

*A Vision for
Development:
Dialogues on
the Work of
Vinod Thomas*

Ray C. Rist, editor

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Foreword

During my tenure as President of the World Bank Group, my Bank colleagues and I worked to make an increasing share of the attention and the resources of the institution available for the goal of reducing poverty and debt in developing countries. In the mid-1990s, after a decade of structural adjustment policies, it was clear that a new, more engaging development agenda was needed—one that promoted growth and social change in poor countries as the way to reduce poverty. To this end, financial aid and loans were not enough; the Bank also had to become a partner of client countries.

For countries to achieve sustainable growth, four things would seem to be needed: government capacity, a legal system that protects property rights, an honest financial system, and vigilance against corruption. The World Bank Group is a unique institution, with enormous knowledge and experience in development and relationships with governments and institutions around the world. It is a knowledge organization—a premiere resource, singular in its ability to help countries build capacity, solve problems, and enable growth—whose reach is extended through innovative use of technology for information systems and communication. The institution’s role as a knowledge bank falls heavily on the work of the World Bank Institute.

When I started at the Bank in 1995, Vinod Thomas was already the head of the Institute. Between 1994 and 2001 he sharpened the program’s focus and quality and expanded its mandate and impact. Vinod led the Institute through much change and achievement, from its previous incarnation as the Economic Development Institute, which I endorsed, to its transformation in 1999 into the World Bank Institute, with its well-defined core courses, policy services, and knowledge networks.

In recognition of the Institute's expanded role and greater audience reach, it was made a vice presidential unit in 2000 and Vinod Thomas its first Vice President, with responsibility for managing a \$70 million program offering training, outreach, and scholarships. The World Bank Institute launched distance learning and, as a result, expanded its reach and connectivity several-fold. It has functioned as the Bank's principal vehicle for delivering timely knowledge in countries through seminars; conferences; and a variety of print, broadcast, and multimedia products.

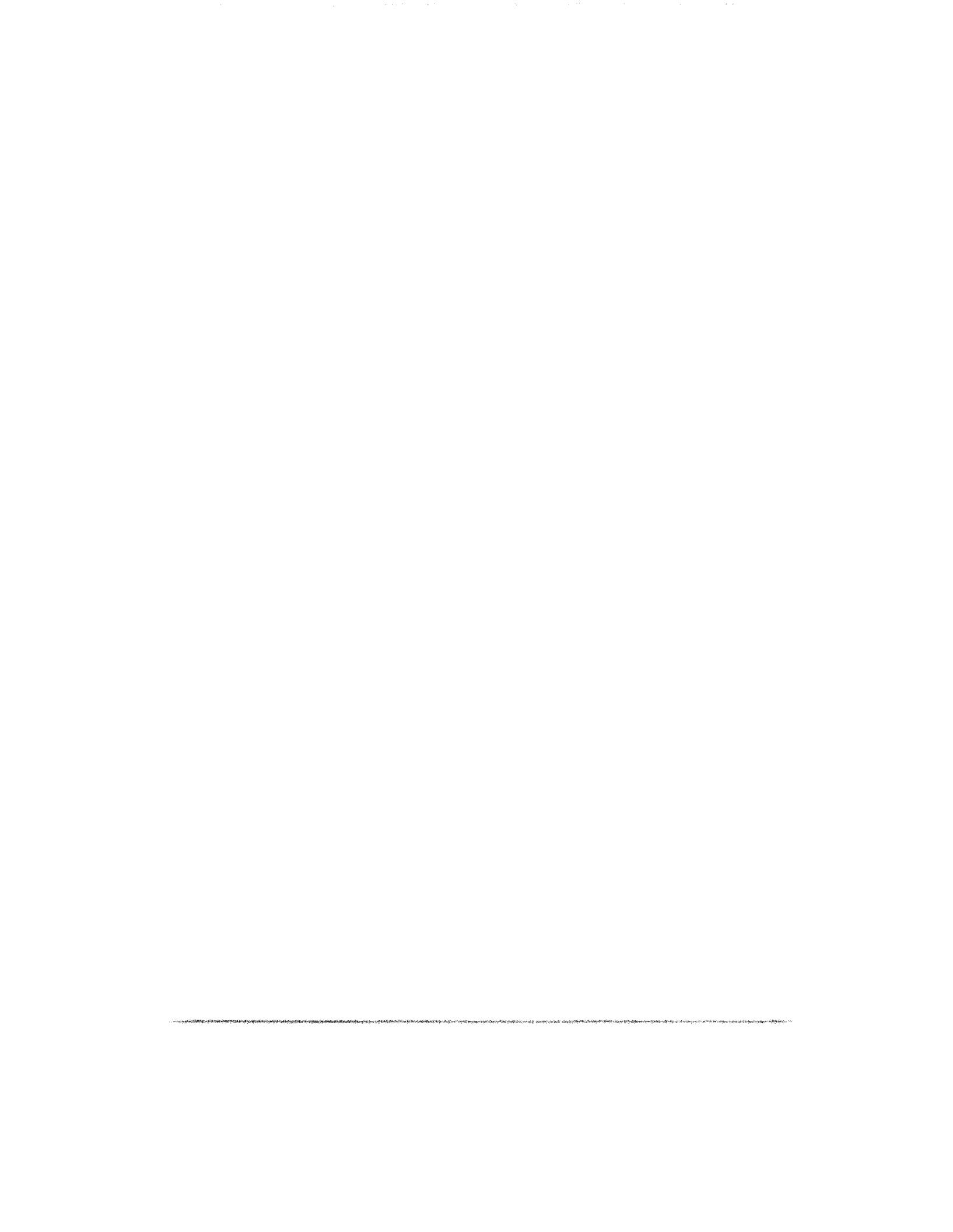
During this transition, the World Bank Institute's program was realigned more closely with World Bank and country priorities, shifting from stand-alone and sectoral courses to cross-sectoral and thematic programs that were more directly related to actual circumstances. The Institute began working jointly with the Bank's regions and networks to deliver cross-cutting, team-based thematic programs. I am thankful to Vinod for his leadership and transformative work at the Institute during seven years there before he moved on to become the Bank's Country Director for Brazil in 2001.

Vinod continued to move the Bank's development agenda forward while in his new position. In Brazil, between 2001 and 2005, he worked intensely with and oversaw developments in that country during a very difficult time, including a major public debt and currency crisis in 2002. As Country Director, he managed the Bank's large lending and nonlending portfolio in Brazil and helped shape the dialogue with the government and the Brazil Country Assistance Strategy, anchoring the program not only on economic growth but also on human development as well as environmental sustainability.

Vinod's directorship in Brazil ended at about the same time my presidency at the World Bank concluded. He subsequently returned to Washington to take up the position of Director-General of the Independent Evaluation Group, where he again succeeded in reorganizing and expanding the impact and effectiveness of an entire vice presidential unit, this time one that cuts across the World Bank Group, including the International Finance Corporation, the Multilateral Investment Guarantee Agency, and the International Bank for Reconstruction and Development/International Development Association. I commend his continued

service to the institution and his work on behalf of the world's poor and their social and natural environments. Through his work, Vinod has made a very real investment in people and achieved subsequent results in improving the quality and effectiveness of development programs. He is someone who has made an enduring contribution to the reputation and effectiveness of this great institution.

*James D. Wolfensohn
President of the World Bank, 1995–2005*



Introduction

by Ray C. Rist, Editor

The field of development is unsettled, contentious, and fractured. The center does not hold, and paradigms are constantly accepted and then rejected. Indeed, for example, the notion of micro-enterprises as a means to lift the poor out of poverty has been widely admired and advocated in development—until now, when we hear calls for a re-examination of these basic assumptions.

This book examines the 35-year odyssey of Vinod Thomas through the debates and disputes of development. Vinod has spent these past 35 years within the World Bank Group in different positions and in different regions. He has grappled with topics as diverse as the “Asian Miracle” (and decline and resurgence), environmental challenges, poverty reduction, how to improve the quality of growth in poor countries, and, most recently, how to bring the lessons of evaluation into the policy arena. The breadth and scope of his work is impressive. He does not shy away from being strong in his convictions.

This book not only illuminates the distinguished career of Vinod Thomas, it also provides an important overview of the many intellectual streams that have flown into the developmental delta over these past 35 years. Whether the discussion is on economic policy making, developing better trade practices, alleviating poverty, or making institutions such as the World Bank Group more nimble and responsive to global currents, the papers here provide a coherent sense of how assumptions have changed, how firm convictions of causality seem to be on shifting sand, and how illusive it is to talk of strategies for poverty reduction. This book gives a clear message of how difficult it is to positively affect development.

This book is organized in four parts. First, there is a collection of seven articles that he has either authored or coauthored that reflect the diversity of

his thinking on key topics of development. These articles span decades, and the works he has coauthored give an indication of the wide-ranging intellectual collaboration he has maintained throughout his career. This point is worth emphasizing: Vinod is not a solitary intellectual. He builds his intellectual contributions both in and out of networks, and in and out of the Bank. He finds colleagues who share frameworks and understandings and together they build their analyses from such shared platforms. Well over half his published work is coauthored.

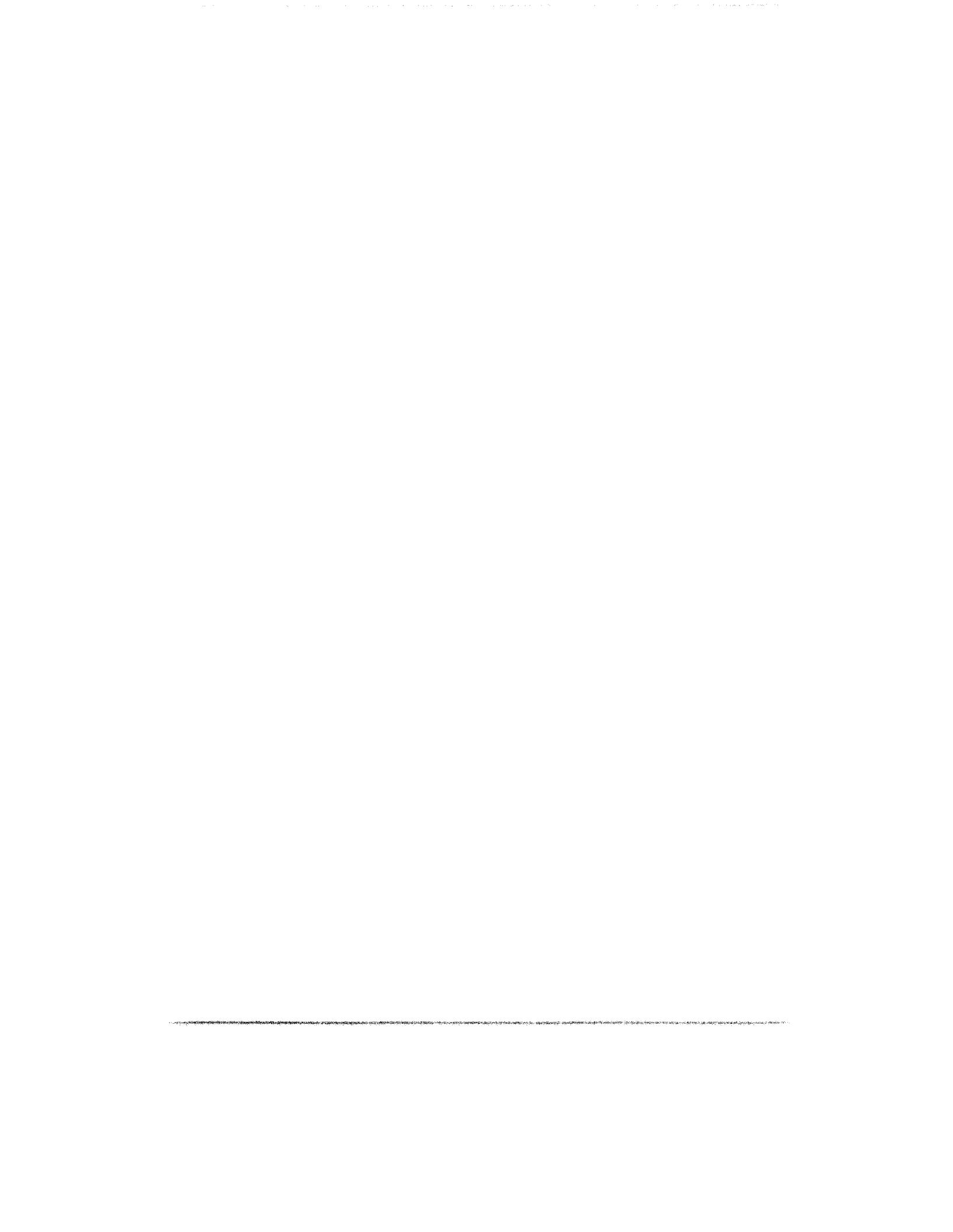
Second, there are a number of contributions from persons acquainted with his work—or who have personally worked with him. These papers come from those inside and outside the World Bank Group. They reflect both on his substantive contributions and on their relations with Vinod as a friend and colleague. These papers add an important dimension to this book, as they place Vinod and his work in the context of development. Whether it is Joseph Stiglitz reflecting on the analysis Vinod offers on the future of Brazil, or George Tolley on the breadth of Vinod's work, or Rakesh Mohan on how Vinod approaches the challenges of urbanization and globalization, these contributors all give us a clear sense of the importance of Vinod's thinking and the importance of his writings.

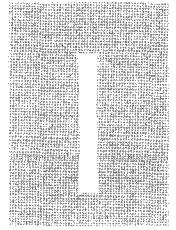
Third, there are three papers from colleagues who have worked with Vinod in his most recent position as Director-General and Senior Vice President of the Independent Evaluation Group (IEG). This last six-year stint at the Bank has been notable for the changes that Vinod has brought about inside IEG (including the name change, from three separate unit names corresponding to the units in the World Bank Group—the World Bank, the International Finance Corporation, and the Multilateral Investment Guarantee Agency—which is of no small import). Even more important is how he has linked evaluation findings to the deliberations and strategy of the Executive Board of the Bank, to whom he directly reports. Independence has been a core value of IEG, and this theme comes across in all these papers. Vinod has given no ground on sustaining both the intellectual and the organizational independence of this group.

The last section of the book is a personal reflection by Vinod on his 35 years in the World Bank Group. He has worked under seven World

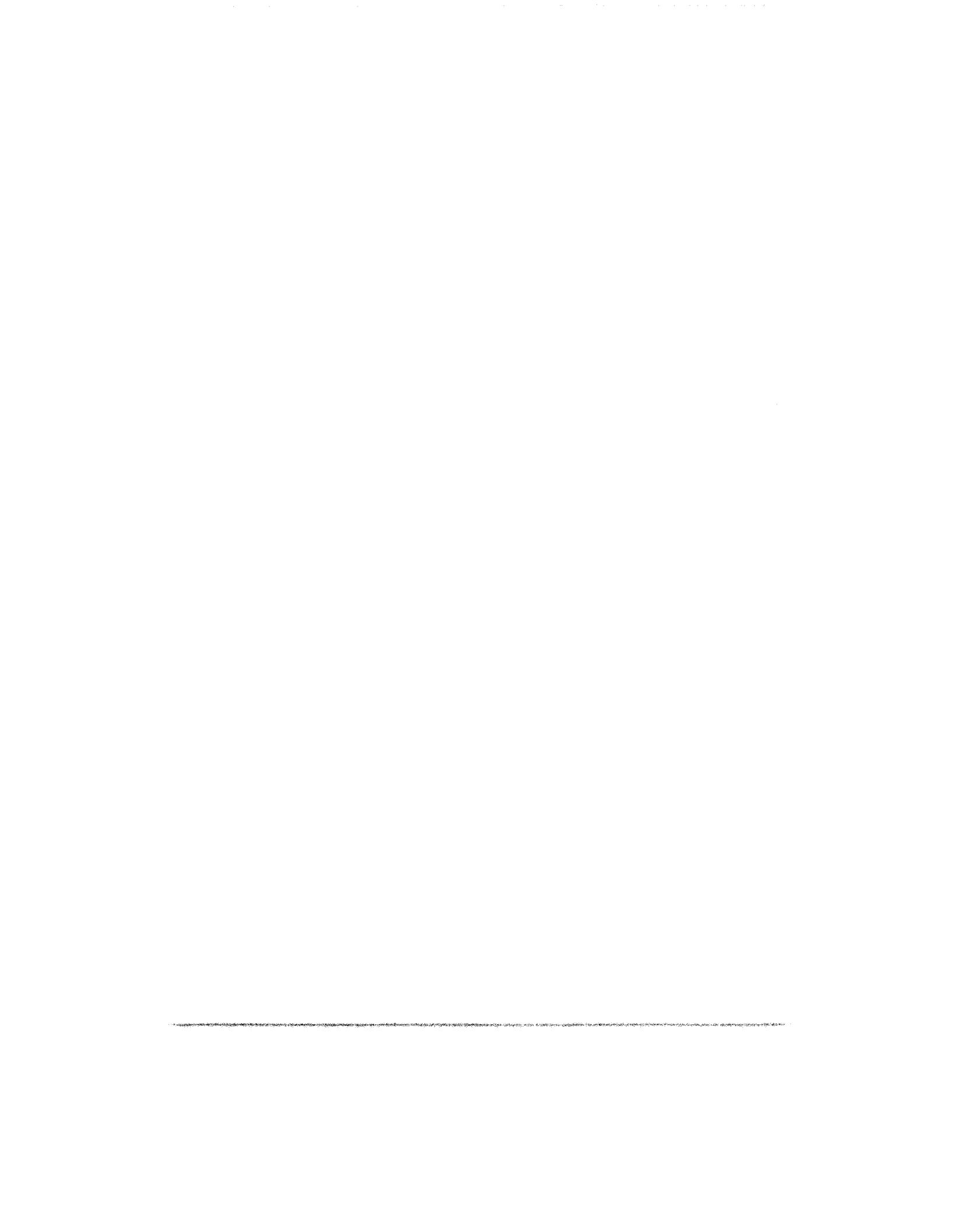
Bank presidents. He has watched as the Bank has expanded its portfolio, increased its lending by hundreds of millions of dollars, and become the intellectual epicenter of international discourse on poverty alleviation and economic growth across the globe.

Vinod is not going off into the sunset. He continues to blend his economics background with the emergent field of evaluation as he moves to the Asian Development Bank. His creativity and innovation do not cease. As he leaves the World Bank Group, those who know him, who have worked with him, and who have shared his intellectual journey all wish him well.





An Emergent Vision for Development



Recent Lessons of Development

by Lawrence H. Summers and Vinod Thomas

Development is the most pressing challenge facing the human race. Despite the enormous opportunities created by the advances in technology, more than 1 billion people, one-fifth of the world's population, live on less than US\$1 a day, a standard of living that the United States and Europe attained two centuries ago.

In the past the development effort may have mattered primarily to the citizens of poor countries. But now demographic, political, and technological trends make development an urgent priority for rich countries as well. Ninety-five percent of the growth in the world's labor force will take place in the developing world over the next quarter of a century. With the end of the cold war, economic and environmental issues will occupy the center of the diplomatic stage, and these issues will increasingly involve developing nations. As improvements in transportation and communication shrink the world, the rich and poor countries will inevitably impinge more and more on each other. International television's impact on the less-advanced nations and the sharp increase in refugee flows worldwide are harbingers of things to come.

A remarkable transformation in prevailing views about how governments can best promote economic development has occurred in recent years. Where it was once thought that government needed to occupy an economy's commanding heights by allocating credit, rationing foreign exchange, ensuring against dependence, and operating key industries, today it is widely accepted that government's responsibility for directing the production and distribution

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of goods and services should be much reduced and the private sector's role much enhanced. It is in those tasks for which markets prove inadequate or fail altogether—for example, investing in education, health, or physical infrastructure—that government has a central role.

For some time now, the advice of the Bretton Woods institutions (the World Bank and the International Monetary Fund) has reflected the view that economic progress is impeded by governments that seek to supplant, rather than support, markets. That view has recently been taken on board by policymakers in many parts of the world. Most publicized has been the collapse of communism in what was once the Soviet bloc. China, where one-fourth of the people in the developing world live, calls itself socialist, but the past decade has witnessed spectacular growth of the nonstate sector and very substantial price liberalization. India, where one-fifth of the population of the developing world lives, is now undertaking a program of structural adjustment and liberalization that is mild by Eastern European standards but would have been unthinkable even two years ago. Chile and Mexico have demonstrated to other Latin American nations the benefits that liberalization can bring. And change is coming, albeit slowly, in Africa, as agricultural marketing boards are dismantled and investment licensing schemes are scaled back.

For fifteen years, the World Bank's *World Development Reports* have been distilling the lessons of the record in various aspects of economic development. In a synthesis of what has been learned to date, the 1991 report (World Bank 1991) described the emerging consensus in favor of what was labeled the "market-friendly" strategy, one in which governments sustain rather than supersede markets. That report coincided with a growing literature on thinking about development (for example, Krugman 1993; Srinivasan 1991; Ranis and Schultz 1988) and on the lessons of growth and development (for example, *Journal of Economic Perspectives* 1990; Barro 1989; Stern 1989; Chenery and Srinivasan 1988; WIDER various years). This article summarizes what we consider to be the main policy conclusions from the development experience of the past thirty years and then considers a number of unresolved issues and challenges for the future.

The Development Record

In thinking about development strategy, it is a mistake to lose sight of the enormous progress that has been made and continues to be made in the developing world. Average incomes in developing countries have doubled over the past three decades—faster, that is, than in the United Kingdom during the Industrial Revolution, in the United States during its spurt to industrial maturity in the nineteenth century, or in Japan during its prewar growth spurt. Economic progress in some developing countries has been dramatic: Turkey doubled its average income in twenty years (1957–77), Brazil in eighteen years (1961–79), the Republic of Korea in eleven years (1966–77), and China in ten years (1977–87).

Tremendous social progress has also been achieved in the developing world. Infant mortality rates have been cut in half, total fertility rates have been lowered by 40 percent, and life expectancy has increased by nearly a decade, equivalent to twice the gain from eliminating both cancer and heart disease in the United States. A child born in Shanghai today has a smaller chance of dying in the first year of life, a longer life expectancy beyond one year, and a greater chance of learning to read than a child born in New York City. Social advance has been most striking in East Asia. It is estimated that the incidence of absolute poverty (that is, the percentage of the population that subsists below the poverty line) in that region has fallen dramatically in the past three decades, from a third of the population in 1970 to a tenth in 1990 (Johansen 1992).

Many people think of the 1980s as a “lost decade” for development. Indeed the economies of Latin America, the Middle East and North Africa, and Sub-Saharan Africa, where average incomes declined in real terms during the decade, did have a difficult time during the 1980s. But growth of income per capita weighted by population was slightly above the historic average during the decade. In other words, the income of the average person worldwide grew more in the 1980s than in the 1970s. This reflects the acceleration of growth in India and China, where more than 2 billion people live: average incomes in China expanded at roughly 8 percent a year in the 1980s, while those in India increased by more than 3 percent a year.

Of course, this relatively favorable record conceals enormous variations in growth rates and poverty reduction across countries. Per capita incomes in some economies have doubled twice over since 1960 and are well on the way to a third doubling. But thirty-six nations with a combined population of nearly 500 million people have seen low or declining average incomes over the past twenty-five years. Poverty remains a formidable problem, and substantial economic progress has yet to touch millions of people. Before turning to the more detailed implications of this record of divergence for national policy, three broad facts of experience are worth emphasizing.

First, peace is prerequisite to successful development. Most of the economically successful countries have been able to enjoy sociopolitical stability. By contrast, most of the thirty-six countries that have lost ground over the past twenty-five years were involved in a substantial military conflict (Sivard 1989). In Africa, where development performance has been most disappointing, 7 million lives have been lost in wars in the past thirty years.

Second, nations shape their own destinies. Poor domestic policies, more than an unfavorable external environment, are usually to blame for development failures. By any measure more foreign assistance goes to Africa, where performance has been poor, than to parts of Asia, where it has been better. Net capital inflows over the past quarter of a century to the most successful area of the developing world, East Asia, were less than one percent of the region's gross domestic product (GDP). Moreover, East Asia has not had the benefit of natural resources to export. And countries such as Korea and Indonesia, despite debt burdens similar to those of some of the highly indebted countries, have not experienced debt crises because they used the proceeds of borrowing to make investments yielding high returns. The recognition that countries make their own histories has begun to be reflected in models of economic growth, which increasingly factor in aspects of a country's policy environment that affect performance (Easterly and others 1991; Romer 1990; Lucas 1988).

Third, the proper blend of state and market in the economy is a decisive factor. A review of the record identifies some important characteris-

tics of successful government intervention. Most of these follow from the general principle of supporting, rather than supplanting, markets and the related idea that, as Keynes (1926) put it, “the important thing for government is not to do the things which individuals are doing already and to do them a little better or a little worse; but to do those things which at present are not done at all.”

Market development itself requires government action. The socialist economies in transition, from Eastern Europe to East Asia, are finding out that the establishment of the rules of the game by the government is crucial to the success of market reforms. The need for government action goes further, its rationale resting on various notions of market failure.

Investment in human capital and physical infrastructure by the government are usually justified because of externalities or spillover effects in the consumption or production of both of these categories and the inadequate incentives for markets to take them into account. In the case of primary education, for example, there are consumption-related spillovers. The benefits to literacy go well beyond the gains to the individuals becoming literate. In the case of physical infrastructure such as roads, there are production-related externalities based on the need to make lumpy investments or to integrate the service in large networks. Negative spillovers, too, justify government intervention: environmental pollution and congestion are inadequately accounted for by the market.

The central issue, then, is one of the state and the market, but it is not a question of intervention versus laissez faire—a popular dichotomy but a false one. As discussed below, it is rather a question of the proper division of responsibilities between the two and of efficiency in their respective functions.

Learning from Experience

The relation between government and market can be seen under three broad headings: human and physical infrastructure, competitive climate for enterprise, and macroeconomic management. A fourth area, institutional development, cuts across all three. The areas, of course, are

interrelated. A relatively undistorted and competitive domestic economy rewards the buildup of human capital more generously than one that is highly regulated and protected. At the same time, investments in education make the domestic economy more productive by speeding the adoption of new technology. To take another example, a stable macroeconomic framework allows the domestic price system to work effectively because it helps to avoid inflation. But microeconomic efficiency also makes it easier to keep inflation low: with fewer unviable enterprises, there will be less need for subsidies that swell the public sector deficit. And, reforms in all these areas work better if a country's institutional framework, embracing both market and government institutions, is improved.

Human and Physical Infrastructure

Perhaps the most important investments governments need to make are in people. The economic returns from public and private investments in education and health are often extremely high (Psacharopoulos and Woodhall 1985; Easterlin 1981). Improving peoples' health and education strengthens the demand for smaller families, which, together with better provision of family planning services, helps to tackle the population problem in many parts of the world. Markets in developing countries often cannot be relied upon to provide people—especially the poor—with adequate education (particularly primary education), health care, nutrition, and family planning services. The returns to government development of various forms of physical infrastructure are also usually very high (Jimenez 1995). The incentives for the private sector to develop adequate infrastructure, such as rural roads, are often lacking.

A child born in Africa today is more likely to be malnourished than to go to school at all, and is more likely to die before the age of five than to go to secondary school. And yet because basic health care services are labor intensive, they can be effectively produced in developing countries. By one recent calculation for Pakistan, providing 1,000 girls with one extra year of schooling would raise their market productivity by between 10 and 15 percent and would avert nearly seven hundred births and close to fifty infant deaths. (Summers 1992).

Many governments are investing far too little in human development (World Bank 1991; United Nations Development Programme 1990). In Brazil and Pakistan rapid economic growth alone was insufficient to improve social indicators substantially. In Chile and Jamaica, however, these indicators improved even in periods of slow growth. Among low-income countries, Guinea and Sri Lanka have the same per capita income, but average life expectancy is some two-thirds longer in Sri Lanka. Brazil and Uruguay have similar per capita incomes, but infant mortality is two-thirds lower in Uruguay.

Governments must also make necessary tangible investments in infrastructure. However appropriate the incentive framework, firms cannot function if the water runs brown and nothing happens when a coin is put in the phone. Too often, as in the case of electricity and water supply, failed government efforts to provide or maintain infrastructure lead to very expensive attempts at private sector substitution. For example, in India power plants operate with a capacity utilization of less than 50 percent, yet firms are forced to install their own generators because the risk of interruptions is so great.

Ensuring that governments make the necessary investments in both tangible and intangible infrastructure is partially a matter of making sure they have adequate resources. But in addition to increasing the quantity of human investment, governments must improve its quality. Too often, capital investments go forward without adequate provision for the recurrent expenditures they entail, which results in wasteful underutilization. Too often water is provided at little or no cost to industry and then is wasted, while clean water is unavailable where it is desperately needed to improve health. Targeting expenditures appropriately is crucial. Expenditures are frequently poorly targeted and involve a great deal of leakage.

The need to shift priorities in spending is wide-ranging. It will pay to reduce heavy subsidies for higher education and to spend much more on primary education, from which the returns are relatively higher. The case for a similar switch in spending on the margin, from expensive curative health care systems to primary systems, is also strong. In too many developing countries half the national health budget goes to a

few hospitals that do open heart surgery in or near the nation's capital, whereas immunizations cannot be afforded in rural areas. The question of priorities goes beyond the area of human resources. In many countries there is scope for substantially reducing spending on the military in favor of increased spending on human and physical infrastructure.

Competitive Climate for Enterprise

Growth led by the private sector needs a permissive, rather than a prohibitive, environment. Almost no one disagrees that communism is the longest route from capitalism to capitalism. For all their faults, competitive markets are the most effective way yet found to get goods and services produced and distributed efficiently. External and domestic competition provides the incentives that unleash entrepreneurship and technological progress (Balassa 1977; Bhagwati 1978; Krueger 1978; Porter 1990).

Openness to trade, investment, and ideas encourages domestic producers to cut costs and improve productivity by introducing new technologies and to develop new and better products (Chenery, Robinson, and Syrquin 1986). A high level of protection for domestic industry, conversely, has held development back by decades in many places. The effect of import protection on firms in Chile and Turkey, for instance, and the effect of greater competition in export markets on firms in Brazil, Japan, and Korea confirm the decisive contribution to efficiency that the external economy can make.

Many developing countries are taking to heart the lessons from worldwide experience in trade liberalization. As a result of the various liberalization episodes of the 1970s and 1980s, the developing world is more open today than at any time in recent history. But the threat of increasing protectionism is ever present, not least from the industrial countries. In fact, as the developing countries liberalized, the industrial countries on average raised trade restrictions in the 1980s: development prospects can be substantially improved if all countries roll back trade barriers.

A permissive domestic environment is one where government seeks to reduce, rather than increase, the cost of doing business. That means

doing away with licensing requirements for investment, avoiding debilitating restrictions that limit firms' ability to downsize, and reducing tariffs and quotas on capital goods whose cost is found to affect growth performance significantly (De Long and Summers 1992). One study found that the price of traded capital goods was 50 percent higher in Africa than in other parts of the developing world (World Bank 1989). Creating a competitive climate for the private sector also entails avoiding government monopsonies or punitive regulations. The success of the Nigerian government's action in abolishing agricultural marketing boards and moving toward a realistic exchange rate illustrates what deregulation can accomplish. Cocoa output has risen 50 percent since 1986, both rubber and cotton production has more than quadrupled, and soybean production and processing of soybean products have increased even more. A permissive environment is also one where market forces are able to set prices without price controls or large subsidies. The former Soviet Union, where the price of oil at any realistic exchange rate has been less than \$1 a barrel for many years, is an extreme example of distortions caused by subsidies, but large subsidies to energy and energy-using products are ubiquitous in developing countries.

Governments have a history of failure in attempting to manage directly the production of private goods and services. Around the world the record of public enterprise management is one of disaster. It may be true in theory that a properly managed public enterprise can often be as productive and efficient as a private one, but the reality is that politics usually intrudes and efficiency is sacrificed (Nellis 1986; Jones 1982). Public enterprise managers are rarely permitted to shed labor in order to produce at minimum cost. And procurement is often treated as a way of enriching contractor and procurement officers rather than producing efficiently.

Nigeria provides an example of what can go wrong when government tries to operate what should be private industry. Between 1973 and 1990 the Nigerian government invested \$115 billion in its public sector, or about \$1,000 for every citizen. This investment, depending on what exchange rate is used, represented as much as four years' worth of gross national product. Yet there is little growth to show for it. Public sector assets are operating

at a capacity utilization rate of less than 40 percent. And a \$3 billion steel complex sits empty, awaiting the \$1 billion of investment necessary to complete it. Mexico, by contrast, provides an example of what privatization can accomplish. Large-scale privatization has attracted substantial foreign investment and has already considerably improved efficiency. Indeed, several countries have found that the expectation that enterprises will be privatized creates an impetus for increased efficiency.

