area. The agreement, which has an implementation period of 1 year for industrial countries and up to 11 years for developing and transition economies, is expected to boost research and development activity and investment.

Trade-related investment measures. The agreement on trade-related investment measures prohibits certain arrangements that restrict trade, such as local content and trade balancing requirements. The industrial countries have two years after the Uruguay Round agreement takes effect to eliminate such arrangements, the developing countries five to seven years.

Stronger rules

The Uruguay Round agreement clarifies and strengthens international rules in a

number of areas, including dumping and industrial subsidies.

Antidumping measures. Industrial countries have increasingly resorted to antidumping measures as instruments of trade policy. OECD numbers show that, in 1993, 3.7 percent of imports into the European Union, Japan, and the United States were subject to antidumping or countervailing measures, up from 2.4 percent in 1988. Some developing countries—Mexico is one—also increasingly rely on antidumping measures. The original GATT rules and the Antidumping Code concluded at the end of the Tokyo Round in 1979 left the calculation of dumping margins, the determination of injury, investigation procedures, and the duration of antidumping measures largely up to the discretion of individual countries. The Uruguay Round agreement seeks to increase the transparency of antidumping procedures, and introduces new rules. It remains, of course, to be seen whether the new rules will reduce trade protection (see "Antidumping: Unfair Trade or Unfair Remedy?" in this issue).

Industrial subsidies. The agreement provides for important changes in rules on industrial subsidies. It prohibits export subsidies as well as subsidies that are contingent upon the use of domestic over imported goods. Other categories of subsidies, such as production subsidies and supports to cover operating losses of an industry, may be ruled inconsistent with WTO obligations if they are detrimental to other countries. A few subsidies are still allowed under the Uruguay Round agreement, including those that support research activities or disadvantaged regions. Developing countries have longer implementation periods than the industrial countries; those with annual per capita GNP below $1,000 are in general exempted from the obligation to eliminate export subsidies.

Impact on developing countries

There is still uncertainty about the impact of the Uruguay Round agreement on individual developing countries. However, the WTO Secretariat estimates that real world income could increase by $510 billion annually (1990 dollars) by the end of the implementation period, of which some $116 billion would accrue to developing and transition economies. Most developing countries thus stand to gain considerably from trade liberalization. When the agreement is implemented, the average share of trade affected by industrial countries' nontariff barriers (including the MFA) against imports from developing countries will drop from 18 percent to 4.2–5.5 percent, according to a World Bank study by Patrick Low and Alexander J. Yeats, creating important export opportunities. The WTO Secretariat estimates that exports of textiles and clothing from developing countries to OECD countries could increase by more than 80 percent over the phase-out of the MFA.

Countries that are already efficient agricultural exporters will certainly benefit from a liberalized, more market-oriented environment—for example, the Cairns Group (Argentina, Australia, Brazil, Canada, Chile, Colombia, Fiji, Hungary, Indonesia, Malaysia, New Zealand, the Philippines, Thailand, and Uruguay) and sugar producers such as Brazil, Cuba, and the Dominican Republic. Other developing countries with potentially strong agricultural sectors—for example, China, Kenya, Mexico, and South Africa—may also benefit if they implement the structural adjustment measures needed to develop domestic production capacities.

Concern has been voiced, however, about aspects of the Uruguay Round agreement that could hurt developing countries. The most important are the impact of trade liberalization in agriculture on food prices and the erosion of preferential market access.

Food prices. In a 1993 study, Ian Goldin, Odin Knudsen, and Dominique van der Mensbrugghe identified a small group of food-importing developing countries as being adversely affected by the Uruguay Round, because lower subsidies could lead to higher world market prices for agricultural products. Prices for the most protected commodities—in particular, wheat, rice, meat, dairy products, and sugar—could increase by 4–10 percent by the year 2003, according to a study by Antônio S. P. Brandao and William Martin.

In most cases, however, higher prices for food imports are likely to be offset by gains in other areas. For example, some large food importers may gain considerably from lower tariffs on textiles and clothing and the phase-out of the MFA. In addition, estimated price increases do not fully take into account the expected supply responses of efficient producers to the reduction of production subsidies; liberalization of trade in agricultural products could lead to shifts in the geographic structure of supply without large price increases.

Erosion of preferences. Many developing countries enjoy preferential access to markets in the industrial countries under arrangements such as the Generalized System of Preferences, the Caribbean Basin Initiative, and the Lomé Convention. The competitive advantage derived from preferences will decrease with the reduction of most-favored-nation tariffs.

Countries that depend heavily on preferential treatment of exports of industrial products could be seriously affected. The erosion of preferences is likely to have little effect on the vast majority, however, for at least two reasons. First, the major beneficiaries of preferences (in terms of the value of imports) are the more advanced developing countries of Asia and Latin America, which, given their high growth rates, are likely to graduate out of preferential schemes, anyway; these countries are also expected to gain considerably from trade liberalization in the agricultural and textile sectors. Second, the bulk of exports from less advanced developing countries, in particular the African, Caribbean, and Pacific countries, consists of commodities subject to low most-favored-nation tariffs. The value of the preference margins is therefore relatively small. For instance, the unweighted average of preference margins for exports from sub-Saharan African countries to OECD members amounts to only 2.4 percent (calculated on the basis of figures provided in a World Bank-OECD study by Alexander J. Yeats). Furthermore, the Uruguay Round agreement allows industrial countries to preserve current preferential market access for trading partners that could be hurt by the tariffication of quantitative restrictions on agricultural products.

New opportunities. A number of developing countries may suffer losses from increases in prices for food imports and from the erosion of preferential access to industrial countries' markets. However, the Uruguay Round will create opportunities for the growth of production and exports in sectors that are particularly important for developing countries, such as temperate zone agricultural products, and textiles and clothing. For the vast majority of developing countries, the potential benefits of trade liberalization, including the phase-out of the MFA and reduced subsidization of agricultural production, will by far outweigh the costs. F&D

Suggestions for further reading: Antônio S. P. Brandao and William Martin, "Implications of Agricultural Trade Liberalization for the Developing Countries," Agricultural Economics, *No. 8, June 1993; Ian Goldin, Odin Knudsen, Dominique van der Mensbrugghe,* Trade Liberalization: Global Economic Implications, *Paris-Washington, OECD/World Bank, 1993; Naheed Kirmani and others, "International Trade Policies: the Uruguay Round and Beyond," World Economic and Financial Surveys, IMF, to be published in 1995; Patrick Low and Alexander J. Yeats, "Nontariff Measures and Developing Countries: Has the Uruguay Round Leveled the Playing Fields?" World Bank Policy Research Working Paper No. 1353, 1994; Alexander J. Yeats, "What are OECD Trade Preferences Worth to Sub-Saharan Africa?" Policy Research Working Paper No. 1254, World Bank, 1994.*

Antidumping: Unfair Trade or Unfair Remedy?

MICHAEL LEIDY

ANTIDUMPING, as currently practiced, is anticompetitive, threatens to further distort trade patterns, and undercuts the benefits of multilateral liberalization efforts.

At a time when the world is celebrating the successful conclusion of the lengthy Uruguay Round negotiations, the measure most used by industrial countries to protect domestic industries from "unfair" foreign competition—antidumping (AD) policies—remains alive and well. The Uruguay Round did take some steps to limit, and make more transparent, AD procedures. But the changes fall far short of what would be needed to rationalize AD policy on economic grounds.

A disturbing inconsistency surrounds AD policy. Popular views notwithstanding, the treatment of foreign firms under antidumping and the treatment of domestic firms under antitrust (competition laws) are fundamentally at odds. While antitrust embraces competition as a means of ensuring efficient resource allocation and improving living standards, AD intentionally discourages price competition. Discriminatory pricing among domestic competitors is not challenged under antitrust unless such pricing is deemed "predatory"—potentially threatening to the competitive environment. Foreign discriminatory pricing, however, is often challenged successfully under AD laws without the least hint of predation.

For this reason, AD activity—which began to move toward unprecedented heights in the 1970s, reaching a peak in 1984–85—has long been unsettling. In the last four years, almost every indicator of overall AD activity has risen, hitting a new high in 1992–93 (see chart). Several countries used existing AD laws for the first time, and others formally instituted new AD regimes, thus enhancing the prospect of a further spread of AD activity. While a vast array of products were targeted, most actions were concentrated in a few sectors (e.g., chemicals, metals, machinery, textiles, consumer electronics, and cement).

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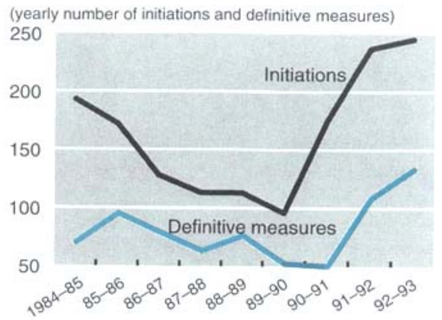
The major users of AD have been Australia, Canada, the European Union (EU), and the United States, with investigations increasingly targeting non-OECD countries, including the economies in transition. Indeed these four were responsible for almost every formal AD action taken during the early to mid-1980s. Beginning in the late 1980s, however, developing countries and other nontraditional users have increasingly applied formal AD measures of their own. For several years now, nontraditional users have consistently held a share of about 20 to 30 percent of total yearly AD actions (initiations and

Antidumping activity hitting new high

Aggregate antidumping activity, 14 users: 1984–93[1]



Source: General Agreement on Tariffs and Trade (GATT), *Basic Instruments and Selected Documents*, various issues.
Note: EU figures prior to 1991/92 exclude initiations and duties against nonsignatories to GATT Antidumping Code.
[1] The 14 users are Australia, Austria, Brazil, Canada, the EU, Finland, India, Japan, Korea, Mexico, New Zealand, Poland, Sweden, and the United States.

definitive duties) reported to the General Agreement on Tariffs and Trade—the Geneva-based international trade watchdog, known as the GATT.

Why the recent spread of AD policy to nontraditional users? First, throughout the 1980s, the traditional users demonstrated the effectiveness of AD as a tool of selective protection from foreign competition. Second, recent trade liberalization in many developing countries has increased the pressure on governments to respond to appeals for restored protection. Third, for years many of these countries have used measures such as discretionary import surcharges, reference prices, or minimum import prices, often in response to allegations of dumping. Implementing formal AD procedures enables them to continue the protection afforded by these other measures without the risk of breaching multilateral obligations (e.g., tariff bindings). Thus, the lesson taught by industrial countries about the effectiveness of AD measures as a GATT-sanctioned exception to liberalization commitments is now being applied by others with increasing frequency.

AD is not about predation

Press accounts and popular defenders of AD typically use the rhetoric of predation (low-cost pricing aimed at driving out rivals) and the rationale of competition policies to justify AD actions. This is a powerful tribute to the political packaging of AD policy because under current practices and multilateral rules, AD has nothing to do with actual or threatened predatory pricing. To the contrary, while competition laws are designed to preserve the conditions of competition, no such framework underpins AD policy. Indeed, AD protects a privileged class of competitor (domestic import-competing firms) to the detriment of competition.

A substantive connection did exist between AD and predatory pricing in the original US law. Indeed, the US Revenue Act of 1916 (also called the Antidumping Act of 1916)—which is still on the books, but is rarely applied—was viewed as an extension of the Clayton Antitrust Act. Like the Clayton Act's qualified prohibition against domestic price discrimination, the 1916 Act required that intent to injure or restrain competition be established as a precondition to granting remedies for dumping. But this conditionality was dropped in the Antidumping Act of 1921, with the injury to competition standard replaced by one more accommodating to import-competing interests (viz., injury to the petitioning industry by reason of dumped imports). This ended the brief relationship between AD and the goals of competition policy. Moreover, the 1947 GATT accord explicitly sanctioned this variant of AD policy.

Subsequent rounds of GATT negotiations refined procedural obligations (e.g., guidelines for the determination of dumping margins) and clarified definitions, but did nothing to reorient AD policy to a competition policy framework. Multilateral rules require only that an administrative agency adjudge that a foreign exporter is "dumping" (selling for less abroad than in its domestic market, with alternative definitions when a domestic market price does not exist) and that this is causing, or threatening to cause, material injury to an import-competing industry.

Other rationales?

Might AD be justified on grounds other than predation? Defenders suggest three rationales: (1) AD may help avoid the costs of temporary structural adjustments induced by unsustainably low prices; (2) successful international price discrimination is feasible only if markets are segmented, and AD policy may help to discourage maintenance of the assorted trade barriers that make dumping possible; and (3) AD is needed to help move the political process toward greater multilateral trade liberalization by offering a safety valve to vent protectionist opposition.

Transitory dumping. There are at least two reasons to contest the rationale that AD practice is appropriate to counter unsustainably low prices. First, even if government officials were clever enough to accurately separate transitory from permanent price developments—an assumption that requires a bold leap of faith—the alleged temporary re-allocation of resources induced by these signals will be largely mitigated if firms also are able to distinguish transitory from permanent price changes.

Second, if AD is viewed as appropriate to counter transitory price developments, then AD practices should be tailored to this objective. They should not be used, for example, to counter long- or even medium-term dumping. Yet, in practice, it has not been unusual for AD duties to remain in place for a decade or more, even in countries applying a five-year sunset clause of the type now required under the Uruguay Round agreement. In the European Union, of the 16 reviews of existing AD measures completed between January 1990 and June 1992, 12 resulted in renewed measures. In Canada, whose AD law includes a five-year sunset provision, among the AD duties in force on June 30, 1993, 11 of 74 cases had original dates of finding earlier than 1984. In the United States, in which no sunset provision was in place prior to Uruguay Round implementing legislation, 61 of 268 duties in force in mid-1993 had original order dates prior to 1984, with a number of measures dating back to the 1960s. Among the four traditional users of AD, only Australia appears to have implemented a truly binding five-year sunset clause.

Market segmentation. Commodity arbitrage—in the absence of trade barriers—would equalize prices internationally and preclude the artificially high prices that apparently prevail in a "dumper's" home market. Price discrimination of the sort attacked by AD law is only feasible, some contend, in the presence of these trade barriers. By preventing firms based in protected markets from fully exploiting the sector-specific advantages of protection, AD undermines the constituency for protection in those markets and might thus encourage trade liberalization in the long run. This proposition can be contested on a number of grounds.

• Government-imposed trade barriers represent just one type of trade friction that can segment markets and support international price differences. Informational problems, timing factors associated with speeds of transport (e.g., steel plate versus microprocessors), regulatory policies, distribution-system asymmetries (e.g., keiretsu versus formal long-term contracts or vertical integration), customer-tailored product specifications (e.g., right- versus left-drive autos), and partial pass-through of exchange rate changes all contribute to observed departures from the "law of one price."

• AD policy facilitates collusive market outcomes. The implicit threat created by AD rules, rather than inducing market opening abroad, may instead help firms to consolidate market power, at home and abroad.

• The practice of AD frequently contradicts the market-segmentation rationale in obvious ways. Hong Kong producers, for example, have been frequent targets, yet Hong Kong is widely considered to be one of the world's most open economies. Moreover, is it reasonable to target estimated dumping margins as low as 0.5 percent (the US practice) or even those as low as 2 percent (the Uruguay Round level)? Surely estimated margins in this neighborhood will frequently be nothing more than an artifact of the estimation methodology.

Safety valve. Is it sensible to assert that AD might be justified because it helps defuse protectionist opposition to trade liberalization? If one accepts the argument that such a safety valve is needed, the difficulty lies in designing rules that strike the appropriate balance. When trade liberalization is purchased by granting liberal access to protection by other means, the risk is that the price will be too high. A "free trade" regime that grants access to protection under the spacious umbrella of AD is a free trade regime that is substantially undermined. Moreover, one must question whether, as currently designed and implemented, AD is the best tool (i.e., implies the lowest social cost). Indeed, the GATT safeguards provision (Article XIX offers member nations an avenue to suspend their GATT obligations, allowing temporary protection on a most-favored-nation basis in sectors experiencing serious injury, subject to certain conditions) was itself intended largely to satisfy the need for a safety valve. Thus, while the political economy case has merit in principle, AD as currently practiced and sanctioned under multilateral rules is at best a crude device for a delicate operation.

A great deal at stake

A rough indicator of the social cost of AD policies is the size of the duties. A review of recent actions shows a wide range: less than 10 percent is relatively common (e.g., about 30 percent of recent US final duties were at or below 10 percent), but duties above 20 percent are frequent, and those above 50 percent are certainly not scarce (e.g., roughly 30 percent of recent US final duties exceeded 50 percent, while about 10 percent of recent EU duties exceeded 50 percent). At the high end in the United States, a definitive duty on fresh garlic from China was set at 376 percent; duties on ferro-silicon from China, Kazakhstan, Russia, and Ukraine were all over 100 percent; a duty on steel wire rope from Mexico was 112 percent; and professional power tools from Japan faced duties of about 50 percent. For the EU, the average *ad valorem* equivalent of AD duties during 1980–87 was 23 percent.

Some observers claim that since duties typically apply to only a small share of a country's total imports (just under 1 percent of all US imports were subject to definitive duties in 1992), AD policies have inconsequential economywide effects. But the economic cost of AD policies cannot be evaluated fully by looking at the incidence of outstanding duties. AD is not merely a set of duties; it is a system of rules, and as such generates systemic incentives—opportunities for manipulation, deterrence effects, and out-of-court settlements. Judging the full economic cost of AD requires close attention to the incentives it generates even in the absence of duties.

Economists have long pointed out the problem of "harassment effects." Petitioning, threatening to petition, and the mere prospect of petitioning all serve to signal foreign competitors to restrain sales (i.e., to compete less vigorously). AD petitions have frequently been withdrawn or suspended, because targeted exporters "voluntarily" agreed to either restrain exports or raise their prices. Moreover, a number of recent theoretical papers strongly suggest that today's AD regimes may be sufficient to sustain collusive market outcomes that could not otherwise prevail. There is also growing anecdotal evidence that governments have been inclined to assist domestic industries in restraining overall exports (in effect, assisting them in cartel-like behavior) to mitigate an AD threat. In January 1993, US auto manufacturers indicated that they intended to file comprehensive AD petitions against vehicle imports. The following month, three Japanese auto producers announced across-the-board price increases for vehicles sold in the United States. No petitions were ultimately filed.

". . . while competition laws are designed to preserve the conditions of competition, no such framework underpins AD policy."

AD reform?

During the Uruguay Round negotiations, some industrial (e.g., Japan) and developing countries argued for strong disciplines to curtail AD use, while other industrial countries (the United States and European Union members) resisted and sought new disciplines against circumvention of AD duties. The final compromise helped clarify rules (e.g., guidelines for determining injury to a domestic industry) and set somewhat more restrictive procedural obligations, but in many cases existing practices were simply codified. Some of the key changes included a 2 percent *de minimis* dumping margin below which an AD inquiry would be terminated, a *de minimis* threshold requiring the termination of an AD inquiry when the volume of dumped imports is deemed negligible (which is defined explicitly), enhanced transparency, and a five-year sunset rule for AD actions unless a review is formally requested.