Macroeconomic Management

Sound macroeconomic policies with sustainable fiscal deficits and realistic exchange rates are a prerequisite to progress (Fischer 1986). Large government budget deficits absorb domestic saving and foreign funds that could otherwise be channeled to the private sector. Crowding out productive investments by farmers, entrepreneurs, and large businesses, government deficits place the financial system under great strain. Often they induce rapid inflation, which in turn exacerbates the deficit, creating a vicious cycle. Deficits also lead to overvalued exchange rates, which stifle exports, damage domestic producers, and create pressures for protectionism. Evidence is accumulating from country experience of widespread ill-effects of large fiscal deficits (Corden 1989; World Bank 1988; Tanzi and Blejer 1986, for example).

A distinguishing feature of the East Asian experience is that the public sector exercised discipline in its spending; such discipline is essential to ensure that rents from government interventions are kept to a minimum. Fiscal discipline was practiced in different ways. In Taiwan before 1987, a law limited the value of outstanding government bonds to no more than 40 percent of the central government's annual budget. Thailand limits its budget deficit to 20 percent of expenditures. In Indonesia the openness of the capital account has served as a check on irresponsible fiscal behavior that could precipitate currency speculation and crisis. Malaysia, however, ran a large deficit (a high of 19 percent of GDP in 1982) but cut it sharply (5 percent in 1990) when performance was threatened.

To be sure, fiscal and financial instability have sometimes been partly inflicted on governments by external events—or by internal shocks such as civil wars or natural disasters. But governments can choose how to

respond to such pressures. In such countries as Côte d'Ivoire, Kenya, Mexico, and Nigeria, the response to a temporary economic upswing was an unsustainable increase in public spending. Countries such as Botswana, Chile, Colombia, Indonesia, Korea, Malaysia, Mauritius, and Thailand managed to keep their macroeconomic policies on course, and their broader economic performance has benefited accordingly.

If a persistent government budget deficit is the surest route to economic failure, an artificially overvalued exchange rate must be the runner-up. Underlying such overvaluation are expansionary fiscal and monetary policies, excessive borrowing, and inadequate trade and exchange rate policies. Overvaluation leads to the rationing of foreign exchange, which is invariably associated with its discretionary allocation and appropriation by government officials and their friends. Overvaluation also creates pressures for layer after layer of controls on imports, capital flows, and even travel. And it destroys emerging export industries, perhaps the most important foundation for growth that any developing country enjoys. The extent of exchange rate misalignment and its deleterious effects on performance are now well documented (see, for example, Edwards 1989; Williamson 1987).

Institutional Development

The better a country's institutional capabilities are, the more effective such actions will be. Similar policy reforms have produced different results across countries (Thomas and others 1991), and one of the explanations is the variation in the capacity of institutions to implement the reforms. Institutional development refers to market as well as to government institutions.

In many countries market development requires less government intervention. Market institutions are often stifled by a series of harmful interventions. Governments sometimes intervene in the market to address political instability and other political constraints. But, all too often, the resulting combination of pervasive distortions and predatory states leads to development disasters. Reversing this process is a crucial part of institutional development. It requires political will and a political commitment to market reform and market development.

But it is a myth that “government is the problem, not the solution.” When governments do the things they should not do, they are stretched too thin to do the things they must do. Governments need to assist in the efficient development of markets. Only governments can provide the institutional framework for exchanges. This means rules governing property rights, and it means enforcement based on pre-established principles of contracts. The establishment of a well-functioning legal system and judiciary and of secure property rights is an essential complement to economic reforms.

Reform of the public sector is a priority in many countries. In addition to market liberalization and privatization, it includes reforming the civil service, rationalizing public expenditures, and reforming some state-owned enterprises. Related economic reforms include better delivery of public goods, supervision of banks, and legislation to encourage financial development. Adopting these reforms will increase the quality of governance and the capacity of the state to implement development policy and enable society to establish checks and balances.

What Are the Uncertainties?

Across a wide spectrum of opinion there is agreement on the basic principles we have just described. Governments have done too much of the things they cannot do well—regulating markets and producing ordinary goods—and too little of the things they must do well—maintaining macroeconomic stability and making necessary public investments. Governments, in ways that will differ from country to country, need to do less of certain things and to do them better. But the agreement on these points leaves a great deal unresolved. There are questions about implementation and concerns about external constraints of various kinds.

First, the East Asian success stories remain open to differing interpretations (Wade 1990; James, Naya, and Meier 1989). Government, at key stages in each of these countries’ development, did seek to affect the allocation of resources across sectors through industrial, trade, and credit allocation policies. The *World Development Report 1991* noted some key conditions under which East Asian interventions were far more effec-

tive than similar actions in other parts of the world. Government interventions were disciplined by international competition. And they were flexible enough to be changed on the basis of the evidence about their effectiveness.

As the success of Japan, Korea, and Taiwan continues, the position taken by some economists that they succeeded despite government efforts at channeling market forces is increasingly implausible. But there is still room for disagreement, and so for research on two questions: how important in explaining East Asian growth is the contribution of sectoral interventions relative to the contribution of overall macroeconomic stability, outward orientation, and investments in capital and people, and what is unique about these countries that enabled interventionist policies to succeed there when they have been so unsuccessful in the rest of the world? Answering the latter question is essential if the East Asian experience is to provide guidance to other countries.

Second, what is the best sequence and pace of reform? If the role of government that we have just described is agreed to be appropriate, there remains the question of how policies should be reformed. On the sequencing question, experience suggests that it is wrong to think of reform as a series of obstacles, each of which must be surmounted. Policy changes typically occur simultaneously or nearly simultaneously on many fronts. But as a general proposition it appears that macroeconomic stabilization is essential to reform and needs to come early, and that it is usually best to delay financial liberalization until macroeconomic stability has been put in place and the viability of enterprises has been restored (Fischer and Gelb 1991). On the question of the pace of reform there is also room for disagreement. Where hyperinflation is rampant or looming, the case for urgent action is clear. But where the threat is not imminent, as in much of Africa, China, or India, the case for “big bang”-style reform is much weaker. Particularly where reform will involve large displacements of workers who will not be quickly reemployed, there are legitimate grounds for favoring gradual transitions. The difficulty, of course, is that gradual transitions are often favored by those whose first choice would be no transition at all.

Third, what is the relationship between political and economic reform? An earlier view that democracy was antithetical to development

and that the strong-arm state with a strong leader at the helm was essential has now been discredited. A number of studies, some summarized in the *World Development Report* (World Bank 1991), have found no systematic relationship between liberties and rates of economic growth and evidence of a positive relationship between liberties and social performance. These findings are reassuring to friends of both economic and political freedom, but doubts remain. Most of the major development success stories—for example, Chile, China, Korea, or Singapore—had governments that were or are authoritarian in many respects. It is possible that democracy can foster growth by making it impossible for hopelessly incompetent and corrupt governments to remain in power, but one also has to wonder whether democracy can be inconsistent with outstanding performance. A related issue involves the sequencing of political and economic reform—the ordering of glasnost and perestroika. It is easier to identify examples of successful economic reform that preceded political reform than that immediately followed it.

Fourth, can adjustment to the “market-friendly” approach work in very low-income countries, especially in Africa? It is hard to answer this question in the absence of a clearly specified alternative strategy. One of the hard lessons of the adjustment efforts of the past decade is that adjustment and reform take time to yield results (World Bank 1989). Government credibility, once lost, is restored only very slowly. And would-be investors, whether foreign or domestic, can always delay investment, waiting to see how things turn out before deciding whether to invest. Most of the success stories—Japan and Germany after World War II and Chile, Korea, and Mexico more recently—took time, and things often got worse before they got better. The process appears even more protracted in very low-income countries. It is no accident that programs put in place with the cooperation of the Bretton Woods institutions involve a higher ratio of adjustment to austerity than would have been the case a few years ago.

Fifth, will the external global economic conditions make export-led growth possible on a large scale over the next twenty-five years? Export-led strategies have not invariably been the most effective. Looking at the record of the period between the two world wars and of the immediate

postwar period, it is not difficult to understand the appeal of import substitution notions. Brazil, with relatively closed markets, was about the fastest-growing country in the world from 1965 to 1980. The liberal advice that most developing countries receive must be based on one of two premises. One is that it will be widely ignored, so the adding-up problem—that is, the problem that increased exports from all will deny benefits to individual countries—will not arise, and those few countries that increase their export capacity will benefit. The other is that many countries will be able to increase exports greatly without depressing their terms of trade, either because industrial markets for domestic products will grow without protectionist policies being imposed, or because trade among developing countries will become more important in the future than it has been in the past (World Bank 1992a). These premises are not self-evident as reform sweeps the developing world, industrial country growth slows, and the Uruguay Round flounders. Although it has been true in the past that the external climate has been a less important barrier to development than misguided domestic policies, this may change as domestic policies improve and protectionism in the industrial world mounts.

Sixth, will natural environmental constraints hold back development or force a new paradigm based on notions of sustainability? Environmental concerns are very important and have been too little reflected for too long in policymaking in both developing and industrial countries. To a large extent, environmental problems are a consequence of policies that are misguided on narrow economic grounds—subsidies to energy, failure to give farmers title to their land and adequate credit, public ownership of major industries, inefficient charging for water, and so forth. And where they are not, the difficulty is to do the right cost-benefit analysis and implement the most cost-effective policies for sustainable development (World Bank 1992b). Of particular importance are steps to eradicate the severe forms of environmental degradation, such as poor sanitation and water and air pollution, that threaten human lives and well-being. The agenda for environmental reform is a large one. Accepting the challenge to accelerate development in an environmentally responsible manner will involve substantial shifts in policies

and priorities and will require substantial investments. Failing to accept it will be far more costly.

Seventh, and finally, there is the ever present danger that some new problem will surface. The only real constant of experience is the unpredictability of the future.

Note

When this article was written, Lawrence H. Summers was the Chief Economist and Vice President of Development Economics at the World Bank. At that time, Vinod Thomas was the Chief Economist in the East Asia and Pacific Region at the World Bank.

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Policies for Economic Development

by Stanley Fischer and Vinod Thomas

At the end of a decade in which many developing countries have seen economic regress rather than progress and in which the formerly socialist economies for the most part turned away from central planning toward a market-oriented approach, there appears to be more agreement on the policies needed to produce growth and economic development than at any time in the post-World War II period. It remains to be seen whether the moment is more than fleeting. But it is certainly a good time to attempt to set out a mainstream, pragmatic view of what those policies are and of the uncertainties that surround the basic market- and outward-oriented approach to development.

In this paper we summarize the consensus views of the major economic policies needed to generate economic growth and development, consider issues that cut across these policy areas, and then provide brief concluding comments.

Consensus Views in Major Policy Areas

Policies conducive to economic development in three broad areas are an appropriate macroeconomic framework, the right set of sectoral policies and investments, and integration of the domestic economy into the world economy.

Getting the Macroeconomic Framework Right

Economic development is unlikely to occur unless policies produce a stable macroeconomic environment in which inflation remains reasonably low, the

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real exchange rate is competitive and stable, and foreign exchange and debt crises are avoided.

Fiscal policy. Tax rate and expenditure policies of government, including the composition of government spending, are the government's major microeconomic tools for affecting the allocation of resources. Beyond these microeconomic effects, fiscal policy is increasingly seen as the key to successful macroeconomic policy because, in its macro impacts, it has direct effects on the current allocation of resources, and because all methods of financing budget deficits have potentially adverse macroeconomic consequences when used to excess.

Given private saving, fiscal deficits displace private domestic investment or cause current account deficits. Thus, unless private saving responds fully to public sector deficits—and there is little reason to think it does—reduction of the fiscal deficit is likely to improve the current account and, perhaps after a period of adjustment, increase investment.

Fiscal deficits can be financed by printing money, by running down foreign exchange reserves, and by borrowing, at home or abroad. Each of these methods of financing can be used on a small scale (and in the case of running down foreign exchange reserves, on a transitory basis), but each is likely to have seriously adverse consequences if used on a major scale. Printing (high-powered) money is inflationary; running down foreign exchange reserves leads to a foreign exchange crisis; domestic borrowing can lead to higher real interest rates and an unstable domestic fiscal situation; and excessive foreign borrowing can lead to an external debt crisis.

While the conclusion is that fiscal moderation is the key to macroeconomic stability, this does not mean a zero deficit is optimal: a country that is growing fast can afford to run a larger deficit than one that is growing slowly; a country with a higher saving rate can run a given deficit for longer than a country with a lower saving rate. Fiscal moderation must be judged by the projected path of the debt (the sum of internal and external debt) to gross national product ratio, and of the inflation rate and external balance. On the whole, inadequate fiscal policies remain a central factor behind the macroeconomic instability and poor performance of many developing countries.

The exchange rate. The second key to a sound macro framework is the exchange rate; it plays two roles in economic policy. First, the level of the real exchange rate is crucial to the development of the domestic economy: it establishes market incentives to export and the level of protection for domestic industries. Second, stability of the nominal exchange rate is one potential monetary anchor and a powerful anti-inflationary factor. When an economy operates with a fixed nominal exchange rate, the quantity of money becomes endogenous. This simplifies the job of the monetary authority; but, as experience shows, it frequently leads to a host of foreign exchange controls.

The two roles of the exchange rate sometimes clash: governments afraid of inflation hold the nominal exchange rate constant or devalue it too slowly, with the result that the domestic currency appreciates, and—with a lag—the current account goes into crisis. When the monetary anchor and trade incentive roles of the exchange rate conflict, the monetary anchor should be pulled up first and attention turned to the underlying source of inflationary pressure, typically the budget. Intermediate steps, such as a crawling peg, in conjunction with appropriate fiscal policy can provide some monetary stability without tending to produce an overvalued currency.

Investment, saving, and growth. Investment and saving ratios in rapidly growing economies are typically higher than those in stagnating economies. It is further clear that sustained growth will not resume in Sub-Saharan Africa and Latin America until investment ratios there rise significantly. The rise in the real interest rate in the 1980s reduces the possibilities of financing investment from abroad; economic growth in the 1990s will have to be largely domestically financed. The surest way to increase domestic saving is to increase government saving, i.e., to reduce the government budget deficit. The emphasis in the 1980s was on the importance of positive real interest rates for development. The emphasis is appropriate when the real interest rate is significantly negative, as it frequently is in high inflation economies: negative real interest rates appear to reduce saving and impair the efficiency of the financial system by reducing the share of saving that is intermediated through

financial institutions. But once the real interest rate is positive, or nearly so, there is little empirical or theoretical reason to believe that further increases will increase saving.

Responding to shocks. Emphasis on the stability of the macroeconomic framework should not obscure the importance of the ability of the government to adjust macroeconomic policy quickly to external and internal shocks. Fiscal and monetary policy, and the exchange rate, may have to change rapidly when external conditions change; the more successful governments recognize change and respond to it. The need for flexibility is especially great for economies whose external earnings fluctuate a great deal, typically because they are dependent on earnings from one or a few primary commodities.

Sectoral Policies: Projects and Beyond

Macroeconomic policies for stability and growth usually need to be underpinned by appropriate sectoral policies to obtain a satisfactory supply response. Sectoral policies include investment decisions, pricing and regulatory policies, and institutional development.

Investments in agriculture, industry, infrastructure, and human resources have long formed the core of development efforts. The traditional approach was to pursue development projects in these sectors with the aid of project analysis of benefits and costs. The effectiveness of the investments, however, depends on the policy environment affecting the sector and the degree of institutional development.

Sectoral priorities and investments. Although there is no universal prescription for sectoral priorities for development, development usually requires increases in agricultural productivity permitting an increasing share of the labor force to contribute to industrial production. Accordingly, development is usually accompanied by an increasing share of industry in output. Human resource development is both an independent goal of development and an essential instrument of economic progress.

Unprecedented rates of population growth in the post-World War II period have contributed to low or negative per capita income growth in

much of Africa, Asia, and for some time in China and India. Despite significant political opposition within the United States, international agencies have sought to assist governments to reduce population growth. Success to date has been limited, but there have recently been encouraging signs from some African countries, where population growth rates appear to be turning down as a result of government educational programs and the provision of contraceptives. Reducing the rate of population growth remains a priority of development policy in many developing countries.

Sectoral policies and strategy. The emphasis on the centrality of sectoral and macroeconomic policies to the success of projects has strengthened in recent years, along with the recognition that policies are of independent importance to sectoral performance. Measures to bring domestic relative prices closer to international levels and to establish a relatively neutral macro-economic framework are often essential to enhancing sectoral performance. In agriculture, for example, incentives were historically suppressed by agricultural taxes. Perhaps more important, macroeconomic policies resulting in overvalued exchange rates have translated into heavy (often unintended) taxation of that sector. Adjustment programs in the 1980s have therefore focused on both macroeconomic policies (exchange rate, import protection) and sectoral pricing policies (eliminating price controls on agricultural output, for example). Concurrently, many programs have also attempted to reduce the rather ineffective input subsidies in agriculture while improving the delivery of inputs and services.

The consensus is converging to the view that macroeconomic and sectoral pricing and regulatory policies should be relatively neutral, that governments should move away from interventions designed to favor particular industries, regions, or factors of production. However, moving toward neutrality may require active transitional government policies, for instance in restructuring public enterprises or the financial system (see also the next section). It also remains true that an active government investment program in the sectors, especially physical infrastructure and human resource development and technology, is essential to development.

Integrating with the World Economy

The most successful performers of recent decades have been the newly industrializing economies, characterized by their relative openness and links with the world economy. To maintain these links, they have had to remain competitive in a rapidly changing world environment. Common to successful competition strategies is the reduction or elimination of discrimination against tradables—permitting exports and efficient import substitutes to be produced on a similar footing with nontradables.

However, such neutrality in the trade regime has been approached through different routes. Some successful reformers have substantially liberalized their trade restrictions (Chile, Mexico), others have intervened to offset existing biases against exports (Korea, Taiwan), and still others have done both (Indonesia, Turkey). Government controls have been especially prevalent in the area of capital flows in many countries. Interventions to encourage new technologies and to industrialize have also paid off on occasion.

Commercial policy reform. Developing countries are more open, and their trade regimes are more efficient than a decade ago. They have substantially reformed their exchange rate and export policies. They also have increased the efficiency of their import regimes by switching from quantitative restrictions to tariffs. But reductions in the levels of nominal and effective protection have been more limited than is generally believed.

Most countries that have implemented trade policy reforms have won long-term economic gains. The policy changes and additional financing under adjustment programs have both been associated with moderate improvements in output and export growth. However, supply response to changes in relative prices associated with the trade reforms has been limited in many countries. The main constraints on the supply response have been restrictive domestic regulations and inefficient public enterprise policies; growing protectionism in industrial countries; doubts about the permanence of the reforms; and inadequate institutions,

infrastructure, entrepreneurial, and managerial capacity in the reforming country.

Issues Spanning Policy Areas

There are several issues that span policy areas. These include sustainable development, both country-specific and global environmental sustainability, and social, political, and economic sustainability of adjustment programs. Other issues include poverty alleviation, the balance between both public and private sectors, the World Bank's role, and adjustment lending.

Sustainable Development

Two issues fall under this heading. The first is environmental sustainability, which has both a country-specific and global aspects. One fear is that in many countries development is taking place by exploiting and destroying much of the resource base, and that such development is accordingly not sustainable. The presumption is that two-way links exist between growth and the environment: certain growth policies are consistent with environmental protection, and environmental care in turn contributes to sustained growth. But knowledge of the tradeoffs between measured growth and environmental protection must increase. At the same time, simple steps to prevent environmental damage, such as environmental assessments for all projects, are already being implemented.

Global environmental issues pose more difficult problems. If global warming is taking place, it is largely the result of current and past economic activities of the now-industrialized countries. If measures are put in place to reduce global environmental damage, the issue of burden sharing between developing and industrialized countries—as well as among all countries—will pose major political difficulties.

A second sustainability issue is whether the adjustment programs of many countries are socially, politically, and economically sustainable. Adjustment is more likely to be socially sustainable if the poor are protected during the process of adjustment. Political sustainability may depend on how adjustment affects the segment of population with political clout. In

general, adjustment is more likely to be sustainable the sooner it shows economic results. One reason to provide external financing during the adjustment process is temporarily to reduce the extent of cuts in expenditures and in imports that would otherwise have been necessary.

Poverty Alleviation

Although the purpose of economic development is to reduce poverty, poverty alleviation is a separate goal of policy in developing as well as industrialized economies. Specific policies, such as targeted food subsidy and health programs, can be used to protect the poor and reduce poverty, even during adjustment. Bolivia's experiment with the Emergency Social Fund and Ghana's Program of Actions to Mitigate the Social Cost of Adjustment are examples. These are temporary measures (three years in Bolivia and two in Ghana). More fundamentally, education and other social programs can be designed to reduce poverty, even though in many countries social spending helps mainly the middle and upper classes. More effective and better targeted public expenditures are needed. Sometimes it would help to correct mistargeting of existing public social expenditures, for example, by reducing public funding of education and curative health care expenditures.

The Balance between Public and Private Sectors

The new consensus on development policy places greater stress than before on the central role of markets and on the private sector (in some countries, the informal private sector) as the engine of growth. The role of the public sector is seen as the creation of a favorable enabling environment for economic activity. The enabling environment consists of the legal, institutional, and policy framework within which economic agents operate.

A government that creates a favorable enabling environment has a large role to play, for instance in ensuring the provision of infrastructure, including social services, such as poverty alleviation, basic education, and access to health care; public security; a stable macroeconomic framework; and an efficient fiscal and regulatory system.

The most difficult question about the role of the government is whether it should take an active part in promoting particular industries, that is, whether it should pursue an industrial policy. Some successful elements of an active policy are clear: export development and assistance in marketing, information, technology, and know-how. Expanding manufactured exports requires sustained efforts on both macroeconomic and microeconomic levels. Japan, Korea, and Taiwan have paid attention to the many nonprice requirements of export development. For a period of time, they also pursued export development while maintaining a certain degree of import protection.

The World Bank's Role

Since the start of its operations in 1946, the World Bank has moved from assisting in the reconstruction of post-World War II Europe to the development of basic physical infrastructure in the developing world, to financing developmental projects, and to the support of structural reform through adjustment lending. This evolution largely reflects a shift in the economics of development. A professional view that focused on "critical mass" and the role of the economic planner has shifted, under the weight of four decades of experience, to a view that centers on establishing an enabling policy environment, the efficient decentralization of information, operation of incentives, and integration with the world economy.

This view also has become more realistic with respect to the goals and operations of governments. It has moved away from the simple notion of government as an altruistic entity and at the same time has accepted that significant changes cannot be instituted if they are not owned by the policymakers and administrators.

For the three decades from 1950 to 1980, the World Bank's almost exclusive role was to provide financing and technical assistance in the development of investments. Even since the advent of adjustment lending in 1980, about 75 percent of World Bank lending has continued to be for projects.

Adjustment Lending

The shift of World Bank operations toward adjustment lending in the 1980s has been associated with the debt crisis and its associated external

shocks, the decline in general balance-of-payments lending to developing countries by the commercial banks. As the debt crisis developed, it became clear that the adjustments many of the indebted countries would have to make to the sharp reduction in external financing could be smoothed by the provision of rapidly disbursing loans by the World Bank. But to ensure that such loans were used to make economic adjustments to changed circumstances, the loan conditionality was tied to policy changes in the borrowing country.

Adjustment lending, as it has taken place in the 1980s, can be characterized as rapidly disbursing and policy based. However, these characteristics are separable, and slowly disbursing policy lending is possible.

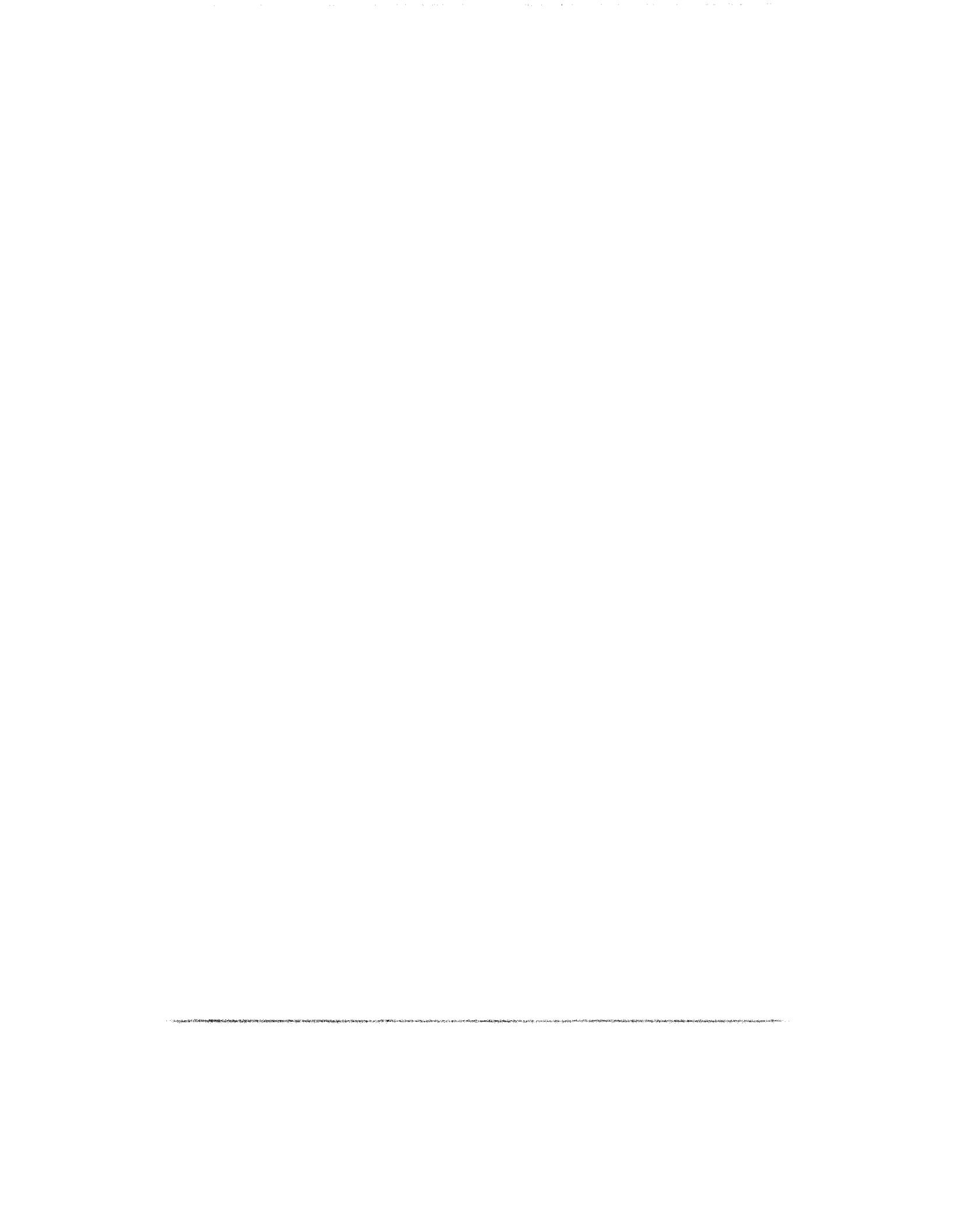
Analytically, the shift to adjustment lending coincided with the recognition that the overall quality of economic policy management is key to economic development, and with the realization that a good economic environment is essential to project development. While early structural adjustment loans focused on general macroeconomic reforms, the adjustment experience of the last decade has led to greater emphasis on sector-oriented programs, and thus to sectoral adjustment loans. These adjustment loans typically support significant policy changes in a particular sector or sectors, with disbursement depending on both the sectoral policy measures and the maintenance of an appropriate macroeconomic framework. The design of policy lending programs has been a subject of controversy for borrowing members, international organizations, and World Bank staff and management alike. Borrowers under the pressure of debt service requirements and domestic resistance protested at the hardships coincident with undertaking such programs. Some observers in donor countries also objected to the social burdens associated with the implementation on program conditionality, while others argued that adjustment loans enabled borrowers to avoid implementing required policy changes.

This controversy has tended to die down as some countries have shown success in pursuing adjustment policies, as nonadjusting countries have descended into economic disorder, and as the lack of alternatives to adjustment has become clearer.

Outstanding Issues

General agreement on the policies needed to produce growth and economic development will remain only if the currently agreed upon policies produce growth and development. Seen in that light, the challenges, particularly from Africa and Latin America, and most recently from the reforming socialist economies, are formidable. In many cases, the problems are analytic, for instance, how to sequence the adjustment of a heavily distorted economy with macroeconomic and external imbalances to the market-oriented structure that its policymakers seek. In other cases, the problems are political: countries with infrastructure and analytic capacity lack the political ability to implement changes that are generally recognized to be desirable. This is not a problem only for developing countries. In other countries, inadequate human capital and institutional framework constrain development. It is essential to recognize that the problems of development differ from country to country, and that each country's policies have to fit its own structure while still recognizing the realities of the world economy in which it operates.

There are also deep questions about the role of external funding and the international development agencies. It is often argued that countries would have done better if left to their own devices and forced to confront their budget constraints earlier and harder. One can agree with this judgment for some countries, but not for most. Nonetheless, it is essential to recognize that an important goal of development is for countries to reach the stage at which they manage their own affairs.



Paths to Development

by Vinod Thomas and others¹

Introduction

Economic development is defined in this report as a sustainable increase in living standards that encompass material consumption, education, health, and environmental protection. Development in a broader sense is understood to include other important and related attributes as well, notably more equality of opportunity, and political freedom and civil liberties. The overall goal of development is therefore to increase the economic, political, and civil rights of all people across gender, ethnic groups, religions, races, regions, and countries. This goal has not changed substantially since the early 1950s, when most of the developing world emerged from colonialism.

Thinking on development has undergone a sea change during the past forty years. The change is by no means total, nor is there universal agreement on what it takes for a country to develop. But the early faith in the ability of the state to direct development has given way to a greater reliance on markets. Inward-oriented strategies are more and more being replaced by outward-oriented ones. Discriminatory taxes on agriculture to fund industry are no longer the norm.

In recent years many countries have implemented market-oriented reforms. With these changes has come a growing recognition that development is a multidimensional process, within which price reforms, investment, and institution-building are complementary. Success depends on getting many things right. Several countries have achieved rapid development in the postwar period. For the most part, they have two features in common: they

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invested in the education of men and women and in physical capital; and they achieved high productivity from these investments by giving markets, competition, and trade leading roles. New ideas, progress in technology, and pressures to achieve efficiency thus were nourished by their economies.

The extent and efficiency of the state's involvement in the economy has been critical. One lesson is that it is better for the state to focus on areas where it complements and supports the private sector (by providing, for example, information, infrastructure, health, research, and education) than on areas where it supplants the private sector (by, for example, producing cement and steel, or running airlines and hotels). A second lesson is that the quality of government matters as much as the quantity. Many economic, sociopolitical, and historical factors play a role in government. History shows that civil and political liberties—goals in themselves—need not impede economic development. And in achieving several developmental goals, civil and political liberties appear to help.

The Evolution of Approaches to Development

Economists have traditionally considered an increase in per capita income to be a good proxy for other attributes of development. But the weakness of income growth as an indicator is that it may mask the real changes in welfare for large parts of the poor population. Improvements in meeting the basic needs for food, education, health care, equality of opportunity, civil liberties, and environmental protection are not captured by statistics on income growth.

Policymakers in most developing countries have long recognized that development encompasses more than rapid income growth. They have often differed, however, about priorities. India's economic plans, for example, assumed that income growth by itself would fail to reach many of the poor. Much stress was placed on measures to tackle poverty directly. A different emphasis is seen in Malaysia's policy documents: "For operational purposes, therefore, rapid economic growth of the country is a necessary condition for the success of the New Economic

Policy. It is only through such growth that the objectives of the NEP can be achieved without any particular group in Malaysian society experiencing any loss or feeling any sense of deprivation" (Malaysia 1973).

Although different cultures place different values on the various elements of development, broadly defined, most seek improvement in every dimension. Many of the indicators used to measure progress (infant mortality, school enrollment, gender equality in education, indexes of political freedom, and so on) are correlated with income per capita. But the correlation is imperfect. All these factors need to be assessed independently of economic growth.

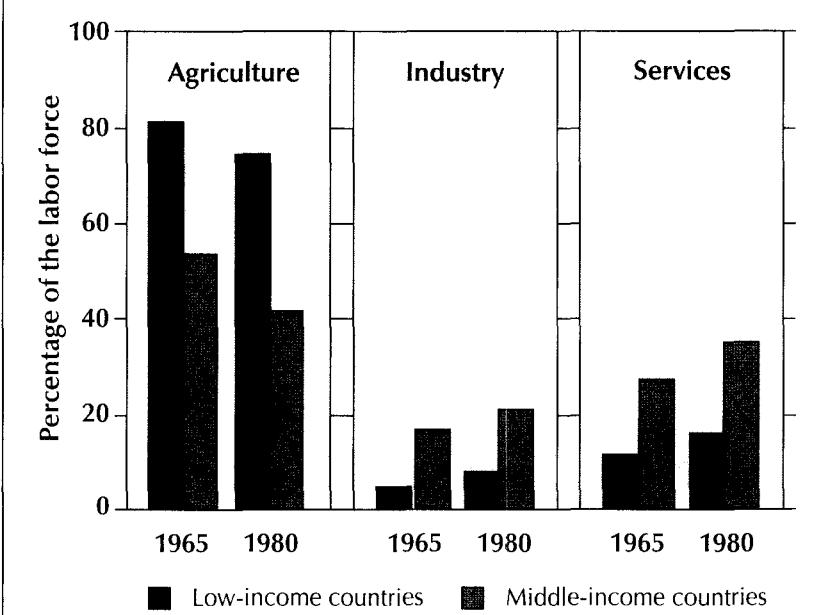
Structural Transformation

Development has almost always involved a shift in the sectoral composition of output. Agriculture's share in production and employment—which is typically high in the early stages—begins to decline, and that of manufacturing industry to increase. The share of the industrial sector in gross domestic product in low-income countries increased from 27 percent in 1965 to 34 percent in 1988, whereas that of agriculture fell from 42 to 31 percent. There are similar shifts in the sectoral shares of employment (Figure 1), although agriculture remains the biggest employer in many developing countries. The next stage in this sectoral evolution is usually a shift toward services.

As in industrial countries, population growth in the countries now classified as developing was fueled first by rapidly falling mortality rates which were the result of better living conditions. Although rising incomes and falling mortality provide incentives for lowering fertility and slower population growth, this demographic transition does not always happen in an orderly way. The population of the developing world grows about 2 percent a year, which is more than twice the growth rate in industrial countries. This rate has declined somewhat in the 1980s from the previous two decades, but with important regional differences: East Asia has experienced a sharp decline; Sub-Saharan Africa, an increase.

Rapid agricultural growth has generally been associated with successful industrialization and sustained gains in overall output and

**Figure 1 The Sectoral Distribution of the Labor Force,
Low- and Middle-Income Developing Countries,
1965 and 1980**



Source: World Bank data.

productivity. Growth in output and productivity are usually lower where agricultural growth is low. Of sixty-eight developing countries for which the World Bank has reliable data, thirty experienced agricultural growth rates of more than 3 percent a year during the past twenty-five years. All thirty had a GDP growth rate of at least 2.5 percent, and two-thirds of the countries whose agricultural sector grew fast also experienced very rapid economic growth (exceeding 5 percent).

Growth in agricultural yields has usually been essential for growth in agricultural output. Hence higher yields are also positively associated with growth in overall output (Table 1). Technological progress is one of the factors that have raised the productivity of land and labor,

Table 1 The Growth of Agricultural Productivity and the Nonagricultural Sectors, 1960–88

Growth of agricultural yield per hectare	Average nonagricultural growth rate				
	More than 4 percent	2–4 percent	Less than 2 percent		
More than 2.5 percent	China Cameroon Egypt, Arab Rep. Rep. of Korea. Rep. of Turkey	Mexico Pakistan Panama Syrian Arab Rep. Turkey	Burundi Colombia Costa Rica	Hungary Nicaragua Philippines Yugoslavia	Liberia
1–2.5 percent	Brazil Côte d'Ivoire Congo	Indonesia Thailand	Bangladesh El Salvador Greece India Mali	Malawi Mauritania Morocco Sri Lanka Togo	Zambia
Less than 1 percent	Rwanda		Argentina Bolivia Ethiopia Nigeria	Peru Sudan Senegal Zimbabwe	Central African Rep. Tanzania Uganda Zaire Ghana

Source: World Bank data.

Note: The nonagricultural growth rate is calculated as the weighted average of the growth rates of industry and services, with the weights being the share of each in GDP. Calculations are from national accounts data for all countries for which data are available and for which the initial share of agriculture in GDP in the 1960s was more than 10 percent.

enabling a smaller agricultural labor force to meet the domestic and external demand for farm products. In order to speed the development process, some countries have implicitly or explicitly taxed agriculture as a means to promote industry. This has generally not worked well. Instead, policies consistent with rising agricultural productivity have proved a firmer foundation for industrialization.

Falling costs in various industries have enabled countries to diversify their production structures, enter new production lines, and compete successfully in world markets. Rapidly growing urban centers are usually part of this pattern. In the industrial countries, nearly 80 percent of people live in urban areas. In the developing countries, the urban share of the population has doubled in the past 30 years to more than

40 percent. Government strategies have directly or indirectly affected this transition. Excessive industrial protection; import-substitution; and a pro-urban bias in pricing, taxes, and subsidies have often encouraged an inefficient pattern of production and urbanization. In many countries, pressures on urban infrastructure have increased without any corresponding economic gain.

Changes in Development Thought

When many developing countries achieved independence, their leaders were concerned with both political and economic development. Their political goal was national unity and identity. Their primary economic goal was the rapid structural transformation of backward agrarian economies into modern industrial ones.

The dominant paradigm of that time recognized four main issues in development, and recommended policies to address them:

- *Physical capital.* It was a goal of policy to increase saving and investment and thus the rapid accumulation of capital.
- *Agriculture.* The farm sector was seen as a source of resources for industrial investment. Policies to protect industry turned the terms of trade against agriculture.
- *Trade.* Policymakers felt that import substitution was necessary for development. It was also feared that integration with the global economy might destabilize development. The response usually was import protection.
- *Market failure.* It was assumed that in the early stages of development markets could not be relied upon, and that the state would be able to direct the development process.

The major development institutions (the United Nations and its agencies, including the World Bank, and several bilateral aid agencies that form part of Official Development Assistance) supported these views with varying degrees of enthusiasm. By the early 1980s the dominant paradigm had shifted.

Capital Formation

A lack of physical capital, especially infrastructure, was initially thought to be the critical constraint on development (Mandelbaum 1945; Rosenstein-Rodan 1943; Nurske 1952; Lewis 1954, 1955). Domestic capital formation was a primary concern. As a leading development economist put it, the “central problem in the theory of economic development is to understand the process by which a community which was previously saving 4 or 5 percent of its income or less converts itself into an economy where voluntary saving is about 12 to 15 percent of national income or more” (Lewis 1954).

One influential model also stressed a foreign exchange constraint—that is, the difficulty of financing import needs by means of exports (Chenery and Bruno 1962; Little 1982; Bacha 1984). This so-called two-gap model of the domestic saving and foreign exchange constraints to growth guided external aid and lending agencies in judging the extra resources that developing countries would need to finance imports and investment.

Later the contribution that human capital makes to development came to be emphasized. The role of human capital was especially clear in the experience of the East Asian economies. They invested heavily in education and skills. Research on the productivity of education has elucidated the link between human capital and development (Schultz 1961; Becker 1964). Accumulation of human capital emerges from all this work as one of the most powerful engines of development.

Incentives for Agriculture and Industry

Often, promoting industry meant neglecting agriculture—or worse. Two assumptions appeared to justify transferring resources, through implicit or explicit taxes, from the farm sector to industry. One was that the supply of unemployed or underemployed agricultural workers was abundant. The other was that farmers were unresponsive to changes in price. Together these implied that the loss of agricultural output caused by taxing the sector would be small. “If these surplus workers were withdrawn from agriculture and absorbed into other occupations, farm

output would not suffer, while the whole new output would be a net addition to the community's income. The economic case for the industrialization of densely populated backward countries rests upon this mass phenomenon of disguised rural unemployment" (Mandelbaum 1945). But with time, the damaging effects of policies discriminating against agriculture have come to be widely recognized.

Foreign Trade

For years the conventional wisdom was that trade had only a small and possibly detrimental role in development. The declining growth in trade volumes—3.5 percent a year from 1850 to 1913, which fell to 0.5 percent a year during the period 1913–48—and the worsening terms of trade for primary commodities seemed to mean that trade could not be relied on as a source of growth (Prebisch 1959; Singer 1949). An approach based on import-substitution would allow domestic industry to grow, conserve scarce foreign capital, decrease external dependency, and strengthen nationhood. Although domestic enterprises would fail if exposed to international markets, protection would give them a guaranteed domestic market in which to grow; later they would be able to compete. The costs of this protection of infant industry in misallocated resources were perceived to be minimal; once the infants grew to adulthood, rapid learning-by-doing was expected to emerge and guide the economy to profitable growth.

In many countries the bias against exports was reinforced by the desire to achieve self-sufficiency in food, which was often a top priority. Rather few economists recognized the role of trade liberalization for development early on (see Haberler 1959), but with the accumulation of case study evidence this recognition spread (Balassa and Associates 1971; Krueger 1978).

The Role of the State

The success of state planning in achieving rapid industrialization in the Soviet Union (for so it was perceived) greatly influenced policymakers in the 1950s. Its avowedly egalitarian character was also appealing. The staggering human costs of this transition became apparent only much later. Moreover,

policymakers viewed the economic collapse of the Great Depression of the 1930s as evidence of widespread market failures. The subsequent recovery was attributed to government intervention (a view supported by the Keynesian revolution in macroeconomics). Government allocation of scarce resources and the rationing of essential consumer goods during World War II seemed to confirm the effectiveness of state intervention.

Domestic conditions at home in most developing countries also encouraged a major role for the state. Illiteracy was widespread, and many policymakers believed that development would have to be directed by “the best and the brightest.” The idea that the state should occupy the “commanding heights” of the economy also began to take hold. Soon, along with redistributing assets and income, alleviating poverty, and meeting basic needs, the state became directly involved in producing goods for investment and consumption.

Even in the 1950s, some questioned whether the state was competent to do all this. “The adequate performance of these functions exceeds the resources of governments of all under-developed countries.... We are faced with the paradoxical situation that governments engage in ambitious tasks when they are unable to fulfill even the elementary and necessary functions of government” (Bauer 1958). The balanced growth approach “requires huge amounts of precisely those abilities which we have identified as likely to be very limited in supply in underdeveloped countries” (Hirschman 1958). But even the skeptics supported government involvement in production. The state was expected to initiate growth by creating incentives and pressures for further action, and then to stand ready “to react to, and to alleviate, these pressures in a variety of areas” (Hirschman 1958). Others went further: “Apparently, nobody in the advanced countries sees any other way out of the difficulties, which are mounting in the under-developed countries, than the socialistic one, however differently one’s attitude may be towards the economic problems at home” (Myrdal 1956).

Growth Theories

Classical economic analysis envisaged that per capita output would be stationary as the rate of profit declined with diminishing improvements

in productivity. The neoclassical tradition also incorporated the idea of falling marginal product of inputs, so that sustained growth was possible only through exogenous technological change (Solow 1957). If countries have access to the same technology, therefore, growth rates would be expected to converge across countries. The recent record of industrial countries offers support for convergence.

The growth rates of developing countries, however, have diverged. At first look, this seems to be at odds with the expectation of convergence. But in practice, technological change has not been equal, nor has it been exogenously transmitted in most developing countries, because of import and other restrictions. Furthermore, even if all economies have access to the same technology, national growth rates can differ if human capital and the incentives to adopt new technology differ across countries. The “new” growth theories note that technological change is endogenous, and that education and knowledge produce positive externalities or increasing returns (Romer 1986; Lucas 1988).

Accordingly, a big push in an economy open to foreign technology can yield large gains—an idea generally put forward early on. The Cambridge model of the 1940s and 1950s assumed that output would grow in proportion to reproducible inputs, or capital. Rosenstein-Rodan (1943) postulated the big push by which an economy propels itself into self-sustaining industrialization and rapid growth. Rostow (1960) envisaged a takeoff from a stationary state to per capita growth.

Thus investment policies that encourage externality-generating activities (improvements in education) or introduce increasing returns (improvements in physical infrastructure) can be good for growth. Also important are complementary policies that facilitate the spread of knowledge and that permit free entry and exit of firms—and free mobility of people, capital, and technology.

Linkages in Development

Education, technology, and openness have complex relations to development. They enable economies to respond not only to price signals but also to new ideas. This link between knowledge and growth has

been important in East Asia for the past forty years and in Scandinavia, especially between 1860 and 1950 (Box 1). It was recognized in the literature early on. “It is not enough that knowledge should grow; it should also be diffused, and applied in practice. The rate at which knowledge is taken up depends partly on the receptiveness of the people to new ideas, and partly on the extent to which institutions make it profitable to acquire and apply new ideas … New ideas will be accepted most rapidly in those societies where people are accustomed to a variety of opinion, or to change … A country which is isolated, homogeneous, proud, and authoritarian is by contrast unlikely to absorb new ideas quickly when it meets them” (Lewis 1955).

Box 1 Scandinavian Models of Development

Denmark, Finland, Iceland, Norway, and Sweden have successfully combined private ownership and market competition with government actions—to ensure an egalitarian income distribution, provide insurance against loss of income caused by disabilities, and address market failures. These activities of government, which were of limited importance before World War II, expanded rapidly thereafter. The high spending of the welfare state required the high incomes of the postwar era.

The Early Period: Mid-1800s to World War II

The Scandinavian countries started industrialization in the mid-1800s and late 1800s. Security for property rights and trade reforms were important conditions for growth. Governments generally did not restrict the workings of the market, and financial institutions and ownership structures were allowed to develop with little state interference.

Literacy was already very high when industrialization began in the last century. Substantial attention was given to primary and general education, including women’s education, as well as to technical and mercantile education in trade schools and universities. The government focused on building the infrastructure for development, which included legal and administrative frameworks and transport.

The Later Period: After World War II

Scandinavia is rightly acclaimed for having reached an advanced phase of welfare. But some characteristics of the welfare state have had costs

(Box continues on the following page.)

Box 1 Scandinavian Models of Development (*continued*)

that could have been avoided with difficult policies. First, in an attempt to keep down the cost of capital, financial markets were heavily regulated after the war. This, however, limited the access of smaller firms and entrepreneurs to capital. It has also discouraged the adaptation to the financial innovations abroad. (These markets were deregulated during the 1980s.)

Second, policies guaranteeing low unemployment and the public sector's larger and larger share in employment have in the long term seriously weakened the discipline of the market on union wage demands. This has resulted in high labor costs and lower profits and investment. Privatizing certain public services—now under consideration—may strengthen discipline in the labor market.

Third, the high marginal tax rates for most of the labor force are a burden on growth. In response, Sweden is embarking on a program of tax reform to alleviate the distortions in the choice between work and leisure and to shrink parallel, underground labor markets.

Scandinavia's pragmatic willingness to avoid conflict and to seek consensus in political and economic life has certainly shaped development there in important ways. Although it is impossible to say if the search for consensus has contributed much to growth, it has molded Scandinavia's special combination of private and public activity.

The green revolution in agriculture, which above all included the spread of new, high-yielding varieties of wheat and rice, is an example of the interaction between new technology and education. The new varieties were developed by scientists in Mexico and the Philippines with assistance from the Rockefeller Foundation. To gain access to these technologies, domestic economies needed to be receptive. In order for them to be absorbed, adapted, improved, and disseminated, domestic research and local technologies had to be strengthened. Countries in South Asia did these tasks reasonably well, and farm yields there doubled and tripled. Wealth and the ability to bear risk were important, but the most critical factor in adopting the technology was the ability of farmers to make use of new information.

Openness encourages the flow of technologies from industrial countries to developing countries; education encourages the adoption, adaptation, and diffusion of technology. Differences in the rate of technology adoption and economic growth among countries are in large part the result of differences in education. “The worldwide spread of modern economic growth has depended chiefly on the diffusion of a body of knowledge concerning new production techniques … the more schooling of appropriate content that a nation’s population had, the easier it is to master the new technological knowledge becoming available” (Easterlin 1981). Equally essential is the freedom of individuals and firms to borrow foreign technology, learn from foreign ideas, and buy foreign goods. The more open the economy, the greater the returns to education and to physical investments.

Another important link connects macroeconomic stability to the success of microeconomic policies. Countries with low inflation and sustainable external balances have been far more successful in achieving lasting growth.

Finally, human development and poverty alleviation, on the one hand, and economic growth, on the other, seem to reinforce each other. Human development and poverty alleviation have always been development goals in the eyes of policymakers and planners. Their methods, however, have varied, and have ranged from government interventions to market solutions. Elements of both are needed: market-oriented policies to support growth, together with well-targeted social programs.

Aggregate Outcomes in Development

Incomes and welfare have improved substantially in the postwar era. In low- and middle-income countries, output has grown at an average annual rate of nearly 5 percent since 1965, with output per capita growing at 2.5 percent. Social progress has also been strong. Secondary school enrollment has nearly doubled since 1965, to about 40 percent. Infant mortality seems to have fallen substantially, from an estimated 124 deaths per thousand births in 1965 to 72 in 1988.

Not all countries have achieved the same successes. The rate of GDP growth has varied substantially from region to region. Incomes improved

consistently in East Asia; performance also improved in South Asia, but more slowly and patchily. In other regions, income growth deteriorated. Since 1960, per capita real incomes have surged in Japan, the Republic of Korea, and Singapore; stagnated in Argentina, Jamaica, and Peru; and dropped in Ghana, Nigeria, and Zambia (Figure 2).

The rates of saving and investment rose in many countries. India consistently saved more than 20 percent of its income in the 1970s and 1980s. In 1988, Brazil saved 28 percent of its income; China, 37 percent; Côte d'Ivoire, 22 percent; and Kenya, 22 percent. Investment as a share of income averaged 26 percent for developing countries in 1988. But again, country differences were substantial. Investment shares were about 4 percent in Bolivia, Sudan, and Zaire and about 30 percent in the Republic of Korea, Portugal, and Venezuela.

The growth of trade in low- and middle-income countries was strong as a whole; exports expanded by almost 5.3 percent during the period 1965–89. Brazil, China, Korea, and Turkey were among the strongest performers. But many countries fared poorly, particularly in Sub-Saharan Africa, where real exports plummeted in the 1980s (Figure 3). In all developing countries, the share of exports in output increased from about 13 to 23 percent in this period—a trend dominated by East Asia, where the share increased from 8 to 30 percent.

Government involvement in the economy also varied greatly. The share of public employment in the formal nonagricultural sector in 1980 was estimated to be more than 70 percent in Benin, Ghana, India, Tanzania, and Zambia, and less than 25 percent in Argentina, Guatemala, and Korea (Heller and Tait 1984). In some countries, public consumption has averaged more than 15 percent of output, which implies that the wages of public employees may have absorbed more than a third of nonagricultural output.

Highlights of Economy Experiences

Much can be learned about the effectiveness of different development strategies from the experiences of individual economies. The following paragraphs highlight the recent stories of development in China, India, Nigeria, Brazil, Argentina, Malaysia, Sri Lanka, Korea, other East Asian

Figure 2 Per Capita Income, Selected Countries, 1960 and 1988 (1985 PPP dollars)

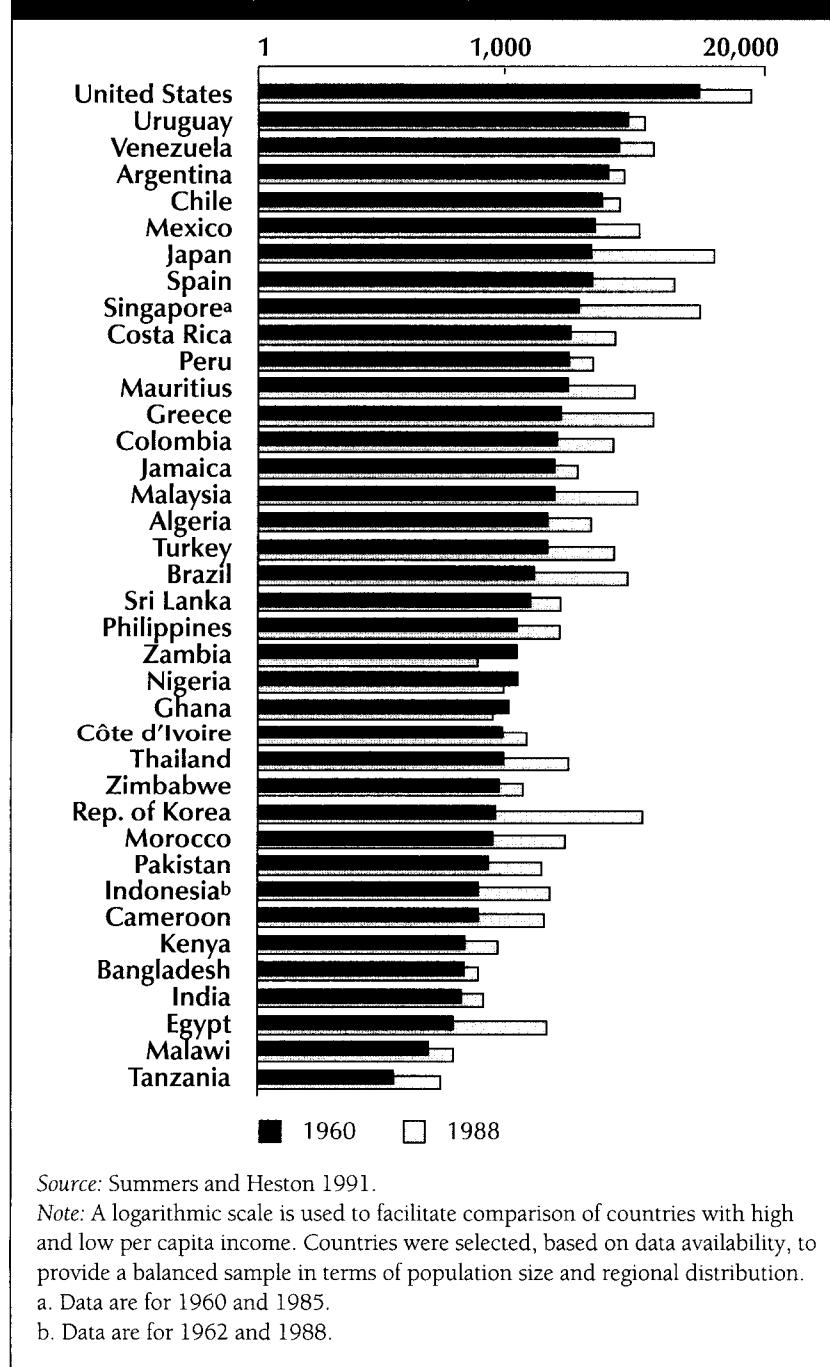
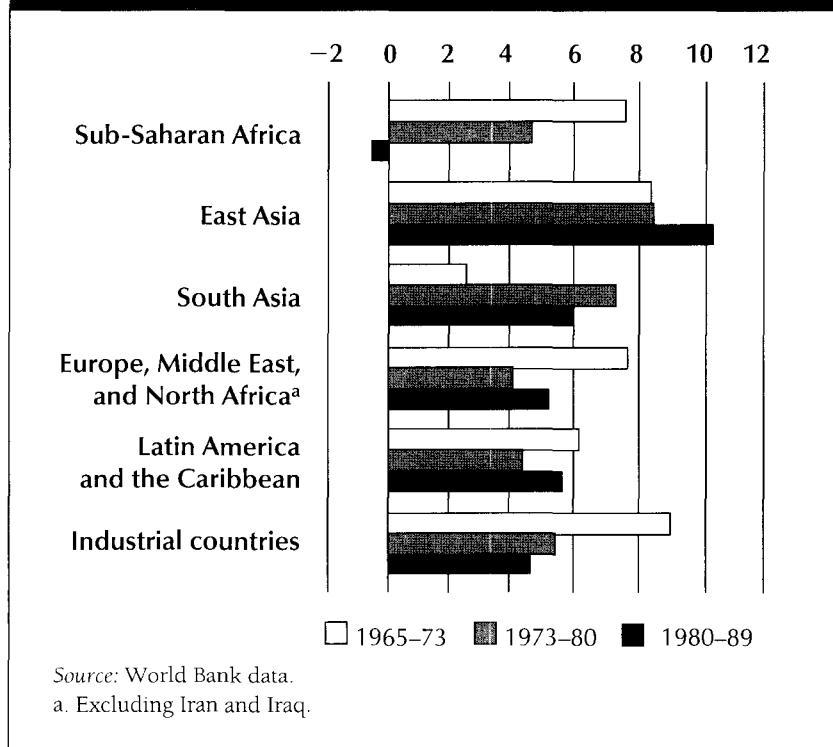


Figure 3 Estimated Annual Growth in Real Exports, Selected Groups of Countries, 1965–89 (percent)



newly industrializing economies, and the OECD economies. The subject of regional variations in income within economies is also raised.

- *China.* From 1950 to 1978 the Chinese economy was centrally planned in most respects. The defects of such a highly centralized administrative system became clear, despite the progress in infrastructure and resource mobilization, “it makes productive enterprises subordinate to administrative organs ... [and] involves excessive command planning from above and is too rigid” (Hsu 1982). So structural reforms were introduced in 1978. The most striking were rural reforms that introduced price and ownership incentives to farmers. Real farm prices have increased by 50 percent, and the agricultural growth rate rose from 2.5 percent in 1965–78 to 7.2 percent in 1978–88.

- *India.* The government has been actively involved in the production process, regulating “the scale, technology, and location of any investment project other than relatively small ones … a chaotic incentive structure and the unleashing of rapacious rent-seeking were the inevitable outcomes” (Srinivasan 1990). This extensive government involvement was accompanied by macroeconomic stability in the 1960s and 1970s, but growth was slow nonetheless. During the period 1960–79, the growth of per capita income averaged 1 percent a year. Absolute poverty declined from about 55 percent in the early 1960s to only 45 percent in the mid-1980s. Since the late 1970s, some industries have been deregulated. The exchange rate, whose real value relative to the dollar was the same in 1955 and 1980, has depreciated in real terms. These partial reforms contributed to an acceleration in the per capita growth rate to about 3 percent in the 1980s.
- *Nigeria.* A telling statistic about this oil exporter is that its per capita growth rate, which averaged 1.1 percent a year in the period 1960–73, declined 2.8 percent a year after the oil price increase of 1973. Public spending was largely responsible for the decline. Between 1973 and 1981, public employment tripled from 0.5 to 1.5 million. Government expenditure rose fivefold between 1972 and 1974 and accounted for almost 80 percent of total oil revenue. Public investment increased from 5 percent of GDP in 1974 to 17 percent in 1977, and accounted for more than half of total investment in that year. The budget turned from surplus to a deficit averaging 24 percent of retained revenue in 1975–78 (Bevan, Collier, and Gunning 1999).
- *Brazil.* This country is often cited as an example of the success of good import substitution policies. For almost three decades (between 1960 and 1987) its average growth rate was an impressive 6.6 percent a year. What is revealing about the miracle years of 1967 to 1979, however, is that rapid growth was preceded and accompanied by economic reform. Before 1967, classic stabilization measures (tight credit and budget controls) were applied to bring down inflation. In 1967, a new tariff law reduced protection to domestic manufacturing from 58 to 30 percent. In 1968, a crawling peg exchange rate

replaced the multiple exchange rate system. These policies produced a surge in export volume of more than 10 percent a year between 1964 and 1980, and an annual rate of growth of 9.4 percent (Maddison and Associates, 1992).

- *Argentina.* At the turn of this century, Argentina's per capita income was comparable to those of Australia and Canada. But since the 1940s the country has suffered chronic macroeconomic instability and slow growth. Inflation and repeated failures to stabilize the financial environment have discouraged domestic savings and investment. Without macroeconomic stabilization, Argentina has had difficulty adjusting to shocks to its terms of trade, a problem compounded by high levels of protection. These continuous macroeconomic failures largely explain the decline in Argentina's growth rate, which has fallen from an average of 4 percent a year in the period 1960–73 to 0.8 percent in 1973–87.
- *Malaysia and Sri Lanka.* In 1960, these two countries had similar per capita incomes, education levels, infant mortality rates, ethnic diversity, and economic structures. Since then they have followed different development strategies. Even after the reforms of 1978, Sri Lanka remained less open than Malaysia. Agricultural taxation has been lower in Malaysia too: taxation of rubber exports has averaged less than 30 percent, compared with more than 60 percent in Sri Lanka. During the period 1960–78, Malaysia grew at 7.0 percent and Sri Lanka at 4.4 percent. Productivity growth has averaged 1.5 percent in Malaysia and 0 percent in Sri Lanka. Between 1960 and 1988, infant mortality rates dropped from an estimated 70 per thousand in both countries, to about 15 in Malaysia and about 30 in Sri Lanka. The share of the poor in Malaysia's population is estimated to have been reduced from about 37 percent in 1973 to 15 percent in 1987; in Sri Lanka it fell from 37 to 27 percent between 1963 and 1981.
- *Republic of Korea.* Undoubtedly, this economy is an example of spectacularly rapid development. But analysts differ as to the causes. The growth rate during the period 1960–87 in Korea was 9.0 percent. Social indicators have also improved rapidly. Korea continued its import substitution approach in the 1960s. A strong export drive was also launched in the 1960s. After experiencing economic difficulties

in the late 1970s, Korea pursued a more and more liberal approach in the 1980s. During the period 1960–87, the annual growth of total factor productivity (TFP) was an estimated 1.7 percent in Korea. Income distribution compares very favorably with that of other developing economies, though it is estimated to have worsened.

- *Other East Asian Economies.* The economies of Hong Kong and Singapore have also achieved enviable success. So has Taiwan, China, which during the period 1960–87 grew 9.5 percent. This economy opened up early, initiating new policies in 1958–59 that “reversed the import-substitution strategy [and] reoriented the economy to the world market” (Myers 1990). Income distribution compares favorably with that in other economies, and it has improved.

The government of Singapore has been considerably more interventionist than the government of Hong Kong. During the period 1960–87, growth rates were 8.8 percent in Singapore and 8.6 percent in Hong Kong, whereas productivity grew by 1.7 percent in Singapore and by 3.1 percent in Hong Kong.

These East Asian economies have performed exceedingly well for long periods of time. Although they differ in many important respects, they all share several features: high and rising levels of education, and an outward orientation. But these economies raise important questions about the proper roles of state and market. Hong Kong followed a relatively free-market approach. The other economies were relatively more interventionist. Japan and Korea followed policies of protection for infant industries and of credit subsidies. Why, in these cases, did interventionist policies succeed when they so often failed elsewhere? Some economists argue that intervention worked because markets were still freer than in other economies. Some go so far as to argue that intervention set the East Asian economies back, that they would have done even better without it. Other economists say that the secret is to intervene competently. But this begs the key question: what is the difference between competent and incompetent intervention?

The issue remains controversial, but three propositions now command quite wide support. First, government intervention in these economies was subjected to international competition and

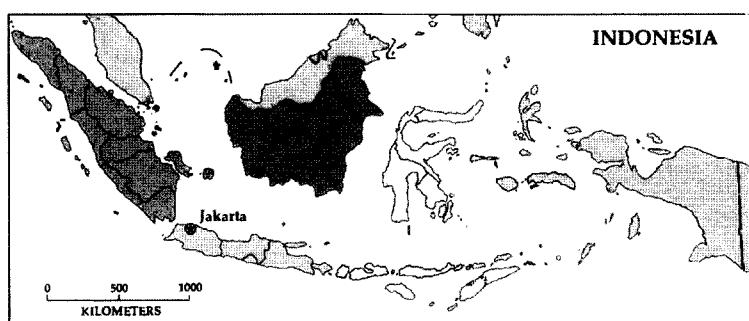
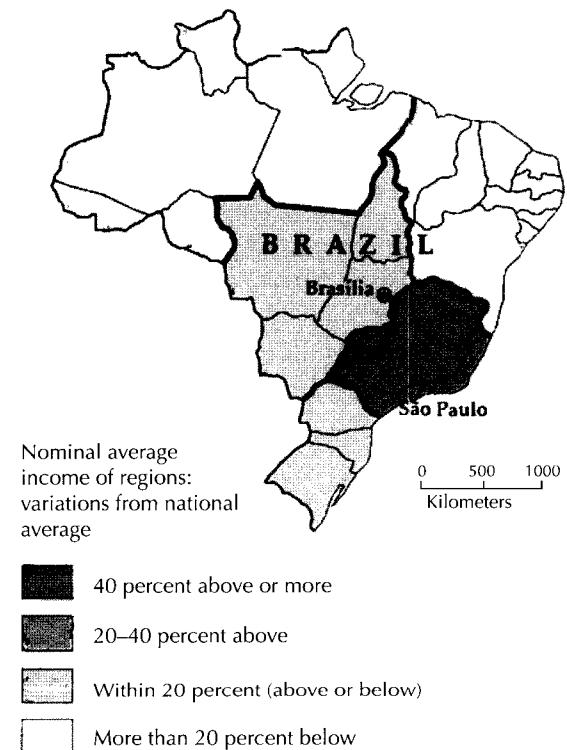
market-related checks and balances. These governments did not avoid the discipline of market forces. When protection failed, it was promptly removed—difficult to do, and most unusual. Second, governments were careful to offset the bias against exports that is usually a feature of trade protection. Their trade regimes, in other words, remained highly outward-oriented. Third, intervention in the market in these East Asian economies was, in an overall sense, more moderate than in most other developing economies. These and other institutional features seem to distinguish the East Asian economies, including Japan (see Box 2).