Economists have suggested a number of reforms that, while falling short of placing AD into a competition policy framework, would help to realign the balance of interests. These include: (1) fixing penalties for AD petitions later adjudged to be frivolous; (2) introducing a greater say for consumer groups and downstream industries directly hurt by AD actions; (3) requiring a national cost-benefit analysis to accompany new AD actions; (4) removing the cloak of "unfairness" that now surrounds AD actions; (5) assigning a formal role to competition and antitrust authorities in evaluating and publicly commenting on the competitive effects of proposed AD actions; and (6) limiting AD measures to pure trade-adjustment assistance, granting no protective duties.

As suggested at the outset, however, the first-best policy is to deal with allegations of dumping in a competition policy framework in which the overriding criterion is an assessment of actual or threatened injury to competition. This bold step was taken in a regional context by Australia and New Zealand when they entered the Closer Economic Relations Agreement, and also by members of the EU and the European Free Trade Association under the agreement forming the European Economic Area. Progress beyond these special cases will be far more difficult. But progress in this direction is necessary if the benefits of vigorous international competition through liberal trade are to be fully realized. F&D

This article is based on a longer paper, "Antidumping: Solution or Problem in the 1990s?" in International Trade Policies: The Uruguay Round and Beyond, *Vol. 2, World Economic and Financial Surveys, IMF, 1995.*

Regional Trade Blocs: Trade Creating or Diverting?

CLINTON SHIELLS

WILL THE rapidly proliferating regional arrangements turn out to be "building blocks" or "stumbling blocks" for liberalizing trade on a non-discriminatory, multilateral basis? Much will hinge on how agreements are designed and carried out.

During the early 1990s, countries all over the world—especially in Europe and the Western Hemisphere—have been forming regional trading arrangements (RTAs) and intensifying existing ones at a rapid pace (see box). Some of the increased emphasis on these blocs stemmed from frustration with the slow pace of the Uruguay Round negotiations. But there have been other reasons as well that suggest that the trend toward increased regionalism is likely to continue.

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Some have questioned whether this trend is desirable, as the best way to liberalize trade is on a most-favored-nation (MFN) basis (i.e., no discrimination between trading partners)—which can be done unilaterally ("autonomous liberalization") or in the context of multilateral trade talks. Formation of RTAs should not be allowed to divert attention from MFN liberalization and the ultimate goal of global free trade.

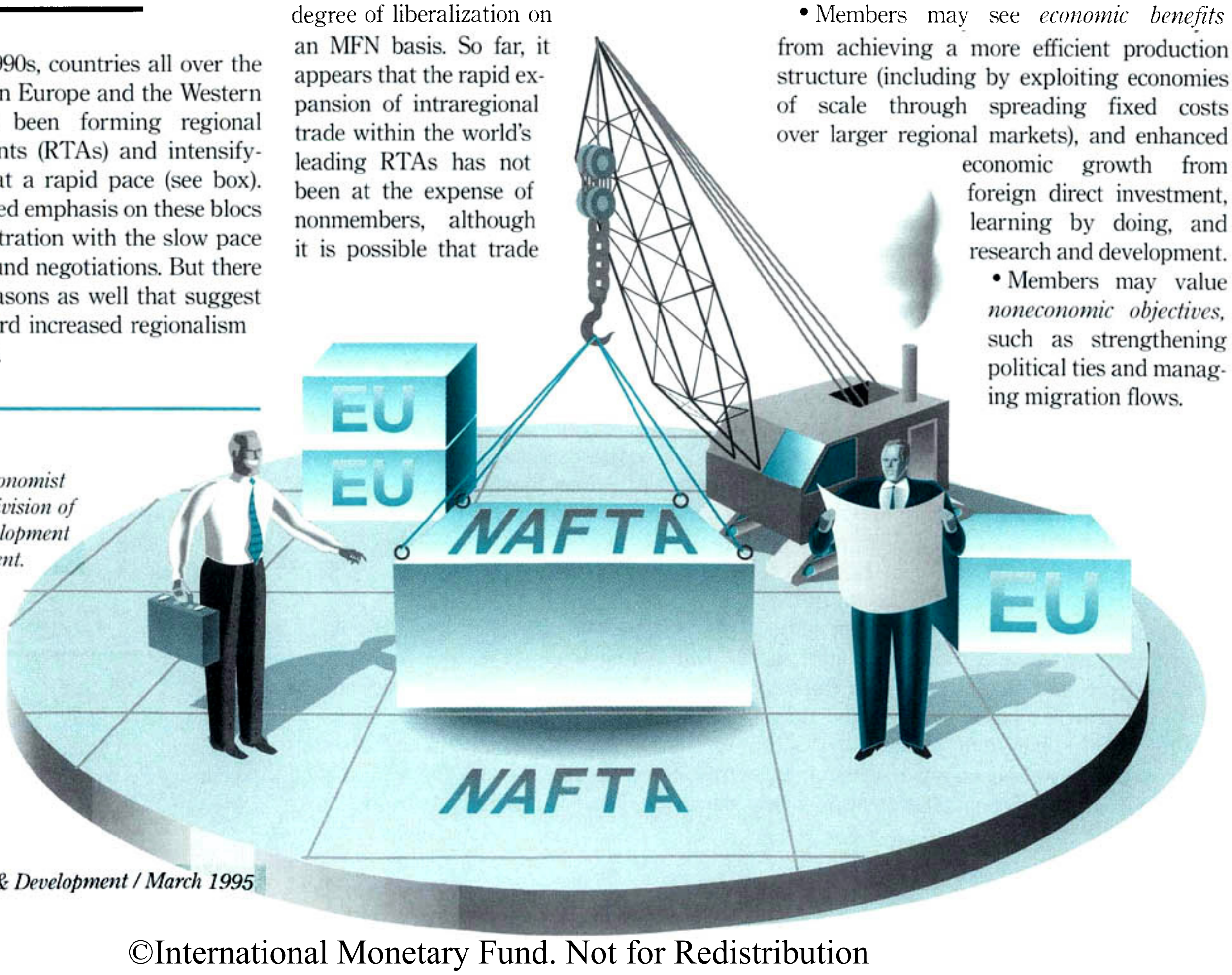
Whether an RTA facilitates or impedes eventual global free trade depends on how it is designed—including whether procedures for joining the arrangement are liberal, whether it satisfies World Trade Organization (WTO) rules, and whether it is accompanied by some degree of liberalization on an MFN basis. So far, it appears that the rapid expansion of intraregional trade within the world's leading RTAs has not been at the expense of nonmembers, although it is possible that trade with nonmembers might have grown even faster without the RTAs.

This article explores motivations underlying the trend toward regionalism, reviews recent developments in two prominent RTAs—the European Union (EU) and the North American Free Trade Agreement (NAFTA)—and develops principles for designing an RTA so that it is more likely to promote eventual global free trade.

Motivations for RTAs

The motivation for forming RTAs varies from region to region, and even from country to country within an RTA, but a few factors seem to play a key role.

- Members may see *economic benefits* from achieving a more efficient production structure (including by exploiting economies of scale through spreading fixed costs over larger regional markets), and enhanced economic growth from foreign direct investment, learning by doing, and research and development.
- Members may value *noneconomic objectives,* such as strengthening political ties and managing migration flows.



• Smaller countries may seek increased security of market access—*"safe havens"*—by forming RTAs with larger countries.

• Countries may want to *lock in unilateral domestic policy reforms*.

• Members may want to *improve their bargaining power* in multilateral trade negotiations or express frustration with the slow pace of these negotiations (as happened during the Uruguay Round).

• As countries form new RTAs, or deepen existing ones, trade is diverted from third countries. This may tip the political balance in third countries in favor of joining the RTA, as exporters' interests begin to prevail over the interests of import-competing firms. As more countries join the RTA, excluded countries may suffer additional trade diversion and, eventually, incentives to join outweigh interests of import-competing firms—the *domino effect*.

• Members may want to promote industries that are not viable without a protected regional market—*regional infant industries*—the idea being that they would be internationally competitive if given sufficient time to develop (although RTAs most influenced by this perspective have been the least successful in expanding trade and promoting regional growth).

Economic theory does not state definitively whether an RTA is welfare improving—like MFN liberalization—either for its members or for the world as a whole. However, some general principles have been developed. If two countries lower tariffs between them while maintaining tariffs with nonmembers, there will be both "trade creation" and "trade diversion." Imports from the partner will become cheaper to consumers, so they will substitute partner imports for domestic products (i.e., trade creation). However, consumers will also substitute partner for nonpartner imports (i.e., trade diversion), even though partner imports cost more to produce than nonpartner imports. Trade creation is welfare-enhancing for the region, while trade diversion is welfare-reducing. The RTA is beneficial for its members if trade creation exceeds trade diversion, other things being equal.

Trade creation and trade diversion, however, focus exclusively on production costs. The benefits to consumers from lower prices are also an important factor in assessing the welfare implications of an RTA for the region. Lower prices of partner imports will induce consumers to substitute partner imports for both domestic substitutes and nonpartner imports; gains to consumers from lower prices tend to raise the welfare of the member countries. Further, welfare gains could result from other factors. There may be rationalization of existing industry structures, with inefficient plants closing down and remaining ones operating at a more efficient scale. Foreign direct investment might be stimulated, leading to capital accumulation and higher economic growth. Dynamic gains could arise from learning by doing, improved product quality, and greater product variety.

Worldwide activity in regional trading arrangements

During the early 1990s, some important new regional trading arrangements (RTAs) emerged, and many existing ones were reactivated.

Europe. Developments in Europe were among the most numerous and rapid. Implementation of the Single Market program within the EU progressed quickly; the European Economic Area (EEA) was formed between Austria, Finland, Iceland, Liechtenstein, Norway, Sweden, and the EU (Austria, Finland, and Sweden have acceded to the EU); several Central and East European countries formed association agreements with the EU (Hungary and Poland have applied for EU membership); and the EU entered into free trade agreements with the Baltic states, a customs union with Turkey, and cooperation and partnership agreements with several states of the former USSR.

Western Hemisphere. The trend toward regional blocs accelerated. NAFTA was accompanied by formation of the Southern Cone Common Market (MERCOSUR), and of numerous, overlapping RTAs between several Latin American countries, such as Colombia and Venezuela. Among existing RTAs, the Andean Pact and the Central American Common Market (CACM) agreed on common external tariffs, and the Caribbean Community (CARICOM) became more active.

Africa. There were some moves toward greater integration. With the recent devaluation of the CFA franc, the Economic and Customs Union of Central African States (UDEAC) moved forward on a number of fronts, including carrying out a common external tariff, replacing quantitative restrictions with tariffs, and phasing out intra-UDEAC duties. In eastern and southern Africa, a Cross Border Initiative—cosponsored by the African Development Bank, the Commission of the European Communities, the IMF, and the World Bank—was launched as a pragmatic step toward economically integrating 13 countries in the subregion.

East Asia. Economic integration mainly reflected private market forces. The Association of Southeast Asian Nations (ASEAN) signed a pact (the ASEAN Free Trade Agreement, or AFTA); the South Asian Association for Regional Cooperation (SAARC) agreed to draft a preferential trading arrangement; and the Asia-Pacific Economic Cooperation forum (APEC), as part of its stepped up activity, agreed to include Chile, Mexico, and Papua New Guinea as members, and announced plans to lower trade and investment barriers by the year 2020.

Middle East. The Gulf Cooperation Council (GCC) liberalized movements of capital and labor, worked toward setting up a common external tariff, and held talks with the EU about a possible economic cooperation agreement. The Economic Cooperation Organization signed on several former states of the USSR as members. But there was little movement on ambitious plans for integration within the Arab Common Market (ACM) and the Arab Maghreb Union (AMU), which were established in the 1960s.

How RTAs are performing

While there are numerous empirical studies of the effects of RTAs, these mainly evaluate the effects on members. Some indication of how nonmembers have done, however, can be obtained by examining trends of nonmember imports into RTAs—if appropriately scaled import volumes do not fall, gains to members have most likely not come at the expense of third parties. Trends in extraregional imports as a share of GDP do not show any marked tendency for RTAs to reduce trade with nonmembers. But these trade shares are only indicative, since they do not show how trade with nonmembers would have evolved in the absence of RTAs.

To assess the impact of RTAs more definitively, it is necessary to examine carefully the features of particular RTAs.

The EU has gone through three distinct periods of integration dating back to the Treaty of Rome in 1957, which created the European Community (EC). The first period (1958–69) involved the phased elimination of internal tariffs, the dismantling of quantitative import restrictions among the six original members, and the establishment of a common external tariff and the Common Agricultural Policy (CAP). In the second stage (1970s and early 1980s), there were two membership enlargements and some key institutional changes (the European Council assumed greater prominence). During the third stage, the EU cooperated more closely with neighboring nonmember countries and implemented the Single Market program.

The Single Market program has deepened economic integration within the EU and continues to serve as a powerful stimulus to intra-EU trade and economic growth.

European integration includes the removal of border controls on intra-EU goods shipments and the movement of people, harmonization of indirect taxes, establishment of minimum product standards, removal of domestic regulatory barriers to cross-border provision of services, elimination of public procurement practices favoring national producers, and an EU-wide competition policy to help assure free movement of goods between EU member states. Import restrictions on industrial goods from third countries were removed (although in some instances, e.g., voluntary export restraints on Japanese autos, these were replaced with EU-wide restrictions). The CAP was reformed substantially in 1992 to make producers more responsive to demand conditions. Substantial funds were committed to improve living standards in poorer members. The deadline for completion of the Single Market was end-1992; though largely completed the process is continuing, with much work remaining to be done in some areas.

The Single Market program is widely credited with expanding trade and enhancing welfare of EU members. Recent studies show real income gains to the EU of between 2.4 and 3.4 percent of GDP (somewhat lower than the European Commission's initial estimate of 4.3 to 6.5 percent). Despite initial estimates by the Commission that trade diversion would be 2.5 percent of imports, fears that the Single Market program would create a "Fortress Europe" have not materialized.

Does the EU provide a model that other countries could emulate? The EU has stimulated trade and economic growth among its members through deep economic integration. Evidence to date suggests that, in the manufactured goods sector, European integration has resulted in substantial net trade creation. But, in agriculture, the CAP has led to significant trade diversion and welfare losses due to price effects, and in manufacturing, there continue to be pockets of discrimination. It is also important to bear in mind some of the special circumstances surrounding the EU's creation. First, there was always a strong political motive—a desire for an area of political stability in Europe. Second, adjustment costs were relatively low, as much of the trade occurred within industrial groupings, so fewer plants had to be shut down than would have been required if trade had led to resource movements between industries. Third, European integration goes beyond the creation of an internal market in goods and services; member states have agreed to set up an economic and monetary union, including a single currency. Fourth, the time taken for integration was lengthy.

NAFTA was signed by the Governments of Canada, Mexico, and the United States on December 17, 1992, and entered into force on January 1, 1994. The agreement improves market access (phased tariff reductions and liberalization of nontariff barriers) in many sectors (e.g., agriculture, automobiles, energy, financial services, telecommunications, textiles and apparel, and transportation). It also covers investment and intellectual property rights, supplemented by separate accords on import surges, labor, and the environment.

All three members should gain from NAFTA, although relative to its size Mexico will undergo most of the structural transformation and stands to receive most of the benefits—largely reflecting relative magnitudes of the three economies. Studies show that NAFTA is likely to lead to real income gains for Mexico of around 5 percent of GDP, around 0.3 percent for the United States, and around 0.07 percent for Canada. On a sector basis, Mexico agreed to liberalize its corn sector, while the United States agreed to reduce its barriers to trade in fresh fruits and vegetables. In the automotive sector, Mexico will dismantle its domestic content, trade balancing, and other provisions under the auto decrees, and it will gain increased access to the US market in textiles and clothing.

"... in the manufactured goods sector, European integration has resulted in substantial net trade creation. But, in agriculture, the CAP has led to significant trade diversion and welfare losses ...."

While the aggregate effect on nonmembers is expected to be minor (generally less than 1 percent of a country's exports to the North American market), there may be disruption at the level of individual countries in certain product categories. Countries whose exports are concentrated in horticultural products, or in labor-intensive manufacturing such as textiles and clothing, are more likely to experience trade diversion as a result of NAFTA. There is the potential for exclusion or investment diversion due to restrictive, nontransparent rules of origin in sectors such as autos, textiles, and clothing.

Principles for designing RTAs

While trade liberalization on an MFN basis is the best approach, it is likely that countries will continue to form RTAs. The following considers how RTAs may be designed to promote eventual global free trade.

WTO compatibility. The General Agreement on Tariffs and Trade (GATT) specifies in Article XXIV that a free trade area or customs union should eliminate barriers to most trade among members (although in practice most existing RTAs omit at least some trade from liberalization). Coverage of most trade best supports the ultimate objective of global free trade.

Low MFN tariffs. If MFN tariffs are initially low, or lowered as trade between RTA members is freed, the risk of trade diversion will be reduced.

Liberal accession clauses. Liberal rules for accession to an RTA help facilitate the multilateral trade liberalization process, since this permits liberalization to be spread to new members.

Liberal rules of origin. A rule of origin is needed to specify whether a product qualifies for preferential duty treatment, so that third countries do not simply deflect trade through the member with the lowest external trade barriers. But the rules should be transparent, not differ across sectors, and not be too stringent, since they protect regional input suppliers, leading to diversion of investment into the RTA.

Deep integration. Deeper integration, involving liberalization of services trade, investment, and some coordination of regulations (acknowledging that preferred levels of environmental and labor standards and tax policy will in general differ within regions) offers greater scope for economic gains from efficient resource allocation within the RTA, although it will have both trade creating and trade diverting effects.

Limiting antidumping actions. Regional liberalization may increase pressures for protection through other means, such as antidumping measures—which are designed to deter "dumping" (i.e., exporting at prices lower than the comparable price in the home market). RTAs should prohibit use of these measures against members, and should minimize resort to antidumping duties against nonmembers (see "Antidumping: Unfair Trade or Unfair Remedy?" in this issue). F&D

This article is based on a longer paper, "Regional Trading Arrangements," in International Trade Policies: The Uruguay Round and Beyond, *World Economic and Financial Surveys, IMF, 1995.*

Infrastructure: A Ladder for the Poor

PETER LANJOUW

BETTER infrastructure can play a crucial role in alleviating poverty, but to do so traditional approaches to infrastructure delivery have to be overhauled. The* World Development Report 1994 *proposes a new agenda that emphasizes user involvement, better incentives for service delivery, and a revised role for government.

A long-held goal of policymakers throughout the world has been eliminating poverty and raising living standards—and in recent decades solid progress has been made. Yet poverty remains one of the most critical challenges in economic development, touching millions of lives each day:

• Roughly 1 billion people worldwide still lack access to clean water, and more than 1.7 billion people remain without adequate sanitation;

• Rural incomes in many countries are unable to rise in step with population growth due to stagnant or even declining agricultural productivity;

• Formal employment opportunities in many cities remain scarce, and small-scale, informal enterprises are often unable to acquire a strong foothold in the marketplace;

• Rates of urban population growth, fueled by rural poverty, are often above 5 percent per year, adding to already overflowing shantytowns.

Contributing to these and similar problems is a lack of adequate infrastructure. In recent years, overburdened and neglected water and sewage networks have contributed to the outbreak and spread of such diseases as cholera and the plague. Poor agricultural performance has often been linked to the neglect of road networks. In Africa, almost $13 billion worth of roads—one third of those built during the past 20 years—have eroded because of lack of maintenance. In the face of chronically unreliable infrastructure services, manufacturers (in countries such as India, Indonesia, and Nigeria) have been compelled to operate their own generators for power and dig their own boreholes for water. But such measures are often beyond the reach of the informal enterprises most likely to employ poor, unskilled workers.