- *OECD Countries.* During the past three decades, the OECD countries have experienced solid growth, averaging about 3 percent a year, and with less country-by-country variation than among the developing countries (Harberger 1984). The fastest growing advanced economy has been Japan; its output increased by 6.5 percent a year between 1965 and 1980. Two features of this experience stand out: first, rapid technological progress, supported by a strong outward orientation; second, a rise in saving rates, supported by moderate fiscal policies. Often the government's budget was in surplus. This stimulated saving and investment and created opportunities to cut taxes. Germany's postwar growth (3.5 percent during the period 1965–80) was export-oriented, with low inflation and a realistic exchange rate that ensured international competitiveness. By and large, organized labor supported the government's growth-oriented policies. Economies of scale, learning by doing, and the restructuring of industry led to rapid advances in productivity. In Britain, economic growth in the 1960s and 1970s was slower because of high inflation, troubled labor relations, an overvalued exchange rate, frequent balance of payments problems, low corporate profits, and too little investment. Growth improved during the 1980s.
- *Regional Differences in Income within Countries.* Data on average incomes for countries conceal regional variations in incomes, especially in large countries. Variations in nominal income, or output, per capita originating from region to region are substantial in several large countries, including Brazil, China, India, Indonesia, and Nigeria (see

the maps of Brazil, Indonesia, and Nigeria for examples). Differences in expenditures, as well as differences in *real* terms—that is, after correcting for regional price differences—are expected to be less (see below). Within China, the per capita nominal income in the eastern region (which contains 29 percent of the population) was estimated to be 50 percent higher than in the southern region (43 percent of the population) in 1987. The average per capita income in the western region of India (14 percent of the population) was about 60 percent higher than in the eastern region (22 percent of the population) in 1986–87. In Indonesia, the per capita output in Sumatra (20 percent of the population) was estimated to be 36 percent more than in Java (60 percent of the population) in 1988. According to available data, this difference is virtually eliminated if income from oil is excluded, or if expenditures are compared. Within Nigeria, the eastern region was estimated to have a 70 percent higher per capita income (also including oil income) than the northern region in 1981.

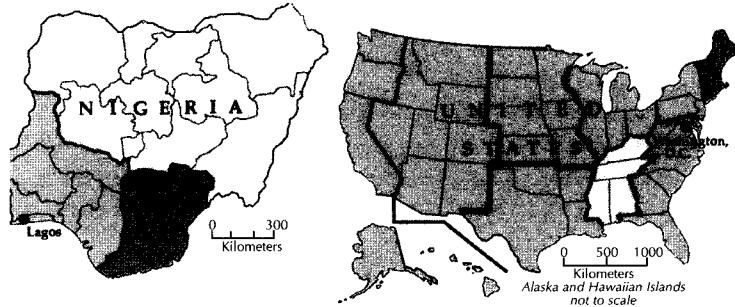
Variations in nominal income, however, are biased upward because costs of living are typically higher in the wealthier regions. But data for cost of living adjustments are scarce. Where the adjustments were possible, in the case of Brazil, differences do diminish (in real terms). In 1980 the southeastern region of Brazil (with about 40 percent of the people) had an estimated per capita nominal income more than three times that of the northeastern region (30 percent of the people). According to an estimate for 1975, when measured in *real terms*, the southeastern region's income was twice, rather than three times, that of the northeastern region.

The evidence from industrial countries shows smaller regional differences in nominal terms. In the United States, the Middle Atlantic region (15 percent of the population) had a 16 percent higher nominal per capita income in 1988 than the South Atlantic region (17 percent of the population). The differences were estimated to have narrowed in the past three decades. Adequate comparisons of trends in regional inequalities in the developing countries, however, are constrained by lack of data; the available data do not show any clear reduction in regional inequalities.



Sources: Indonesia income data from Biro Pusat Statistik 1989.

Note: Regional estimates include income from oil production, especially important in Indonesia. See map of Brazil for key.



Sources: Nigeria data from World Bank; United States data from U.S. Department of Commerce, Bureau of the Census 1990.

Note: Regional estimates include income from oil production, especially important in Nigeria.

The various economy experiences, though highly suggestive, need to be analyzed more carefully if they are to yield systematic evidence. A larger number of countries must be compared with one another in an econometric framework that ensures consistency of treatment. Then it may be possible to infer the factors that fuel development.

The Determinants of the Growth of Income

Comparative studies were pioneered by the International Labour Organisation in the early 1970s (Meier and Seers 1984), in the trade studies of Little, Scitovsky, and Scott (1970), and by studies done under the sponsorship of the National Bureau of Economic Research (Bhagwati 1978; Krueger 1978). Since then, further studies have accumulated rapidly. They include recent work at the World Bank (where five large multicountry studies have covered approximately sixty countries), other agencies of the United Nations, and the World Institute for Development Economics Research.

Two of the main conclusions of this body of research are as follows. First, sustained development in many countries, notably the Scandinavian countries after 1870 and the East Asian economies after World War II, can be largely explained by education (and the associated quality of institutions) and by policies promoting outward orientation and competition. Outward orientation boosts growth and productivity. Import substitution policies have generally had disappointing results. Protected infant indus-

Box 2 What's Behind the Japanese Miracle?

Exceptional investments in people, physical assets, and technology are generally considered the main reasons for Japan's success, as elaborated on elsewhere in this report. The institutional and policy factors that created the climate for these large investments and their productivity are still debated.

The Bureaucrats?

Some see the Japanese miracle as the result of bureaucrats in the Ministry of International Trade and Industry (MITI) guiding firms' production and investment decisions. Since the 1930s at least, Japanese bureaucrats have influenced manufacturers' decisions. They have eased their access to capital and to foreign technology. They have granted subsidies, trade barriers, and tax breaks. They have formulated plans to allocate production. And they have sanctioned cartels. As industrial consultants who can persuade their clients to follow their advice, MITI's officials have a close relationship with manufacturers.

The Size of Interventions?

By any measure—the size of government expenditures or taxes, government-induced macroeconomic disturbances, controls on prices, the role of state-owned enterprises in manufacturing, or restrictions on private sector activities—the role of government in Japan's economy is small. Moreover, of the nearly half million Japanese manufacturing firms in the 1950s, most were small and medium-size—accounting for half the value added in manufacturing (60 percent in the late 1970s).

Institutions?

Traditional Japanese views on rights and appropriate behavior have affected the resolution of conflicts—and the relations between workers and managers, between large firms and subcontractors, and between government agencies, producers, and producers' associations. For example, norms of behavior toward authority, which encourage a free flow of information between workers and supervisors, and a consensus building approach in conflict resolution have allowed better quality control in mass assembly.

(Box continues on the following page.)

Box 2 What's Behind the Japanese Miracle? (continued)

All Three

Each explanation probably captures an aspect of reality. But it is difficult to draw lessons for other countries from an institutional explanation of Japan's success—except to note that bureaucrats did not try to fight market trends. Instead, they tried to anticipate those trends, and they retreated when they were wrong. The market was a disciplining factor.

tries have rarely grown up, while the anti-export bias from protection has impeded the growth of exports. Further, these policies have lowered agricultural incentives. Second, severe and prolonged macroeconomic imbalances hurt investment and growth. Private investment is hampered because public borrowing and debt crowd it out and investors are uncertain about the future of the economy.

Another method of analyzing the growth process is to estimate the contribution that capital and labor make to growth. Patterns of experience across countries can be examined through a comparative study of large groups of countries and of econometric analyses of the data derived from them. One result applies to both industrial and developing countries. The sum of the contributions of the factors of production fails to account for overall growth. The so-called residual in the estimated production function, or total factor productivity, accounts for the rest. It captures the efficiency with which inputs are used (Box 3).

The empirical literature on the determinants of economic growth in industrial countries is voluminous (Denison 1962; Jorgensen and Griliches 1967; Maddison 1981). Similar work for developing countries has been less comparable, however, because of data problems. Data on inputs are generally unavailable. Estimates of human and capital stock are vital for this sort of analysis.

For this report, a consistent set of data for output, capital stock, labor force, arable land, and years of education of the working population has been constructed. For GDP growth, national accounts data have been used. Their limitations need to be borne in mind (Box 4). Estimates of

Box 3 Total Factor Productivity in Economic Growth

An important advance in economics of the past fifty years has been to identify and measure total factor productivity, which measures changes in output per unit of all inputs combined. Before, most analysis of productivity focused on the growth of labor productivity, and to a lesser degree, on the growth of the average productivity of capital.

Observe the following differences. The total output of the United States in the first part of the twentieth century grew at about 3 percent a year. Its capital stock also grew at about 3 percent, whereas the labor input (measured in worker-hours) grew at only about 1 percent a year. In the capital-labor mix, capital accounted for about one-third, and labor, two-thirds. So inputs were rising about 1.7 percent a year: two-thirds times 1 percent plus one-third times 3 percent. Total factor productivity, or the residual, thus accounted for 1.3 percent in output growth: 3 percent (the rate of growth of output) minus 1.7 percent (the growth rate of inputs).

The early calculations of total factor productivity for different countries led to the conclusion—surprising at the time—that about half of growth in output was due to the residual, which was quickly baptized as technical change. What makes up the residual? Technological innovations have no doubt generated some improvements in total factor productivity. But the main additional element is in the quality of labor. If the additions to the labor force are more productive than the existing force, they will add more to output than they would under the formula based on labor's share. And the extra contribution from upgrading the quality of labor ends up in the residual.

Adjusting for labor quality makes it easy to identify the residual with technical change—defined very broadly. Technical change includes such obvious innovations as the mechanical cotton picker, the pneumatic tire, the hand-held calculator, the personal computer, the fork-lift truck, and the containerized shipping system.

But technical change also includes numerous ways of reducing real costs. These costs may fall as more discipline is instilled in the work force by a more demanding manager—or as the work force becomes more productive because a too-demanding manager has been fired.

An assembly line might be made more productive simply by straightening it out—or a farm by introducing a different fertilizer. Productivity

(Box continues on the following page.)

**Box 3 Total Factor Productivity in Economic Growth
(continued)**

may also be increased by, for example, installing a facsimile machine, closing down unprofitable branches, or buying longer-lasting tires for trucks.

The way to understand more about what makes up the residual is to study the growth of total factor productivity in detail—product by product, industry by industry, sector by sector. Even with close study not every source of cost reduction can be identified, but the most important ones surely can. This identification alone reveals the kaleidoscopic sources of growth encompassed in the residual.

physical and human capital were prepared for sixty-eight countries. The group includes some of what are now high-income countries (Japan, Greece, Spain, and Portugal), but none of the results is sensitive to their inclusion. Of the other countries, twenty-seven are in Africa; fifteen in Latin America; nine in East Asia; eight in Europe, the Middle East, and North Africa; and four in South Asia.

The Contribution of Capital and Labor

For the sample of developing countries used, the estimated elasticity of output to capital for the 1960–87 period is about 0.4; for every 1 percent capital increases, output increases by about 0.4 percent. Under assumptions of perfect competition in product and factor markets, this elasticity reflects the share of capital in the economy. For industrial countries, this share has indeed been estimated at between 0.25 and 0.4 percent. The estimated elasticity of output to labor is about 0.45 percent. This elasticity is somewhat lower than that of industrial countries; estimates for the United States put the figure between 0.6 and 0.75 percent. The much lower levels of education in developing countries probably account for much of this difference.

The Contribution of Education

Many studies document the high returns on investment in education. In past studies of growth, education has been roughly proxied by literacy

Box 4 Measurement Informs Policy—Or Does It?

The demand for economic data in policy analysis has intensified since Simon Kuznets pioneered national income accounting in the 1920s. With Keynes's macroeconomic models and Leontief's input-output models, the data, analytical tools, and computing capabilities have mushroomed. But serious problems of data and measurement still plague quantitative economic analysis.

Dubious Quality

In many countries, estimates of agricultural production are not based on reliable estimates of crop area and yields. Estimates of industrial production are based on partial coverage of enterprises, ignoring for the most part small-scale production units. Measures such as national savings, investment, and consumption are indirectly estimated, derived as the difference between two other magnitudes, which are themselves subject to error.

There are serious gaps in the data on literacy, school enrollment, poverty levels, and nutritional levels. Reliable estimates of life expectancy at birth—based on recent censuses—and measures of births and deaths are only available for thirty countries for the years after 1980 (see table). Only twenty-seven countries have series for more than one period. Thus, most of the available estimates are based on assumptions about mortality.

Poor Comparability

GDP measures pose important problems in comparability across countries and over time. Among the major hurdles are price changes accompanying quality changes, changes in relative prices, the choice of base periods, and the extent of coverage of economic activity. The conventional use of official exchange rates introduces biases during periods of volatile exchange rates. Purchasing power parities (PPPs) generally yield a more accurate measure of output by comparing the value of a specified basket of goods and services in the domestic market, expressed in national currency, with the value of the same basket in foreign currency.

Own-account consumption and subsistence production are often inadequately measured, if at all. Even with imputations, the pricing of such volumes is less than satisfactory. Multiple exchange rates, enforced

Box 4 Measurement Informs Policy—Or Does It? (continued)
**Box Table The Availability of Relatively Reliable Data for Selected Social Indicators in Developing Economies
(number of countries or areas)**

Region, total number of economies	Number with data on life expectancy at birth				Number with data on infant mortality rate				Number with data on probability of dying by age 5			
	Total	Before 1975	1975– 79	1980–	Total	Before 1975	1975– 79	1980–	Total	Before 1975	1975– 79	1980–
Africa, 50	16	9	4	3	36	11	10	15	35	12	10	13
Latin Amer- ica, 27	24	5	3	16	26	1	3	22	26	2	4	20
Asia and Oceania, 40	20	1	8	11	27	3	9	15	27	3	10	14
Total, 117	60	15	15	30	89	15	22	52	88	17	24	47

Source: United Nations 1990.

(Box continues on the following page.)

Box 4 Measurement Informs Policy—Or Does It? (continued)

through rationing or other means, distort GDP measures because the prices used do not reflect true values. Parallel or underground market activities lead to incentives for evading taxes; these activities are not captured fully in GDP. If the share of such activities in measured GDP changes over time, estimated growth rates based on measured GDP will be off the mark.

Externalities associated with resource overuse and environmental degradation present another difficult issue for proper accounting. If an economy overuses its environmental resources and if market prices do not fully reflect this use, conventional GDP measures overstate the capability of the economy to sustain the flow of goods and services.

Tenuous Policy Inferences

Can we infer, from an observed positive association between policies and performance, that performance responds to policy? Econometric tests of causality often cannot be applied with the available data—not to mention the complex problems of interpreting the results of such tests or of drawing statistical inferences from them. Policy conclusions based on analyses of meager data sets can be seriously biased. Ultimately, it is a matter of judgment whether an observed association between policy and performance is causal or simply the result of both being driven by a third set of unobserved (or latent) variables.

Implications for Analysis

These cautionary remarks should not lead us to abandon quantitative analysis. Nor do they relieve us of the responsibility of deriving policy lessons from such analysis. We have no serious alternative to empirically based analysis for policymaking. Judgments will have to be made. And insights from analytical descriptions of economic history will have to be combined imaginatively with purely econometric analysis. This Report reflects the results of such an effort. Although there can be no finality about its conclusions, it does represent a careful assessment of the available evidence.

rates, or by primary school enrollment ratios. Research for this Report suggests that increasing the average amount of education of the labor force by one year raises GDP by 9 percent. This holds for the first three years of education; that is, three years of education as compared with

none raises GDP by 27 percent. The return to an additional year of schooling then diminishes to about 4 percent a year—or a total of 12 percent for the next three years. These results are consistent with earlier studies.

Almost everywhere, growth rates fell after 1973 (Table 2). Two possible causes were examined: slower growth of inputs, particularly capital, and slower growth in the efficiency with which the inputs were used. Slowing growth of the capital stock is not, it seems, to blame. It grew on average by slightly more than 7 percent a year before and after 1973. Even in Africa, the rate of capital formation was 6.3 percent a year in both periods.

With certain technical caveats, if input growth was broadly unchanged in the second period and output growth declined, then growth in the productivity of input use must have fallen. The data support this view—strikingly so (Table 3). Variations in productivity growth reflect changes in resource allocation, technologies, and dynamic comparative advantage. Slower TFP growth points to diminishing advances in technology, fewer improvements in the efficiency of input use, or both.

Since 1960, growth in productivity has accounted for a relatively small proportion of output growth for most developing countries. The exception is East Asia, where the share is more than 25 percent. For the industrial economies, productivity growth has been much more important. A recent study of the United States suggests that technical progress alone accounts for more than 50 percent of output growth since 1945 and labor force growth for 27 percent (Boskin and Lau 1990). Another draws this conclusion: “A major difference between [developing and developed countries] seems to be that growth in the former is largely accounted for by the accumulation of inputs rather than the growing efficiency in their deployment” (Chenery and Srinivasan 1988).

The small role that productivity growth plays on average in developing countries is unlikely to be explained by lower rates of technological change. In East Asia, productivity increased at 2.6 percent a year for the period 1960–73, about the same as in the industrial countries. The importance of productivity growth, despite its small share, is indicated by the fact that differences in it account for more than half

Table 2 The Growth of Gross Domestic Product, Inputs, and Total Factor Productivity (percent)

Region, group, or economy	Gross domestic product			Capital			Labor			Total factor productivity		
	1960– 73	1973– 87 ^a	1960– 87 ^a	1960– 73	1973– 87 ^a	1960– 87 ^a	1960– 73	1973– 87 ^a	1960– 87 ^a	1960–73	1973– 87 ^a	1960– 87 ^a
<i>Developing economies</i>												
Africa	4.0	2.6	3.3	6.3	6.3	6.3	2.1	2.3	2.2	0.7	-0.7	0.0
East Asia	7.5	6.5	6.8	9.8	10.7	10.2	2.8	2.6	2.6	2.6	1.3	1.9
Europe, Middle East, and North Africa												
	5.8	4.2	5.0	7.7	7.5	7.6	1.4	1.9	1.7	2.2	0.6	1.4
Latin America	5.1	2.3	3.6	7.4	5.6	6.3	2.5	2.8	2.6	1.3	-1.1	0.0
South Asia	3.8	5.0	4.4	8.0	7.2	7.7	1.8	2.3	2.1	0.0	1.2	0.6
Sixty-eight economies	5.1	3.5	4.2	7.4	7.1	7.2	2.2	2.4	.23	1.3	-0.2	0.6
<i>Industrial economies</i>												
France	5.5	2.1	3.9	5.7	3.8	4.8	0.4	-1.0	-0.2	2.3	0.9	1.7
Germany ^b	4.3	1.8	3.1	5.3	3.0	4.2	-0.3	-0.9	-0.6	1.9	0.9	1.4
United Kingdom	3.3	1.3	2.4	3.6	2.6	3.1	0.1	-0.5	-0.2	1.7	0.6	1.2
United States	3.7	2.2	3.0	3.8	2.8	3.4	1.8	1.9	1.8	1.0	-0.1	0.5

Table 3 Percentage Share of Output Growth Accounted for by Factor Input Growth, Sample of World Economies, 1960–87

Region or group and period	Capital	Labor	Total factor productivity
1960–73			
Africa	59	22	17
East Asia	50	16	35
Europe, Middle East, and North Africa	51	10	38
Latin America	55	20	25
South Asia	81	20	0
Total	56	18	26
1973–87			
Africa	92	37	-27
East Asia	62	17	20
Europe, Middle East, and North Africa	68	19	14
Latin America	94	51	-48
South Asia	55	19	24
Total	76	28	-6
1980–87			
Africa	73	28	0
East Asia	57	16	28
Europe, Middle East, and North Africa	58	14	28
Latin America	67	30	0
South Asia	67	20	14
Total	65	23	14
Selected industrial countries, 1960–85			
France	27	-5	78
Germany ^a	23	-10	87
Japan	36	5	59
United Kingdom	27	-5	78
United States	23	27	50

Sources: For developing countries, World Bank data. For industrial economies, Bosking and Lau 1990.

a. The Federal Republic of Germany before reunification with the former German Democratic Republic.

of the variation in growth rates across countries. Economic policy, as this report will explain, goes a long way to explain these differences.

The association between productivity growth and aggregate growth is strong and positive (Figure 4). It holds across regions and in different periods. In the period 1973–87, the average decline in growth rates (about 1.5 percent) is exactly matched by the decline in TFP growth (Table 2). Historical data for Japan also support this strong association between economic growth and productivity growth (Ohkawa and Rosovski 1973). During periods of rapid growth, such as 1912–18 or 1931–38, TFP grew as well (at 2.1 percent a year in the period 1912–18 and at 3.8 percent a year in 1931–38). During periods of slow growth, productivity stagnated or declined (it fell by 0.2 percent during the period 1918–31). In the period 1960–73, output grew at 9.2 percent and productivity at 3.4 percent. In the period 1973–87, output grew at 3.7 percent and productivity at 0.8 percent.

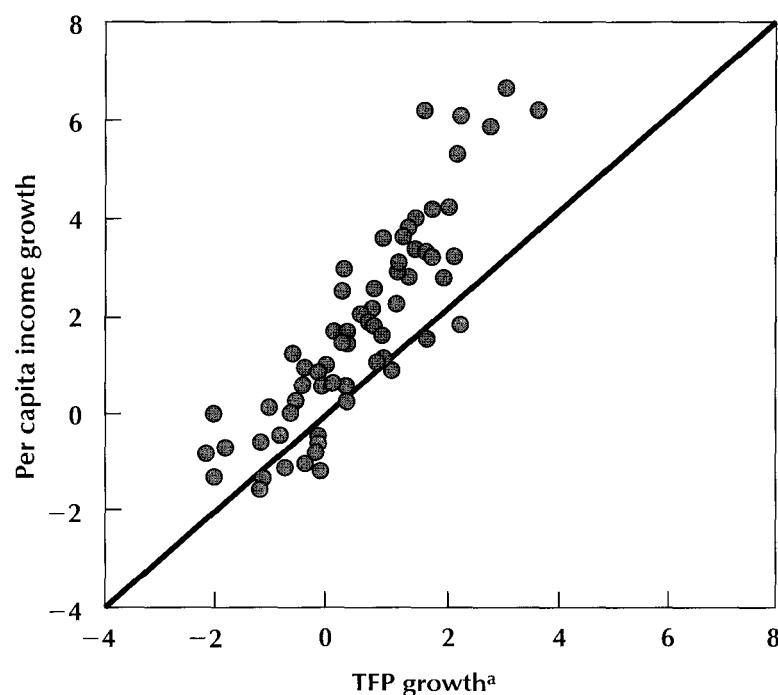
The Contribution of Domestic Policy

Policies can affect both the quantity of inputs and their productivity. A policy of import substitution, for example, may increase investment but decrease efficiency and technological progress, and hence productivity. It can be argued that an import tariff has only a once and for all effect on efficiency and does not affect the rate of technical progress. Alternatively, it has been claimed that tariffs make it harder to adopt new technology and therefore slow the growth of productivity. Theory, therefore, is ambiguous. Evidence from country studies brings out the aspects of policy that affect productivity. Three suggestive overall findings are mentioned here.

First, the contribution of additional education in raising total output and productivity has already been noted. In addition to this effect, the level of education (as opposed to changes in the kind of education) of the population also seems important. A three-year-higher initial level of education is associated with an increase of 0.4 percent in the annual growth rate (or 11 percent extra output during a twenty-seven-year period).

Second, openness and competition are associated with growth in productivity. This holds for the various measures of openness used in this

Figure 4 The Average Annual Growth of Per Capita Income and Productivity, Selected Economies, 1960–87 (percent)



Source: World Bank data.

a. The unexplained residual of GDP growth after controlling for growth in conventional inputs (labor, capital, land).

report, including the two used in this chapter: movements in the domestic prices of traded goods toward international prices, and changes in trade shares. Other studies have found similar results.

Third, macroeconomic instability diminishes the return on investment and the growth of output, as country studies have suggested. This is only weakly supported by one proxy used in the cross-country estimation, the foreign exchange premium. Finally, the data suggest that an increase in the share of government consumption in GDP results in

a decline in productivity growth later on. This is consistent with the results of other studies (Barro 1991).

The evidence suggests that good policies—assumed to be reflected by alternative measures—and investments, both physical and human, are complementary. Both better policies and more education contribute to growth. Furthermore, they seem to interact. Thus, the effect on growth of better policy and more education together is greater than that of each separately (Table 4). Similar results are obtained for changes in education and for investment.

These results appear fairly robust for alternative groupings of countries and measures of policy. The variables under consideration may not be independent sources of good performance; causality has not been established, and variables omitted from the analysis may be affecting the results. But the evidence still suggests that simultaneous efforts to improve policy and to augment human and physical capital can have exceptionally high returns.

The Effects of External Factors

The terms of trade facing developing countries, growth in the OECD countries, international interest rates, and capital flows are just some of the external factors that can affect development. The importance of these factors for the aggregate prospects for development is discussed throughout this report (see Dell and Lawrence 1980). But can they account for differences in performance among individual countries? A study of 33 developing countries did not find a statistical association between differences in growth rates and the magnitude of external shocks (Mitra and Associates 1991).

Capital flows are another external factor that affects development. Concessional aid is an important source of financing for low-income countries, and its volume makes a difference to these countries. At the same time, the efficiency with which aid is used matters, and improvements in both the quality and quantity of aid are needed. Efficiency, in turn, depends on the policies of lenders and borrowers alike (Box 5). Overall assessments of aid effectiveness are inconclusive, but country studies yield four important lessons that can strengthen the effectiveness

**Table 4 Interaction of Policy with Education and Investment,
1965–87**

Interacting variables	Average GDP growth	Average TFP growth	Probability of higher than median GDP growth	Probability of higher than median TFP growth
Policy "distortion"^a and education^b				
Low distortion and high education level	5.5	1.40	63.7	53.9
Low distortion and low education level	3.8	0.25	52.0	49.9*
High distortion and high education level	3.8	0.00	35.7	38.1
High distortion and low education level	3.1	20.40	42.0	46.0*
Policy "distortion"^a and change in education^c				
Low distortion and high rate of increase in education	5.3	1.30	57.0	54.3
Low distortion and low rate of increase in education	4.0	0.40	55.1	48.8*
High distortion and high rate of increase in education	3.5	20.16	35.0	39.7
High distortion and low rate of increase in education	3.4	20.19	39.2	44.7*
Policy "distortion"^a and investment^d				
Low distortion and high investment	5.2	0.91	73.6	56.5
Low distortion and low investment	3.5	0.75	35.6	46.4*
High distortion and high investment	4.6	0.07	53.8	44.9
High distortion and low investment	2.6	20.36	26.7	41.2*
<p>Sources: For foreign exchange premium, International Currency Analysis, Inc., various years. For all other variables, World Bank data.</p> <p>Note: All results are significant at the 5% level unless marked with an *, in which case they are not significant.</p> <p>a. High distortion here is reflected by a foreign exchange premium of more than 30%; low distortion, a premium of 30% or less.</p> <p>b. Education is measured by the average years of schooling, excluding postsecondary schooling, of the population age 15–64. High education is defined here as more than 3.5 years; low education, 3.5 years or less.</p> <p>c. Five-year increase (above or below the median).</p> <p>d. Investment rate as a share of GDP (above or below the median).</p>				

of aid. First, aid often serves multiple objectives. When it is determined primarily by political considerations, special care is needed to ensure that its economic effects are satisfactory. Second, foreign assistance can reinforce good domestic policies as well as bad ones, and in the final analysis, efforts to support good policies are crucial. Third, a country's capacity to absorb aid depends on its human, financial, and administrative capabilities. Strengthening these capabilities must be a priority. Fourth, stability in the volume of funding and transparency of conditions on the aid help its recipients put it to better use.

Components of Overall Development

Meeting basic needs is an important part of economic development. The governments of many developing countries have made it a priority. India's first prime minister, while introducing the country's third five-year plan in 1960, stated: "It is said that the national income over the First and Second Plans has gone up by 42 percent and the per capita income by 20 percent. A legitimate query is where has this gone ... I can see that people are better-fed and better clothed, they build brick houses ... But some people probably have hardly benefited" (India 1964). Meeting basic needs requires both economic growth and a range of well-targeted social programs.

Several studies using household data show that social spending can significantly improve the welfare of households. Yet only a few studies have examined the effects of social spending using aggregate data. It would be especially helpful to know whether social spending or overall growth in incomes was the more effective way to improve social welfare. Several indicators are typically used to measure welfare: life expectancy, infant mortality, and school enrollment, none of which is devoid of drawbacks.

Data for public expenditures, income growth, and the educational status of adult females were examined for their effects on infant mortality and secondary school enrollment. The results from these cross-country analyses are mixed. Evidence in this Report and in other studies stresses the importance of well-designed social spending for develop-

Box 5 The Contribution of Aid

When Aid Can Be Ineffective

Sometimes aid can permit countries to postpone improving macroeconomic management and mobilizing domestic resources. External agencies continued to provide aid to Tanzania while the country experimented with disastrous rural policies and institutions. The ready availability of foreign assistance to Pakistan—largely for political reasons—enabled it to postpone fiscal reform. Sometimes aid can strengthen lobbies that have a strong vested interest in a distorted policy framework and so make policy reform more difficult.

Aid at times can replace domestic saving and flows of trade, direct foreign investment, and commercial capital as the main sources for investment and technology development. Several countries have allowed food aid to depress agricultural prices. They have also postponed critical investments in rural infrastructure and ignored the need to build agricultural institutions.

Aid is sometimes turned on and off in response to the political and strategic agenda of bilateral funding agencies, making resource flows unpredictable. This resource instability can result in interruptions in development programs, as in Egypt, India, and Pakistan.

Uncoordinated and competing bilateral agencies can transfer incompatible technologies and deliver conflicting projects and advice. These problems of bilateral aid arise partly from the widespread practice of tying aid to the purchase of equipment, shipping, and technical advice from agency sources, which substantially reduces net resource transfers. In Pakistan, for example, the cost of using agency shipping lines to transport aid-funded procurements (often a substantial proportion of total project costs) was 50–115 percent higher than the cheapest alternative.

Swings in policy advice from funding agencies can add to the cost of aid for developing countries. Many recipients, advised to dismantle industrial protection and marketing boards, complain that agencies had encouraged these strategies in the 1960s and 1970s, when import substitution and regulation were in vogue. Agencies can often adjust rapidly to the changing thinking on development, but recipients of aid need more time to adjust because of their weak administrative structures.

(Box continues on the following page.)

Box 5 The Contribution of Aid (*continued*)**When Aid Is Effective**

Aid improves the credibility of economic reform by providing assistance in the design of reform packages and by holding down the cost. Structural adjustment lending has triggered and helped sustain reforms in many countries that have been committed to reform, including Chile, Mexico, and Turkey. In the Republic of Korea, the infrastructure and education projects of the 1950s helped the economic takeoff that followed the reforms of the early 1960s. Humanitarian relief is another unassailable reason for aid.

Aid provides external resources for investment and finances projects that could not be undertaken with commercial capital because of debt overhang or a long project gestation period. Aid discussions also inform industrial countries about reforms in developing countries. This knowledge improves the developing countries' access to capital and direct foreign investment and, as in the cases of Korea, Malaysia, and Thailand, helps them become commercial borrowers.

Project assistance helps expand much-needed infrastructure—roads, railways, ports, and power generating facilities. It also builds technical expertise in project evaluation, monitoring, and implementation. Aid also contributes to personnel training and institution building (for example, in Korea, Pakistan, Thailand, Colombia, and Mexico). In addition, information on best practices—such as Bangladesh's Grameen Bank, Bolivia's Emergency Social Fund, and Jamaica's Food Stamp Scheme—helps recipients tailor practices to their circumstances and avoid mistakes.

Domestic policies, institutions, and administrative capacity also vitally affect the success of project aid. An excellent example of their contribution to the effectiveness of project aid is the green revolution in South Asia in the 1960s. It was successful both because of technology transfers, research, and infrastructure financed by aid and because of the responsiveness of domestic institutions.

Aid can support better economic and social policies. External aid and finance agencies are more and more sensitive to a project's effects on the environment and on social conditions. The emphasis on policies has also resulted in successful programs to reduce poverty, for example, in Bolivia, Côte d'Ivoire, and Malaysia. In Pakistan, concern with low achievements in education and health is prompting more lending for human resources to complement efforts to alleviate poverty.

ment. Greater efficiency in the delivery of services and more accurate targeting are recurring themes (Sen and Drèze 1990).