Improving infrastructure services is key to poverty alleviation, both as an *end* (e.g., in terms of improved access to basic water and sanitation services for households) as well as a *means* to greater productivity and expanded employment. What can be done to improve the situation?

The World Bank's *World Development Report 1994: Infrastructure for Development (WDR 1994)* concludes that first and foremost, infrastructure *services* must actually be delivered. At times, attention has strayed from this fundamental requirement (e.g., as maintenance of infrastructure is neglected in favor of large, overengineered new projects). The Report recommends that policymakers concentrate on improving the responsiveness of infrastructure to users' needs, strengthening the incentives of infrastructure providers (public or private) to deliver the right infrastructure services at a low cost, and ensuring that governments undertake the coordination, regulation, and strategic planning that is critical to long-term success.

What are the links?

One difficulty in analyzing the links between infrastructure and poverty is that most data sources provide only a "snapshot" of prevailing infrastructure access and levels of poverty. It is hard to trace the dynamic processes governing the impact of infrastructure on poverty, given the long duration of infrastructure project cycles and the subsequent lifetime of infrastructure facilities. In particular, it is difficult to separate the causal impact of infrastructure on poverty from other ongoing processes. Nevertheless, over time, the steady accumulation of experience has been adding to our understanding of these links.

Infrastructure and living conditions. The services provided by certain infrastructure sectors contribute directly to welfare—for example, inadequate water and sanitation infrastructure leads to serious health risks. Thus, it is worrisome that in many cities squatter communities lacking such essential facilities are growing at a record pace. In India, although the share of the

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urban population unable to afford a minimum food bundle declined in the decade up to 1991, the proportion of the population living in slums (under dangerously unhygienic conditions) actually grew.

Infrastructure and productivity. When it comes to raising incomes and productivity, infrastructure operates in both direct and indirect ways. Different sectors tell different stories.

Water and sanitation. Access to clean water and sanitation can contribute to welfare by increasing the productive capacity of the poor. In many countries, women devote much time to fetching water and gathering fuelwood, as well as to carrying crops to market. Infrastructure improvements can reduce the need for such activities and release valuable time for domestic duties (e.g., child care) or employment.

Electricity, irrigation, and transport. The "Green Revolution" (with power-driven water extraction and large-scale irrigation playing a central role) has helped numerous countries maintain, and often increase, per capita food production in the face of population growth. In India, rising agricultural production has led not only to greater output but also to higher agricultural wages and increased labor utilization. Transport infrastructure, such as roads, has promoted agricultural growth, contributing directly to lower transport costs and facilitating the expansion into remote areas of financial institutions that provide credit to farmers.

Better access to such infrastructure services contributes not only to higher incomes but also to protection against wide fluctuations in farmers' incomes. Households can more readily diversify out of agriculture, thereby reducing their vulnerability to harvest failure. In addition, an adequate transportation network can help to reduce regional variations in food prices by facilitating the movement of food from areas of surplus to areas of deficit. In Botswana, during the prolonged drought between 1981–82 and 1986–87, the existence of a widespread and competitive retail network for food, made possible by effective transport infrastructure, resulted in a remarkable degree of uniformity in the level of food prices in different parts of the country.

Communications and transportation. Access to products and services is contingent on adequate communications and transportation services. When the poor are concentrated on the periphery of urban areas, as in many developing countries, the costs and availability of public transportation become key factors for obtaining employment and services. In Ecuador, one study showed that access to secure and reliable public transport influences the ability of low-income girls and women to pursue educational opportunities.

> ***"Improving infrastructure services is key to poverty alleviation, both as an* end . . . *as well as a* means *to greater productivity and expanded employment."***

Infrastructure and employment. The construction and maintenance of some infrastructure—especially secondary roads and waterworks—can contribute to poverty reduction by providing direct employment. These activities can involve substantial, often relatively low-skilled labor inputs, although this employment (and poverty-alleviating) potential is not always realized. In many countries, price distortions (such as overvalued exchange rates) can result in the adoption of technologies that favor capital imports over the employment of locally abundant labor.

Civil works programs, which often involve the provision of infrastructure, have been important in strengthening famine prevention in several countries. Such programs in Bangladesh, Botswana, Cape Verde, and India have been highly effective in reaching the most vulnerable, in times of widespread drought, by providing employment to those who lack alternative sources of income.

How can more be done?

Inadequacies in infrastructure provision that limit the poor's access to essential basic services often stem from weak and contradictory incentives built into current institutional and organizational arrangements. In many countries, outputs and inputs are not closely measured, monitored, or managed, and the rewards of suppliers have little relation to the satisfaction of users. Users tend to have little say on design and other critical aspects of planning, and bureaucracies are rarely run in a cost-minimizing fashion. The *WDR 1994* recommends, therefore, that improvements in the delivery of infrastructure services are essential and should fall into three groupings.

User responsiveness. User involvement in the design, construction, operation, and maintenance of infrastructure is one way to improve responsiveness to the needs of the poor. When initiatives for infrastructure expansion originate from communities of users themselves, and when such communities are prepared to contribute (financially or in kind) to such initiatives, projects benefit in several ways. The technical design of infrastructure is less likely to be overly sophisticated (and unnecessarily costly) when communities articulate their needs and are asked to make sacrifices to realize the investments. Moreover, where users inform project design and are involved in constructing infrastructure facilities, these facilities are more likely to be well operated and maintained.

A World Bank study of 121 completed rural water supply projects in Africa, Asia, and Latin America, financed by various agencies, showed that projects with high participation in project selection and design, as opposed to more centralized decisionmaking, were much more likely to result in good water supply maintenance. In Ethiopia, the Gurage Roads Construction Organization has mobilized financial and in-kind resources from local communities to repair and improve over 350 kilometers of roads. While direct user involvement will be more common in certain types of infrastructure provision and maintenance—rural roads as opposed to highways, irrigation canals as opposed to hydropower dams—consulting local communities early on is essential even in large, technically complex projects. This is particularly the case where displacement of people is a likely consequence of the projects proceeding.

Community participation in infrastructure provision, while important, is not sufficient to guarantee that significant poverty reduction will result—even within a community the poorest could well be a marginalized group.

Evaluations to date have tended to focus on the contribution of community participation to project performance, rather than on poverty alleviation. More research is needed here.

Cost recovery. Prices that reflect the true cost of infrastructure provision limit unsustainable consumption of infrastructure services. At the same time, cost recovery through pricing encourages the provider of infrastructure to increase precisely the type of infrastructure demanded. The *WDR 1994* describes how cost recovery in infrastructure provision results in more clearly articulated objectives for service providers, a more straightforward process of institutional reform, ease in the monitoring of performance, and reduced exposure to outside interference—due to a removal of the need for subsidies.

Would such a change in pricing hurt the poor? After all, the rhetoric against cost recovery is usually couched in terms of an adverse impact on the poor. Yet the effectiveness of subsidies depends on their actually reaching the poor, on administrative and other costs of subsidies, and on the room to maneuver within normally tight government budgetary constraints.

The financial weakness of many infrastructure providers, arising out of a dependence on transfers exposed to political interference, typically results in a failure to extend the poor's access to infrastructure—undercutting their ability to benefit from subsidized prices. In developing countries, the poor use fuelwood rather than gas or electricity for cooking, and kerosene or candles rather than electricity for lighting. They also rely on private vendors or public standpipes rather than in-house connections for water supply, and are infrequently served by sewerage systems. Moreover, even when the poor are connected to a network, they consume fewer infrastructure services than the nonpoor, thus deriving proportionately less benefit from price subsidies.

But when the poor are unable to afford basic services, some form of assistance is essential. Pricing schedules, such as increasing block-tariffs, offer mechanisms that ensure that the nonpoor continue to pay full cost for most of the services they consume, while the poor face lower prices for the essential "lifeline" quantities.

Financial assistance in the form of loans covering the initial cost of connection is often found to be more helpful than price subsidies on quantities consumed. In Bangladesh, the Grameen Bank provides credit to about 2 million poor and landless persons, most of them women. The Bank combines group lending, which allows the poor to substitute social collateral based on peer pressure for financial collateral, with financing mechanisms to extend credit for tubewells and sanitary latrines. In 1993, the Grameen Bank lent $18 million for this purpose and since 1992 has provided loans for about 70,000 suction tubewells.

For a few sectors (e.g., drinking water and sometimes sanitation), full cost recovery from even the poor is feasible. Studies show that people without connection to water networks are compelled to pay exorbitant prices (ranging up to 100 times the network price per liter) to private water vendors. In these sectors, extremely high private costs for service provision faced by those who are not connected to a network—almost invariably the poor—mean that expanding the network to include the poor and charging them full cost would still result in their achieving substantial savings.

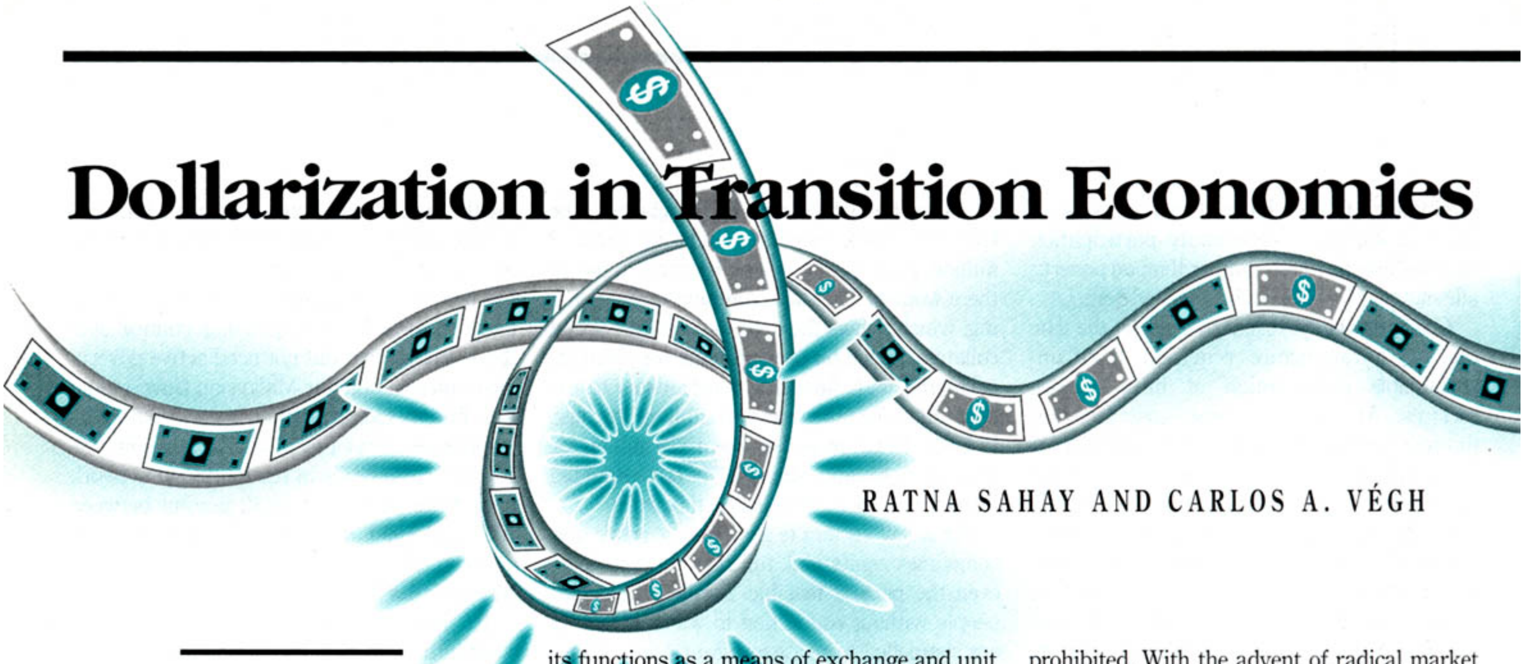
The government's role. While the *WDR 1994* encourages a revised, and in some cases less interventionist, governmental role, combating poverty will continue to require the involvement of governments in strategic planning, budgetary allocations, coordination, and regulation. In some sectors, such as rural roads and irrigation networks—which are closely linked to poverty concerns, with little scope for cost recovery—governments will continue to be responsible for direct provisioning.

During the past 20 years, the Malaysian Government has consistently ensured that infrastructure provision is sensitive to poverty reduction priorities. Rural roads and irrigation have figured highly in investment programs, as have backward regions. When the Government saw infrastructure bottlenecks emerging because of the growing demand accompanying the high rate of economic growth, it moved to take advantage of the strengthening private sector. An ambitious privatization program has resulted in 85 partly or completely privatized entities. By relinquishing control over those sectors that did not need active government intervention, the Malaysian Government was free to focus on those sectors where its involvement was essential. As a result, the share of rural roads in the total road network grew from 18 percent to 32 percent between 1965 and 1990, while the incidence of rural poverty fell from 53 percent in 1973 to 19 percent in 1989.

To realize infrastructure's potential in contributing to poverty alleviation, decision makers must have a clear appreciation of the patterns and dimensions of poverty that prevail in their countries. The numerous linkages between infrastructure services and poverty—with services both as means to higher incomes and as ends in themselves—must be understood. At that point, the critical issue becomes how to expand access to, and delivery of, the right types of infrastructure services. The *WDR 1994* proposes directions for reform, aimed at achieving a much greater compatibility between infrastructure delivery and use. Infrastructure users should be able to influence choices regarding infrastructure design and standards. Securing users' commitment to infrastructure projects improves projects' benefits and extends their lifetimes. Measures such as subsidized prices, which usually act to deter expansion of infrastructure services, should be removed. Instead, access to infrastructure should be expanded via financial assistance to help meet connection costs. Given tight budget constraints, public resources should be devoted to sectors where they achieve the greatest distributional impact and where other sources of finance are not forthcoming. F&D

"Given tight budget constraints, public resources should be devoted to sectors where they achieve the greatest distributional impact and where other sources of finance are not forthcoming."

Dollarization in Transition Economies



RATNA SAHAY AND CARLOS A. VÉGH

FOREIGN currency deposits in the former centrally planned economies increased rapidly in the early 1990s, as high inflation and interest rate regulations made domestic currency assets unattractive. Since then, however, several countries have reversed the dollarization process by fighting inflation and allowing market forces to play a bigger role in the determination of interest rates.

Domestic currencies seldom survive unscathed the ravages of high and variable inflation. Once an inflationary process is under way, the public quickly abandons the domestic currency as a store of value and turns to a foreign currency as a refuge for financial savings. In the meantime, some prices—particularly those of big-ticket items such as real estate and automobiles—begin to be quoted in a foreign currency. Eventually, many transactions involving large transfers of funds are carried out using a foreign currency. While the domestic currency usually retains its functions as a means of exchange and unit of account for almost all nondurable goods, it becomes a second-class citizen and commands little respect.

This process occurred in many Latin American countries with a history of high inflation, such as Argentina, Bolivia, Mexico, Peru, and Uruguay. In these countries, a large proportion of financial assets are kept in the form of interest-bearing foreign currency deposits (normally US dollars)—a phenomenon often referred to as dollarization. Typically, residents were not allowed to hold foreign currency deposits until the mid-1970s. Once financial and exchange rate restrictions were lifted, however, a gradual but sustained dollarization process took place. Contrary to the usual expectation, these economies have remained highly dollarized even after inflation has fallen substantially. Thus, the dollarization ratio (the ratio of foreign currency deposits to broad money, inclusive of foreign currency deposits) currently stands at nearly 85 percent in Bolivia, 70 percent in Uruguay, and 65 percent in Peru. Dollarization has also been pervasive in countries outside Latin America, such as Israel, Lebanon, and Turkey.

The attractiveness of a stable foreign currency as a vehicle to protect the real value of financial assets has certainly not been confined to market economies. During the 1980s, rising inflation led to widespread dollarization in both Poland and the former Yugoslavia and, by the end of the decade, the dollarization ratio had reached 70 to 80 percent in both countries. In the typical Soviet-style planned economy, however, foreign currency deposits by domestic residents were strictly prohibited. With the advent of radical market reforms in the former centrally planned economies during the early 1990s, restrictions on foreign currency deposits were lifted to varying degrees as part of comprehensive packages of financial liberalization. As a result, foreign currency deposits in the transition economies have increased quite rapidly.

To a large extent, the pattern of dollarization in transition economies has been similar to that of Latin American countries. Unlike the Latin American countries, however, most of the transition economies that have successfully stabilized have now turned back to their domestic currency, enticed by the increased real rates of return on domestic assets resulting from lower inflation and freer interest rates. A first look at the evidence on dollarization in transition economies (see reference and charts)—using Latin America as a benchmark—provides fresh insights into the macroeconomic and institutional factors that provoke dollarization as well as the shift back to national currencies. (Given the preliminary nature of some of the data for transition economies, the figures referred to in this article should be viewed as indicating orders of magnitude rather than exact levels.)

The evidence so far

While dollarization has become an important phenomenon in economies in transition, the experiences in these economies have varied. The pre-reform experience of both Poland and the former Yugoslavia is in many ways reminiscent of that of Latin American countries. Chronic inflation, fueled by accommodating monetary and exchange rate policy

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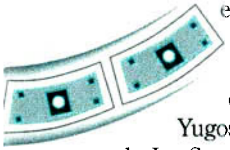
and sustained by formal and informal indexation, led to increasing dollarization. In early 1990, both countries embarked on exchange rate-based stabilization programs that brought about a dramatic initial reduction in inflation. Poland achieved a lasting reduction in inflation, and was thus successful in drastically lowering the dollarization of the economy to levels prevailing in the mid-1980s.



In the countries that emerged from the former Yugoslavia inflation quickly resumed. In Croatia, for example, quarterly inflation peaked at 120 percent during the last quarter of 1992, with the dollarization ratio surpassing 80 percent. Slovenia, on the other hand, succeeded in rapidly reducing inflation. Nevertheless, although quarterly inflation was brought down from over 60 percent in the last quarter of 1991 to less than 5 percent in the first quarter of 1994, the dollarization ratio continued to fluctuate around 45 percent throughout this period. Since late 1993, Croatia has also dramatically reduced inflation but with little effect on the dollarization ratio as of early 1994.

As part of their stabilization and reform programs carried out during 1991–93, virtually all transition economies allowed domestic (and sometimes foreign) residents to hold foreign currency deposits, although some restrictions remained. In Eastern Europe, dollarization quickly rose in those countries—Albania, Bulgaria, and Romania —where price liberalization led to high inflation during the first year of the reform. In Albania, the dollarization ratio soon reached 20 percent and seems to have leveled off at 20–25 percent following the rapid fall in inflation in 1992–93. In Bulgaria and Romania, the dollarization ratio rose rapidly in the midst of failed attempts to put a sustained lid on inflation, reaching higher levels than in Albania. As of the first quarter of 1994, the dollarization ratio in both Bulgaria and Romania stood at around 35 percent.

In contrast to the rest of Eastern Europe, Hungary and the former Czechoslovakia (now the Czech Republic and the Slovak Republic), where prudent fiscal and monetary policies had been pursued during the pre-reform period, witnessed only a slight increase in the low dollarization ratios observed during the early 1990s. In Hungary, the dollarization ratio increased from less than 5 percent in December 1989 to over 15 percent in 1993, and has leveled off since then, probably reflecting the narrowing of the return differential between forint and dollar deposits. The dollarization ratio in the former Czechoslovakia was only about 10–12 percent at the time of the breakup (January 1, 1993), with a lower ratio in the Slovak Republic than in the Czech Republic. In spite of a slight increase since then in the dollarization ratio in the Slovak Republic, stable and low inflation in both countries has kept dollarization at low levels. Since the second half of 1993, domestic interest rates in the Czech Republic have been rising relative to returns on foreign currency deposits.

In the states of the former USSR, dollarization quickly took on momentous significance as financial reforms allowing foreign currency deposits coincided with the onset of high inflation. In the face of sharply accelerating prices, negative real domestic interest rates, and large devaluations in the early stages of reform, foreign currency deposits proved to be a better alternative than domestic currency deposits. Russia and Ukraine have had among the highest inflation rates in transition economies, and their dollarization ratios have risen rapidly, fluctuating between 30 and 45 percent in 1992–93. These figures, however, are likely to underestimate the true dollarization ratio because of dollars "under the mattress" and residents' deposits abroad. In the Baltic states, the dollarization ratio peaked at around 60 percent in Estonia (second quarter of 1992), 50 percent in Lithuania (first quarter of 1993), and 35 percent in Latvia (first quarter of 1993). These three countries successfully implemented disinflation programs during 1993, leading to a substantial reduction in the dollarization ratios in Estonia and Lithuania. In Latvia, however, dollarization has declined only slightly, which may be partly explained by the fact that, given its liberal foreign exchange market, Latvia has provided a "safe haven" for residents of other high-inflation states of the former USSR (like Russia and Ukraine).

The pattern of dollarization in Mongolia has been similar to that of the Baltic states and Poland, which have successfully stabilized their economies. With the liberalization of the exchange and trade system in 1990 and the sharp increase in inflation rates at the outset of the transition in 1991–92, the dollarization ratio in Mongolia rose from 2 percent at end 1989 to almost 40 percent in mid-1993. At that point, the sharp fall in inflation, together with higher nominal interest rates, made domestic-currency assets more attractive, causing a rapid de-dollarization.

Institutional factors

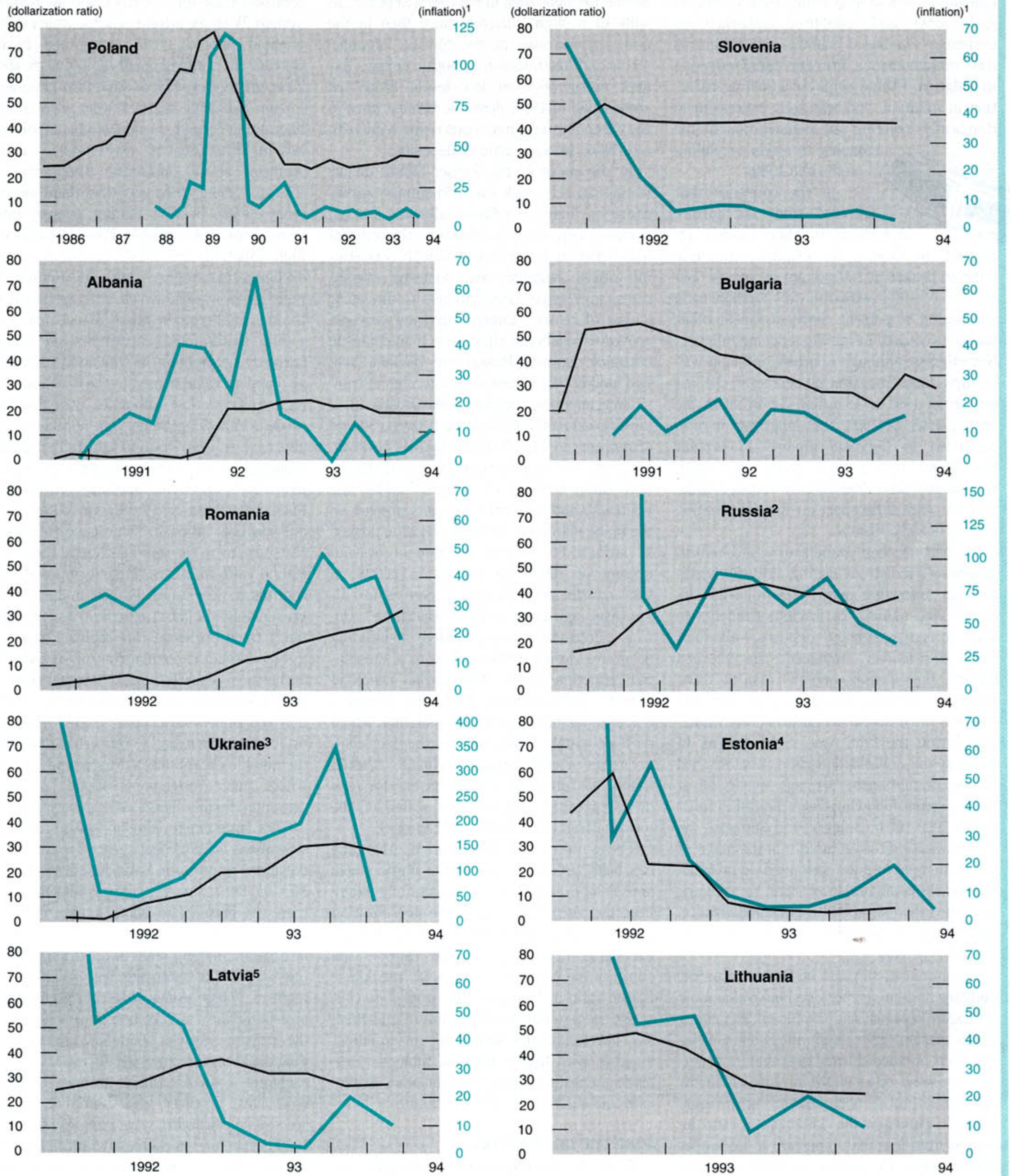
While the macroeconomic environment affects the demand for foreign currency, the supply of foreign currency to domestic residents depends critically on institutional constraints. The absence of any dollarization during the pre-reform period in most transition economies was primarily due to the tight controls on foreign exchange and the banking system. With the advent of large-scale market-oriented reforms, two institutional factors were key in bringing about rapid dollarization. First, at the very start of the reform programs, foreign exchange regimes were substantially liberalized. Second, due to the inherent difficulties in bringing about swift reforms in the financial sector, attractive alternatives to foreign currency deposits (like domestic currency assets bearing market interest rates) were simply not available. Thus, in the face of high inflation, the liberalization of foreign exchange rate regimes laid the grounds for rapid dollarization, which was sustained by the lack of alternative financial instruments.

The institutional constraints on foreign currency deposits in the transition economies also appear to be related to the exchange rate regime. Transition economies with fixed (or predetermined) exchange rate regimes generally have full repatriation and full surrender requirements of exports proceeds, as well as restrictions on capital account convertibility. Such constraints may have contributed to low dollarization ratios in some countries (as in Hungary) or to the rapid decline in the dollarization ratio in others (Poland imposed such controls in 1990, and Estonia in June 1992). Presumably, the fact that countries with relatively fixed exchange rate regimes have had tighter foreign exchange controls reflects the authorities' desire to protect external reserves from speculative attacks. In contrast, transition economies with more flexible exchange rate regimes have had fewer restrictions, with the notable exceptions of Russia and Ukraine where such restrictions appear to have prevented further increases in dollarization.

To a large extent, similar institutional considerations were present early on in the highly dollarized countries in Latin America—Bolivia, Mexico, Peru, and Uruguay. In all four countries, the decision to allow foreign currency deposits in the early 1970s was either preceded or accompanied by large devaluations and by the adoption of more flexible exchange rate regimes. These measures were aimed in part at protecting the stock of official reserves from the private sector's portfolio recomposition that could result from the lifting of foreign exchange controls. Unlike in the transition economies, however, restrictions on capital account convertibility were rare until the early 1980s when foreign exchange controls—which included the forced conversion of existing foreign currency deposits into domestic currency deposits—were reimposed in Bolivia, Mexico, and Peru. Eventually, foreign currency deposits were allowed once again in all three countries.

The reversal of dollarization depends upon whether economies successfully stabilize

(selected transition economies)



Source: Sahay and Végh, "Dollarization in Transition Economies: Evidence and Policy Implications," *Currency Substitution and the International Use of Money*, to be published by Edward Elgar in 1995.

Note: Dollarization is measured by ratio of foreign currency deposits to broad money (including foreign currency deposits).

[1] Inflation figures are end-of-period rates, in percent per quarter. Scales differ for Poland, Russia, and Ukraine.

[2] Inflation in the first quarter of 1992 was 597.5.

[3] Foreign currency deposits evaluated at auction exchange rate.

[4] Inflation in the first quarter of 1992 was 323.9.

[5] Inflation in the first quarter of 1992 was 226.3.

left scale
right scale

Responding to rates of return

Since foreign currency deposits are mostly held for portfolio considerations—rather than for transactions purposes—one would expect the dollarization ratio to respond to the real interest rate differential between domestic currency and foreign currency denominated assets (or, equivalently, to the nominal interest rate differential adjusted by expected depreciation). Changes in the inflation rate should affect the dollarization ratio only to the extent that the real rate of return on domestic assets, and thus the real interest rate differential, is affected. During periods of high inflation, it is often the case that, due to financial repression or monetary instability, risk-adjusted nominal returns on domestic currency assets become very low or even negative. In fact, declining real rates of return on domestic currency-denominated assets, which dominate changes in the real interest rate differential during high inflation periods, are key in explaining the dollarization process in several Latin American countries. On the other hand, decades of very high and chronic inflation are perfectly consistent with a very low degree of dollarization if, as has been the case in Brazil, the financial system adapts and offers indexed domestic currency-denominated assets, which keep real rates of return on domestic currency assets relatively attractive compared to those on foreign currency-denominated assets.

In the early stages of the reform programs in the transition economies, the combination of high inflation and administered nominal interest rates led to highly negative real interest rate differentials between domestic currency and foreign currency deposits. This, combined with the lifting of restrictions on holding foreign currency deposits, caused dollarization to rise rapidly. The dollarization process, however, has been sharply reversed in four countries—Estonia, Lithuania, Mongolia, and Poland. In all four countries, lower inflation and freer interest rates have generally resulted in positive real returns on domestic currency deposits and positive real interest rate differentials between domestic currency and foreign currency denominated assets. Mongolia is perhaps the most striking case: after being highly negative, real interest rates on domestic currency deposits and the real interest rate differential became positive in mid-1993, leading to an abrupt reversal of dollarization. In Lithuania, the fall in the dollarization ratio that began in early 1993 also coincided with a switch from highly negative real deposit rates to generally positive returns.

The reversal of the dollarization process in several transition economies contrasts with the experience of Latin America, where dollarization has remained high even after inflation has fallen. This so-called hysteresis has been explained by arguing that protracted processes of financial adaptation are costly—due to sunk costs and learning by doing—which tend to make them irreversible. Hysteresis, however, should not be viewed as a puzzle to the extent that what matters for dollarization is the real return differential. If, say, nominal interest rates fall by the same amount as inflation, real returns on domestic currency-denominated assets, and thus the real interest rate differential between domestic currency and foreign currency denominated assets, will not change. Hence, a disinflation program, in and of itself, should not necessarily lead to a de-dollarization process, contrary to what is generally argued. The experience of the transition economies would thus support the view that portfolio considerations are paramount in understanding the phenomenon of dollarization and its reversal. On the other hand, the experience of some Latin American countries might be viewed as suggesting that, given a long history of monetary and financial instability, it may take a long time for risk-adjusted returns on domestic currency assets to become competitive in a world of highly integrated financial markets.

Should dollarization be resisted?

While permitting residents to hold foreign currency deposits is likely to bring important benefits for an economy (such as reversing capital flight, building international reserves, and providing a more efficient allocation of financial resources through portfolio diversification), some negative consequences are inevitable. First, to the extent that dollarization is reflected in a shift away from domestic money, it will exacerbate the inflationary consequences of a given fiscal deficit. Second, the authorities' ability to conduct monetary policy may be substantially undermined because the foreign currency component of the total (broad) money supply cannot be directly controlled, which tends to favor the exchange rate as the nominal anchor in a highly dollarized economy. (See "Currency Substitution in High Inflation Countries," by Guillermo Calvo and Carlos Végh, *Finance & Development*, March 1993.)

In spite of these potential problems, the experience of Latin America suggests that combating dollarization with artificial measures—such as using indexed financial instruments, paying interest on highly liquid assets that are used as money, or forcing the conversion of foreign assets into domestic assets—merely contributes to magnifying the eventual inflationary explosion. Dollarization is often one of the manifestations—and certainly not the cause—of underlying fiscal and monetary disequilibria that are reflected in chronic fiscal deficits and accommodative monetary and exchange rate policy. Attacking the symptoms of the disease rather than its root causes may very well worsen the situation.

Over the last two decades, Brazil has offered an instructive example of a "successful" fight against dollarization without, however, addressing the fundamental problems. In particular, the case of Brazil is a prime example of the fact that, even in the face of very high and variable inflation, ensuring an attractive real rate of return on domestic currency-denominated assets can certainly succeed in preventing dollarization. High (and often increasing) interest rates can entice the public to roll over domestic currency deposits rather than switch to foreign currency deposits. In conjunction with chronic fiscal deficits, however, such a policy may lead to a situation in which commercial banks hold almost all of their assets in the form of interest-bearing government paper of very short maturities, which they issue to the public as interest-bearing money. As a result, not only is inflation out of control due to the lack of a nominal anchor—as the relevant money supply becomes largely endogenous and the exchange rate accommodates inflation—but there also exists a permanent risk of a funding crisis if the government is not able to roll over its debt on virtually a daily basis. In sum, the ultimate price of "winning the battle" against dollarization may be quite high if, at the same time, the underlying fundamental problems are left untouched.

Although it makes little sense to fight dollarization by artificial means without addressing the fundamental macroeconomic disequilibria, a portfolio switch in favor of domestic currency-denominated assets should naturally be welcome if it reflects sound financial and fiscal policies which, through lower inflation and market-determined interest rates, lead to competitive real returns on domestic currency-denominated assets. On the other hand, some dollarization of the economy should be viewed as a natural outcome of portfolio diversification in a world of high capital mobility. F&D

This article is based on "Dollarization in Transition Economies: Evidence and Policy Implications," by Ratna Sahay and Carlos Végh, which was prepared for a volume on Currency Substitution and the International Use of Money, *edited by Paul Mizen and Eric Pentecost, to be published by Edward Elgar in 1995.*

Capital Markets and Developing Country Firms

JACK GLEN AND BRIAN PINTO

CAPITAL flows to emerging markets have grown enormously in recent years, and firms operating in these markets can now take advantage of a wider choice of financing instruments. How they choose between different instruments is a key issue for emerging market finance.

How developing country firms decide between debt and equity, and between domestic and international securities, has become an important issue given the tremendous interest in emerging markets in recent years and the new patterns of internal and external finance that have evolved in developing countries. Externally, the new pattern emphasizes direct funding of developing country firms, rather than sovereign borrowing, a switch being facilitated by the trade and financial liberalization underway in many developing countries. As part of this trend, many developing country governments are jumping onto the free-market bandwagon to ensure that their firms can compete on the same terms as their less constrained foreign competitors.

Firms have three main sources of capital: internally generated funds, bank loans, and the capital markets. A 1992 International Finance Corporation (IFC) study for a set of developing countries covering the last decade found that internally generated finance represented 12–58 percent of total financing needs, leaving substantial portions to be financed externally. By comparison, internally generated finance covered 52–100 percent of the financing needs of firms in the Group of Seven (G-7) nations. Exactly why such a difference exists is still unclear.

In the 1990s, the use of capital markets as a source of external financing in developing countries has soared. In seven major emerging market countries, new domestic issues of equity and corporate debt grew by 41 and 68 percent, respectively, in 1990–92. In the international markets, investor interest in emerging market instruments has reached headline-making proportions. In 1992 alone, international portfolio investment in emerging markets was more than $19 billion, which exceeds loans from international commercial banks, and is more than three times the level achieved in 1990. These trends suggest important new developments in the corporate finance of developing countries.

Firms in developing countries face a number of constraints in the financing choices that are available to them. The most important of these relates to government controls, which not only limit the menu of instruments, but frequently circumscribe the issue and pricing of permitted instruments. But the market also imposes constraints, such as limiting available maturities in unstable macroeconomic environments. Despite these constraints, developing country firms are not unlike their developed country counterparts: they attempt to minimize the risks of external financing and the cost of capital, and to preserve corporate control in the hands of existing shareholders.

The capital structure puzzle

In many developing countries, a shortage of funding can be the main obstacle to expansion and diversification in the private sector. Banking systems are often incapable of providing the needed resources and, in the past, the capital markets have provided neither the type of funding needed nor the quantities required. But now as liberalization proceeds, developing country firms face a choice of financial instruments, forcing them to make decisions about how to structure the capital side of their balance sheet.

Financial managers know that restructuring the liabilities/equity side of the balance sheet can add value to the firm, just as changes on the assets side do. But the earliest finance theory concluded that capital structure is irrelevant. Of course, this conclusion is at variance with what one sees in the real world, to a large extent because of three factors: the tax advantage of debt; market segmentation, which results in capital having different costs in different markets; and the impact of financing decisions on the riskiness of a firm. Collectively, these factors illustrate two important points facing firms when they make capital structure decisions. First is cost; cheaper financing is usually the first to be used. Second is risk; management should not overburden the firm with debt because of the possibility of bankruptcy.

For some firms, these two points exhaust all possibilities, but for others, a single and often overriding factor has been ignored: control. Especially in the emerging markets where the tradition of family ownership is strong, control can dominate the financial decisions of firms, forcing them to defer public issues of equity that would dilute control. Differing

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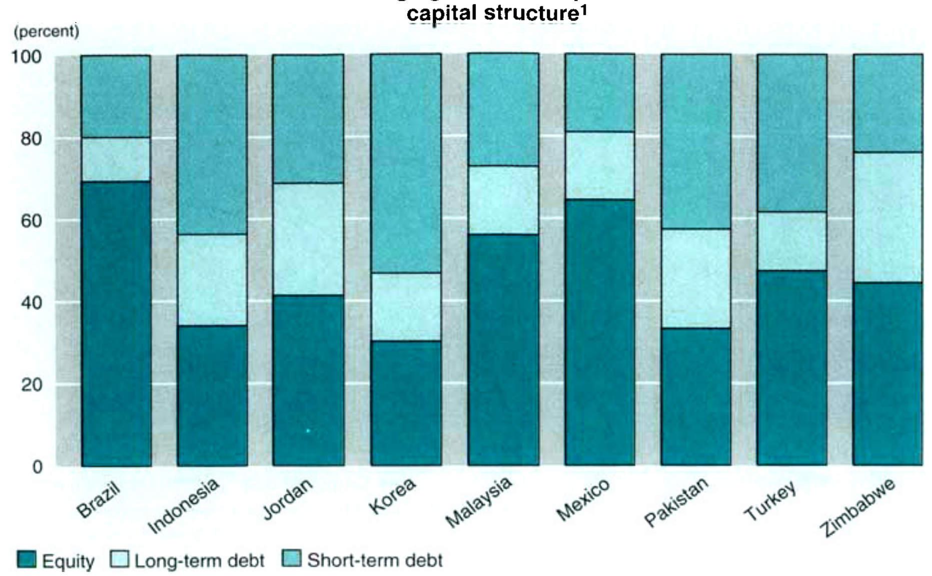
Chart 1
Financial structure choices
Emerging market companies' capital structure[1]



Source: IFC Emerging Markets Data Base.
[1]Average, 1980–90.

attitudes toward the use of equity are reflected in Chart 1.