The results are quite clear about the importance of educating women. The educational status of adult women is by far the most important variable explaining changes in infant mortality and secondary school enrollments (see Figure 5). An extra year of education for women is associated with a drop of 2 percentage points in the rate of infant mortality. Household-level studies have reported even larger reductions of 5–10 percentage points.

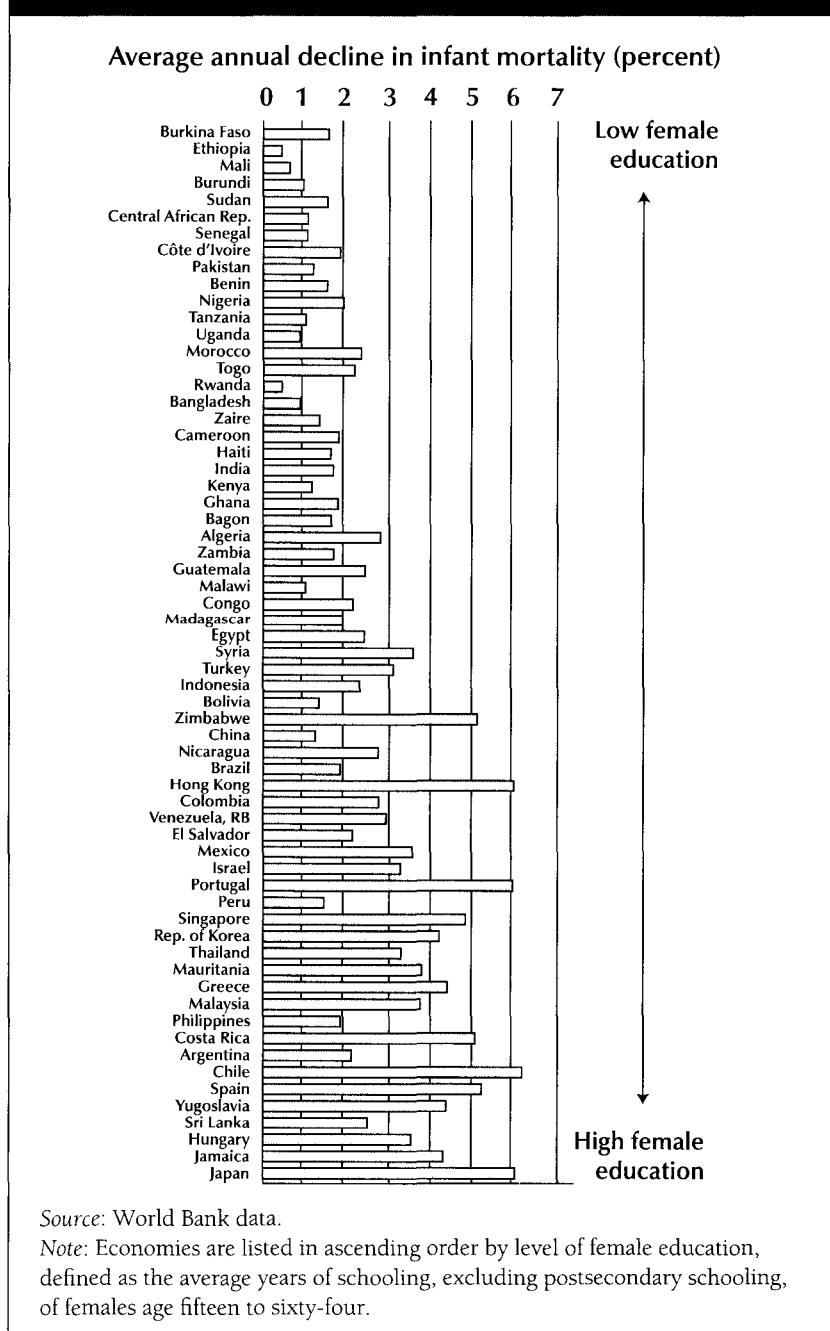
As noted at the outset, overall development includes more than economic variables: it includes noneconomic features which enrich the quality of life. Some noneconomic variables are associated with economic development, although lines of causation are generally difficult to establish. For example, some of the economic and social indicators discussed above are positively associated with noneconomic components of development, such as civil and political liberties (Box 6).

Equity is a separate concern in its own right. It has two aspects: income distribution and the incidence of poverty. There is no clear link, in either direction, between growth and changes in income distribution. But economic growth is strongly associated with a reduction in the incidence of poverty. A review of twenty developing countries found that growth was associated with an improvement in absolute poverty in all but one country (and the exception had negative per capita growth during the period considered). Lal and Myint (1998) find the same effect in their detailed country studies. *World Development Report 1990* also found strong evidence that growth reduces absolute poverty.

The Way Forward

Perhaps the clearest lesson from work on development during the past thirty years is that there is a premium on pragmatism and an open mind. Ideas that were once the conventional wisdom, and which guided governments and multilateral institutions in forming their approaches to development, have now been largely set aside. New ideas stress prices as signals; trade and competition as links to technological progress; and

Figure 5 Female Educational Attainment and Decline in Infant Mortality, Selected Economies, 1960–87



Box 6 Noneconomic Components of Development: Liberties

What connection, if any, is there between economic development and liberties, one of the noneconomic components of overall development? One possibility is that a free press and open public debate might expose actions by the government or the private sector that might otherwise hold development back. A free press and expanding flow of information often spur social and economic progress. India's free press can plausibly be credited with preventing famines, because it forced the government to act promptly. But it can also be said that freedoms in general make it harder for government to take tough but necessary decisions. The latter view is often advanced to explain the success of countries such as the Republic of Korea (with its "good" authoritarian rule) in contrast to countries such as India (where liberties and policy weaknesses may have gone together).

To examine this further, data on political and civil liberties were taken from Freedom in the World (Gastil 1989). This survey has been undertaken every year but one since 1973. It ranks countries according to thirty specific tests under two criteria: political rights, defined as "rights to participate meaningfully in the political process"; and civil liberties, or the "rights to free expression, to organize or demonstrate, as well as rights to a degree of autonomy such as is provided by freedom of religion, education, travel, and other personal rights." The resulting index is highly correlated with another constructed by Humania (UNDP 1991). All such measures are crude. They cannot support firm conclusions. However, the results are interesting. There is a strong relation between income growth, education levels, and declines in infant mortality; between female education levels, and changes therein, with infant mortality decline; and between political and civil liberties and achievements in male and female education and infant mortality decline (Box table).

The results of regression analysis do not go as far as to suggest that liberties contribute positively to income growth, but they imply that they do not hold growth back. Some studies find that the relationship between freedom and growth is ambiguous (Grier and Tullock 1989). Dasgupta (1990) reports a clearer effect for 1970–80, finding that "political and civil rights are positively and significantly correlated with real national income per head and its growth." Scully (1988) also reports a positive effect.

(Box continues on the following page.)

Box 6 Noneconomic Components of Development: Liberties (continued)

Box Table Correlation Matrix for Measures of Overall Development, 1973–87

Measure	1	2	3	4	5	6	7	8
1. Growth	1.00	0.30	0.12*	0.23	0.31	0.42	0.37	0.19*
2. Decline in infant mortality^a		1.00	0.27	0.41	0.29	0.67	0.71	0.59
3. Change in education			1.00	0.92	20.18*	0.30	0.25	0.32*
4. Change in female education				1.00	0.22	0.52	0.48	0.28
5. Change in female-male education gap					1.00	0.55	0.56	0.39
6. Education level						1.00	0.98	0.57
7. Female education level							1.00	0.63
8. Political and civil liberties								1.00

Sources: For political and civil liberties, Gastil 1989. For others, World Bank data.

Note: Numbers are period averages; data are for a sample of 68 economies.

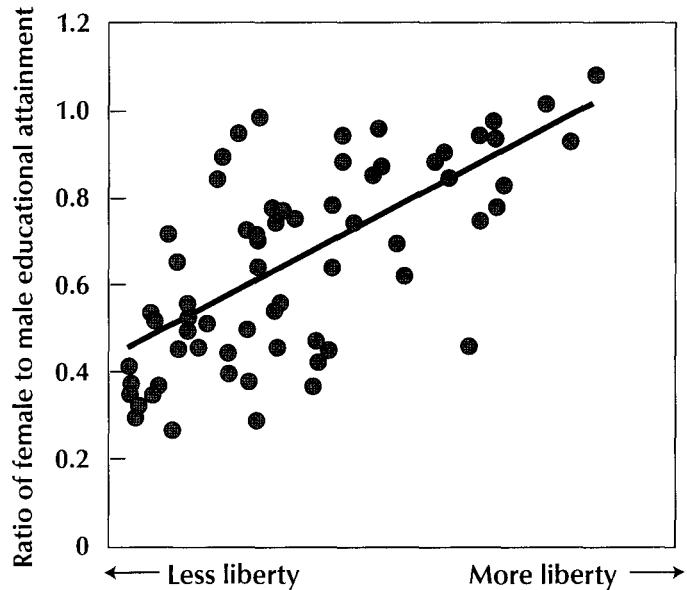
All correlation coefficients are statistically significant at least at the 10% level, except for those marked with an *.

a. Because of low data quality, these data cover only the period 1973–84.

Finally, after controlling for income growth and regional effects, liberties appear to be strongly and positively associated with measures of welfare improvements such as women's education, overall education, and infant mortality declines (Box figure). These results do not show the lines of causation, but they suggest that these important components of overall development go together.

**Box 6 Noneconomic Components of Development: Liberties
(continued)**

**Box Figure The Association Between Political and Civil Liberties and Women's Education,
Selected Economies, 1973–86**



Sources: For data on political and civil liberties, Gastil 1987; for data on education, World Bank.

Note: Data are period averages for a sample of sixty-seven economies; data for 1974 were unavailable. Educational attainment is defined as the average years of schooling, excluding postsecondary schooling, of the population age fifteen to sixty-four.

effective government as a scarce resource, to be employed sparingly and only where most needed.

In development, generalizations can be as rash as unbending commitments to theories. Quantitative evidence of the sort reviewed in this chapter is suggestive, but no more. There is no magic cure for economic backwardness. There is more than one way to succeed—if only

because there are many different sorts of success. And success needs to be evaluated according to the various dimensions of development, not just income growth.

The fastest growing economies of the sixty-eight analyzed are the four newly industrializing economies of East Asia. The best performer in terms of progress on infant mortality is Chile, along with Japan. Jamaica and Japan score highest on education (although Costa Rica and Venezuela are better with regard to gender equality). Costa Rica, along with Japan, ranks highest in political and civil liberties. Some of the poorest performers in the economic sphere also fared badly in some of the non-economic aspects.

The statistical research therefore shows that the various measures of development are linked, more closely in some cases than in others. But there are always exceptions. If indicators are ranked, then Algeria, Brazil, and Gabon are in the top one-third ranked by income, but half-way down the rankings for infant mortality and education. Pakistan also scores well on income growth, but considerably less well on gender equality in education. In a spirit of pragmatism and open-mindedness, it is right to conclude that income growth has been overemphasized as a measure of welfare, but also that income growth usually does not militate against success in the other dimensions.

The challenge for governments is to translate the broad lessons of development experience into policies that work. To help in this task, the next four chapters of this report examine different areas of policy—human capital, domestic markets, foreign trade, and macroeconomic policy—in detail. In each case the report asks: What have governments done, and what appears to have worked best?

Note

1. This report was prepared by a team led by Vinod Thomas and comprising Surjit S. Bhalla, Rui Coutinho, Shahrokh Fardoust, Ann E. Harrison, Daniel Kaufmann, Elizabeth M. King, Kenneth K. Meyers, Peter A. Petri, and N. Roberto Zagha. T. N. Srinivasan, Mark Rosenzweig, and Francisco Sagasti collaborated closely and provided extensive advice. The team was assisted by Sushenjit Bandyopadhyay, Fernando J. Batista, Marianne Fay, Jon Isham, Kali

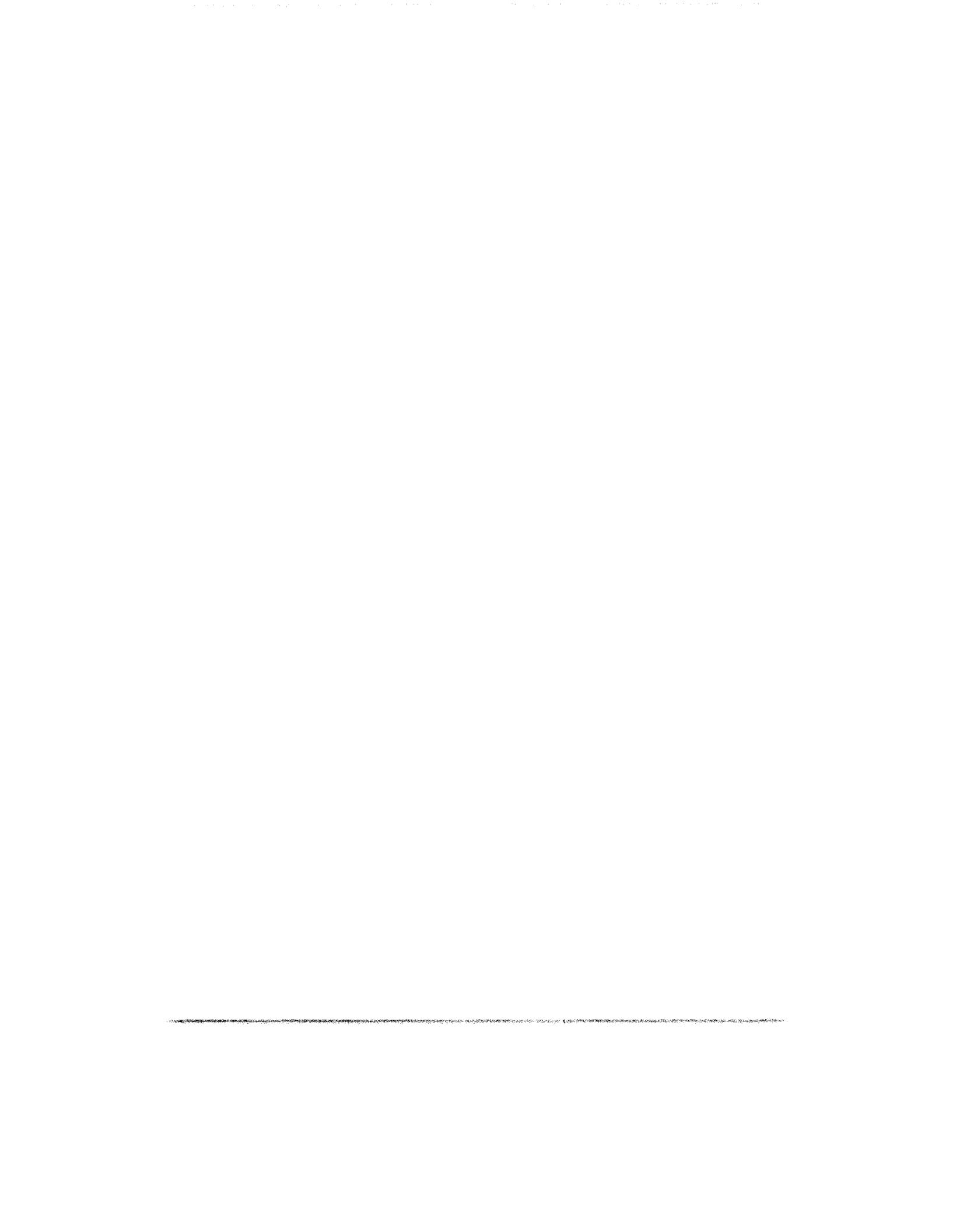
Kondury, Stefan Krieger, and Yan Wang. Stanley Fischer played a principal role in the initial stages of the report's preparation.

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The Lessons of East Asia: An Overview of Country Experience

by Danny M. Leipziger and Vinod Thomas

The success of development in East Asia is legendary. No other group of developing countries has done as well in fostering growth, reducing poverty, integrating with world markets, or raising standards of living. Over the past twenty-five years, per capita incomes in the region almost quadrupled. Absolute poverty fell by about two-thirds on average, population growth rates declined rapidly, and health and education improved markedly. The first set of success stories, that of the “Asian tigers,” has led to a second generation of rapidly industrializing, fast-growing economies. And now China has started a new engine of regional growth.

Although often spoken of as a single group, the East Asian economies are, in fact, remarkably diverse. The region includes some of the richest and the poorest of the world’s developing countries, some of the most populous and some of the least, some with a store of natural resources and some with virtually none. Moreover, despite its steady growth, East Asia is still grappling with serious challenges, including environmental degradation, infrastructural bottlenecks, and poverty. But if there is a single firm lesson to be drawn from the region in the past few decades, it is that difficult challenges have a history of being met.

The Search for Country Lessons

Why have the different economies of East Asia been so successful? To shed light on this question, the World Bank studied several countries in the region,

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complementing other approaches and cross-country analyses.¹ The analyses were conducted by teams that included local experts as well as World Bank economists. The task was daunting, but it has added to knowledge and provided glimpses of why East Asia has been so successful.

The country studies show the diversity of the East Asian phenomenon, with variation among countries and over time. No one formula or standard prescription has been decisive. Several compelling factors do, however, emerge as major contributors.

It is important to note that the policy approaches adopted by East Asian economies were not uniform. Of the first generation of newly industrialized economies (NIEs), the Republic of Korea, Singapore, and Taiwan, China, chose a good deal of state intervention, as did Japan earlier on. Hong Kong was an exception for the most part. Among the second generation of successful East Asian economies, Indonesia and Malaysia had little success with their early interventions, and as they became less interventionist over the past dozen years their economic performances improved markedly. Other recent NIEs, like Thailand and coastal China,² are avoiding interventionist industrial policies in most respects.

These differences notwithstanding, it could not be pure coincidence that the fastest growing economies in recent decades are concentrated in East Asia. Indeed, the country studies found that behind the substantial country variations are significant common features that policymakers elsewhere might take to heart.

A country's development prospects are influenced by three sets of factors: *endowments*, *policies*, and *institutions*, as set out in the Development Checklist. The checklist is illustrative and must be interpreted with caution, since the categories are at times subjective and are subject to the time period considered. Nevertheless, it is useful in drawing the patterns emerging from East Asian economies. It dispels the notion that all East Asian economies share identical features; quite to the contrary, it highlights considerable diversity. The checklist also draws a strong contrast between many characteristics common to the first-generation NIEs and those of the second.

The traditional focus of economists has been on policies, which prove to be crucial to the East Asian experience. Regional success has been analyzed by other social scientists, who have emphasized the quality of policymaking, leadership, nationhood, cohesion, and the role of the state.³ The review of these more intangible features is motivated by the observation that similar policies undertaken elsewhere have proved less productive than in East Asia. Similarly, government interventions in many cases have not had the dire consequences that many would have predicted. Clearly one must distinguish between policy interventions and policy distortions, between distortions affecting particular markets and those affecting the economy as a whole, and between pervasive and nonpervasive distortions.

The country studies found that none of the initial four NIEs—Korea, Singapore, Hong Kong, or Taiwan, China—was generously endowed with natural resources. (The later NIEs—Indonesia, Malaysia, and Thailand—were richer in natural endowments.) For the initial NIEs, the only resource was people, in the form of a relatively well-educated labor force. For these first-generation NIEs, economic development was a matter of survival and therefore of national urgency. They met the challenge by forcefully committing themselves to becoming exporters in global markets.

Common to East Asia's success were policies for macroeconomic stability, human resource investments, and outward orientation—quite different from what happened in most other developing regions. Because these economies to a large extent took international prices as an ultimate guide to domestic resource allocation, macroeconomic stability was seen as central to maintenance of competition. In addition, a number of regimes had a strong aversion to inflation, which strengthened the hands of technocrats. In the area of human resources, strong public policies were often augmented with high household investments in education. And in many areas, including export promotion, it was not just the design and selection of policies; it was also efficient implementation. By any standard, implementation of policies was East Asia's forte.

At the core of development success in East Asia has been pragmatic policymaking—meaning, most importantly, the relative absence of ide-

ology and the willingness to repudiate failed policies. Policies have been reversed swiftly if experience showed them to be ineffective. Examples include the abandonment in the early 1980s of Malaysia's experiment with selective industrial policies, Korea's curtailment of the heavy and chemical industry drive in 1979–80, and Singapore's abandonment of a high-wage policy in 1985. Indonesia's strong policy response to macroeconomic instability and Thailand's exchange rate management in the mid-1980s are other cases of timely and effective policy actions.

Bureaucracies can facilitate reform, or they can prevent it. In many successful East Asian industrializers, bureaucracies were agents of development. Put differently, East Asia's technocrats have generally been part of the political mandate for reform. In Singapore bureaucrats and party officials worked hand in glove for the national agenda. In Indonesia and Malaysia the political leadership allowed technocrats substantial freedom to manage the economy. In Thailand the bureaucracy provided continuity when political processes faltered; and in both Korea and Taiwan, China, core economic ministries were key to government efforts to develop the economy. The means differed, but the institutions were influential in hastening economic development.

Korea, Singapore, and Taiwan, China, the fastest industrializers after World War II, are credited with "visionary" leadership and efficient bureaucracies. They also achieved national consensus on development goals and had a centralized political apparatus to implement their fairly interventionist strategies. Many observers tend to view each of these features as major, if not decisive, causes of success. Indeed, East Asia's achievements have cast a glow over the region that often transforms every initial policy and institutional condition into a positive contributor to success.

That conclusion would be too simplistic and misleading. After all, in many other countries centralized power has been accompanied by poor policies, and there are numerous examples of visionary leadership, a strong bureaucracy, and concerted government interventions being associated with poor results. Conversely, during successful episodes, some of these features were absent in other country settings. It would seem that each of these factors, taken separately, may not be necessary—

and certainly not sufficient—for success, and some may have been costly even if overall success was achieved. But with hindsight, these NIEs seem to have benefited from a combination of sociopolitical features that accompanied their superior economic policies.

It should be emphasized that there were some big policy mistakes in East Asia—in industrial policy, financial policy, and the absence of sufficiently forward-looking environmental policies. As a result, the region now faces serious challenges in sustaining rapid development. Yet the questions are why did past mistakes not cause the kind of damage that is so apparent in other countries? How were these mistakes recognized and corrected? It is these issues that offer the most valuable lessons for new market entrants like Vietnam or perennial aspirants like the Philippines. What is it about the quality of decisionmaking, and the ability to turn decisions into action, that has led to East Asia’s outstanding record?

One strong conclusion is that macroeconomic discipline, outward orientation, and human resource investments—along with political stability—paid off in all successful East Asian economies. Success in the first-generation NIEs, however, involved more intervention than in the second generation, an important finding in light of the greater relevance of the latter experience in the current international environment. East Asia, therefore, makes a case neither for a laissez-faire approach to economic policymaking nor for a heavy hand on the tiller. The crucial factor was the way that governments supported markets in helping to unleash entrepreneurship.

The second strong conclusion is that, contrary to currently fashionable views, one of the key ingredients in East Asia’s success was active government. But it was not more government that had a positive effect, it was better government. East Asia thus offers a contrast to widespread episodes of policy failure. Development economics lacks an adequate theory of why good government policy, combining economics, political organization, and technocratic decisionmaking, is pursued by some countries and not others.⁴ Although the region offers no universal paradigm in this respect, it does provide some useful lessons in successful policymaking.

Making the Most of Initial Conditions

If asked in the early 1950s to name the success stories in the next thirty years, only a seer would have chosen Hong Kong, Korea, Singapore, or Taiwan, China. All were lacking in natural resources and all had ratios of arable land to population that were so low that meeting basic consumption needs was questionable. The two largest economies, Korea and Taiwan, China, were heavily dependent on food aid from the United States. The story of early East Asian success is much less one of favorable initial conditions than of countries turning adversity into opportunities.

Only one resource was common to all four: an adaptable and *disciplined labor force*. From around 1960, the principal distinction between these four NIEs and most low-income countries lay in human resource development. In secondary education, for example, the East Asian economies (except Indonesia and Thailand, but including the Philippines) exceeded the average of other developing countries by many multiples. They combined this high level of education with imported technology and the return of expatriates to produce rapid productivity growth.⁵ Korea, Singapore, and Taiwan, China, produced spectacular gains in tertiary education in one generation.⁶

A second initial factor was that *national vulnerability* created the necessity of economic success. Korea was a divided country competing in a cold-war environment with a more industrialized neighbor; Taiwan, China, also felt compelled to assert its economic independence; Singapore was a city-state thrust into a competitive environment and attempting to reach nationhood; and Hong Kong was a market outpost for China. This political imperative, combined with the work discipline of societies in Korea, Singapore, and Taiwan, China, seems to have turned weak initial conditions into advantages to an extent seldom seen elsewhere.

A third initial condition was the relative *equality of income* in the first-generation NIEs. This factor was more of a change brought about by policy than an inheritance. Most other low- and middle-income countries were not able to achieve similar equality of income or assets. Large land reform schemes in both Korea and Taiwan, China, did away with the landholding classes and made wage income the main source of advance-

ment. Public housing investments in Singapore and Hong Kong were early priorities of governments bent on maintaining a national consensus on development policies.

Fourth, governments embraced *export development*. This was not dictated by ideology but by realism. Small size and low incomes dictated that external markets would provide the major source of revenue for these economies. Singapore's leaders are fond of noting that their economy was too small to change international markets, so they decided to change their own economy.

Finally, export drives required *domestic entrepreneurship*. In Singapore publicly owned corporations, behaving commercially, took the lead. In Korea the government had to foster the creation of firms, encouraging their growth and laying the foundation for the modern day *chaebol*, or conglomerate. Using the Japanese model of *zaibatsu* and the general trading company, the Korean government was able to compensate for the apparent lack of entrepreneurship. East Asian economies have done exceedingly well in monitoring each other's success and, when necessary, in borrowing one another's institutions.

External Circumstances

The original “East Asian miracle” was post-World War II Japan, which shared some similar conditions with the early NIEs, Korea and Taiwan, China. With little in the way of physical assets, all three began with the desire to accumulate capital in their first decade of development. Korea and Taiwan, China, were critically dependent on large quantities of foreign aid early on; it accounted for as much as 50 percent of fixed investment in some of the early years. For Korea over a period of three decades (1946–76), the United States alone provided more than \$500 (in current U.S. dollars) per capita in economic and military assistance. For Taiwan, China, aid was \$425 per capita. Once the growth engine was sparked, however, high domestic savings rates took over and maintained the process of accumulation.

Export development in the early NIEs was helped by the expanding U.S. market of the 1960s and 1970s, and the model was Japan. This was

particularly true of Korea, which was most inclined to compete directly in large industries such as steel, shipbuilding, and automobiles. Taiwan, China, relied more on a range of smaller firms in most sectors,⁷ while Hong Kong and Singapore were entrepôt exporters. Within two decades the “tigers” were firmly established, to the envy of other economies.

The outstanding performance of East Asia was not the result of favorable external conditions. Most other regions faced similar external conditions. But the East Asians committed themselves, almost from the outset, to become players on the global scene. With rather similar endowments, Korea and Taiwan, China, followed the Japanese lead, attempting to acquire state-of-the-art technology and inputs. Much of Korea’s imitative strategy was a reaction to Japanese dominance and a desire for economic independence. Its work ethic, as seen in its 55-hour average work week, was motivated by a national drive to succeed.

The success of the second-generation NIEs in the 1980s cannot be attributed primarily to favorable external conditions, either. Indonesia, Malaysia, and Thailand were resource rich, but they did not excel until manufactured exports were developed. It is important to note that these second-generation NIEs laid the foundation for their surge with stable macroeconomic policies and political stability. These factors, plus low labor costs, appealed to foreign investors—those facing higher costs at home, such as Japan in the first instance, but later including Korea and Taiwan, China. Japanese-led foreign investment followed American and regional Chinese capital in the southern tier, providing the transfer of technology that the first-generation NIEs struggled to acquire. This allowed the Asian “cubs” to penetrate the U.S. market, especially during the 1980s. Coupled with aggressive exchange rate policies following the Plaza Accord in 1985, they acquired a strong position as exporters. Malaysia and Thailand emerged among the fastest growing economies in the world in the second half of the 1980s.

There are exceptions to this growth. The Philippines failed to respond to the challenge, despite its rich endowment of human capital and its access to foreign aid and credit. Commentators point to the deeply rooted structure of oligopoly and the sizable inequalities in income and wealth in the Philippines as causes for the relatively poor performance.

These factors, combined with a relatively weak bureaucracy, it is argued, allowed the elite to engage in rent-seeking activities at the expense of development objectives. The Philippines stands out as a country that did not achieve an export vision. Mongolia, Myanmar, Vietnam, the Democratic People's Republic of Korea, and Lao People's Democratic Republic for various reasons did not do well.

Elsewhere, however, there was an outbreak of “regional contagion,” a factor that was undoubtedly important for the region’s success. Foreign direct investment (FDI) inspired the transfer of financing and know-how in the later NIEs. In 1991 Malaysia, Thailand, Indonesia, and the Republic of Korea were the third, fifth, seventh, and eighth largest recipients respectively of FDI among developing countries, after Mexico and China. Together, they accounted for almost a quarter of total flows to developing countries; adding China raises the proportion to more than a third. In Malaysia FDI accounts for 20 percent of gross domestic investment. The figure is not much lower in the southern Chinese provinces, where the world’s fastest growth is being recorded in the 1990s.

Macroeconomic Policies

Perhaps the factor most consistently present in the successful East Asian economies was a sound macroeconomic policy framework. This was characterized by fiscal discipline, adequate incentives for saving and investment, and an outward-oriented trade policy. Originally imposed by bilateral donors as a condition for continued assistance of the early NIEs, these policies were quickly internalized and became tenets of development policy.

Fiscal Discipline

One of the striking lessons from East Asia is the consistent presence of macroeconomic stability.⁸ East Asia’s governments exercised macroeconomic discipline, ensuring that fiscal and external deficits were generally kept in control. Prudent foreign borrowing helped East Asians avoid debt crises, which had set back progress elsewhere in the developing world in the 1980s. Macroeconomic stability gave predictable and cred-

ible signals to savers and investors about prices and returns, which in turn encouraged risk taking, investments, and growth.

Over the past quarter century the fiscal deficit and the current account deficit in developing East Asia were less than half the average for other developing countries, and high-income East Asia had surpluses. Exchange rates for East Asian developing economies were seldom overvalued in contrast to the situation in other developing countries. Interest rates were generally positive in real terms, while in the rest of the developing world they tended to be negative. By and large, East Asia managed to keep inflation in single digits.

From time to time macroeconomic difficulties did occur, but they were swiftly contained to ensure that deficits never got seriously out of control. For example, Korea's inflation rate hovered around 20 percent in the late 1970s as a result of the Central Bank's financing of heavy and chemical industries and the government's purchase of food grains. But stability was restored as civil service salaries were contained, rice purchase prices restrained, and state spending eventually frozen (in 1983). Indonesia's public sector deficit exceeded 4 percent of gross domestic product (GDP) in 1986 as oil prices declined and terms of trade deteriorated. But the government made sharp budget cuts in 1987–88, and by 1989 the deficit was down to 1.3 percent of GDP. Malaysia's fiscal deficit approached 20 percent of GDP during 1981–82 as expenditures outstripped revenues, which were hurt by terms of trade shocks. The government quickly squeezed spending, bringing the deficit down to about 10 percent of GDP in 1984 and 5 percent in 1987, while at the same time using domestic, noninflationary sources of financing.

The contribution of macroeconomic stability to growth came not only from low and stable deficits, but also from the composition and quality of public finances. Public investment as a proportion of GDP in East Asia was similar to that in other developing countries, although it was higher in Malaysia, Singapore, and Taiwan, China. But public consumption was lower than average. The share of wages and salaries in government expenditure has varied considerably, ranging from 15 percent in Korea over the past two decades to 30 percent in Malaysia. During periods of general restraint the East Asian economies managed to protect crucial

investments, as shown, for example, by the continuous reviews of public expenditure in Indonesia and Korea.

Macroeconomic stability has been supported at times by law, which serves also to underscore the governments' commitment to providing a secure and predictable commercial environment. Indonesia and Thailand have balanced-budget laws. In Taiwan, China, before 1987, a law limited the value of outstanding government bonds to no more than 40 percent of the central government's annual budget. Stability in Indonesia has been aided by an open capital account, which, combined with the desire to avoid inflation, served as a check on monetary expansion. Finally, the personal distaste for high inflation on the part of political leaders—for example, in Korea, Malaysia, and Singapore—kept macroeconomic stability high on the policy agenda.

Underlying this macroeconomic record has been a high degree of pragmatism and flexibility, in the sense that governments had few ideological objections to needed policy corrections. Indonesia and Thailand engineered major depreciations of their exchange rates in the mid-1980s. Korea and Malaysia reversed their costly targeting of heavy industries when they proved to be a fiscal drain and threatened growth.