Cost, risk, and control

The choice between debt and equity depends largely on three factors: cost, risk, and control.

Cost. The cost of capital is the minimum rate of return a project must generate to be acceptable to shareholders. This cutoff rate is a weighted average reflecting a composite of the interest paid on debt and the returns to equity.

The cost of debt capital can be expressed as the rate of return that equates the periodic net cash outflow for interest payments and principal repayment with the net proceeds from the issue. As interest rates move, the attractiveness of debt relative to equity changes. When rates are high, firms issue less debt; declines in rates prompt firms to issue more debt.

The cost of equity capital is a more difficult concept to define than the cost of debt because it must include measures of both dividend and capital gains income. Many firms in the emerging markets look at the ratio of the share price to earnings per share as a guide to how new equity should be priced, in addition to using it as a measure of the cost of equity. Intuitively, with that measure, when market price increases, the cost of equity decreases.

The relative cost of debt and equity is influenced by the tax treatment that each receives. Generally, interest payments are tax deductible, something that is not true for dividend payments, which increases the attractiveness of debt relative to equity.

Firms also have to take into account issuance costs, which include fees for investment banking services, reporting requirements (which tend to be much higher in developed countries), and various taxes. The importance of issuance taxes on financial decisions is illustrated by Brazil, where there is an issuance tax on bank loans but not on corporate bonds. Taking advantage of this, firms can register bonds and then hold them in treasury, selling them periodically to banks with a repurchase agreement as a source of short-term working capital. Some firms even lend their unused bonds to other firms, which then rediscount them to banks as a source of short-term financing.

Some emerging market governments now view the large capital inflows associated with the private issuance of offshore financial instruments with trepidation. To combat these flows, governments have turned to various forms of taxes in order to reduce the attractiveness of international funds. In Brazil, the Government has imposed withholding taxes on issues with maturities less than a designated amount. Over time, the Government has increased the minimum maturity immune from the withholding tax. Of course, the market determines what maturities will be available to Brazilian firms, and once the Government pushed the minimum maturity too far, firms responded by issuing long-term debt with options that allow the buyer to sell the debt back to the issuer prior to maturity. If the options are exercised, the withholding tax will likely be payable, but from the firm's perspective, deferred taxes are better than taxes paid in advance.

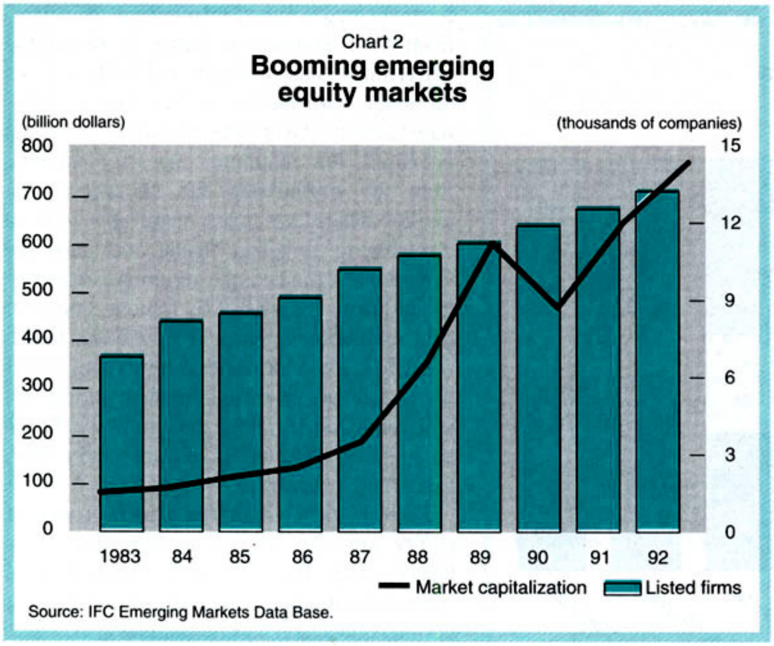
Like its debt counterpart, new issues of equity are also subject to fees and taxes. Governments have, in some cases, favored international equity over international debt by taxing equity more lightly than debt.

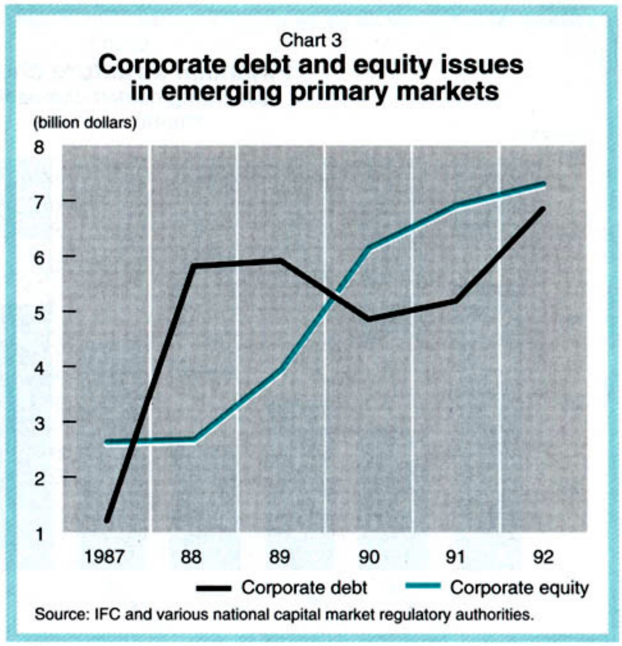
Risk. Changes in the debt/equity mix alter the riskiness of a firm's earnings; and with that the cost of the two sources of financial capital are affected. For example, in countries where private pension funds play an important role, as in Chile, credit ratings, which reflect issuer riskiness, are periodically required of all corporate debt issuers. Such ratings provide information to investors, identify the issues that qualify for inclusion in institutional portfolios, and play an important role in the market's pricing of the debt.

Some developing country firms have been able to circumvent the risk issue through the use of debt guarantees issued by more creditworthy entities. In Brazil, some issuers of Eurobonds have received guarantees from major Brazilian banks in order to gain access to a market that otherwise might be closed to them. In return, the guarantor receives a fee, commonly a percentage point or more per annum on the guaranteed amount.

Control. The personalities of owners and managers have a strong impact on firm behavior. Struggles over control of the firm are not infrequent for obvious reasons: with control comes access to the firm's earnings. As a result, maintaining control can be pivotal whenever capital structure decisions are being made, and the choice between debt and equity can at times tilt in favor of debt, on the basis of control, even when cost or risk considerations would favor equity.

Government-imposed restrictions on share ownership by foreigners have been one





method for maintaining control in developing countries. Even today, restrictions on share ownership are widespread; in some countries foreigners cannot control more than 49 percent of a company's votes; in Brazil, access to the domestic equity market is limited to qualified institutional investors, who must satisfy registration and capitalization requirements. These share ownership restrictions have important effects on share price (and the cost of capital), with restricted shares selling at significant premia relative to unrestricted shares.

At the firm level, fear of losing control is often the predominant factor in decisions not to list publicly. With the exception of India, which has more shares listed publicly than all countries but the United States, the number of publicly listed firms in the emerging markets is relatively small. In Turkey, where there are tax advantages for publicly listed firms, enough shares are often issued to attain the tax advantage, but a majority of the publicly listed companies are not traded. In Brazil, control is maintained through the use of nonvoting preferred shares, which eliminates most control worries. Excluding one recent privatization, nonvoting preferred shares represented about two thirds of new shares issued in Brazil in the first ten months of 1993, with common shares comprising the remainder.

New patterns in financing

In principle, firms have available to them a range of debt and equity instruments. In practice, firms in many emerging markets face only a limited menu of instruments. But the liberal economic programs adopted by so many emerging market governments in recent years are fostering the development of vibrant domestic capital markets. In many cases, often for the first time, firms have access to medium- and even long-term domestic-currency debt capital, not to mention equity and quasi-equity. Equally impressive is the rapid increase in international access that emerging market firms have to debt and equity capital. As a result, many emerging market firms are finding more and cheaper equity and debt capital than ever before.

Equity. Emerging equity markets have grown in importance in recent years. This growth comes from three sources: the number of firms listed (including privatizations); new issues by listed firms; and price increases. The number of listed firms has grown from less than 7,000 in 1983 to more than 13,000 in 1992. Information on new issues by listed firms is not readily available, but growth in stock market capitalization has been dramatic (Chart 2).

The limited primary market information available for corporate debt and equity securities suggests that both have grown in importance in recent years (Chart 3). One notable reason for the growth in equity is the privatization programs that have taken place. Those privatizations may have offsetting effects in future years, however, as many privatized companies were sold stripped of their debt. As a result, one should see a predominance of debt being issued by these firms as they undertake their future investment programs.

Firms in need of equity are not limited to their domestic markets. By issuing securities in foreign markets, emerging market firms gain access to a much larger group of investors and, to the extent that international investors are better diversified and demand less return for risk, often lower their cost of capital. Moreover, the competitive pressure of an international issue can reduce the cost of capital at home as well. Recent empirical evidence on the cost-of-capital reductions arising from foreign issues supports this position.

For equity issues the most popular instruments among emerging market firms these days are the Global and the American Depository Receipts (GDR/ADR), which represent claims on shares held in trust by a depository. The receipts are registered financial instruments in the country in which they trade, and can be issued either for existing shares, or as a part of a new equity issue in order to raise capital. Once created, depository receipts continue to exist only as long as they are held by international investors and can flow back into the country of origination when international demand for them subsides. Firms choose to list their shares abroad

Cross-border issues by private firms in emerging markets are on the rise

Table 1
Cross-border equity issues
(million dollars)

	1988	1989	1990	1991	1992	1993
Argentina	0	0	0	360	392	594
Indonesia	0	339	586	81	67	366
Korea, Republic of	0	0	387	200	150	328
Mexico	0	0	0	3,531	3,077	3,706
Thailand	33	72	83	134	4	791
Other	0	27	217	497	1,555	1,700
Total	**33**	**438**	**1,273**	**4,803**	**5,245**	**7,485**

Table 2
Cross-border debt issues
(million dollars)

	1988	1989	1990	1991	1992	1993
Argentina	0	0	20	257	1,072	3,596
Brazil	0	0	0	339	2,197	3,988
Korea, Republic of	110	50	440	1,189	1,252	1,578
Mexico	0	0	150	553	2,387	4,782
Other	156	267	50	927	583	3,473
Total	**266**	**317**	**660**	**3,265**	**7,491**	**17,417**

Source: Euromoney Bondware.

through depository receipts in order to facilitate access to international investors.

The importance of the cross-border equity market has increased dramatically in recent years (Table 1). The entry of different countries into the market corresponds to changing market conditions, especially the implications of government economic programs and, in the cases of Argentina and Mexico, the resolution of international debt problems. Growth in the cross-border market has been especially significant for Mexico, which dominated the market in each of the last three years.

Debt. While equity markets have played an important role in the domestic capital markets of many emerging market countries for decades, the development of medium- and long-term corporate debt markets is generally a much more recent phenomenon. One reason for this may be the lack of a network of institutional investors in most emerging market countries.

As with the equity markets, information on the primary markets for corporate debt in the emerging markets is limited. The market has grown in recent years, but has fallen somewhat behind the equity market in importance, a trend that most likely reflects the relative costs of debt and equity. Increases in equity prices have reduced the cost of equity, a reflection of the interest on the part of international investors in emerging market equity, whereas real interest rates are up in many countries.

Parallel with the development of the international market for emerging market equity has been the development of an international market for emerging market corporate debt. For the most part, this market is a part of the larger Euromarket, but some issuers have participated in the debt side of the ADR market as well. International issues of corporate bonds from the emerging markets have surged in recent years (Table 2).

The attractions of the international debt market are the lower interest rates and longer maturities available there, compared with those found in the domestic markets of most developing countries. As in the equity market, growth in the debt market has followed international debt restructuring programs with the major debtor nations. Also like in the equity market, Mexico and Argentina have come to play significant roles in the debt market. Brazil has also tapped the debt market for large amounts, reflecting both the conservative nature of the capital structures of Brazilian firms, as well as the relatively low price level of the Brazilian equity market.

The future

The capital markets of most developing countries are only now beginning to fully serve the needs of issuers. In the past, developing country firms faced more constrained financing choices than their developed country counterparts. But now, with liberalization of domestic markets and increased international investor interest, use of external financing by firms is growing in importance.

While family owned businesses played a dominant role in developing countries in the past, as markets develop and stock prices increase, more firms are now issuing public equity. The alternative, issuing corporate debt, is also popular, but only for firms with healthy balance sheets that can absorb the risk involved. Increasingly, the most creditworthy developing country firms are also taking advantage of opportunities in the international debt and equity markets.

In sum, the capital structure decision-making process in developing countries closely resembles that in developed countries. Firms choose among instruments on the basis of cost, risk, and control. But, because domestic market conditions often impose severe constraints on the menu of securities available, or alter their relative costs, the observed "pecking order" in funding decisions varies from country to country. F&D

This article draws on IFC Discussion Paper No. 22, "Debt or Equity? How Developing Country Firms Choose" (July 1994).

The Plundering of Agriculture in Developing Countries

MAURICE SCHIFF AND ALBERTO VALDÉS

IF A COUNTRY wants to achieve faster agricultural growth, faster economic growth, and fewer poor people, it should stop taxing agriculture relative to other sectors.

Industry, long considered the engine of growth, has been the darling of development. Agriculture, by contrast, was believed to be unresponsive to economic incentives and did not lend itself to technical change. Thus, policymakers believed that promoting industry at the expense of agriculture would sacrifice little in output—or so went the conventional wisdom in the 1960s and 1970s.

There was a logic to this conventional theory. Explicit agricultural taxes, such as export taxes, and implicit taxes, such as marketing boards paying farmers less than market prices, were easy to administer and extremely attractive in countries with a thin tax base. In addition, shifting scarce resources to industry was thought to be justified by agriculture's declining terms of trade—a pound of agricultural exports was buying less and less than a pound of industrial imports—and by the rising protection of agriculture in industrial countries. So, policymakers biased incentives against agriculture, directly through sectoral policies and indirectly through industrial protection and other policies.

But the conventional wisdom had never been put to a rigorous test. Further, by the 1980s, it was becoming apparent that agriculture was profoundly influenced by events external to the sector—industrial policy and exchange rates—which in turn affected investment, growth, and income in agriculture. It also became apparent that biasing incentives against agriculture was far more harmful to output than surmised earlier.

In order to better understand the effects on agriculture of price interventions, a recent World Bank study looked at 18 developing countries over 1960–85 (see table). The study came up with a number of findings that question the conventional wisdom regarding the impact of price interventions on agricultural prices, income transfers, growth, the budget, and income distribution. These findings provide a solid basis for prescribing agricultural price policies in developing countries.

Main findings

A number of surprises emerged from the study, in particular the size and importance of the effects of industrial protection and exchange rate misalignments on agriculture.

Agriculture was milked. Governments influence agricultural prices both directly, through agricultural sector policies, and indirectly, through industrial protection and macroeconomic policies. Direct policies are defined as sectoral policies that affect the price level of the agricultural sector relative to the price level of the nonagricultural sector—the domestic terms of trade. Such policies include agricultural price controls, export taxes or quotas, import subsidies or taxes, and more. Indirect policies are defined as policies originating outside agriculture, such as industrial protection and macroeconomic policies. Indirect interventions depress the prices of agricultural tradables relative to nontradables (through their impact on the real exchange rate) and relative to other tradables (due to industrial protection). These policies affect production incentives by making agriculture less attractive than other sectors of the economy.

What have been the effects of such direct and indirect interventions? The indirect effect of industrial protection and real exchange rate overvaluation was to depress agriculture's domestic terms of trade by about 22 percent on average for the 18 countries over the sample period—nearly 3 times the direct effect from sectoral pricing policies. The total effect (direct plus indirect) was to depress agricultural domestic terms of trade by over 30 percent (see table). These would have been about 43 percent (30/70 = .43) higher in the absence of total interventions.

Macroeconomic policies caused the appreciation of the real exchange rate, raised the relative cost of nontradable inputs, and reduced the farmers' real purchasing power from the sale of export and import-competing commodities. Moreover, protection for domestic industry hurt agriculture by raising the domestic price of importable agricultural inputs above world prices, by reducing the purchasing power of farm households as consumers of manufactured goods, and by causing further appreciation of the real exchange rate.

But some direct measures benefited agricultural producers. Governments often subsidized the cost of farm credit and important

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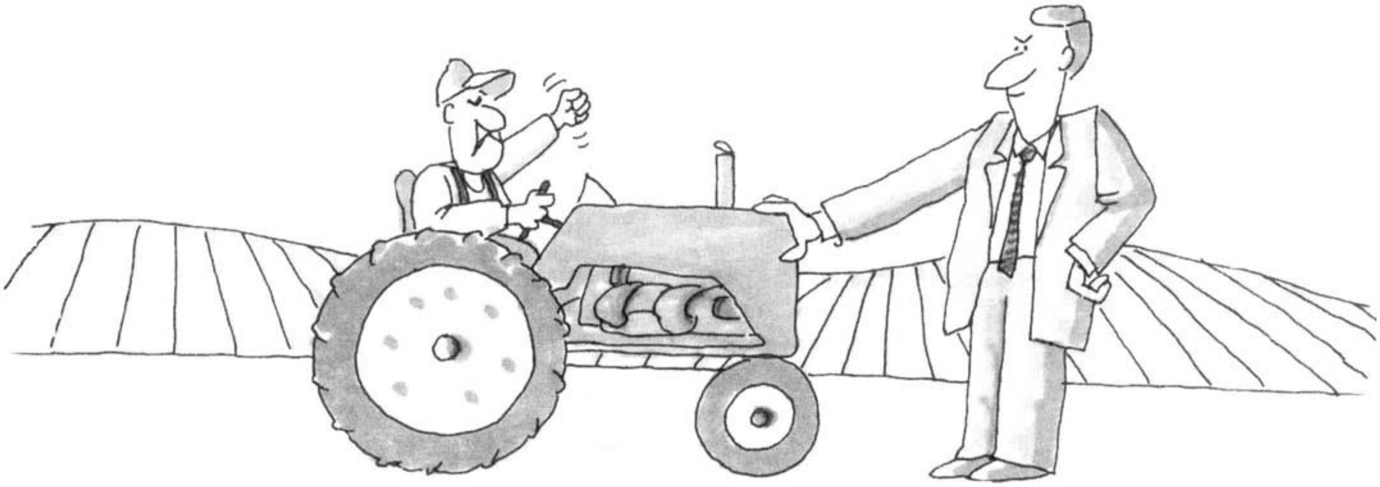

agricultural inputs, such as fertilizer. However, such subsidized credit and fertilizer was often rationed and generally went to the larger, better connected farmers. Moreover, many developing countries, to increase their food self-sufficiency, protected domestic producers of import-competing food products through quantitative restrictions or tariffs on imported commodities. Also, most countries, responding to the instability of world markets, intervened to stabilize domestic producer prices relative to world prices.