Investments: More and Better

Investment (as a share of GDP) in East Asia has risen sharply over the past quarter of a century, increasing from figures somewhat higher than in other developing regions to some 50 percent higher. The share of private investment in GDP rose to be two-thirds higher in the successful East Asian economy than in other developing regions. Private investment was encouraged by a generally supportive macroeconomic environment and by forward-looking public sector infrastructure investments. The lack of high tariffs on imported capital goods was also helpful in raising private investment.

Public investment shares, on average, have been similar in East Asia to those in other regions. Although cross-country comparisons may well underestimate total "public" investment in those NIEs where public or quasi-public entities played dominant roles, it is more the efficiency of public investment than its size that distinguishes its performance from

that in other developing countries. East Asia's total factor productivity growth (TFPG) was three to six times (depending on the measure) greater than the developing country average. This efficiency would seem to be largely a result of the region's policy and institutional frameworks. The rate of return on World Bank projects was higher in East Asia than elsewhere. In the period 1974–92, the average rate of return was 18 percent in East Asia, but about 16 percent in the rest of the developing world.

Analysis of national rates of return on investment does show that those who have industrialized rapidly are more efficient users of capital.⁹ The question is whether this is the result of better project selection, swifter implementation, or better capture of externalities. Evidence tends to indicate that all three factors were at work. NIEs are, of course, often caught in a virtuous cycle with respect to project selection, particularly as far as scale is concerned. Rapid growth tends to validate after the fact somewhat risky initial investments. Cases in point are the Seoul-Pusan highway in Korea and the scale of production of China Steel in Taiwan, China. Implementation records can be inferred from the experience of World Bank projects: East Asia's success in implementation has been superior. Most interesting is the conclusion that the use of five-year plans and of coordination mechanisms to convey information between the government and the private sector has enhanced the level and quality of private investments, particularly in the early NIEs.¹⁰

Much of the gain associated with capital accumulation depends on the productivity of labor. To begin with, the educational status of the population was, in general, higher in East Asia in the 1960s than in other developing regions. Educational investments thereafter were also higher, leading to universal primary education and widely available secondary education. As fertility rates fell in the 1970s, education expenditures per child increased. Various indicators suggest that the quality of education is also high in the region compared with elsewhere. An indication of the desire to increase human capital is the high proportion of investments in education made by private households; in Korea an equal share of GDP was spent by the private and public sectors. High-quality labor, as seen in Korea and Singapore, for example, has aided industrial flexibility, increased economic efficiency, and produced greater equity.

East Asia's investment performance has been aided by rapidly increasing savings (as a share of GDP) as well as by external capital flows. Domestic resource mobilization is a regional strength, fostered by high private savings, as well as fiscal prudence that generated increasing public savings. Savings shares are now more than 50 percent higher on average than in other developing countries. Although savings propensities may be dominated by income gains, demographics, and the like, East Asian experience points to low inflation and generally higher real interest rates than elsewhere. This alone does not explain the region's prodigious savings, however. There seems to be a natural drive to save, as seen in curb-market savings and cooperative savings clubs, which were prominent in the first-generation NIEs. Governments helped transform these informal savings into formal savings by fostering savings institutions such as postal savings accounts and generally excluding savings from taxation. Mandatory savings schemes were also favored by some. Given the high rates of return on invested capital, encouraging savings in East Asia has not been a problem and has led to a virtuous savings-income cycle.

Outward Orientation and an Export Push

East Asia's success in international trade and investment is well documented.¹¹ The region's developing economies expanded their exports more than twice as fast as the average for other developing countries, tripling the share of exports in GDP over the past quarter of a century. Their share of foreign direct investment in developing countries rose from about 16 percent in 1970 to more than 33 percent in 1990. The flow of trade and investments was crucial to the transfer of technology and the gains in efficiency and productivity. Thus, exports fueled growth to an extraordinary degree.¹²

That much may be beyond dispute; the nature of the underlying policies is not. The question remains, how much free trade and how much intervention took place in East Asia? This raises the important distinction between free trade and neutrality of incentives. Depending on its nature, an intervention can have different effects on incentives; sometimes it is market distorting, sometimes not.

Recent evidence on the relative prices for exports, imports, and domestic goods suggest a remarkable degree of neutrality in East Asia. In other words, local prices of traded goods, on average, departed much less from world prices than in other developing regions, even though there were substantial variations for some individual items and for some countries in East Asia. Prices of traded goods for the East Asian economies were generally closer to world prices than elsewhere.¹³

Nevertheless, outward orientation should not be equated with import openness. Especially in the 1960s and 1970s, several economies exhibited moderate import protection. While such protection in East Asia was usually offset by export incentives, as late as the mid-1980s the effective protection rate for manufacturing was nearly 30 percent in Korea, 50 percent in Thailand, and 70 percent in Indonesia. By the end of the decade, however, these rates had declined substantially, to the benefit of exports and the economy.

One key difference in the earlier (1960–80) period was that in East Asia economic policies ensured that import protection did not produce the anti-export bias that it did elsewhere. This distinction can be traced to the region's general unwillingness to allow the exchange rate to become overvalued and to the fact that exporters were given access to offsetting incentives (for instance, duty exemption, free access to foreign exchange, and free trade zones) which favored exports. There was also effective institutional support for exports (especially in Korea, Singapore, and Taiwan, China) as well as considerable labor market flexibility. The effects of successful government support are typified by the assistance that led Malaysia to start growing palm oil—it became the world's largest producer, with half the acreage under public control—and the Pohang Steel Complex in Korea, which became a global leader, again in public hands.

A favorable domestic climate for FDI was another key difference. Foreign capital was welcomed, whether in the form of wholly owned subsidiaries of multinationals, joint ventures, or licensors. Malaysia and Thailand achieved dramatic shifts in favor of FDI in the 1980s; today China is doing the same, with similarly impressive results. Malaysia again illustrates the point about government support: many multinationals in electronics

invested in the country in response to active government encouragement. Today Malaysia is the developing world's largest exporter of semiconductors, and the third-largest producer after Japan and the United States.

Selective Industrial Policy

The term industrial policy has many meanings. In the East Asian context, it has been used synonymously with deliberate attempts to change a country's industrial structure, usually to encourage the growth of capital-intensive industries. The debate about industrial policy is rich. Initially neoclassical economists were pitted against a small group of interventionists. With the success of East Asian economies, however, industrial policy is no longer a dirty phrase to most economists. Indeed, numerous elegant reasons have been advanced in support of market intervention, ranging from classic externalities to information gaps¹⁴ and strategic trade advantages.¹⁵ The debate has turned to the role of government in guiding markets¹⁶ or deliberately underpricing capital to achieve rapid industrialization.¹⁷ These discussions cannot be divorced from the more general role of government in coordinating investment decisions and supporting infant industries with the ultimate aim of penetrating world markets. The most forceful examples of selective industrial policy are Japan and Korea. These examples are very important, but they tell only a partial story of East Asia's success. A great deal more can be learned from individual country assessments.¹⁸

The Korea Story

Korea pursued an industrial policy—that is, the comprehensive use of public instruments to industrialize—at least from the start of the Third Republic under President Park Chung Hee. However, during the 1961–71 period this policy was sectorally neutral. Manufactured exports were promoted through a familiar range of policies, but the government was satisfied to capitalize on Korea's comparative advantage in labor-intensive manufactures. Beginning in 1971, however, the government began a coordinated campaign, known as the Heavy and Chemical Industry (HCI) drive, to build up six designated industries. It increased protec-

tion and provided many incentives to certain firms whose actions were carefully controlled.¹⁹

The most important measure was heavily subsidized credit. What distinguished this industrial intervention was not only its thoroughness but also its premise that firms in steel, shipbuilding, machinery, electronics, petrochemicals, and metals would achieve internationally competitive levels within a decade. In this respect, Korean intervention differed from the policy pronouncements in Brazil or India and many other import-substituting countries. Success was measured by export performance, and eventually all subsidies were expected to be withdrawn. The nature of the policy is clear, although it has at various times been judged both a failure and a success. For our purposes, it is enough to say that Korea did alter its industrial structure dramatically, and in most of the targeted industries it succeeded in penetrating international markets. The issue, however, is not whether technical efficiency was achieved, but whether it was achieved profitably. The country study concludes that the policy was, on balance, successful but that its long-term costs are usually understated. Specifically, the socialized nature of risk bearing and the tight controls on the financial system in Korea led to many publicly managed bailouts of industry. Today the financial sector is still not free of the shackles of directed credits or their costs, as borne by commercial banks, government banks, and the central bank itself.²⁰

Faced with considerable macroeconomic difficulty in the period 1979–80, largely as a result of the second oil shock, Korea abandoned the HCI drive. Over the next decade the government stopped trying to pick winners; it liberalized trade; and it loosened its grip on the financial sector. Some Korean economists argue that Taiwan, China, outperformed Korea without undertaking the costly HCI drive.²¹ Others say that the interventions were largely successful in accelerating the process of dynamic comparative advantage and that were it not for the oil shock, the period would have been an unqualified success. This evidence is reviewed in the Korean case study. No other rapid industrializer intervened quite so heavily, although the new literature on Taiwan, China, shows an effort to direct the industrial efforts of entrepreneurs.²²

The Singapore Story

The government of Singapore had few qualms about intervening to supplement market forces and bring about desired industrial change. Clearly the size and malleability of the economy made control easier, but Singapore also developed institutions that made it possible. Singapore has been aptly described as a corporate state because the distinction between government and business—indeed between the political leadership and the bureaucracy—is murky.

The first key to Singapore's industrial strategy was an accurate assessment of the country's national resources, followed by clear industrial goals and an understanding of the relationships and ingredients needed to achieve them. Without capital, technology, or entrepreneurs, Singapore put its industrialization squarely on the shoulders of multinational corporations (MNCs) and foreign direct investment. To attract FDI, it invested heavily in education and technical skills and in the infrastructure that MNCs value. Where necessary, it used government-linked companies (GLCs) to push its development agenda, although these GLCS were run on a commercial basis.

Recognizing that their city-state, with its limited physical resources, would have to depend on re-exports, Singapore's first generation of leaders built their industrial strategy around labor policy. Singapore's First Five Year Plan stressed technical education, school building, and family planning. The political agenda included the 1967 Employment Act, which established national employment regulations and clearly delineated worker benefits to attract foreign investors, and the 1968 Industrial Relations Act, which pioneered three-year collective bargaining agreements. The National Wage Council was a tripartite forum (business-government-labor) established in 1972 to make wage recommendations on the basis of productivity gains and the cost of living. As in Korea, wages were a policy tool used to ensure competitiveness. Balancing these labor market interventions were social policies (such as housing) to improve living standards and a major public role in education and training.

In addition to encouraging foreign investors, the government decided in the late 1970s to promote higher technology and higher-value-added

industries. It instituted a high-wage policy in an attempt to move quickly out of traditional labor-intensive manufactures. Although this policy did stimulate investment in electronics, machinery, pharmaceuticals, and precision products, by 1985 Singapore experienced its first severe recession. Rather than nominally devalue the currency, the government opted to decrease labor costs through a large reduction in employer contributions to the Central Provident Fund. The implicit 12 percent wage cut was possible because the union movement was allied with the government and the political leadership. In effect, the government tried to position its labor force to be attractive to multinationals, adjusting its price, augmenting its skills, and tinkering with financial incentives to change its trade pattern and stay ahead of its competitors in East Asia.

The Indonesia Story

In much the same way that Korea pursued its capital-intensive HCI drive in the 1970s, Indonesia tried to create its own dynamic comparative advantage in the early 1980s. Under a blueprint known as the Investment Policy List, industrial entry was directly controlled, capacity limits were set, local content requirements were enforced, and foreign investment was discouraged. Behind high trade barriers, local industry, mostly in the form of state-owned companies, attempted to move into “upstream activities,” to produce more “value added,” and to protect itself against the terms of trade losses it suffered in the post-oil-boom years. This foray into steel, plastics, and petrochemicals, helped by subsidized credits and trade protection, was a failure.

The Indonesian experience suggests that capital-intensive industrial transformation cannot easily be imposed. Indeed, it is not even necessary for late industrializers. Between 1985 and 1988 the government changed course. It reduced its share in the industrial sector from 43 to 23 percent (1989). Industrial concentration (measured as the share of output from the four largest producers) fell from 54 percent, on average, to 32 percent. Trade was dramatically liberalized and foreign investment actively encouraged. The results were remarkable: despite a cumulative terms of trade drop of more than 40 percent between 1986 and 1988, the productivity of land, labor, and capital grew strongly in 1988–91,

GDP grew at an average 7.1 a year, and non-oil exports boomed. Indonesia, impoverished in the 1960s, an oil economy in the 1970s, and an inefficient spender in the early 1980s, has now become another East Asian dynamo. It has done so through traditional outward-oriented policies and an abandonment of selective industrial policies.

The Malaysia Story

Over the term of its Fourth Five Year Plan (1981–85), Malaysia pursued import substitution with renewed vigor. Its models were Japan and Korea (hence the “Look East Policy,” a term coined in 1981) and the decision to bring in Korean advisors to help pick and produce industrial winners. The government created a holding company, the Heavy Industries Corporation of Malaysia (HICOM), which was charged with creating a nucleus of critical industries, including basic metals, machinery and equipment, automobiles, building materials, pulp and paper, and petrochemicals. The public sector’s investment in HICOM from 1981 to 1986 was intended to reach 6 billion to 8 billion ringgits, equal to the national development budget.

The symbol of this selective industrial policy was the Proton Saga, a car whose production was heavily subsidized by both the Malaysian government and its Japanese partner, Mitsubishi. Unlike Korea’s HCI push, which was aimed at achieving international competitiveness, HICOM industries, although monitored by the government, were under no such compulsion. They lost money, suffered from poor management and excess capacity, and required government bailout. Between 1981 and 1985 the number of non-financial public enterprises rose from 498 to 702, while the percentage that was profitable fell from 62 to 55 percent. Faced with mounting deficits, the government changed policy and began a major program of privatization.

The lessons can be summarized as follows. First, industrial policy was aimed at internal industrial objectives, such as changes in ownership and employment patterns, rather than at the achievement of international levels of efficiency or export targets. For this reason, in part, the system of rewards and penalties could not be ruthlessly applied. Second, clear overall goals were not established whereby infant industries would be judged. Third, insufficient domestic competition was fostered to create incentives to perform, and systems for monitoring state-owned enterprises were inadequate. Fourth, the

selection of industries was based too heavily on traditional import-substitution criteria and insufficiently on global marketing concerns.

The Taiwan, China, Story

A glance at the history of Taiwan, China, could suggest that the country's initial conditions—the econometric infrastructure from Japanese colonialism, entrepreneurial talent from mainland China, and U.S. aid—were unique. But its rapid industrialization owed much more to domestic policies.²³ In addition to the early success of land reform in bringing about remarkable equity of income and wealth, policies for macroeconomic stability, domestic investments, and industrial development were highly effective.

After the import substitution phase of 1953–57, the government promoted exports during the period 1958–72. It gradually reduced import protection and offset anti-export bias by providing free trade status and other incentives for exporters. It also set export targets and supported the development of labor-intensive industries. Economic growth between 1963 and 1972 averaged nearly 12 percent a year.

For various economic and political reasons, the 1970s saw the emergence of a more self-reliant strategy with large investments in infrastructure, industrial upgrading, and further import substitution. Public enterprises were used as a means of industrial policy, especially for a big push in heavy and chemical industries. Some of these state enterprises—for example, China Steel Corporation—performed remarkably well by any standard, but many were outright failures. Economic performance, although robust overall, revealed strains, especially in competitiveness. In the 1980s, the policy switched to place a greater emphasis on liberalization and export development. The results were striking. The economy generated massive payment surpluses and the means to invest elsewhere in the region on a scale rivaling that of Japan.

The Thailand Story

Thailand has had fairly consistent and rapid growth since 1955. It has emphasized private sector development, outward orientation, and macro-

economic stability. In the 1960s and the 1970s the government made various efforts to protect and promote domestic industry, but compared with the efforts of Korea or Taiwan, China, they were not highly coordinated. The general thrust of policy since then has been to allow free markets rather than to intervene in them. A half-hearted attempt at capital-intensive industrial promotion was pursued in the Eastern Seaboard project, but in the end its more costly and inefficient elements were abandoned.

Within this overall picture, import-substitution policies in the 1970s favored capital-intensive industries. Industry's share of GDP rose substantially in the 1970s, while its share of the labor force showed little increase. Balance of payments problems and concern with the pattern of industrialization prompted a shift in the early 1980s to export development and import liberalization. Effective protection for manufacturing was reduced by the mid-1980s, although it was much higher than in Korea and Malaysia. Any anti-export bias, however, was vigorously offset by exchange rate policy, export incentives, and the promotion of FDI by the Board of Investments.

On balance, sectoral interventions had only mild effects on overall performance. The government's interventions were poorly coordinated, the private sector was robust, and Japanese investment was heavy. As a result, Thailand avoided costly industrial adventures, while maintaining basic macroeconomic stability. It could of course be argued that more effective intervention could have raised growth rates further, but that presumes a state apparatus which Thailand did not possess.

The Hong Kong Story

Hong Kong embarked on its export drive in the early 1950s, a decade before the other early NIEs. It has always been different from the other three, particularly in the small and noninterventionist role of its government. For most of the past forty years, Hong Kong's economic growth and productivity growth were the highest in the region. Industrialization was initiated by migrant industrialists, largely from Shanghai, but was fostered by local merchant entrepreneurs. Small enterprises flourished, supported by a government dedicated to stability and "positive non-intervention."

Hong Kong's continued prosperity in the past dozen years has been built on the links with southern mainland China—and vice versa. During this period China doubled its average income faster than any other country on record. The growth of Guangdong province, which is adjacent to Hong Kong and where millions of migrant workers from other provinces come to work, has been phenomenal. Today the province aspires to be the fifth "tiger," and it has achieved this through free market policies rather than state intervention.

The Diversity in Industrial Policy

East Asia's industrial policies showed great diversity. Not all governments intervened heavily, and not all interventions were successful. In the first-generation NIEs, the record points to the potential rewards of socializing risk under an industrial policy. But the risks of such an approach are equally important, as illustrated by the failures of such a policy approach in Malaysia and Indonesia. The success of Thailand, Hong Kong, and recently the coastal provinces of China show the merits of avoiding unbridled industrial activism. Countries entertaining an activist industrial policy need to weigh both the risks and the potential gains of this gamble.

Where there were successes, they were based on export development. Governments did not merely provide protection for a local industry (as was the case in many countries outside the region), but provided support of many kinds to help industry achieve export competitiveness. Crucial elements were that (a) government guided, but did not override the decisions of firms; (b) international price signals were used to gauge efficiency and success; and (c) firms were offered support in exchange for specific performance requirements.

More generally, the conditions needed for selective industrial policy to work are not usually present. In addition to the capacity to select potential winners linked to exports, a successful policy depends, first, on the ability of society to place efficiency and public interest above rent seeking and, second, on pragmatic and flexible policymaking, including the ability to reverse failed policies.

If these preconditions can be found, it can be argued that they offer the potential for effective government action short of concerted industrial intervention. Some of the earlier intervention policies are in any event probably not replicable today, given a less receptive trading environment for export subsidies, more open capital markets, and freer labor markets. Instead, the augmented view of public policy that we advocate emphasizes government's role in supporting investments, particularly in infrastructure and labor skills, international marketing, and technology acquisition. What has separated successful industrializers from unsuccessful ones has been whether or not international efficiency was achieved. This yardstick can be either imposed by government as a quid pro quo for time-bound public support or implicitly supplied by foreign investors. Evidence of the 1980s from China, Indonesia, Malaysia, and Thailand tends to show that the second-generation NIEs have relied on foreign investment to provide this discipline.

Policymaking

Common to successful government interventions was the pragmatism and flexibility to change course as needed. What characteristic of policymaking can be associated with such a pattern? In East Asia it seems that governments are repeatedly able to distance themselves from past policies that have failed or are no longer useful. This flexibility should not be mistaken for good luck. More often it was associated with problems or crises that led to change, as indicated by the following examples.

In Korea the end of the heavy-handed HCI interventions, under which the bulk of industrial credit was absorbed by large capital-intensive industries, was prompted by the second oil shock.²⁴ When, in 1980, the economy went into recession, the government opted for macroeconomic stabilization, and the fiscal drain of HCI was no longer affordable. Trade liberalization was begun in earnest. Credit allocation once more favored exporters, commercial banks were privatized, and troubled HCI industries were put under new management. In the following years, incentives to encourage

R&D and technological upgrading were put in place, and interventions concentrated on strategic bailouts rather than on picking winners.²⁵

In 1967 Indonesia was not only poor (with a per capita income of \$50 and with 60 percent of its population living in absolute poverty), it was also indistinguishable from many other inward-oriented developing countries that were awash with licensing restrictions and protection. Hyperinflation produced the 1967 Balanced Budget Amendment and a new dedication to controlling inflation. But despite significant macroeconomic reforms during the 1967–73 period, after the first oil boom the country's inward orientation was encouraged by heavy-handed selective intervention. By 1985 about 28 percent of import categories required licenses, there was a large current account deficit, and the debt service ratio was 40 percent. Faced with a deteriorating macroeconomic situation, the government changed course, with a major devaluation and sharp macroeconomic adjustments. It gradually liberalized trade so that the effective rate of protection on capital goods industries fell by 50 percent between 1987 and 1990.

Countries with oil resources, such as Indonesia and Malaysia, at first reacted to their surpluses predictably, by spending more. However, within five years of the second oil shock both had cut their fiscal deficits and adjusted their exchange rates in order to compete in the region's increasingly tough manufacturing arena. Macroeconomic policies, far from flawless, were subject to scrutiny and revision. And industrial policies, if they conflicted with prudent macroeconomic policy, were also adjusted or abandoned.

A striking example of policy change is the increasing role of market economics in the southern provinces of China. These “experiments” have been largely successful—in fact, the volume of trade between Guangdong and Hong Kong is now almost the size of the Hong Kong’s GDP. The success of China’s Special Economic Zones (SEZs) in Guangdong and Fujian is attributable to the ease with which capital and technology are admitted, the flexibility of wages, the freedom to import materials and remit foreign exchange, and the shift in the state’s role toward emphasis on the provision of infrastructure in the SEZs to attract foreign investment.²⁶

Bureaucracy

In most East Asian countries, selection for the bureaucracy is an honor, and government has been able to pick its officials from prestigious universities. In Korea graduates of Seoul National University fed the bureaucracy, with the best of them going to the core economic ministries. A Confucian level of status ordinarily reserved for scholars also placed bureaucrats in a preferred position.²⁷ Overseas training often furthered the career prospects of government officials, and ministers frequently vied for the best-trained technocrats. Central banks also managed to attract highly skilled staff, as did research institutes, which (particularly in Korea) were strongly affiliated with government. Fellows of the prestigious Korea Development Institute were more highly paid than ministers, and generous financial incentives were offered to returning foreign-trained experts by the research arm of the Ministry of Science and Technology. Indeed the “reverse brain-drain” was a major factor in upgrading the skills of the Korean bureaucracy.

One of the roles of research institutes has been to digest experience from foreign sources. Copying the successful actions of others is considered part of prudent policy. This search for policy lessons and advice extends to international organizations, such as the World Bank, whose advice is sought, if not always followed. Although both the Bank and Korean authorities enjoy noting that the Bank opposed expansion of the automobile industry in the mid-1970s, it is more telling that the Bank’s work on trade liberalization and energy pricing actively supported government reforms.

East Asia’s bureaucracies emphasized managerial organization and functional responsibilities. Governments centered their efforts on core economic ministries, which formulated and coordinated economic policy. A pioneer was Korea’s Economic Planning Board, but similar core ministries exist throughout Asia. How did these technocrats in East Asia succeed where other well-trained bureaucrats failed? Country experiences provide some important clues.

Organizationally, economic teams in Indonesia and Korea were coordinated and led by a single, clearly identified “economic czar”—a

coordinating minister for economic, industrial, and financial affairs in Indonesia, and the deputy prime minister and minister of the Economic Planning Board (EPB) in Korea. In Korea the EPB has traditionally contained both the planning apparatus responsible for successive five-year plans and the budget function that finances those plans. Coordination of economic policy was equally strong, if not quite so ministerially prominent, in Malaysia. There the Economic Planning Unit (EPU) reports directly to the prime minister, which is also the case with Singapore's Economic Development Board (EDB). Thailand's National Economic and Social Development Board (NESDB) performed a similar coordinating task in forging a consensus on development goals.

Nevertheless, there is variation in the roles of economic ministries. Malaysia's EPU is unusual for both its small size and its clear mandate to serve the prime minister, and Thailand's NESDB is distinguished by the unique way it achieves consensus. In both countries one may argue that the central bank's role was critical, and that the strong voice of finance ministries on macroeconomic management usually dominated economic policymaking. In Thailand the action of the technocrats in devaluing the baht in 1984 is seen by many as the critical action that restored the credibility of macroeconomic management and laid the basis for Thailand's financial and industrial surge later in the decade. In Malaysia the voices of prudence in the Ministry of Finance and Bank Negara kept inflation low for decades, despite variation in industrial policies.

Among planning ministries, those in Korea and Singapore stand out, in part for their ability to implement decisions. The quality of implementation depends on a clear identification by government officials with the goals being pursued. In Korea monitoring of key economic variables (notably exports) was an obsession, and it permeated the bureaucracy. The extra export effort of the "final 100 days" of each year was legendary. Plan targets, although in some sense indicative in market economies, were usually exceeded, and public officials were held accountable for their achievement. Performance evaluation and monitoring systems have become models for the management of public enterprises as well.²⁸

Singapore's economic policy apparatus has been different but no less effective. The EDB, established in 1961, was able to coordinate policy,

offer incentives to foreign investors, acquire land, create industrial estates to attract multinational corporations, and take equity stakes in corporations. Beginning with the First Five Year Plan, the EDB was charged with ending bottlenecks, creating new programs, and spearheading Singapore's development drive. In the process, it created the Jurong industrial estate, began a joint-venture shipyard project with Japan, offered incentives to investors under the 1961 Pioneer Industries Ordinance (which deferred 90 percent of the corporate profits tax for a period of fifteen years for export industries), and promoted exports via the Economic Incentives Bill of 1967. As its economic objectives matured, Singapore played a prominent role in establishing a Joint Industry Training Scheme with the participation of foreign companies and in attracting foreign investors to Singapore.

The role of technocrats in Indonesia is not dissimilar to that in Korea and Singapore. Indonesia's leadership delegated economic policy to a group of senior officials. This alliance has served both parties well, as it combined pragmatic leadership with capable implementation. In Korea President Park quickly formed an alliance with the technocrats he needed to implement his vision of Korean development, relying on engineers to design his industrialization strategy and on economists to secure financing. In Singapore the distinction between political affiliation and technocratic position has often been blurred; the goals of the People's Action Party and the national economic goals were the same.

Leadership

The East Asian state has a record of maintaining political and economic stability and of pursuing long-term development goals. The first-generation NIEs quickly developed enough consensus on development goals and a sufficiently broad distribution of benefits to push the economic agenda forward. How was this accomplished? While we do not have the analytic tools to answer this question definitively, country experiences provide useful insights.

In Korea and Taiwan, China, land was a scarce asset, and both regimes were prescient in redistributing land to small farmers. These rural constit-

encies are still conservative and pro-government today. By contrast, land reform has eluded countries such as the Philippines, and the uneven distribution of income has perpetuated poverty and alienation. Korea managed, over the 1965–85 period, to maintain reasonable equality between urban and rural incomes. Special rural development programs (such as the *Saemaul* movement), agricultural price supports, and a relatively large rural investment program were prominent features of Korean development. In Singapore early support and trust were built on the housing policies led by the Housing and Development Board. Through its efforts begun during the First Five Year Plan, public housing construction was one of the plan's top priorities. As a result, owner-occupied housing rose from less than 10 percent of the population in 1970 to 80 percent in 1980.

In these first-generation NIEs, the notion of shared sacrifice can be seen in anticonsumption campaigns, long hours for workers and managers, and the virtual absence of capital flight. The corollary of shared return is also seen in the dramatic increases in wages and in the unprecedented gains in social indicators, to the point where absolute poverty has been virtually eliminated.

The role of the state in the second-generation NIEs—Indonesia, Malaysia, and Thailand—is far less uniform. The clarity of equity objectives was perhaps most visible in Malaysia's New Economic Policy, a two-decade plan (1970–90) to reorder the distribution of income and wealth in favor of the Bumiputra (Malay) majority. This goal of raising the incomes of the Malay majority served to unite the Muslim population and may have been responsible for keeping interracial peace. The government's other emphasis, on education and agricultural advance, did yield high returns and can be credited with bringing the percentage of people in absolute poverty down to single digits.

In Thailand there was initially no strong equitable-growth strategy in place. Indeed, there was no consensus for any particular set of development objectives. The country's success came later, largely as a result of prudent macroeconomic policies, the beneficent role of foreign investment, and the contagion factor. Observers credit the relatively conservative bureaucracy with steering a steady course amid political vacillation and upheavals and the monarchy with keeping social stability and a sense of nationhood.²⁹

Observers have also attributed some of East Asia's economic success to the concentration of political power in many of the countries in question. In Indonesia, Korea, Singapore, and Taiwan, China, to varying degrees, the state held enormous power, dissent was largely absent, and bureaucrats had a relatively free hand in pursuing reforms. The greater equality of income in these economies may also have aided reforms by limiting the differences among winners and losers, but the absence of outright opposition to policies decided at the top is said to have expedited economic reforms. In fact, Singapore's former President Lee Kwan Yew has questioned the compatibility of purely democratic models with rapid development.³⁰

Clearly, however, the equating of political control and economic success is far too simplistic and misleading. Authoritarianism has not been in short supply in the developing world; yet in most authoritarian regimes economic policies have been poor and results disastrous. The East Asian experience shows superior performance under a variety of different political situations. Both authoritarian and participatory institutional mechanisms in East Asia managed to achieve features favorable to rapid growth-reducing uncertainty, improving economic incentives, limiting economic controls, providing adequate support services, and, often, providing a strategic vision. All this shows the merit not of political control but, rather, of the ability to use political and institutional features to achieve development objectives. The pragmatism of government meant—with the benefit of hindsight—that when it intervened to speed development, the probability of failure was much lower than elsewhere.

Conclusions

The evidence from East Asia contradicts forcefully the notion of any single, decisive cause of economic success. Instead, it points to a combination of tangible factors consistently associated with progress. None of the East Asian economies succeeded unless it had three attributes: outward orientation, macroeconomic stability, and investment in people. These economies were not always blessed with this triad. They developed institutions and policies that delivered it.

It is our view that any country which achieves successful performance in these policy inputs will be amply rewarded in income gains. But would that be enough to reproduce the remarkable growth of East Asia? The notion persists that similar actions on these three fronts will not produce similarly large payoffs in other country circumstances.

Getting Higher Payoffs

First, there is something to be learned from East Asia's style of policymaking that translates policies on paper into practice. Many of the features associated with such effectiveness—consensus building, policy flexibility, and pragmatism—are replicable. Most clearly, countries need to develop a mandate for development and also to continually reassess their strategies. Mechanisms of formulating development plans in East Asia served to inform and coordinate the activities of economic agents; annual management plans served to monitor performance of the public and private sectors and to signal the need for policy revisions. East Asia managed to develop business-government relations that allowed such revisions to take place in a mutually beneficial manner.

Second, East Asia is getting a greater payoff for its actions because of regional contagion. The proximity to other successful countries provides a special advantage. In particular, Japan has played a strong leadership role in transferring technology and ideas around the region. At first glance, this advantage may not seem replicable, but that conclusion may well be wrong. With the revolution in communications, geographic proximity is less relevant, and other growth centers are likely to emerge. Increasingly, outward orientation and sound domestic policies enable a country to share technologies and ideas from around the world. Another advantage of regional contagion is that there are proximate comparators for economic performance, which is useful if public policies are openly scrutinized.

Third, does a state need to go further than adopting the fundamentals of strong economic management? The country studies leave no doubt that government intervention in picking winners was prominent in some East Asian countries. The evidence also suggests that some others in the region did equally well without government direction, or because such

directions failed and were abandoned. In other regions where governments have tried to pick winners, the failure rate has been even higher.³¹ In the worldwide context, the issue boils down to probabilities: picking winners leads to high rewards in a small percentage of cases where the experiment is successful and to disastrous results in a large percentage of failures.

Early versus Later NIEs

As seen in the Development Checklist, political stability, efficient bureaucracies, macroeconomic stability, export drive, and investment in human resources were common features across most successful East Asian economies. But with the exception of Hong Kong, the first-generation NIEs had some systematic differences from the second-generation NIEs.

In the first-generation NIEs the state generally had a more forceful role in industrialization. Starting with visionary leadership and supported by strong economic ministries, governments “went for broke,” acquired technology feverishly and invested heavily in upgrading labor skills. A few used directed credit as part of their strategy, relying on state enterprises when private firms were lacking. What lowered the risks of these policies was strong macroeconomic discipline and the use of international price signals as a guide to performance. Macroeconomic discipline meant that countries abandoned imprudent policies when stability was at risk. The use of international prices helped them to measure the performance of infant industries.

The second-generation NIEs differed considerably from the first in terms of initial conditions and, to some extent, political institutions. The availability of resources in Indonesia, Malaysia, and Thailand allowed a more relaxed pace of development. More reliant on foreign investment than on aid, the second-generation NIEs did not have to follow such an aggressive policy of acquiring technology. Where selective industrial policies were attempted, these policies largely failed. Yet regional contagion, low wages, and strong fundamentals fostered export industries. Liberalization and reforms removed the public sector from inefficient activities in Malaysia and Indonesia, and even in Thailand state enter-

prise reform is now a priority. Open capital accounts contrasted with the financial controls used in Japan and Korea in earlier decades.

The Question of Replicability

Much intellectual energy has been devoted to deciding the right degree of government involvement in industrial policy. This may not be the central question, however. What is clear from the combined experience of East Asia over the past three decades is that certain common features dominate, and that they involve some fundamental public policies. Countries may choose “supplemental policies” in an effort to achieve a “growth overdrive,”³² but these idiosyncratic policies are difficult (if not impossible) to replicate.

More importantly, there are few cases, if any, where countries that pursued the “core policies” have not succeeded. Put differently, governments that have adopted the essential policies—stable economic management, investment in human capital, and export drive—have been able to entertain the option of a larger role for government in industrialization policy. Whether such interventions would succeed has depended primarily on the policy objective itself and, secondarily, on the institutional capacity to execute it. Unless these policies are continuously reassessed (and, if necessary, reversed), they stand little chance of success. Moreover, as the evidence of the second-generation NIEs demonstrates, they are neither essential to, nor sufficient for, rapid growth.

The big question for policymakers is why such diversity of experience in East Asia has produced uniformly good results. The first answer is that success has not been universal. The Philippines, for example, was not able to combine enough positive factors from among macroeconomic stability, strong technocratic bureaucracy, export competitiveness, political stability, and policy consistency. Equally puzzling is why other countries, such as India, even during periods featuring macroeconomic and political stability and perhaps a talented bureaucracy, have not done equally well. In some, bureaucracies were impediments to private entrepreneurship rather than instruments of change. In others, policy was ideologically determined and was not critically reassessed for its effec-

tiveness. And in yet others, no social consensus existed under which a national development strategy could be forged and implemented.

The diversity of experience within East Asia suggests that universal and sweeping prescriptions are not possible and that country-specific circumstances will dominate. Yet the body of East Asian evidence points to the dominant contribution of stable and competitive economic policies to the unleashing of private entrepreneurship. More often than not, the key to the policymaking process was the positive role of government in charting a development course, creating a longer-term vision shared among key participants, and fashioning an institutional framework for nonideological and effective policy implementation.

Notes

1. The Country Lessons project includes case studies of Hong Kong, Indonesia, ICorca, Malaysia, Singapore, and Thailand, as well as two cross-country papers. Individual studies have been disseminated by the World Bank in the Lessons of East Asia series. See also World Bank 1993, *The East Asian Miracle*, the major institutional product on this subject, and *World Development Report 1991*.
2. China clearly pursued very interventionist policies until the late 1970s. Since then the country has been adopting market reforms gradually with spectacular results. In view of its special circumstances, China is not a central part of this discussion.
3. See for example Haggard 1990; Johnson 1987; Vogel 1991.
4. See Fishlow 1991.
5. See Bhattacharya and Page 1992.
6. See Birdsall and Sabot 1993; Barro and Lee 1993.
7. See Dahlman and Sananikone 1993.
8. See Corden 1993.
9. See World Bank 1993, *The East Asian Miracle*.
10. See Campos 1993.
11. See Krueger 1985; Westphal 1990.
12. See Balassa 1988; Pack and Page 1993.
13. See Thomas and Wang 1990; Bhalla 1993; Dollar 1992.
14. See Stiglitz 1989.
15. See Krugman 1990.
16. See Wade 1990.
17. See Amsden 1989.
18. See individual country studies in the Lessons of East Asia series. Hong Kong: Chau 1993. Indonesia: Bhattacharya and Pangestu 1993. Korea: Kim and Leipziger 1993. Malaysia: Meyanathan and Salleh 1993. Singapore: Soon and Tan 1993. Thailand: Christensen and others 1993.
19. See World Bank 1987.

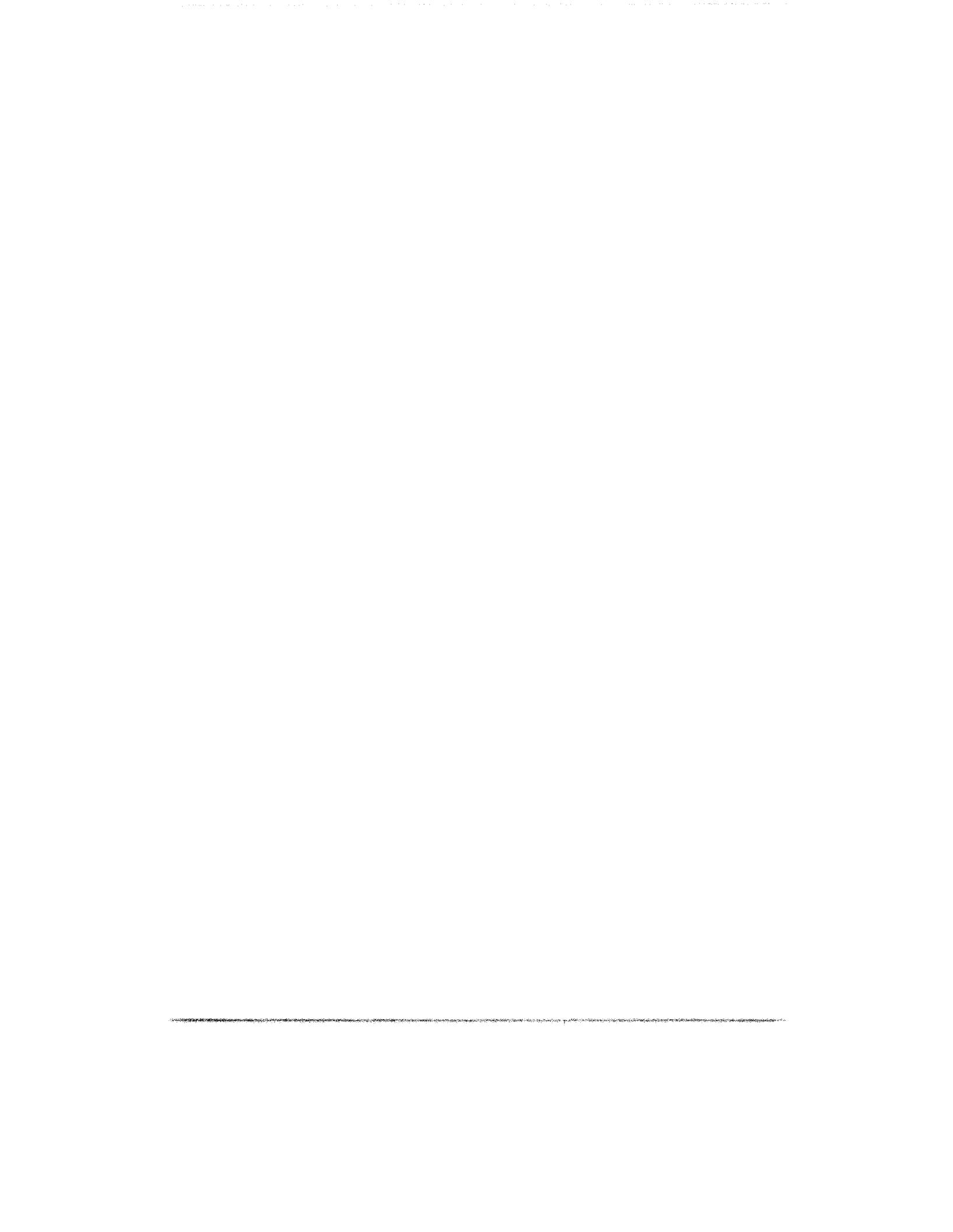
20. See Leipziger and Petri 1993; J. H. Kim 1990; Nam 1990,1991.
21. See Yoo 1990.
22. See Wade 1990.
23. See Dahlman and Sananikone 1993.
24. See World Bank 1987; Sakong 1993.
25. See Leipziger 1988.
26. See Brown 1993.
27. See Song 1990.
28. See Shirley and Nellis 1991.
29. See Christensen, Dollar, Siamwalla, and Vichyanond 1993.
30. Point made by the Hon. Lee Kwan Yew in "The Proven Path to Economic Growth," a speech in Manila, November 19, 1992.
31. See World Bank, *World Development Report* 1991.
32. See Petri 1993.

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Assessing the Experience of Trade Policy Reform

by Vinod Thomas and John Nash, with Sebastian Edwards, Thomas Hutcheson, Donald Keesing, Kazi Matin, Garry Pursell, and Alexander Yeats

Reform of trade policy is essential to link the economies of developing countries to worldwide technological advances and enable them to compete in an increasingly integrated world. In consequence, trade policy has been high on the agenda of reforms in these countries in the past decade, although it has been unclear what has actually been done and what the results have been.

The evidence in this book suggests that reforms in trade policy have, by and large, contributed to improved economic performance in developing countries. The book shows that countries that reformed are more open and their trade regimes more efficient than a decade ago. But the commitment to implement reform has been weaker than expected, and results have often been disappointing. Stronger and more comprehensive improvements in policy and institutions are needed to enhance the effectiveness of the reforms, among them measures to reduce the protection of domestic industry in competition with imports.

It is noteworthy that the supply response to reforms has been stronger in countries where institutions and infrastructure have supported changes in policy and where the linkage between trade and other policies has been recognized. This argues that more attention should be paid to actions that complement trade policy reforms in order to derive the greatest possible benefit from them.

Trade Policy Reforms and Their Effects

Most trade policy reforms of the 1980s in the developing countries were supported by the World Bank's adjustment lending, in conjunction with assistance

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from the IMF.¹ (A few countries, notably Bolivia, reformed their trade policies without explicit World Bank support.) The most common reform proposals concerned the exchange rate, export promotion, import restrictions, and studies of protection. Proposals regarding policy on exports and quantitative restrictions on imports were generally stronger than those concerned with the level and dispersion of tariffs.

The Extent of Policy Change

Many countries corrected misaligned exchange rates and reduced impediments to exports, including restrictions on imports needed for export production. Several countries substituted tariffs for quantitative restrictions on imports. Fewer countries significantly reduced both quantitative restrictions and tariff levels, but several have made good progress, including Bolivia, Costa Rica, Chile, Ghana, Korea, Mexico, and, until recently, Turkey. In nearly all these countries the bias against trade, especially exportables, declined in part as a result of a reduction in import protection.²

But progress in lowering import protection levels across countries has been slower than expected.³ Also, implementation of reform has varied considerably among recipients of trade loans. Some countries achieved substantial reform (Chile, Mexico, and Turkey), while others made little progress or reversed their reforms (Guyana, Yugoslavia, Zambia, and Zimbabwe).

Four sets of domestic factors constrain stronger and more sustained reforms:

- The opposition of vested interests and inadequate conviction about the benefits of the reforms have weakened the commitment to reform (in Kenya, Peru, Yugoslavia, and Zimbabwe, for example).
- Administrative and institutional insufficiencies have contributed to setbacks in implementing reform (in Bangladesh, Côte d'Ivoire, and Malawi, for example) and reforms to strengthen institutions in the public sector have received inadequate attention.
- Weak macroeconomic performance and conflicts between policy reform and stabilization goals have sometimes slowed trade liberal-

ization (as in Morocco and the Philippines) or even reversed it (as in Argentina and Zambia).

- Lags in the supply response to policy reform, by reducing its apparent benefits, have dampened enthusiasm, especially in low-income Africa.

The Effect on Performance

Assessing the impact of reforms on economic performance is made difficult by the incomplete nature of the reforms and the simultaneous presence of other contributing factors. Nonetheless, the evidence suggests that policy reforms have contributed positively to growth in output and exports. Both the additional financing from adjustment lending and the policy reforms themselves have contributed to a mild, relative improvement in GDP, exports, and other variables in the loan recipient countries—especially among the early and intensive recipients (those that received three or more adjustment loans).⁴ The results are much stronger and are statistically more significant when the comparison is between trade policy reformers and nonreformers rather than simply between trade loan recipients and nonrecipients.⁵

The response of output to policy change has varied considerably. Studies of a number of countries identify several factors that constrain the supply response.

- The institutional and infrastructural needs of exporters are often insufficiently addressed because of weak systems for providing duty free and restriction-free access to imported inputs; inadequate port, transport, and telecommunications facilities; and poor information and market services for exporters.
- Domestic regulatory policies are allowed to interfere with the change in incentives in response to reform (price controls) and to reduce the mobility of factors of production through labor market interventions, market entry and exit regulations, and foreign investment controls.
- Growing protectionism in international markets in the 1980s has depressed world prices and blocked access to markets, thereby reduc-

ing the response of exports, especially in agriculture. Lower tariffs for manufactured exports make the markets of industrial countries more promising, although the nontariff barriers they impose in some important product categories (such as textiles, clothing, and steel) have hurt the growth of exports in developing countries.

- The credibility of the reforms, which affects their sustainability, depends on a country's track record in policy reform, the forcefulness of its initial reform steps, its macroeconomic stability, and the consistency of its trade policy reforms with its reforms in other areas such as the financial sector or agricultural pricing.
- Underdeveloped entrepreneurial and managerial capacity inevitably slows the supply response. Shortages of trained labor and poorly developed input supply lines have also been serious problems.

The Sequencing and Timing of Trade Policy Reforms

Tariff reform may cause revenue losses, devaluation may increase inflation, and liberalization may aggravate balance of payments problems. Does this mean that trade liberalization is inconsistent with stabilization efforts? Indeed, there is little doubt that macroeconomic instability makes trade policy (and some other) reforms more difficult to implement successfully. For this reason some analysts have argued that the fiscal deficit and inflation should be reduced before trade policy reforms are introduced.

Stabilization and Trade Policy Reforms

In practice, the strong practitioners of trade policy reform in the sample have generally also managed to reduce their inflation and fiscal and balance of payments deficits more than have the weaker reformers. One reason is that some reforms increase revenue and thus reduce the fiscal deficit. Furthermore, in cases in which the fiscal deficit has been reduced sufficiently and the real exchange rate depreciated, the current account deficit has also declined despite the liberalization of imports. In these circumstances, import liberalization can reduce inflation and contribute to stabilization by providing much needed competition in

domestic markets. Although devaluation raises the domestic prices of tradables and can fuel inflation, inflation can be lowered even with a devaluation if the fiscal deficit is lowered sufficiently.

But trade policy reforms are unlikely to be productive under conditions of severe and continuing macroeconomic instability. When inflation is very high and variable, leads and lags in the movement of individual prices mean that the resulting pattern of relative prices is a poor guide for economic decisions. Also, if the authorities use the exchange rate (instead of adequate macroeconomic policies) as a brake on inflation, the real exchange rate is likely to appreciate and thus reduce the effectiveness of the reform. Under these conditions the trade policy reform in question should be delayed until the very high rates of inflation are brought down.

Fiscal Reforms and Trade Policy Reforms

Eliminating nontariff barriers (especially by converting them to tariffs), eliminating tariff exemptions, and raising the lowest rates to make the structure more uniform are revenue-enhancing measures (which were used in Jamaica, Kenya, and Mauritius, for example). In a sample of countries that reformed primarily nontariff barriers, tariff revenue increased from 2.7 percent of GDP to 3.4 percent of GDP. Revenues can also be kept constant or raised in domestic currency if lowered rates are accompanied by a sufficiently depreciated exchange rate. And reducing very high tariff rates can increase trade tax revenue if tariff evasion rates fall as a result or if import demand is price elastic.

But an increase in tariff revenue cannot always be relied on. In a sample of countries that reduced tariffs as well as implemented other reforms—among them Mexico, Morocco, the Philippines, and Thailand—revenue fell on average from 2.8 percent of GDP to 2.3 percent of GDP. The fiscal effects of a devaluation also vary depending in general on whether the government is a net buyer of foreign exchange (Ghana, Sierra Leone, Somalia, Uganda, and Zaire, for example) or a net seller (Nigeria, for example). When import liberalization is likely to worsen an already large fiscal deficit, measures to reduce expenditure or increase revenue from other sources will need to be implemented along with the

tariff reforms. Mexico generated additional revenue through tax reform when its trade taxes fell, whereas Morocco took no compensatory measures when tariff revenue fell (and did not reduce nontariff barriers to increase revenue while reducing tariffs), and in consequence experienced a partial reversal of reform.

The Sequencing of Domestic Reforms and Trade Policy Reforms

In general, the benefits of trade policy reforms are greater when accompanied by domestic economic reforms. Hence, trade policy and domestic reforms are best carried out simultaneously. But in practice not all actions can be taken at the same time and so the issue of sequencing becomes relevant. Initiating trade policy reforms often exposes the need for domestic reforms and investments (as was the case in Madagascar, Mexico, Tanzania, and Zaire). It also exposes unforeseen infrastructural needs of industries that are based almost entirely on foreign demand (such as fresh fruit and salmon in Chile, cut flowers in Colombia, and cutlery and television sets in Korea). And sometimes domestic reforms should be deferred until the business and financial communities clearly understand that the protection of imports will be reduced. Otherwise, when investment or price controls are removed in highly protected sectors, increased investment and production might be encouraged in the wrong sectors. At other times, trade policy reform may need to wait until a domestic control is relaxed. For example, a processed product (such as textiles) may see its effective protection vanish or become negative if its tariffs are reduced while the price of its basic input (cotton), which is set by a monopolistic parastatal, remains high.

The Order and Pacing of Trade Policy Reforms

If all reforms cannot be carried out simultaneously, priority should be placed on removing or counteracting the most important and binding constraints to better performance. If a country has a substantially overvalued exchange rate, the first step should be to achieve and maintain a real devaluation and to unify any multiple exchange rates. Because a real devaluation can make quantitative import restrictions redundant

and facilitate their removal, large devaluations have often preceded or accompanied the rapid removal of these restrictions (as in Bolivia, Chile, Ghana, Laos, Mexico, Nigeria, Sri Lanka, and Zaire). Such a shift from commercial policy protection to “exchange rate protection” constitutes a major step toward establishing neutral incentives between and among exportables and import substitutes.

Introducing some export policy reforms shortly before, or at least at the same time as, import reforms stimulates a more rapid export supply response and can insulate exporters from any adverse effects of tariff unification by exempting them from paying higher rates on imported inputs. Import policy reform often starts by replacing nontariff barriers with tariffs that provide roughly the same protection. This step not only eliminates tariff exemptions but also improves resource allocation, increases transparency, reduces rent-seeking, and improves the fiscal situation. Reducing the dispersion of tariff rates ought to follow, in order to move toward a uniform incentive structure. It should usually be accompanied or followed by a reduction in the average tariff rates so as to reduce protection levels. At the same time, any potentially harmful effects on the fiscal deficit should be offset. If revenue is not a serious concern, nontariff barriers could be phased out without introducing equivalent tariffs.

Expedited reform avoids a drawn-out process that gives opponents time to organize and lobby for a reversal. It also avoids difficulties in importing intermediate and capital goods that would interfere with the restructuring that liberalization is expected to set in motion. Also, the sooner the benefits of reform begin, the better the prospects for sustainability. Some successful reforms have been comprehensive, intensive, and fast, as in Bolivia. Mexico quickly reduced the coverage of quantitative restrictions and reduced tariffs in about two years. Chile’s phasing out of quantitative restrictions was rapid, but tariff reductions took place over five years. Korea carried out its comprehensive reforms over twenty years, with substantial import liberalization occurring only after 1980. When implementation of tariff reform is spread over several years to give affected activities time to adjust, it is desirable to announce the trade policy reforms in advance, as Chile did.

Experience suggests that substantial and comprehensive liberalization can be completed in less than five to seven years from the start of the adjustment program, although the decision on the pace of reform ultimately depends on the specific circumstances of the country involved. This should allow time for quantitative restrictions to be phased out and for tariffs to be reduced to, say, 15 to 25 percent. Later stages of reform might reduce the tariffs further. But even when reforms are drawn out over this period, major and decisive actions in the first years are important to signal commitment and give the reform credibility.

Trade Policy Measures

A real devaluation improves the incentives for producing exports and efficient import substitutes.⁶ Devaluation needs to be accompanied by macroeconomic policies to restrain inflation and maintain the real exchange rate. In addition to sound exchange rate and macroeconomic policies, there are some cost-effective means to support export development. More fundamentally, export development is assisted indirectly by policies to reduce import protections that contribute to a more appropriate real exchange rate and to a smaller antiexport bias.

Export Development

East Asia's economic success has rested on macroeconomic stability—low fiscal deficits and inflation rates, and stable and adequate exchange rates. Relatively low protection of import substitutes helps to sustain a more depreciated real exchange rate than would otherwise be the case. Low protection rates also make it easier to administer schemes that exempt exporters from restrictions and tariffs on their imported inputs. Although Korea and Taiwan were successful in using protective import policies by avoiding exchange rate overvaluation and offsetting the anti-export bias of import protection, their approach would be difficult to replicate in today's world economy. Korea's approach during the 1960s and 1970s included export subsidies, which other countries would countervail today, and on vigorous government intervention to suppress rent-seeking activities viewed as incompatible with export growth.

Giving direct and indirect exporters restriction-free access to inputs at duty- and tax-free international prices is particularly effective in developing manufactured exports.⁷ One method is to have no tariffs or restrictions on imports (as in Hong Kong and Singapore). Where import protection remains, however, the bias against exports needs to be reduced through schemes that reduce import costs. One approach that can be used for large export-oriented firms that import inputs is to provide duty waivers (and exemptions from other import restrictions) or temporary admissions of imported inputs (as in India, Indonesia, Mexico, Morocco, and Turkey). For small or occasional exporters, for which waivers or temporary admission schemes are impractical, a quick, reliable method is to use drawbacks or rebates of duties and indirect taxes actually paid (as in Korea, Taiwan, and Thailand). But collecting and refunding duties is less efficient than waiving duties, and drawbacks do not offset nontariff barriers. Other duty-free schemes allow in-bond or duty-exempt export manufacturing plants to locate almost anywhere (as in Mauritius and Mexico) or establish physically separate export processing zones (as in more than thirty developing countries). But many export processing zones have proved to be poor investments as a result of unwise location, high investment costs, mediocre management, or uncooperative customs officials. Duty-free schemes for exporters do, however, involve costs. For example, they may temporarily increase a fiscal deficit,⁸ penalize domestic suppliers of importable inputs, and create new opportunities for rent-seeking.

Manufactured exports must meet special requirements of quality and timeliness if they are to be competitive. Exporters require efficient infrastructure and telecommunications, readily available export credit, and support in technology development, quality control, production planning, and trade logistics. The East Asian experience suggests the value of relaxing regulations on layoffs, fringe benefits, minimum wages, and collective action in order to reduce labor costs and increase the flexibility of the enterprises.⁹ Policies regarding industrial location and regional development may also need to be changed, because exports on a large scale cannot be expected from undeveloped areas with poor infrastructure. Helping exporters secure technical assistance

services from consultants and information suppliers of their choice may also be useful. Foreign firms can be a valuable source of technology and capital and can provide a link to world markets. Foreign investors are attracted to countries with macroeconomic stability, strong protection of property rights (including intellectual property rights), a stable and transparent regulatory environment, and liberal access to foreign exchange for profit remittances and imported inputs and services. This kind of good climate for investment is likely to produce better results than special incentives, such as tax holidays, which may attract footloose industries that leave when the holiday is over.

Import Policy

Nontariff barriers make the system less transparent and less predictable and encourage lobbying, rent-seeking, and corruption. Even with little or no decrease in protection levels, therefore, a reduction of nontariff barriers can have major salutary effects. One simple reform is to switch from a list of permitted imports to a list of forbidden imports and allow unlicensed import of all items that are not listed—the first step in Korea's liberalization in 1967. Auction systems can sometimes be substituted for administrative rationing, with good results. Quotas can be auctioned, with the quota amount increased until its protective value falls to zero, at which point it can be abolished. Alternatively, tariffs providing approximately equivalent protection can be imposed on product categories as nontariff controls are eliminated. This change reestablishes the link between domestic and international prices and ensures that they move in the same direction and diverge by no more than the amount of the tariff.

Because tariffs are usually higher on finished products than on intermediates and raw materials, and tariff exemptions are common, effective protection varies greatly across industries. To achieve efficiency in production, effective protection must be reduced and protection levels among imports must be made more uniform, while the protective effect of the domestic tax system is taken into account. Coordinating tariff reform with domestic tax reform permits deeper reductions in tariffs than would otherwise be fiscally acceptable. Reductions should eventu-

ally result in a low, equal rate of tax of imports and domestic production for each product. Raising low tariff rates (usually on inputs) also raises revenue, allowing high rates to be reduced further, and makes effective protection more uniform between inputs and finished goods.

On efficiency and political economy grounds, a relatively low and relatively uniform tariff structure is the best option. Uniformity minimizes distortions in production incentives for a given level of overall protection, subject to the qualification that exporters should be insulated from paying prices above world levels for their protected imported inputs. In general, such a tariff structure has the further advantage of being less likely to encourage lobbying. Bolivia, Chile, and Mexico have converged their tariff structures toward 15 percent, in addition to nearly eliminating quantitative restrictions, and other countries have reduced tariffs to below 30 percent.

An industry-by-industry approach to tariff reform is difficult to implement because changes in one industry have repercussions in others. What seems to work better is the concertina approach, whereby at each stage all the top rates are collapsed to the next highest level. Even better is a radial reduction, in which all rates at each step are cut to an equal fraction of their previous level, thereby consistently reducing protection at each stage. Although radial tariff reduction promises faster gains in production efficiency than does the concertina approach, it is more likely to reduce revenue in its first stages.¹⁰ A combined approach—collapsing the very high rates and radially reducing all others subject to the revenue constraint—should be the best alternative because it combines the advantages of each of the other schemes.

Policies toward Trading Partners

Should developing countries reduce barriers unilaterally or delay reforms in hopes of gaining concessions in multilateral negotiations? The issue could be resolved if all parties in multilateral negotiations were to declare unambiguously that credit would be granted for unilateral reductions of barriers. An alternative is for developing countries to bind tariffs at a level higher than the actual level and to offer to reduce the bound level at negotiations. This approach requires a credible threat to

raise tariffs to the bound level if negotiations fail, as well as a credible commitment not to raise the tariffs if negotiations succeed. For most countries the costs imposed by their own trade policies are likely to be higher than the costs imposed by other countries' barriers. This situation argues for unilateral reforms.

Industrial countries have reduced tariffs from an average of approximately 40 percent in the late 1940s to less than 5.5 percent today. The markets of industrial countries remain attractive for a wide range of manufactured exports from developing countries. But nontariff barriers have increased, and the proportion of imports of developed countries affected by nontariff barriers nearly doubled between 1966 and 1986. More than 90 percent of OECD imports of foodstuffs are now affected by some type of nontariff barrier. This change, coupled with the surpluses resulting from high OECD agricultural support prices, has distorted and destabilized agricultural markets. The nontariff barriers and agricultural policies of industrial countries reduce the potential benefits of reform in developing countries, reduce consumer welfare in industrial countries, and threaten the world trading system. It is in the interest of all countries that industrial countries reform their trade policies.

Some countries have formed regional trade groups, expecting to realize gains from increased trade, to take advantage of economies of scale by producing for a larger regional market, and to gain initial exporting experience under protection. But intraregional trade has grown little or has even declined. Industries established in response to integration usually had high production costs, and the experience firms gained in marketing to neighbors proved irrelevant for exporting to wider markets. Most regional groups also raised barriers against extra regional trade, thereby discouraging integration into the world economy, where the gains from trade are likely to be greater. The costs of this diversion of trade from efficient world markets to high-cost regional producers were also great.

Success in integration has been greater among countries with generally outward-oriented economies (such as the Southeast Asian countries or the European countries). Two lessons from the experience with integration efforts are noteworthy. First, integration schemes should focus

more on improving infrastructure and factor mobility than on direct trade policy measures. Increased trade would follow naturally. Second, trade policy measures ought to focus on reducing barriers to all trade, not just trade among members. The Central American Common Market, for example, has explicitly recognized the need to avoid impeding the progress of its member countries in overall trade reform.

Policies Complementary to Trade Policy Reform

Fiscal policy can complement trade policy reform in several ways. Domestic taxes can be used to equalize the price of domestically produced final goods and the tariff-inclusive price of imports, thereby reducing protection, raising revenue, and allowing tariff rates to be lowered more than they otherwise could be (as Malawi, Nigeria, and Togo are beginning to do). Fiscal policy can also be used to direct public investment in ways that support the trade policy reforms. Efficient investments in infrastructure and expenditures for research and extension services are important to take full advantage of increased trade incentives. Cuts in expenditure designed to achieve fiscal policy goals have, however, caused public investment budgets to fall in many countries (such as Côte d'Ivoire, Mexico, Morocco, and the Philippines). Some successful reformers have raised the share of public investment (Chile, Korea, and Turkey, for example); in other countries, the share has declined. In either case, the key is to ensure that the investments are efficient and appropriate to support the adjustment to policy reforms.

Public sector reform is an important complement to trade policy reform. Protection of state-owned manufacturing enterprises has sometimes interfered with trade liberalization (as in Argentina, Bangladesh, Chile, and Peru). Even when governments have privatized unprofitable firms (Togo's steel mill, for example), buyers have insisted on guarantees of high protection. Liquidation would probably be preferable to privatization in these cases. In socialist countries trade liberalization needs to be accompanied by a phasing out of the central planning and allocation mechanisms, so that the new market signals can be effective at the firm or farm level (in Poland, for example). Domination of crop output markets by state enterprises might mean that the effects of devaluation on producer prices are realized very slowly while input

prices rise quickly. Or a state monopoly in input markets (seeds and agrochemicals, for example) may mean that farmers lack high-quality inputs to use in responding to the liberalization of output markets. Meaningful trade liberalization in such cases may require abolition of the state enterprise (as in Nigeria) or elimination of its legal monopoly in the import market (as in Mexico). A corrupt or inefficient customs service can also reduce the supply response to reform; hence, as greater reliance is placed on tariffs, the customs service might need to be upgraded.

Reform of regulatory policies is another area that supports trade policy reform. If exit from or entry to the market is difficult, inefficient firms may hang on and new firms may never start up. Regulations that make it costly for firms to restructure or shut down have been a factor in failed liberalization attempts in Poland, Turkey (in the early 1970s), and Yugoslavia. In Mexico until 1988, regulations governing entry of new firms and expansion of established firms apparently slowed the pace of adjustment. The absence of such inhibiting controls was important for the success of Chile's trade policy reforms in 1974–79, which were carried out concurrently with the reduction or elimination of many regulations. Price or wage controls are incompatible with trade policy reforms whose purpose is to alter relative prices. Financial sector regulations that encourage or enable banks to continue to lend to bankrupt enterprises (which must close down if the economy is to reap the efficiency gains from trade policy reform) may reduce the supply of new credit available for firms that should be expanding in the wake of the reforms. Regulatory reform, combined with support for restructuring in the financial and industrial sectors, could magnify the benefits of trade policy reforms.

Credibility and Sustainability

If the private sector is to invest in new sectors, it must believe that the new pattern of incentives will be sustained. If not, firms in previously protected sectors may invest in lobbying efforts and go deeply into debt trying to ride out the storm until their protection is restored. To be credible, the first steps of reform should be clear and decisive: reforms begun with tentative steps have often been reversed. A strong, well-publicized announcement

of the program that demonstrates the head of state's commitment to the reforms can also be important in establishing credibility. In addition, a general interest agency (the central bank or finance ministry) is usually more reliable in executing a reform program than is an agency with specific interests to protect (such as the ministries of trade or industry).

Credible announcement of a timetable—although it carries the risk of giving the opposition time to mobilize against the reform—can usually strengthen the reform process. Reforms are generally easier to introduce after a crisis that discredits old policies. Since the crisis is often related to the balance of payments, a strong devaluation and macroeconomic adjustment are probably necessary and may be useful in sending a signal to producers, whose supply response will help to justify the program. Sustainability may also be enhanced by an external commitment to maintain reforms—such as joining the GATT—that raises the costs of reversal.¹¹ In some cases reforms may be politically more acceptable, credible, and sustainable if they are carried out under regional auspices, as was the case when the European Communities began to lower external trade barriers in the 1950s. This approach has yet to be tried in the developing world, however.