On average for the 18 countries examined, direct interventions protected importables (18 percent) and taxed exportables (16 percent). The average reduction of the price of exportables relative to importables was over 30 percent. Direct interventions also led to a significant reduction in price variability—32 percent on average for producer prices and 23 percent for consumer prices. On the other hand, the contribution of indirect interventions to price stability was negligible.

Since 1985, several countries in Africa, Asia, and Latin America have undertaken unilateral liberalization and stabilization programs resulting in relatively lower levels of industrial protection and real exchange rate overvaluation. Thus, both the direct and indirect biases against agriculture have fallen in these countries.

Agriculture pays and pays. In most industrial countries, the main objective of agricultural price policies is to maintain farm income and employment in the face of declining real world prices for cereals—with massive net income transfers to agriculture. In most developing countries, however, the primary objectives have been food self-sufficiency, domestic price stability, low food prices for urban consumers, and government revenue. This being said, the objectives of developing country agricultural policies have at times been quite contradictory. For instance, food self-sufficiency (implying high producer prices) and low consumer food prices are incompatible with generating government revenue. Fiscal constraints have forced an adjustment via lower producer prices.

On average, the net effect of direct and indirect interventions has been an enormous income transfer out of agriculture—averaging 46 percent of agricultural gross domestic product a year during the period 1960–84. The average net transfer for the countries with a representative bias was 37 percent (see table). Such enormous transfers must have severely depressed private investment in agriculture and agricultural growth. The big winners were government (net revenue gain), urban consumers (lower food prices), and industry (cheap raw materials).

Just as important is what the study did not find. Input subsidies did not compensate, or compensated very little, for the substantial income outflows resulting from interventions in output markets, and in most cases, public investment in agriculture (7 percent of agricultural GDP) did not compensate for the negative effects of price interventions. For the countries with the representative bias, the income transfer through input subsidies was never higher than 1.1 percent of agricultural GDP, and for all 18 countries, the average for 1960–84 was only 2 percent. Higher investment by government to compensate for taxing agriculture was found, to varying degrees, in only 5 of 15 cases, with only Egypt and Morocco showing compensation for all agricultural price policy or income variables tested.

Taxation slows growth. To examine the impact of price policy on annual growth of real agricultural GDP, the study compared the average agricultural growth rate in the group of countries in which the bias was lower (nominal protection rates were higher) than the average, with the rate in the group in which the bias was higher (protection rates were lower) than the average. This test showed that the group with the lower bias (higher protection rate) showed a higher average growth rate.

For the groups with high and low direct bias, the difference in mean agricultural growth is small—3.3 percent versus 4.3 percent, i.e., 1 percentage point, or 30 percent—and statistically not significant. But for the two total bias groups, the difference is large—2.7 percent versus 5.2 percent, i.e., 2.5 percentage points, or 90 percent—and significant. This provides strong evidence of an association between high total bias (mainly indirect) against agriculture and low rates of agricultural growth.

Further statistical tests revealed that the relationship between total bias and agricultural growth was significant: the lower the bias against agriculture, the higher the growth. Higher agricultural prices reduce labor migration from the sector, increase investment, and encourage wider adoption of new techniques—and result in a higher growth rate.

Price incentives work. There has long been a presumption that the production of individual agricultural products responds significantly to higher prices—because of shifts between products—but that total agricultural production is unresponsive to incentives. The presumption is wrong. Experience shows that in the long run, the aggregate response can be sizable, though it may require some years to materialize. This highlights the importance of having stable and persistent policies.

As noted above, price interventions in the 18 countries severely depressed agricultural prices during 1960–84. Without price interventions, agriculture's terms of trade would have been more than 40 percent higher. With such a large price impact from intervention, the effect of price reform on output is likely to be signifi-

Direct and indirect bias against agriculture

	Period	Indirect bias (negative protection) (1)	Bias due to industrial protection (2)	Direct bias (3)	Total bias (4)
		(period average in percent)			
Extreme bias	1960–84	28.6	25.7	23.0	51.6
Côte d'Ivoire	1960–82	23.3	23.2	25.7	49.0
Ghana	1958–76	32.6	32.4	26.9	59.5
Zambia	1966–84	29.9	21.4	16.4	46.3
Representative bias	1960–86	24.2	32.8	12.0	36.4
Argentina	1960–84	21.3	39.5	17.8	39.1
Colombia	1960–83	25.2	37.8	4.8	30.0
Dominican Republic	1966–85	21.3	20.8	18.6	39.9
Egypt	1964–84	19.6	27.5	24.8	44.4
Morocco	1963–84	17.4	13.4	15.0	32.4
Pakistan	1960–86	33.1	44.9	6.4	39.5
Philippines	1960–86	23.3	33.0	4.1	27.4
Sri Lanka	1960–85	31.1	40.1	9.0	40.1
Thailand	1962–84	15.0	13.9	25.1	40.1
Turkey	1961–83	37.1	57.4	-5.3	31.8
Mild bias	1960–83	15.7	22.9	0.2	15.8
Brazil	1969–83	18.4	21.4	-10.1	8.3
Chile	1960–83	20.4	37.4	1.2	21.6
Malaysia	1960–83	8.2	9.9	9.4	17.6
Protectors	1960–84	13.6	13.9	-24.0	-10.4
Korea, Republic of	1960–84	25.8	26.7	-39.0	-13.2
Portugal	1960–84	1.3	1.0	-9.0	-7.7
Sample average		22.5	27.9	7.9	30.3

Source: Maurice Schiff and Alberto Valdés, *The Plundering of Agriculture in Developing Countries*, World Bank, Washington, DC, 1992.

Note: Direct and indirect interventions have depressed agriculture's domestic terms of trade (AGTOT) below the prevailing level in the absence of these interventions. Direct interventions depressed AGTOT by 7.9 percent on average (column 3), indirect interventions depressed AGTOT by 22.5 percent on average (column 1), and total interventions (direct plus indirect) depressed AGTOT by 30.3 percent on average (column 4=columns 1 and 3). The indirect bias is a weighted average of the effect of the real exchange rate overvaluation and of the effect of industrial protection (shown in column 2).

cant. How agricultural production responds to a price reform depends on how severely interventions have depressed prices, how extensive and credible the reform is, how responsive output is to a given price change, and what time period is considered.

Budget impact. The fiscal effects of specific agricultural price policies have received much attention and generated intense debate. But there have been few, if any, systematic attempts to quantify the net fiscal impact of price interventions. Consumer food subsidies have frequently been cited as a major drain on government budgets. But while they were a drain for some food-importing countries, this was not the case for most countries. Similarly, many countries have a tradition of subsidizing agricultural credit and inputs, conventionally interpreted as compensating producers for the heavy taxation of agricultural production. Yet such subsidies represent only a small part of government expenditure (averaging only about 2 percent over 1960–1985) while taxing agricultural exports yields substantial revenue to the government (averaging 10 percent of government expenditure). Indeed, the net effect of direct price interventions in agriculture was a net revenue gain (of output and input policies) to the government of nearly 7 percent over the period 1960–85, and as much as 17 percent during the 1960s.

The government's need for revenue to fund expanding development programs was probably the major impetus behind taxing agricultural exports, and it remains the major constraint to reform of direct interventions. On the other hand, in some countries, the fiscal burden of input and food subsidies escalated so rapidly that it led to macroeconomic imbalances that could be corrected only through policy reform. Changes in agricultural policies in Portugal were dictated chiefly by budget pressures in the early 1980s, when fertilizer and feed subsidies were essentially eliminated. Attempts to reduce food subsidies in Egypt, Morocco, Pakistan, and Zambia also show the link between price policy and the budget.

Large revenue contribution. In most countries, the net budget effect of direct price interventions in agriculture was a gain in revenue, mainly through taxes on agricultural exports, which alone financed as much as 20 percent of government spending in the 1960s. And in three countries—Brazil, Ghana, and Sri Lanka—export tax revenues amounted to 20 percent or more of total government spending over the entire 1960–85 period. Over time, however, the net contribution of the price interventions for this group of countries fell substantially, from 18 percent of government spending in the 1960s to 5 percent in 1980–84. But in a few countries, the revenue contribution remains important—and undoubtedly constrains any policy reforms designed to reduce direct agricultural taxation. In those countries, sectoral reforms that would eliminate or reduce agricultural export taxes would need to be accompanied by economywide tax and fiscal reforms.

Urban/rural effects. Contrary to the widely held view that cheap food policies prevail in developing countries, direct price interventions penalized urban consumers in 6 of 14 countries for which data were available. In fact, most countries protected the production of agricultural importables, mostly food, and only a few of these countries also reduced consumer food prices through explicit food subsidies. Moreover, despite widespread direct interventions, the impact on the real income of urban households was generally small. In only 4 of the 14 countries (Argentina, Egypt, Pakistan, and Turkey) were the real income effects on both low- and middle-income households higher than 3 percent of their income.

However, adding the indirect price interventions, it was found that the total income gain for low-income urban consumers ranged from 0.2 percent to 5.3 percent of household incomes in 7 of 14 countries, and was 10 percent or more in three countries —Argentina, Egypt, and Turkey. The effect of the so-called cheap food policies took place mainly through real exchange rate overvaluation rather than through direct price interventions. On the other hand, on the whole, direct price interventions have achieved the objective of stabilizing domestic agricultural prices. Hence, a motive underlying food price interventions may have been to prevent sudden large real income losses in years of higher-than-average food prices rather than to raise the standard of living of the urban poor.

For the rural poor, the short-run income effects of price interventions were substantially higher and in the opposite direction from those for urban households in the same country. In most countries, rural households suffered real income losses. And direct interventions had considerably more impact on the real income of larger farms (or wealthier rural households), whether these were positive (as

in Korea and Portugal) or negative (as in Egypt and Turkey). Ghana was the exception, with small farmers gaining from direct price interventions because they produce more rice, which is protected, and larger farmers losing because they produce more coffee and cocoa, which are heavily taxed.

In the long term, the poor have lost disproportionately. Price interventions seem to hurt most of the poor in the long run (possibly because the full picture at the household level could not be measured). Taxing agriculture reduces rural demand for labor, so that rural employment and real wages fall. This leads to increased migration to the cities and increased competition for employment, and thus to a fall in income in the informal urban sector as well. Moreover, to the extent that the benefits from food subsidies were captured mainly by urban households—and predominantly employees in the government and the formal sector—the cost may have been a reduction in the real income of the rural poor and, indirectly, of the urban poor in the informal sector.

In the long run, indirect interventions affect income far more than direct interventions. Thus, governments should not use direct (sectoral) price interventions in order to redistribute income, because the distributive benefit is small while the efficiency cost can be very large.

Policy reform

Since the mid-1980s, there has been a profound change in development strategies—with movements toward more open outward-oriented economies. Further, there has been a shift in thinking about the role of government in general. This has prompted reform of policies that affect agriculture in a number of developing countries.

Economic stabilization and trade liberalization have gradually emerged as centerpieces in the reform of several developing countries' development strategy. This is most clearly the case in Latin America, but it is gradually being adopted in other regions as well. A consensus is emerging that preconditions necessary to restore economic growth include deep structural reforms that would open up economies and restore the private sector as the principal player. Thus, during the late 1980s in Latin America, for example, most countries embarked on a unilateral process of tariffication consisting of converting quantitative restrictions to tariffs, binding the tariffs under GATT, drastically reducing the coverage of nontariff barriers, removing export taxes, and reducing average import tariffs as well as their dispersion.

These reforms have led to a reduction in industrial protection and to a less distorted level of the exchange rate. Consequently, the indirect bias—the largest component of the total bias on agriculture—has fallen significantly in many countries. This is the case for example in Argentina, Chile, Colombia, Ghana, India, Mexico, Morocco, Turkey, and others.

The direct bias has also been reduced in several countries. For example, in Argentina, the export tax was eliminated (it averaged 18 percent during 1960–84). Export taxes were removed in Brazil, Colombia, the Dominican Republic, and many other countries. However, there are still many countries, such as India, where the trade reform has not yet reached the agricultural sector.

Hence, trade liberalization in the manufacturing sector and a reduction of export taxes on agricultural commodities have reversed the strong anti-export bias prevailing before the mid-1980s in a large number of countries. At the same time, however, there have been new developments that affect incentives for agriculture. One emerging concern has been the evolution of the real exchange rate (RER) in the same countries that have adopted the trade reforms. Largely as a result of increased private capital inflows following stabilization and trade liberalization, several Latin American countries (and this is also becoming an issue in India) have seen their real exchange rate appreciate. This RER phenomenon is already creating tension regarding trade liberalization programs for agriculture in some countries, such as Argentina, Colombia, Chile, and others. A key determinant of the success of trade liberalization is maintaining a competitive real exchange rate that encourages exports and gives some exchange rate protection to import-competing activities. Effective RER management could be most important for the sustainability of the agricultural trade reform in the near future.

Policy recommendations

The findings of the study emphasize the importance of economywide factors on agricultural performance. Several policy recommendations emerge from these findings:

• If a country wants to prosper, it should not bias incentives against agriculture relative to other sectors or, what amounts to the same thing, it should not use policies to depress agriculture's domestic terms of trade. But to stop this practice, the country must do more than dismantle the sectoral or direct interventions in agricultural prices—it must, in addition, eliminate the indirect bias against agriculture (about three quarters of the total bias against agriculture in 1960–85), including removing industrial protection and getting the exchange rate in line with its long-run equilibrium value. In other words, reform in the agricultural sector will succeed only if it is part of a general reform of the economy, including stabilization and trade (and domestic market) liberalization.

• If a country stops the sectoral or direct taxation of agriculture, it must (or at least many countries must) look to other sources of revenue to finance the activities of government. Reducing the indirect bias need not entail revenue losses. Depreciation of the real exchange rate need not affect the budgetary accounts, and trade liberalization usually starts with tariffication of the nontariff barriers, which raises government revenue.

• If a country wants to reap the large income gains possible from the reform of agriculture, it should stop the direct taxation of exports and the direct protection of imports (so as to put imports and exports on an equal footing)—and it should dismantle quotas, licenses, and state trading companies (which obscure the real winners and losers from subsidies or taxes), and those internal agricultural marketing regulations that prevent a free flow of goods and services within the country. Nor should governments use social objectives (like protecting the poor) to justify tampering with agricultural prices. The impact on the poor is small in the short run in most countries and impossible to know in the long run. Moreover, agricultural growth—and incomes—will suffer.

• To reap the full benefit of reforming agricultural prices and agricultural trade, it helps to launch simultaneous reforms outside agriculture—in land, finance, transport, and communication. If a country wants to stabilize prices at a relatively low cost, it should develop efficient hedging instruments, reform other agricultural policy interventions, and stop interest groups from subverting the price stabilization program in order to obtain a favorable change in the price level.

• A number of reforming countries have seen their real exchange rate appreciate because of the capital inflows resulting from the reform. This has led to pressure by the agricultural lobbies for protection (e.g., in Chile, Colombia, New Zealand, and other countries). Consequently, in order to ensure that the reforms are not reversed, governments should carefully manage the short-term component of these large capital flows. F&D

For further detail, see the five-volume series, The Political Economy of Agricultural Pricing Policy *(The Johns Hopkins University Press, Baltimore, MD, 1992), edited by Anne O. Krueger, Maurice Schiff, and Alberto Valdés. This paper draws on the findings of* A Synthesis of the Economics in Developing Countries, *Volume 4, by the authors.*

Macroeconomic Crisis and Adjustment

SARATH RAJAPATIRANA

WITH THE harsh macroeconomic shocks of the 1970s and 1980s, attention has turned increasingly to macroeconomic adjustment in developing countries. A recent World Bank study shows that it is not so much external shocks but domestic responses that determine a country's success or failure.

Why do some countries have different policy responses to similar circumstances and shocks? History has shown that a country's ability to do well economically depends, in part, on how well and how quickly it reacts to short-run shocks. Hence, although history does not repeat itself, it does hold some lessons for the future. Therefore, it is worthwhile to take a careful in-depth look at the experiences of developing countries during the 1970s and 1980s to see how the debt crisis originated, how different countries handled disturbances such as the two oil price shocks (1974 and 1979–81) and the world recession of 1980–82, and how the adjustment process worked.

For this reason, a World Bank comparative research project was undertaken to investigate the macroeconomic experiences of 18 developing countries. It included virtually all the large developing countries, as well as some small ones, accounting for more than 60 percent of the GDP of developing countries as a group (see Table 1 and reference).

The research confirms the importance of domestic policy responses—fiscal discipline, competitive exchange rates, and rapid adjustment to permanent shocks. This research was based on a wider set of countries, and over a longer time period than can be found in the previous literature on macroeconomic policymaking in developing countries. Moreover, the research produced a number of surprises and new insights. For instance, the debt crisis cannot really be attributed directly to the adverse effects on oil-importing countries caused by the two oil shocks, or more generally, by adverse terms of trade shocks. Many countries did, of course, suffer adverse shocks and then ran into difficulties, but there was no direct relationship between the size of the adverse shocks and the extent of the subsequent problems.

Macroeconomic shocks

Compared with the previous two decades, the 1970s and 1980s were exceptionally turbulent for the world economy. That turbulence posed severe challenges to macroeconomic management in all countries, whether they had gained or suffered from the changes.

Terms of trade shocks. The first oil shock (1974) worsened the terms of trade of all the sample countries except Indonesia and Nigeria, whose terms of trade improved dramatically. Some of the countries subject to the oil shock experienced other commodity price increases that offset at least part of the oil price increase. The terms of trade deteriorations resulted in large increases in the current account deficits of many countries in the sample. The first oil shock and its continuing effects created a period of increased availability of credit at low interest rates. The higher oil export earnings were recycled by commercial banks to developing countries from 1973 to 1979. This allowed these countries to maintain consumption as well as to finance investment booms that had begun at the time of the first oil crisis.

Those countries already weakened by the first oil shock experienced a further deterioration in their current account positions with the second oil shock (1979–81)—a time of increased indebtedness and soft prices for their own exports. Meanwhile, tightening monetary policy in the developed countries had reduced the demand for developing country exports. Interest rates rose sharply by 1979. This imposed a heavy burden on countries that had acquired large external debt at floating interest rates. The combination of the adverse terms of trade, the interest rate hike, and the recession led to what can be called the crisis years of the early 1980s.

Investment booms. From the early 1970s to early 1980s, all the countries in the sample, except Brazil and India, experienced investment booms. This was related to the availability of credit at low interest rates, except in Chile and Kenya, where the booms were led by the private sector. The investment booms in the other countries took place in the public sector. Sri Lanka's investment rose by an

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astonishing 18 percent, for the most part financed by external assistance. Investment in Korea's chemical and heavy industries was undertaken by the private sector with government direction and subsidized credit. But, in general, public investments were not adequately evaluated and took place under distorted policy regimes using credit at low interest rates. Many of these investments came to haunt policymakers later on.

The debt crisis. The investment boom, worsening terms of trade, the world recession of 1981–82, and the rise in interest rates led to large increases in the current account deficits of these countries. External borrowing increased by about 5 percent of GNP, on average, during 1979–82. As a result of higher borrowing and the rise in interest rates, debt-service obligations increased rapidly. Fourteen of the countries in the study paid more than 1 percent of their GNP in interest payments. Eight countries rescheduled their debt (Argentina, Brazil, Chile, Costa Rica, Côte d'Ivoire, Mexico, Morocco, and Nigeria). Eleven of the countries experienced current account deficits of more than 3 percent of GNP during 1983–88. The sharp cuts in investment in countries that rescheduled their debt led to stagnation of their incomes; per capita GNP grew by only about 2 percent a year during 1982–89. However, a part of the cut in investment was necessary given the excessive and unproductive investment of the 1970s. In general, the countries that did not reschedule and were able to maintain more stable investment were able to achieve an income growth rate of about 3 percent during 1982–89.

Resource transfers. A dominant feature of the 1980s was the reduction in resource transfers to developing countries following the 1982 debt crisis. A reduction in the resource transfer (measured by the current account deficit plus remittances) is a good indicator of the severity of the adjustment that countries had to make. Indeed, a number of countries shifted from inward to outward transfers, with interest payments exceeding the current account deficit and remittances. For some countries (Chile, Costa Rica, Côte d'Ivoire, Korea, Mexico, and Morocco), the net shift was over 7 percent of GDP.

Policy reactions to shocks

Despite this net shift in resource transfers, all countries, except Korea and Mexico, continued to run current account deficits and to receive net capital inflows. Korea's severe adjustment was voluntary and reflected a desire to reduce high indebtedness, while other countries were forced to make the shift because of the loss of creditworthiness.

There were varied policy reactions to the shocks, depending on the severity of the shocks, the policy stance at the time of the shock, and the traditions and conventions regarding fiscal discipline in these countries.

Fiscal policies. Fiscal policy was lax in most of these countries until late 1983, when adjustment became unavoidable. There was no fiscal adjustment to the first oil shock. In some of the countries that experienced sharp increases in export earnings from oil (Cameroon, Indonesia, Mexico, and Nigeria), phosphates (Morocco), coffee (Cameroon, Colombia, Costa Rica, Côte d'Ivoire, and Kenya), and external assistance (Sri Lanka), a feeling of euphoria developed, and public expenditures rose rapidly. Fiscal discipline weakened all around, particularly among the state-owned enterprises that benefited from improvements in the terms of trade and increased access to foreign capital.

After 1983, fiscal policy was inevitably used by countries to help with the external adjustment, rather than to stabilize incomes and employment. Some countries maintained fiscal discipline through the early to mid-1980s, by law as in the case of Indonesia, by tradition as in the case of Thailand, and by the exigencies of the situation as in the case of Cameroon, which sequestered its oil revenue increases and did not reveal oil-related accounts publicly. Chile is the exception. A crisis developed in Chile not because of fiscal indiscipline but rather because of large foreign borrowing by the private sector. The fiscal indiscipline that arose in other countries was due to their inability, or unwillingness, to contain the expansion of public

Table 1
Eighteen countries at a glance

Country	GDP, 1991 (billion dollars)	Population mid-1991 (millions)	GNP per capita 1991 (dollars)	Average annual GDP growth rate 1965–90 (percent)	Average annual inflation rate 1980–91 (percent)	External debt as percent of GNP 1990	Debts rescheduled 1982–88
Argentina	114.3	32.7	2,790	-0.3	416.9	61.7	Yes
Brazil	414.1	151.4	2,940	3.3	327.6	22.8	Yes
Cameroon	11.7	11.9	850	3.0	4.5	56.8	No
Chile	31.3	13.4	1,940	0.4	20.5	73.6	Yes
Colombia	41.7	32.8	1,260	2.3	25.0	44.3	No
Costa Rica	5.6	3.1	1,850	1.4	22.9	69.2	Yes
Côte d'Ivoire	7.3	12.4	690	0.5	3.8	203.9	No
India	221.9	866.5	330	1.9	7.9	25.0	No
Indonesia	116.5	181.3	610	4.5	8.5	66.4	No
Kenya	7.1	25.0	340	1.9	9.2	81.2	No
Korea, Republic of	283.0	43.3	6,630	7.1	5.6	14.4	No
Mexico	282.5	83.3	3,030	2.8	66.5	42.1	Yes
Morocco	27.7	25.7	1,030	2.3	7.1	97.1	Yes
Nigeria	34.1	99.0	340	0.1	18.1	117.9	Yes
Pakistan	40.2	115.8	400	2.5	7.0	52.1	No
Sri Lanka	8.2	17.2	500	2.9	11.2	73.2	No
Thailand	93.3	57.2	1,420	4.4	3.4	32.6	No
Turkey	95.8	57.3	1,780	2.6	44.7	46.3	No

Source: *World Development Report 1992* (for the first five columns). Column 6 is from the World Bank's *World Debt Tables 1991–92*, Volume 2. Column 7 comes from the IMF and Chapter 4 of *Boom, Crisis, and Adjustment: the Macroeconomic Experience of Developing Countries*, Oxford University Press, 1993.

Note: The "technical notes" in *World Development Report 1992* explain the meaning and methods of calculation of the figures in the first five columns. The average annual inflation rate (column 5) is measured by the growth rate of the GDP implicit deflator, while other figures of inflation rates refer to the growth rate of the cost-of-living index—but the two measures normally tell very similar stories. External debt in column 6 refers to the total external debt stock, long and short term. For column 7, note that Cameroon became a rescheduler in 1989.

Table 2
Disequilibrium factors, 1978–82

	Bad start	Negative shock	Policy inaction	Lack of fiscal control	Real exchange rate appreciation	Recession 1980–82
Troubled						
Argentina	N	N	Y	Y	N	Y
Brazil	N	Y	Y	Y	N	Y
Chile	Y	Y	Y	N	Y	Y
Costa Rica	Y	N	Y	Y	N	Y
Côte d'Ivoire	Y	Y	Y	Y	N	Y
Mexico	N	N	Y	Y	Y	Y
Morocco	Y	N	Y	N	N	Y
Nigeria	N	N	Y	Y	Y	Y
Intermediate						
Colombia	N	N	Y	Y	N	N
Kenya	Y	Y	Y	Y	N	N
Sri Lanka	Y	Y	N	N	Y	N
Untroubled						
Cameroon	N	Y[1]	N	N	N	N
India	N	N	N	N	Y	Y
Indonesia	N	N	N	N	Y	Y
Korea, Republic of	Y	Y	N	N	N	Y
Pakistan	N	N	N	N	N	N
Thailand	Y	Y	N	N	N	Y
Turkey	N	N	N	N	N	Y

Source: World Bank data.
Note: Whether or not a country could be characterized by the title of the column heading is indicated by a Y or N in the appropriate cell. **Bad start**: current account deficit/GDP > 5.6 percent in 1979 (see Table 4.1 in *Boom, Crisis, and Adjustment: the Macroeconomic Experience of Developing Countries*, Oxford University Press, 1993). **Negative shock**: total negative effect/GDP > -4.3 percent in 1979. **Policy inaction**: failure to try to reduce absorption by fiscal or monetary action. **Lack of fiscal control**: Finance Ministry unable to control public expenditure. **Real exchange rate appreciation**: percentage appreciation of the real exchange rate from 1979(1) to 1982(2) > 15 percent. **Recession**: actual fall in annual GDP.
[1] In Cameroon, the terms of trade shock was offset by a rising volume of oil exports.

expenditures rather than to the difficulties in raising additional revenues.

Monetary and inflation policies. When foreign financing of fiscal deficits became limited after 1982, some countries resorted to the inflation tax. The inflation experience of these countries was diverse and manifested itself in three principal forms: adjustment inflation, which was brought about by once-and-for-all price adjustments; seignorage inflation, which was associated with a steady increase in the supply of money as the government attempted to command real resources; and spiraling inflation, which accelerated over time, with wages and other costs responding to the initial inflation impetus. However, most of the countries were successful in controlling inflation despite "bubbles" that occurred in the early to mid-1980s. The notable exceptions were Argentina and Brazil, which experienced hyperinflation. Argentina was able to reduce inflation drastically in 1991 with a major fiscal adjustment and strict control of money creation through its "convertibility law," while Brazil had initial success followed by accelerating inflation. Another stabilization effort has been under way in Brazil since mid-1994.

Exchange rate policies. During 1965–73, most of the sample countries had fixed exchange rate regimes and devalued infrequently. Many of the other countries continued with fixed rates even after the industrial countries had adopted floating exchange rates. They moved to floating rates only in the early 1980s. Argentina, Brazil, Chile, Colombia, and Korea adopted flexible exchange rate regimes earlier than the other countries since they experienced above average inflation rates for developing countries. These countries devalued frequently or practiced crawling pegs.

Nominal devaluations have clearly led to real depreciations that have been sustained for some time. Real depreciations also led to increases in exports, especially of manufactured goods. Export booms associated with devaluations helped to overcome payments problems in Chile (after 1982), Thailand, and Turkey. But this did not happen at all times and to all countries, particularly when fiscal policy did not support the devaluation.

The case for fixing the nominal exchange rate to some leading currency or combination of currencies is based on the idea that fixing an exchange rate to the currency of a low-inflation country "anchors" the country's rate of inflation. Argentina and Chile used the exchange rate as an anchor to curb inflation. These earlier attempts failed in Argentina because of the lack of fiscal control, and in Chile because of large private capital inflows that appreciated the exchange rate. However, Argentina was able to achieve considerable success with the nominal exchange rate anchor after 1991, through tight fiscal controls and by adopting full convertibility of the peso. A number of countries have remained low-inflation countries in spite of shifting from a (more or less) fixed to a flexible rate regime, while there have been several episodes in the 1980s in which fixing the exchange rate has not put a halt to inflation, but rather has resulted in intensified import restrictions. The costs of failure—that is, of fixing the rate while fiscal deficits or serious inflation, or both, continue—must be borne in mind.

Trade policies. In the past, trade restrictions were used extensively to deal with the balance of payments problems in these countries. At times of balance of payments deficits, imports were restricted and at times of rising reserves, imports were loosened. The main instrument of trade policy was quantitative restrictions, particularly the transfer of import items to and from a prohibited list to a liberalized list. This policy arose partly out of the reluctance to devalue and partly out of the prevailing inward-oriented trade strategies. This changed in the early 1980s. Many countries that would have normally introduced import restrictions in the face of payments problems began to liberalize their import regimes while devaluing. These "new liberalizations" meant that nearly all the countries had, by and large, begun to avoid the use of trade policies to deal with what were essentially macroeconomic problems. The success of countries that had liberalized earlier, and support from international financial institutions for trade liberalization, led to this change in approach to trade policy. Eight of the countries (Chile, Indonesia, Korea, Mexico, Morocco, Nigeria, Sri Lanka, and Turkey) undertook strong trade reforms.

Results of policies

Size and sign of shocks. The study revealed that there was no direct and immediate link between either the size or the sign of a shock and economic performance. Domestic economic policies played a major role in determining economic performance. Factors such as the budgetary responses of the governments to a deteriorating fiscal situation and the governments' handling of the exchange rate were more important than the sign or the size of the shock for economic performance.

This was well demonstrated with respect to the 1979–82 crisis period and the recession of 1981–82. Those countries that had to reschedule their debts—Argentina, Brazil, Chile, Costa Rica, Côte d'Ivoire, Mexico, Morocco, and Nigeria—had one factor in common, namely policy inaction (see Table 2). This meant a failure to reduce absorption by fiscal or monetary policies. Large deficits and heavy borrowing were allowed to continue for too long. Another reason for poor performance was exchange rate appreciations. The appreciations were caused by holding on to a fixed exchange rate during inflation bubbles that occurred after the second oil shock. The exchange rate appreciations had a depressing effect on the traded goods sectors of the economies and were associated with subsequent low growth.

The lack of a relationship between the sign of the shock and economic performance is best seen in the poor performance of oil exporters such as Mexico and Nigeria. Equally, despite the negative shocks experienced by Korea, Pakistan, Sri Lanka, and Thailand, the economic performance of these countries recovered after the initial pause in the growth rate. Moreover, neither initial levels of debt and current account deficits in 1979, nor the size of the shock experienced in 1979–81, were good indicators of whether or not countries succumbed to recession or became indebted during the years subsequent to the shock. Similarly, neither the initial conditions in 1979, nor the shock of the virtual elimination of commercial credit were good indicators of the growth in per capita GNP during 1982–89.

Export growth. Recovery from the recession of 1981–82 and the resumption of growth during 1982–89 were dependent on export growth. This itself was the result of trade policy reforms and the adoption of more competitive exchange rates. Rapid export growth reduced the need to restrain imports to a level that could be financed.

Speed of policy reactions. In many respects, there were big differences in performance between countries, essentially because of their policy reactions. Some countries reacted quickly when balance of payments problems clearly emerged and avoided crises, while others kept on borrowing. Simple generalizations claiming that policies pursued in developing countries are generally inflationary, or that the debt crisis caused inflation, do not apply. Many countries had inflationary bubbles as a result of the first oil shock and the crisis of the early 1980s, but they were able to return to a relatively low-inflation path. Only a few of the 18—notably Argentina and Brazil—suffered high inflation in the 1980s. In fact, the one generalization that does apply is that everything depended on the speed of policy reactions to adverse developments and on the ability of the government to maintain fiscal control.

While the macroeconomic outcomes depended on policy reactions, policy reactions themselves were in part rooted in tradition and history. Countries that were successful also had finance ministries with the power to design, argue for, and carry through fiscal and price measures. A tradition of conservative fiscal management also made the extent of the needed adjustment small, as was the case in Thailand.

Import restrictions. Attempts to deal with balance of payments deficits through import restrictions did not succeed. Since the main problem was excess demand, imposing import restrictions did not solve it. In some instances, the excess demand problem had been exacerbated by "import starvation," when aggregate supply was reduced because of the inability to import essential raw materials and intermediate goods. This was the case in Indonesia before 1966, India and Sri Lanka in 1973–74, and Nigeria in 1983–86. Output growth was adversely affected by strong import controls. Current account deficits could not be improved by import restrictions beyond the first and second years following their imposition.

"Using the exchange rate as a nominal anchor carries with it a huge responsibility for the fiscal and monetary authorities."

Policy lessons

What are some of the policy lessons that can be drawn from the study? The first and most important lesson is that thorough cost-benefit analyses must be used in evaluating public investment projects. The public investment booms that developed very quickly often lacked a sound basis and came to a sudden end with the debt crisis. This lesson emerges from many countries, particularly from Côte d'Ivoire, Mexico, Morocco, Sri Lanka, and even Korea.

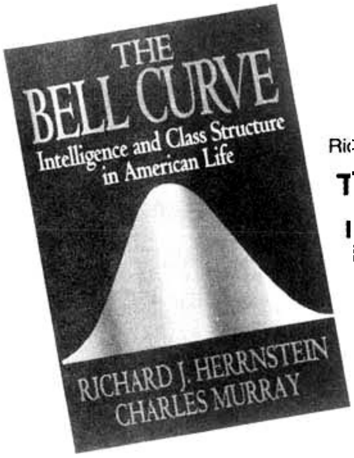
Second, firm central budgetary control of the access of all public agencies to finance, both domestic and foreign, is essential. Public sector deficits should be kept under control and their long-term consequences for public debt, both domestic and external, as well as the cost of servicing it, must be appreciated. Public sector deficits can arise in many quarters of the economy—not only in the central government's budget, but also in state enterprises—financed directly by borrowing either from commercial banks or from the central bank, in the budgets of provincial authorities, and in the central bank itself (through rescue operations or through purchases of foreign exchange). It is striking that many of the public sector borrowing sprees originated not with the central government but with state enterprises, and it is also striking how large some Latin American central bank deficits were in the 1980s. Provincial governments and state enterprises should not have automatic access to central bank financing.

Third, the exchange rate cannot be considered independently of inflation. An economy that has higher inflation than its trading partners must be prepared to devalue. The danger of an overvalued exchange rate is that it will induce countries to impose trade controls. Using the exchange rate as a nominal anchor carries with it a huge responsibility for the fiscal and monetary authorities. A fixed exchange rate should not be maintained out of fear of inflation. A devaluation is an adjustment to inflation and not a cause. Jerky movements in the real exchange rate and periods of overvaluation should be avoided as they have adverse effects on the tradable sector.

Finally, building rigidities into the economy, such as persistent import controls or extensive wage indexation, should be avoided. Such rigidities raise the cost of adjustment in terms of unemployment and output losses. Further, it is essential to maintain policy flexibility and, in particular, to correct mistakes quickly. This way shocks can be prevented from turning into crises that threaten low growth. F&D

This article is based upon the findings of a World Bank research project directed by Sarath Rajapatirana. They were subsequently published as a volume entitled Boom, Crisis, and Adjustment: The Macroeconomic Experience of Developing Countries, *by Oxford University Press. This volume was co-authored by I.M.D. Little, Richard Cooper, W. Max Corden, and Sarath Rajapatirana.*

The 18 developing countries chosen for the study were Argentina, Brazil, Cameroon, Chile, Colombia, Costa Rica, Côte d'Ivoire, India, Indonesia, Kenya, Korea, Mexico, Morocco, Nigeria, Pakistan, Sri Lanka, Thailand, and Turkey. The World Bank is publishing eight of the country studies separately.



Richard J. Herrnstein and Charles Murray

The Bell Curve

Intelligence and Class Structure in American Life

The Free Press, New York, NY, USA, 1994, xxvi + 845 pp., $30.

Since the publication of *The Bell Curve* in October 1994, we have had the absurd spectacle of talk-show hosts furiously debating evolutionary biology and labor econometrics. The occasion for all this is the book's sensational claim that there are genetic differences in intelligence between ethnic groups.

What could a randomly selected economist contribute to the debate? Well, I know no more (and, apparently, no less) about genes than Herrnstein and Murray. But what about their use of statistical techniques to support the claim that differences in educational, social, and economic performance between individuals and ethnic groups are primarily due to innate intelligence, as allegedly measured by scores on standardized tests?

Herrnstein and Murray document the close association—across individuals and groups—of scores on standardized tests, income, and various aspects of social behavior such as criminality, welfare dependency, illegitimacy, political participation, and good parenting. These associations themselves are deeply interesting for students of economic development.

But how should we interpret them? Herrnstein and Murray say that causality probably goes in all directions in these associations. So you would guess that they use some of the standard statistical techniques to try to identify the direction and strength of causality in each direction, right? You would guess that they discuss ways to directly test the implications of various economic, sociological, psychological, and biological theories that might shed light on the direction of causality, right? Well, if you guessed that, you would be wrong.

Instead, controlling for income, they show that there is an association between educational attainment (test scores) and social behavior. They also show that there are differences in educational attainment between ethnic groups, controlling for income. That is all there is in 500 pages to justify all their sound and fury about how most of the economic differences between individuals or between ethnic groups can be explained by innate differences in ability. As leaps of faith go, this is jumping across the Three Gorges.

Is this association not merely consistent with educational attainment having an independent effect on social behavior, controlling for income? Is it not true that *any* other factor besides income that affects both educational attainment and social behavior would also result in such an association? Do not theories from economics and other social sciences suggest that other factors besides income affect educational attainment and social behavior, like the strong influence of neighborhood and peers, as suggested by economists George Borjas, Anne Case, and Lawrence Katz? Is it so surprising that historically economically worse-off ethnic groups catch up in educational attainment with better-off ethnic groups at a different rate—in some cases faster, in some cases slower—than they catch up in income?

Are scores on standardized tests really a measure of innate, inherited intelligence? Are your test scores affected by whether you are barely taught reading and writing in crime-ridden, overcrowded, inner-city schools where classes are held in converted closets and bathrooms? (See Jonathan Kozol's recent book on the subject.) What are all those eager parents who peruse average test scores of neighborhood schools before deciding where to live trying to do—figure out the genetic endowment of their future neighbors?

I do not know, because I am not a specialist on intelligence tests, so let me quote two authorities named...Herrnstein and Murray. They say that analyses of small samples of twins who were adopted by different foster parents have suggested that intelligence test scores are "40 to 80% hereditable" (they regret that they do not have time to discuss this finding in more detail). So they say that environment accounts for 20 to 60 percent of the differences in test scores between individuals. Moreover, they say that how much of the difference in test scores can be explained by nature, rather than nurture, will depend on how different the nurture is between individuals; the difference between destitution and affluence is large enough to raise the environmental share quite a bit. Moreover, they admit their "40 to 80% hereditable" studies apply only to individual differences, not to differences between ethnic groups.

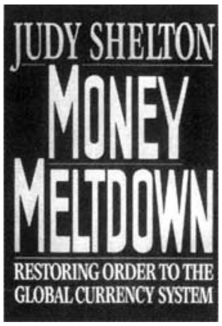
How then did Herrnstein and Murray come to believe they could read the ethnic genetic code in those little pencil shadings on the test sheets? Were they influenced by that American General in charge of a conquered country who complained in 1945 that his charges had the IQ of 12-year olds? Or were they influenced by that early IQ tester in 1912 who complained that the IQ of one immigrant ethnic group to the United States was frighteningly low? Well, no, because Herrnstein and Murray say that those two groups—Japanese citizens and Ashkenazic Jews, respectively—had above-average IQ in the 1990s. No,

those two figures were not included in their hodgepodge of studies for various ethnic and national groups. As a devastating article by Charles Lane in *The New York Review of Books* shows, the odd collection of test scores they actually relied upon includes a sample of 178 children in Japan (for a claim about "East Asians") and a group of South African children who could barely read English (for a claim about "Africans").

Herrnstein and Murray say that they are trying to redress the intellectual bias that ethnic differences in educational and economic attainment are attributed entirely to environmental factors and not at all to genetic factors. They seem to have forgotten the fundamental principles of empirical research: empirical research cannot prove a negative statement like "factor X has no effect on phenomenon Y;" for this reason, each potential factor X is always presumed innocent until proven guilty. You can no more prove that phenomenon Y has no genetic component than you can prove that it has no gamma-rays-from-the-moon component. The burden of proof is on those who want to suggest the genetic component for ethnic differences. Herrnstein and Murray have not found enough—or really, any—evidence to convince us that genetic factors are the guilty parties.

What a pity that this book got sidetracked into searching for genes. Students of development would have benefited a great deal from a more careful analysis of the complicated nexus between income, educational attainment, and social outcomes.

William Easterly



Judy Shelton

Money Meltdown

Restoring Order to the Global Currency System

The Free Press, New York, NY, USA, 1994,viii + 399 pp., $24.95.

The current exchange rate system (or nonsystem) of the major industrial countries is not working and is in urgent need of reform. Rather than providing smooth adjustment to changes in economic fundamentals, exchange rates are wildly volatile, driven by speculation that weakens price signals, inhibits trade, and perpetuates global income inequalities. Sound familiar? This book has arrived in time to coincide with the debate over the need for reform of the international monetary system provoked by the 50th anniversary of the Bretton Woods Conference. Moreover, drawing parallels to the 1930s, Shelton argues that the current regime has allowed countries to engage in competitive devaluations and economic policy conflicts that will escalate to more dangerous levels.

Ignoring the potential role of changes in nominal exchange rates as an equilibrating mechanism, Shelton rails against the use of devaluation as a policy tool, calling it "the most insidious form of protectionism." She argues that not only changes in the level of the exchange rate, but also its variability, restrict trade by muddying price signals and increasing the risks to international trade. Her solution? A return to the classical gold standard under which, she argues, price stability would be achieved, governments would be forced to balance budgets, financial crises would be avoided, comparative advantage could be exploited fully (provided trade barriers were also removed), and "mutually beneficial economic links would erect a hedge against potentially hostile national rivalries." How would we get to this idyll? The United States should pass a balanced budget amendment, replace legal tender laws with gold convertibility, eliminate deposit insurance, and call an international monetary conference to discuss implementing the gold standard worldwide—and the other industrial countries would recognize that it would be in their interest to do likewise.

Unfortunately, while the timing of the book may be excellent, its analysis is not. This book's vision of a gold standard has little in common with the historical regime upon which it leans so heavily. The classical gold standard was not a system based on equal participation by its members, but was instead dominated by the United Kingdom, which used its greater resources and economic clout to impose its policies, including its interest rates, on the other countries. Nor did the gold standard necessarily imply balanced budgets, even during peacetime. Shelton describes the gold standard as an immutable rule, but experience proves otherwise. Rather, like any other regime, adherence to the standard was a contingent rule—governments suspended convertibility when they decided it was in their interest to do so. There is no reason to believe governments would be any less inclined to defend their own parochial interests today than earlier in the century.

The premise of the argument, that exchange rate volatility restricts trade, also is not supported by empirical evidence. In addition, the book is of two minds in its discussion of the activities of speculators and central banks in the foreign exchange market. Although empirical research finds that central bank intervention to change the exchange rate is only of limited effectiveness, even when coordinated, as in some episodes during the 1980s, Shelton says that central banks can "rig" the foreign exchange markets "whenever so directed by treasury officials." Apparently, she has not learned the lesson of the 1992 crisis in the European currency markets, or heeded her own description of the impotence of central banks during that period—central banks are no longer the big players in the foreign exchange market. Indeed, she highlights the power of speculators in directions other than those desired by the authorities as a major weakness of the current system. She portrays private agents in the currency markets as being engaged in a "high-stakes poker game" with the authorities in which they try to outsmart each other, rather than adjusting their portfolios in response to new information.

Wonderful populist literature if that is what you like, but rather too short on substance to be taken seriously.

Michael Spencer

Jeremy Edwards and Klaus Fischer

Banks, finance and investment in Germany

Cambridge University Press, New York, NY, USA, 1994, xiv + 252 pp., $49.95.

Spectacular recent episodes of financial distress, such as those affecting Metallgesellschaft AG and several syndicates in the Lloyds insurance market, show how easily both banks and equity owners can fail to control a firm's managers. Meanwhile, the transition economies and many developing countries have been attempting to create active stock markets and, at the same time, strengthen the banking sector. Although this book focuses on the postwar German experience, its conclusions are relevant to these disparate events. The broader issues at stake are the role of banks versus stock markets in disciplining corporate management, and the relationship between financial sector structure and economic development.

A commonly held belief is that, under the German financial system, relationships between firms and banks are especially close and durable, and that the German universal banks have the means and the incentive to unify the control functions of lenders and owners. A firm's so-called house bank is meant to be better able to select good projects and to be willing to finance them over the long term, because it is consistently involved in all aspects of the firm's operations and because it will devote resources to monitoring the firm's management. German firms, perhaps like their Japanese counterparts, benefit from reliable and relatively cheap external financing and, as a result, the level and efficiency of investment is raised. Under a system such as the United Kingdom's, in contrast, lenders and borrowers traditionally maintain an arm's-length relationship, and the stock market plays a more important role as a source of funds and as a means of disciplining management.

The authors seek to test this popular belief by presenting evidence on whether or not the financial and institutional links between banks and nonfinancial enterprises in Germany conform to the model, supplemented where possible with comparisons with the British experience. They find scant support for the hypothesis—even the prevalence of the house bank relation is put in doubt. Some peculiarly German practices, such as the use of supervisory boards and the control of shareholders' proxy votes by the largest banks, seem largely irrelevant and ineffectual.

The authors should be applauded for concentrating on the thorough and fair testing of a hypothesis. Only toward the end of this volume do they sketch their own favored characterization of corporate finance in Germany. The two most prominent features are the concentrated ownership of most firms, and the prominence of a small number of very large corporations, including the largest banks, which themselves have diffuse ownership but own stakes in each other and in smaller corporations. Corporate financial structure is seen as a conduit for coordination—and even monopolistic collusion—across the economy, and banks' ownership of equity is not qualitatively different from that of nonfinancial corporations.

There are signs that the financial systems in Germany and the United Kingdom have converged significantly during the past 15 years. The question remains open whether the financial system that may have suited Germany's initial industrial development and postwar reconstruction has not served its purpose.

Daniel Hardy

Adam Seymour and Robert Mabro

Energy Taxation and Economic Growth

The OPEC Fund for International Development (Pamphlet Series), Vienna, Austria, 1994, ix + 130 pp.

Taxes on gasoline and diesel fuels have long been a favorite and easy target for finance ministers around the world—except in the United States—and, in recent years, have subtly increased as oil prices declined. In Europe, for instance, average tax revenues on oil fuels rose from roughly $20–30 per barrel in 1982 to $50–80 per barrel in 1992, while the average OPEC "basket" price declined from $32 to $18 per barrel. In the United States, where energy taxes meet much political opposition, average revenues rose from $6 to $12 per barrel over the same period. More recently, environmentalists have been pushing for energy taxes—again, except in the United States—but with little or no analysis of what the impact of taxes on energy demand and the environment might actually be.

Energy Taxation and Economic Growth, a balanced, concise study of energy tax policies from an environmental as well as an economic perspective, merits the attention of everyone interested in energy policies. To give readers a taste of the study, here are three of its main conclusions.

First, the authors document the problems caused by highly skewed taxes across fuels. In many countries, high taxes on oil fuels coexist with heavy subsidies for coal, gas, and electricity. While these sources of energy serve different markets—except for domestic and industrial heating—this disparity does lead to economic ("deadweight") losses in consumers' choice of fuels.

Second, energy tax policies ought to be assessed not in isolation, but rather within the framework of total taxation and tax efficiency. Few would disagree, but the following points are not developed in the book: (1) taxes on *energy* (not merely taxes that target oil fuels exclusively) are often administratively convenient; and (2) energy is fairly price inelastic, and is

thus a good candidate for taxation on efficiency grounds, because the deadweight losses are also fairly low.

Third, the study rightly concludes that the environmental advantages of high energy taxes have been greatly overstated by many people concerned about the environment. Even if taxes were uniformly punitive, emissions of all pollutants would be high worldwide without other measures to control them—London would still have its "pea soupers;" lead emissions in the industrial countries would be hundreds of times higher than they are now; and developing countries would face exponentially rising levels of pollution for the next 50 years as per capita consumption grows. The only remedy for such grim situations is not massive taxation aimed at restricting demand (although some taxation to raise revenues is merited), but rather substitution of cleaner fuels and pollution-abatement technologies—unleaded fuels, reformulated gasoline, catalytic converters, particulate traps, gas for domestic and industrial heating and electricity generation, "clean coal" technologies, and so forth. Use of these technologies could dramatically reduce pollution, even with high levels of energy demand, whether taxes are high or low. For example, pollution from car exhaust was reduced much earlier in the United States than in Europe, even though gasoline taxes were five to ten times higher in Europe. Although the book does not develop this argument, its conclusion is surely right: policies that target pollution directly are by far the most cost-effective way—indeed the only way—to solve environmental problems associated with energy production and use.

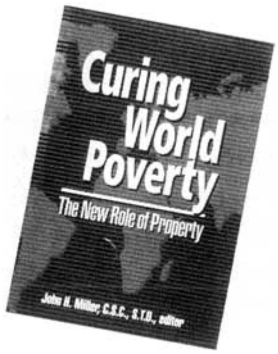
Dennis Anderson

John Miller (editor)

Curing World Poverty

The New Role of Property

Social Justice Review and The Center for Economic and Social Justice, St. Louis, MO, USA, 1994, vii + 301 pp., $15.



This book contains 18 essays on various aspects of "binary" economics, a system developed by Louis Kelso (1913–91) and his associates starting in the 1950s. Binary economics is a market-based system that advocates, among other things, global free trade, a stable monetary system, a simplified and economically efficient tax system, elimination of monopolies, and a reduced state sector. What is distinctive about binary economics is its approach to the problems of poverty, unemployment, and extremes of wealth that the market system tends to produce, especially in the short and medium term.

At the core of binary economics is the idea that every person should have equal access to capital ownership, starting with employees as owners of shares in the corporations for which they work, and that purchases of these shares should be financed with credit. The recognition of credit as an essential "social good" that influences growth and future ownership patterns in a market economy is the key innovation of this model.

Employee profit-sharing and share-ownership schemes have been around since the early 19th century and are generally intended to encourage a spirit of partnership and hard work in the common interest. The Kelso school goes further, and argues that these schemes make the worker-owner less dependent on wages and do away with the competition between technology and labor.

Traditional employee stock-ownership schemes are normally financed through either deductions from wages or dilution of stock of existing shareholders, making them less attractive to workers and shareholders. The Kelso school believes that workers should be allowed to purchase their shares on credit. It argues that credit is as important a financial invention as money itself, and that lack of access to credit for purchase of productive assets causes the poor to remain poor. According to the standard Kelso model, a company raises the capital it needs for modernization and expansion by creating new shares for employees. The shares are placed in a trust fund and paid for by a loan, normally from a bank; the newly acquired assets and profits from their use serve as collateral. As new assets bought with the borrowed money become productive, the debt is first paid off, and then fully paid-up shares and supplemental dividend income can be distributed to employees. During this period, the employees not only make no down payment, but are also protected from risk of default—which is carried by the company, the bank, and the insurer.

Three other major benefits are claimed for the credit-financed employee stock-ownership plan. First, it gradually leads to greater equalization of wealth without confiscation of the assets of present owners. Second, it facilitates the transfer of the benefits of technology to developing countries through distribution of shares to local employees by international corporations. Third, creation of wealth or credit for the less wealthy stimulates demand for goods and services. Higher demand, coupled with increased capital formation and supply capacity, will create an expanding economy without inflation and will reduce pressure on government-redistribution programs.

Binary economics also provides for variations on the employee stock-ownership plan for different social circumstances—for example, a stock-ownership plan for consumers receiving continuing service from a corporation, a community investment corporation that develops and manages community property, and an individual stock ownership plan that supplements social security.

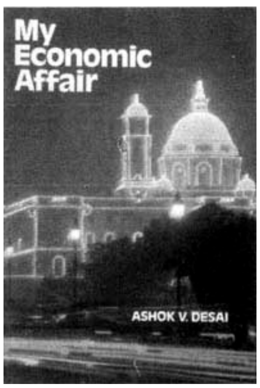
Because such systems are so obviously in the general interest, its supporters argue that the state should encourage them. First, the state should provide watertight laws to protect all parties. Second, it should provide last-resort insurance of credit. Third, the central bank should encourage expanded bank

credit for financing capital growth linked to expanded ownership. Finally, the state should implement tax reforms that encourage broader ownership of private sector assets.

Curing World Poverty notes that employee stock-ownership plans are not merely theory. There are about 10,000 such plans in the United States alone, covering some 11 million workers. Several of the essays in this book analyze specific schemes in Egypt and Guatemala as well as in the United States.

With a large number of contributors, the book has a depth that might not have been achieved by a single author. Although it is not free of repetition and contains some gaps, it is stimulating. It describes a system that is simple and elegant (like all great ideas), that is based on market economics elevated by the injection of democratic and spiritual values, and that has appeal for the entire political spectrum. *Curing World Poverty* deserves to be taken seriously. It has a particular immediacy for those searching for a solid underpinning for economic reform in the former socialist countries.

John Huddleston



Ashok V. Desai

My Economic Affair

Wiley Eastern Limited, New Delhi, India, 1993, xi + 332 pp. (price not available).

This is an unusual book written by an unusual author. During his early years as an economist, Ashok V. Desai, whose interests ranged over many fields in economics, worked on India's economic problems as his special domain. But he describes his involvement as being little more than a "diversion," because "no one could make a living in India by criticizing the government," whose important and pervasive influence was due to the very policies that needed criticizing.

Paradoxically, when India launched radical economic reforms in 1991, Desai's earlier "diversion" put him, without his seeking it, at the epicenter of policymaking. His tenure was brief—barely 18 months—but during it he witnessed an astounding turnaround of the economy, with inflation dropping to unexpectedly low levels, foreign exchange reserves reaching an all-time high, and exports booming. And, more important, he saw a "transformation of economic debate in India from pontifical humbuggery to the condition of our national survival and prosperity in this rough-and-tumble world." This could have been a proud moment for the author, who, by any standards, had achieved success as an economist and policymaker; instead he became acutely aware of the limits of the power wielded by economic advisors. The economic advisor's job, he writes, "is to tell as it is and advise as he sees right. But the basic instinct of the government is political survival. To tell it as it is would be treason if the facts gave ammunition to the opposition, to advise what the government should but cannot do would point to its impotence." In the labyrinthine corridors of government, policymaking, he found, was like "the game of snakes and ladders which those around played with guile and ferocity." He left the government not so much disillusioned as even more convinced of the necessity of reinforcing reforms.

The book is divided into two parts. In the first, the author presents the conclusions of a study he did for the International Labour Organisation before joining the Indian Government on the reforms made during the early months of the reform program. He predicts with great precision and prescience how the reforms would proceed. He could already see the bureaucracy's lack of resolve and its "penchant for pseudo-solution," which he traces to the confusion about "what constituted reforms, what needed to be done." What the bureaucrats were promoting was not prudential regulations or guidelines but controls—a hangover from the interventionist past. Some of the author's ideas were implemented—though in a more convoluted manner than he had envisaged—but others were not. Desai is honest enough to admit when his predictions went awry. For example, he had expected a boom in industrial production but had not anticipated a change in terms of trade in favor of agriculture; because of this change, the boom did not materialize.

The second part of the book, entitled "A view from the North Col" (a double entendre—India's Finance Ministry is located in the North Block), is Desai's "blueprint of reforms yet undone." He offers us a rich menu of subjects: from an analysis of inflation, fiscal dilemmas, public sector functioning, and monetary policies, to the political economy of policymaking, the design of the government, and the organization of the parliament, bureaucracy, education, and legal institutions. His insights are fascinating, his vision enticing, and his prose witty and pungent; Desai's philosophical thrust recalls Karl Popper. Several of Desai's observations bear repeating here, to whet the appetite of readers. He describes the relationship between the Government and donors during aid negotiations as "cozy to the point of incest—it is not so often that the government gets bought up by the donors; it is more often the other way around." According to Desai, India's Securities Exchange Board, seeing itself as "a policeman" rather than "a system reformer," is an example of how prudential regulations degenerate into mindless controls. He offers a novel scheme for restructuring a political process to eliminate corruption. His Parkinsonesque prescription for bureaucracy is that "it should tailor its numbers to the work and work to the numbers." Since he believes that employment in the government turns bureaucrats into oppressors of the rest of the population, he makes an innovative suggestion about redrawing administrative units centering around cities.

This book, an admirable amalgam of idealism and ideas, economics and politics, vision and realism, is about more than the author's love affair with economics; it is about his tryst with India's destiny.

Deena Khatkhate

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