Successful trade policy reform can also have short-term transitional costs because some groups are made worse off as a result of shifts in resources. Taking steps to partially compensate losers may increase the odds that the reforms will be sustained and may have other benefits as well. Some compensatory measures, such as retraining workers, can improve factor mobility and thereby speed up the intersectoral adjustment process. Other measures, such as antidumping procedures (set up in Chile and Mexico, for example), may reduce resistance to the reduction of more costly forms of protection. Devaluation can also be viewed as a measure to partially compensate for the loss of protection and thereby reduce political resistance.

Other steps, such as targeted food assistance programs and employment programs, may offset any transitional effects of adjustment measures on real wages or employment. Often, however, workers displaced from protected industries are not among the poorest groups in the society. Moreover, new programs run the risk of creating new distortions

and worsening the fiscal deficit. But the compensation issue needs to be addressed, and pragmatic and effective means must be found to target the programs well.¹²

Implications for Trade Policy Reform

This book strongly supports further reform of trade policies. It recommends that future programs seek to improve the design and implementation of reforms. In addition to ensuring an appropriate exchange rate and removing export restrictions, well-designed trade policy reform will reflect the following considerations:

- The main initial priority will be to reduce quantitative restrictions.
- Strong action needs to be taken to reduce import protection through tariff reductions and reforms.
- Relatively low and relatively uniform tariffs are preferable for reasons of efficiency and political economy, even though uniformity of import tariffs cannot be demonstrated in theory to be optimal in many circumstances.
- Studies of the economic costs of existing policies and evaluations of the expected benefits of reform are useful in improving the acceptability of trade policy reform. The lack of adequate data on indicators and measures of nominal and effective protection is a deficiency that needs to be remedied.
- A strong commitment to monitor and evaluate results is essential. The capacity of reforming countries to assess their own policies needs to be strengthened.
- Although the main focus in this book has, by intent, been developing countries, the urgency of the need for industrial countries to reform their trade policies is recognized.

Lessons have emerged from the experience with trade policy reform that should help address concerns regarding the interaction between such reform and other priorities.

- If all reforms cannot be carried out simultaneously, careful sequencing of the reforms can usually avoid conflicts among them. With respect to macroeconomic stability, it is necessary to consider the likely consequences of trade liberalization for the fiscal deficit and ways to offset adverse effects, if they are judged likely to be serious. When the inflation rate is very high and variable, stabilization efforts can precede other reforms.
- Greater emphasis on complementary policies, investments, and institutional reform will improve the payoff to trade policy reform. Where domestic market problems are severe, deregulation, infrastructural improvements, and institutional reforms are essential for the success of trade policy reforms.

Thus, although many governments have already taken the initial steps, much remains to be done to prepare for and implement trade policy reforms. It is hoped that the lessons discussed in this book will help these countries, and others that have not yet begun reforms, to design and implement programs to liberalize their trade regimes significantly. The eventual outcome of widespread reforms would be a more open global trading system and an enhanced standard of living in all countries.

Notes

1. As of June 1989, a total of ninety-eight loans to forty-four countries contained significant trade policy components.
2. Usually the estimates of bias compare the real effective exchange rates (taking into account import tariffs and export subsidies) for exportables with those for importables, in addition to comparing domestic relative prices.
3. Implementation data were available for twenty-four of the forty trade loan recipients. Detailed findings on implementation refer to the twenty-four recipients. Aggregate data were also considered for the forty recipients, as well as for forty-seven nonrecipients.
4. Accordingly, the results measured for all recipients are likely to underestimate the benefits because they include the early stages of what is a continuing, cumulative process in some cases.
5. Real exchange rate adjustment and export-related reform had the greatest beneficial effect in some of the cases examined (Pakistan and Thailand, for instance). Most examples of import liberalization during the 1980s also involved a real exchange

rate depreciation, and this combination was beneficial (in Chile, Jamaica, and Mexico, for example).

6. A devaluation, of course, should not be carried out simply as an export promotion measure. Competitive devaluations designed to undercut competitors on world markets should be avoided. Rather, devaluation should be considered a means to restore equilibrium in internal and external markets and to encourage long-run growth.
7. This approach avoids the wide variations in effective incentives that arise when different exports use inputs subject to different import controls and tariffs. It is not subject to the countervailing measures that importing countries are increasingly applying to direct or indirect export subsidies.
8. Short-run negative revenue effects may occur when protection of inputs is provided principally by tariffs. Tariff revenue should increase, however, as expanding exports increase the supply of foreign exchange for imports.
9. Another ambitious but effective strategy used by Korea and Taiwan is to establish a full range of industries, characterized by highly efficient technology, location, scale, and production operations, that provide intermediate inputs at low prices.
10. In contrast, the concertina approach concentrates initial reductions on very high rates, some of which may be so high that reducing them will increase import volume and tariff revenues.
11. However, the value of this commitment is decreased by the easy access developing countries have to GATT provisions that allow them to impose barriers for purposes of correcting balance of payments disequilibria or protecting infant industries.
12. A UNDP-World Bank program for trade expansion is providing technical assistance to a number of countries in this and other key areas of implementation of trade policy reform.

Improving the Distribution of Opportunities

by Vinod Thomas, Mansoor Dailami, Ashok Dhareshwar, Daniel Kaufmann,
Nalin Kishor, Ramón López, and Yan Wang

Wealth to us is not mere material, but an opportunity for achievement.

—Thucydides, 460–400 B.C.

The main asset of most poor people is their human capital. Investing in the human capital of the poor is a powerful way to augment their assets, redress asset inequality, and reduce associating the distribution of education with growth and poverty reduction. It then asks how to make education at all levels more productive. To be sure, access to good quality education is important in that it enhances people's capabilities to generate income. This is not enough, however. To be more productive, they need to be able to combine their human capital with other productive assets, such as land and equity capital, and with job opportunities in an open market.

This chapter focuses on assets that the poor possess, primarily human capital, and those on which they rely most heavily, such as land. For growth to have an impact on poverty, the assets of the poor, especially their human capital, need to be augmented and distributed more equitably.¹ Yet inequality in education and health outcomes is staggeringly high, reflecting market failures and underinvestment in the human capital of the poor. Asset distribution represents the distribution of opportunities and is a precondition for individual productivity and income. While redistributing existing assets and incomes is politically difficult, building new assets such as human capital is widely accepted.

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To be sustained, development must be equitable and inclusive. Ensuring adequate public spending in education and health care is important, but does not by itself guarantee progress. A multidimensional strategy to empower people is needed. Actions to highlight include the following:

- Augment assets of the poor by ensuring access to high-quality education and health services
- Increase attention to the distributive effect of public investment and reduce subsidies to the types of education and health care that benefit the rich
- Facilitate full use of human capital by empowering the poor with land, credit, training, and job opportunities
- Complement all human capital investments with economic reforms and market openness, which increase the productivity of education.

Potential Benefits of Education

Education and good health improve people's ability to shape their lives—strengthening their functioning in society and contributing to their welfare directly. Educating women, for example, not only increases their income-earning capacity, but also improves their reproductive health, lowers infant and child mortality, and benefits both current and future generations. Investing in human capital is therefore crucial for economic growth, poverty reduction, and environmental protection. The benefits of investing in human capital are well known, but some of the linkages with other dimensions of development—security, social justice, and sustainability—are better understood today than they were 10 years ago.²

Investing in people can protect workers and improve security—an important aspect of quality of life. Education and good health increase the poor's ability to cope with changes in their environment. They allow them to switch jobs and provide some protection against economic downturns and financial crises.

Social exclusion reduces an individual's incentive to attend school and to work (Bourguignon 1999; Loury 1999). Investment in human capital,

if well distributed and targeted to the poor, can facilitate social inclusion. Better education and health services to vulnerable, often excluded groups, such as those who are illiterate, disabled, elderly, chronically ill, or separated by language barriers, can help them overcome social obstacles and increase their productivity.

Investing in people may also help protect the environment. Better-educated women have healthier and, in many cases, fewer children, thereby reducing demographic pressure on natural resources and the environment. With more education, people can assimilate more information and employ instruments to protect the environment and better manage resources.

Investing in people improves human rights and social justice, which provides direct satisfaction. Basic education enables the poor to learn about their civil and political rights; to exercise those rights by voting and running for office; and to voice their concerns, seek legal redress, and exercise public oversight. That helps in building institutions, improving governance, and fighting corruption.

These benefits are far from automatic. Many studies show that additional years of education per person increase real output or growth rates. However, a few researchers suggest that human capital accumulation has an insignificant or negative impact on economic and productivity growth (Benhabib and Spiegel 1994; Griliches 1997; Islam 1995; Pritchett 1996). More government spending on education, if misallocated, might contribute little to poverty reduction and instead increase inequality and rent seeking. As Murphy, Shleifer, and Vishny (1991, p. 503) point out: “A country’s most talented people typically organize production by others... When they start new firms, they innovate and foster growth, but when they become rent seekers, they only redistribute wealth and reduce growth.”

Quantity Is Not Enough—Quality Matters

Since 1980, developing countries have invested substantial amounts of public resources in education services. In the 1990s, more than three-quarters of school-age children in developing countries were enrolled

in schools, up from less than half in the 1960s. Illiteracy rates dropped from 39 to 30 percent between 1985 and 1995 (World Bank 1999a).

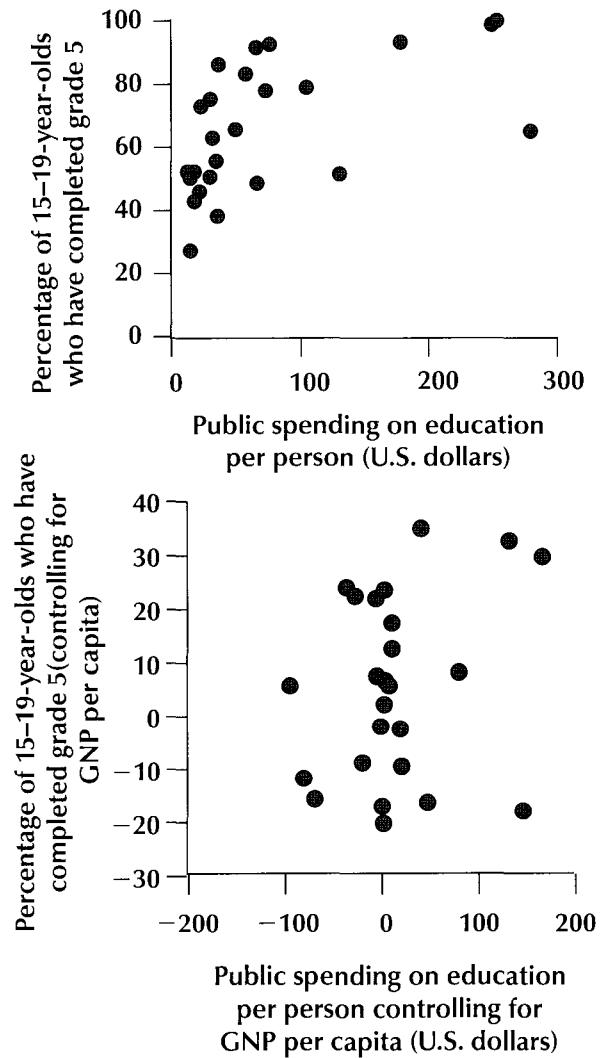
Progress has been uneven across regions. Enrollment rates fell in Sub-Saharan Africa: the proportion of 6–11 year olds enrolled in schools dropped from 59 percent in 1980 to 51 percent in 1992 (World Bank 1999a). Lack of access to basic education remains a major challenge in many countries. Increasing public spending is desirable, but not sufficient for the following reasons.

Public Spending Is Only Weakly Related to Outcomes

Cross-country analyses reveal a weak relationship between the generosity of education spending and education outcomes. Using cross-country data, Filmer and Pritchett (1999b) examined the correlation between government education spending per student and the percentage of people aged 15 through 19 who had completed grade five. The correlation appeared positive and significant at first, but after controlling for per capita income, the correlation was found to be fairly weak (figure 1). A similarly weak correlation was found between government health spending and mortality rates for children under five years old (Filmer and Pritchett 1999c).

Why is public spending only weakly related to outcomes? What makes the difference is the quality and distribution of education services and the productivity of human capital. For developing countries that already allocate a substantial share of public resources to social services, further spending may not improve education outcomes for the poor. Reallocating public spending and improving its efficacy often can improve outcomes, especially when public resources are subsidizing education for the wealthy. Economywide strategies and policies also matter: subsidies to attract foreign capital may, under certain circumstances, bias the rate of return against human capital.³ Labor market distortions create disincentives for investing in education. In addition, to be productive, people must have access to other productive assets, including land, credit, equity, and job opportunities in open and competitive markets.

Figure 1 Relationship between Public Spending Per Capita and Educational Attainment, Various Years



Sources: Education outcome data are updated from Filmer and Pritchett (1999b) combined with expenditure data from the United Nations Educational, Social, and Cultural Organization (UNESCO) database.

Note: Expenditures refer to public spending on preprimary, primary, and secondary education only. Thirty-five developing countries were included in the study.

Variability in School Quality

Despite progress on access to education, the quality of schooling varies considerably across countries and regions. An extensive literature explored how best to define and measure the quality of schooling: whether inputs, processes, or student achievements should be used in assessments (see, for example, Behnnan and Birdsall 1983; Card and Krueger 1992; Greaney and Kellaghan 1996; Lockheed and Verspoor 1991). We measured quality as a combination of indicators that reflect inputs, defined by expenditure per student and the number and quality of teachers; processes, that is, the length of school terms and the curriculum content and outputs, measured by cognitive achievements, attitudes, test scores, and dropout rates.

In high-income countries where these indicators are well developed, student achievement varies widely, even in countries with universal basic education. Functional literacy rates for young adults, 16–25 years old, in some industrial countries vary from 45 percent in the United States to 80 percent in Sweden, while the secondary net enrollment rates in these countries are all above 85 percent (World Bank 1999a).

In developing countries, where achievement indicators are scarce, less accurate indicators, such as repetition and dropout rates, have been used to assess education outcomes. Data generated by these imperfect measurements showed considerable variation in the quality of schools (table 1). Repetition and dropout rates for primary school are much lower and test scores higher in East Asia than in Latin American countries, where incomes are higher. While public education spending rose in some Latin American countries in the 1990s, average primary dropout rates also increased.⁴ Other studies, based on the limited available data on internationally comparable test scores, also show that generous public spending did not guarantee high-quality education.

What explains the large variations in quality? Education outcomes depend on both demand and supply factors, and thus on policies and incentive structures that affect the whole economy. Macroeconomic stability, represented by international terms of trade and GDP volatility, for example, is found to be the most significant determinant of educational

Table 1 Primary School Repetition and Dropout Rates, Selected Years

Country	Primary school repetition rate		Primary school dropout rates			Public spending on education (% of gross national product)		
	1980s	1990s	1970	1980	1990	1970s	1980s	1990s
Argentina	—	6	36	34	34	1.65	1.79	3.07
Brazil	20	18	78	78	80	2.95	4.04	3.60
Chile	—	6	23	24	23	4.60	4.52	2.84
Colombia	17	9	43	43	44	2.05	2.75	3.43
Mexico	10	8	11	12	28	2.90	4.06	4.45
Peru	17	15	34	30	30	3.30	3.09	3.40
Venezuela, RB	10	11	41	32	52	4.30	5.09	4.56
Average, Latin America	15	10	38	36	42	3.11	3.62	3.62
China	—	3	15	15	15	1.45	2.45	2.20
Indonesia	10	9	20	20	23	2.65	1.38	1.34
Korea, Republic of	—	—	5	6	1	2.80	3.89	3.92
Malaysia	—	—	1	1	4	5.10	6.61	5.37
Philippines	2	—	25	25	30	2.40	2.02	2.54
Thailand	8	—	57	23	13	3.35	3.58	3.88
Average, East Asia	7	6	21	15	14	2.96	3.32	3.21

Sources: World Bank data; UNESCO for expenditure data.
— Not available.

attainment in Latin America. Using data from 18 household surveys, Behrman, Duryea, and Szekely (1999) found that the debt crisis of the 1980s contributed to the slowdown in the accumulation of schooling in Latin American countries. Kaufmann and Wang (1995) found that macroeconomic policies affect social sector investment projects. As a country opens to international trade and investment, the rate of return to education rises. People demand higher quality education and are willing to pay more for it. Stronger demand, higher private investments,

better-paid teachers, and more motivated students produce higher educational achievements, with differing time lags. The higher the demand for education, the higher its quality, and vice versa. If a country devotes public resources to subsidize physical capital instead of basic education, it can bias the rates of return against unskilled labor and hurt the poor.

At the micro level, many studies have examined the links between schooling quality and student performance. Behrman and Knowles (1999) found a strong positive association between the quality of teaching staff, the quality of current inputs, and children's success at school. Hanushek and Kim (1995) found that conventional measures of school resources, that is, pupil-teacher ratios and educational spending, did not affect student test performance. In cross-country regressions, test scores were positively related to growth rates of real per capita GDP, indicating a potential feedback from growth to strong demand and good student performance. Lee and Barro (1997) found that family background, strong communities, school inputs, and length of school terms are positively related to student performance; however, they cannot fully explain why East Asian countries experienced better education outcomes than did other developing countries. That suggests that other factors may be at play, including those associated with a more open and export-oriented economic environment.

Consequences of Poor Quality

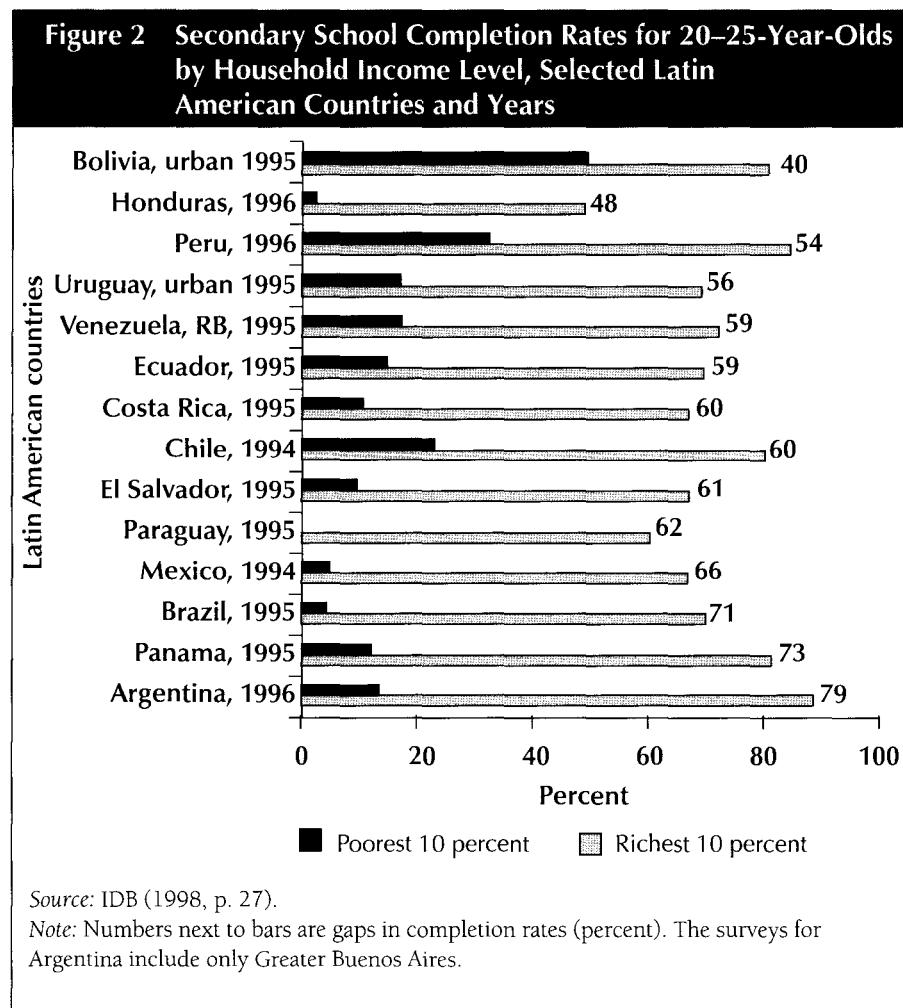
Low-quality schooling disproportionately hurts the poor and limits their future earning opportunities. For example, Vietnamese students from high-income households enjoy greater access to high-quality education (Behrman and Knowles 1999). In Latin America, most students from low-income families attend public schools, which offer half the hours of instruction and cover only half the curriculum compared with the private schools. The higher the family's income, the greater the aversion to public schools (IDB 1998).

Estimates based on household surveys from Latin America show that students from lower-income deciles received an inferior primary education. Quality, measured by students' labor market performance, was 35 percent lower for low-income students than for those at the next, higher income

decile (IDB 1998, p. 54). Figure 2 shows the enormous gaps in secondary school completion rates for the rich and poor. Because private education is feasible only for the wealthy, the poor quality of public schooling severely reduces the income-generating potential of children from poor families.

Quality and Quantity: A Tradeoff?

Improvements in quality complement the expansion of access to education. If poor children can go only to low-quality schools, they have few



opportunities to obtain high-paying jobs and parents are disinclined to send them to school. When education coverage is not universal, the best strategy is to focus on policy interventions that raise demand for both the quantity and the quality of education. For example, programs to reduce child labor and keep children in school—such as school lunches and cash stipends—would go well with teacher training to improve quality.

However, with growing populations and tight budgets, the synergies of quantity and quality can turn into tradeoffs, especially if the quality measures selected are not closely linked with student learning. What quality measure should be used for intervention? Should it be student incentives, or length of school terms, or the quality of teaching staff? Evidence shows that reduction of pupil-teacher ratios, which is expensive, has little impact on student learning (Mingat and Tan 1998).⁵ Despite the relatively high pupil-teacher ratio in the 1980s and 1990s, Korean students' average scores on international science and mathematics tests were among the highest. Spending more to hire more teachers might imply a tradeoff against wider coverage and broader distribution of education, which would be inefficient and inequitable, particularly where many children still have no access to basic education (Mingat and Tan 1998).

Achieving Equitable Education and Social Inclusion

Equal access to education and health services is among the basic human rights to which everyone is entitled. As with land and physical capital, an equitable distribution of human capital is important for broad-based growth and poverty reduction. Moreover, equitable distribution of opportunities is preferable to the redistribution of existing assets, because investing in people creates new assets and improves social welfare.⁶ Ensuring access by the poor by distributing education services more equally is a win-win policy that is gaining support in both industrial and developing countries.

Why the focus on the distribution of education? This is because ensuring access to basic education by the poor is closely related to a better distribution of education. Given limited public resources for educa-

tion, concentrating public investment on education for the poor usually implies a reallocation of public spending away from subsidies to the types of education services that benefit the rich. Such policies are politically unpopular, and many countries have been unable to implement them. However, as shown in this section, there are compelling reasons why a government should pursue such policies.

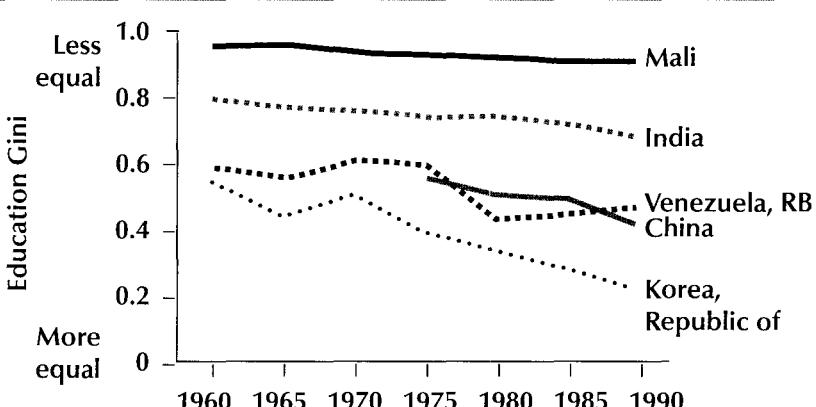
Measuring Dispersions in Education Outcomes

Since the days of Adam Smith, education has been linked to equitable social and economic progress. There is a small but growing literature on schooling inequality or the distribution of education (see, for example, Lam and Levinson 1991; Londoño 1990; Maas and Criel 1982; Ram 1990). As data became available for measuring the distribution of education, the disparities became more apparent. Using standard deviation of schooling attainment, Birdsall and Londoño (1997) investigated the impact of initial asset distributions on growth and poverty reduction and found a significant correlation between initial educational inequality and reduced income growth.

Later, researchers constructed education Gini coefficients, which are similar to the Gini coefficients widely used to measure distributions of income, wealth, and land. The Gini coefficient ranges from 0, which represents perfect equality, to 1, which represents perfect inequality. Education Gini coefficients can be calculated using enrollment, financing, or attainment data, recognizing that different cohorts in a population were educated at different times. López, Thomas, and Wang (1998) estimated Gini coefficients of educational attainment for 20 countries and found significant differences in the distribution of schooling. Korea had the fastest expansion in education coverage and the fastest decline in the education Gini coefficient; it dropped from 0.51 to 0.22 in 20 years. India's education Gini coefficient declined moderately, from 0.80 in 1970 to 0.69 in 1990. Education Gini coefficients for Colombia, Costa Rica, Peru, and Venezuela have been increasing slowly since the 1980s, showing that inequality is on the rise (figure 3).

An examination of education Lorenz curves for India and Korea in 1990 shows a great range among developing countries (figure 4). Despite

Figure 3 Gini Coefficients of Education, Selected Countries, 1960–90

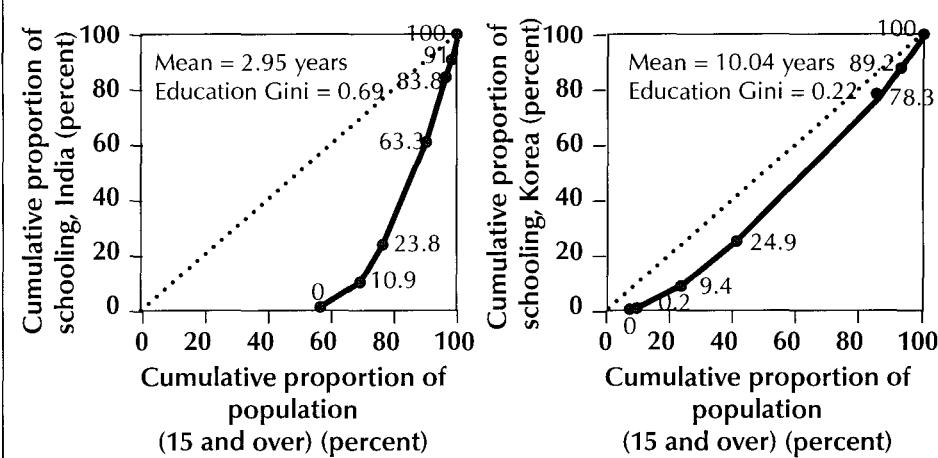


Source: López, Thomas, and Wang (1998).

progress in expanding primary and secondary enrollment in India, more than half of the population (age 15 and older) did not receive any education, while 10 percent of the population received nearly 40 percent of total cumulated years of schooling. Providing universal access to basic education remains a huge challenge for the country.

Korea expanded its basic education program more rapidly, with a far more equitable distribution in educational attainment, as indicated by a flatter Lorenz curve and a smaller Gini coefficient. Even in 1960, when Korea's per capita income was similar to that of India, Korea's education Gini coefficient was 0.55, much lower than that of India in 1990. Note that the distribution of education in Korea was more equitable than that of income, but the distribution of education in India was much more skewed than that of income between 1970 and 1990.⁷

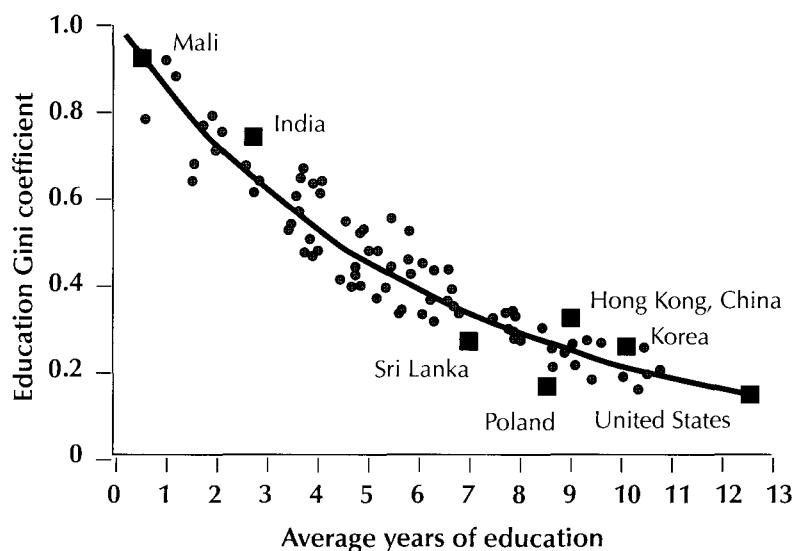
A distribution of education as skewed as that of India implies a huge social loss from the underutilization of potential human capital. Assuming that ability or talent is normally distributed across population groups, production increases to its optimum when the dispersion of education matches the distribution of human ability. When the distribution of education is too skewed to match the distribution of ability, there is a

Figure 4 Education Lorenz Curves for India and Korea, 1990

Source: Thomas, Wang, and Fan (2000).

deadweight loss to the society of underdeveloped and underutilized talent. In this case, societies would be better off to massively expand basic education, especially by improving access to education by the poor.

Examining the cross-country pattern of the distribution of education, we found that education Gini coefficients decline as the average education and income levels increase, although there clearly are other possibilities. Does the education Gini have to get worse before it gets better? As suggested by Londoño (1990) and Ram (1990), there is a “Kuznetsian tale” with distribution of education. That is, as a country moves from the zero to maximum level of education, the variance first increases and then declines. However, country analysis suggests that this may not be the case if Gini coefficients are used to measure inequality. In addition to the industrial countries, Argentina, Chile, and Ireland had relatively low education Gini coefficients from the 1960s to the 1990s. The Gini coefficient for education in Korea and some other countries declined dramatically. Only a few countries—Colombia, Costa Rica, Peru, and Venezuela—have seen a significant worsening of the education Gini coefficient. So worsening distribution of education is not inevitable (figure 5). Among 85 countries for which education Gini coefficients were

Figure 5 Education Gini Coefficients for 85 Countries, 1990

Source: Thomas, Wang, and Fan (2000).

calculated, Afghanistan and Mali had the least equitable distributions in the 1990s at approximately 0.90, while most industrial countries were at the lower end, with the United States and Poland having the most equitable distribution (Thomas, Wang, and Fan 2000). Similar to the large variations in the distribution of education, other studies found large variations in health outcomes across income groups (box 1).

Causes of Inequality in Education

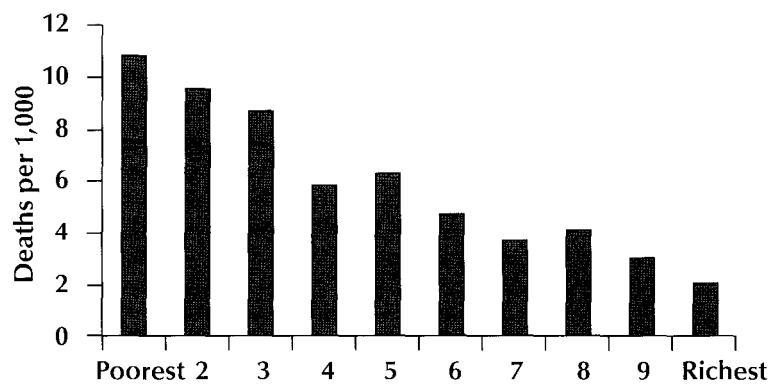
Disparities in education is one of many aspects of poverty, but they are also associated with misallocation of public investment, war, wealth gaps, gender gaps, social exclusion, and economic crises. Numerous studies found that parents' education and household income, as well as wealth, affect children's education attainments.

Wealth Gaps. Using data from the National Family Health Survey collected in Indian states in 1992 and 1993, Filmer and Pritchett (1999a)

Box 1 Health Gaps between the Rich and the Poor Are Also Large

Health gaps between the rich and the poor are as large as education gaps, which reflects the difficulties of reaching the poorest people outside the mainstream of economic life. Many studies find that the poorest of the poor are in the worst health (Behrman and Deolalikar 1988), and they are often hit hardest by wars, external shocks, and social and political upheavals. Child mortality rates among the poorest of the poor are often much higher than those among people who have higher incomes. The figure shows that in Brazil, child mortality rates were high among the poorest 10 percent of the population, and fell as wealth rose. It indicates that the poorest of the poor are in worse health than others. They suffer from infectious diseases much more than richer people do. Therefore, they are more dependent on good public policies than the rich (Bonilla-Chacin and Hammer 1999).

Box Figure Mortality of Children Two Years Old and Younger by Wealth, Brazil, 1998

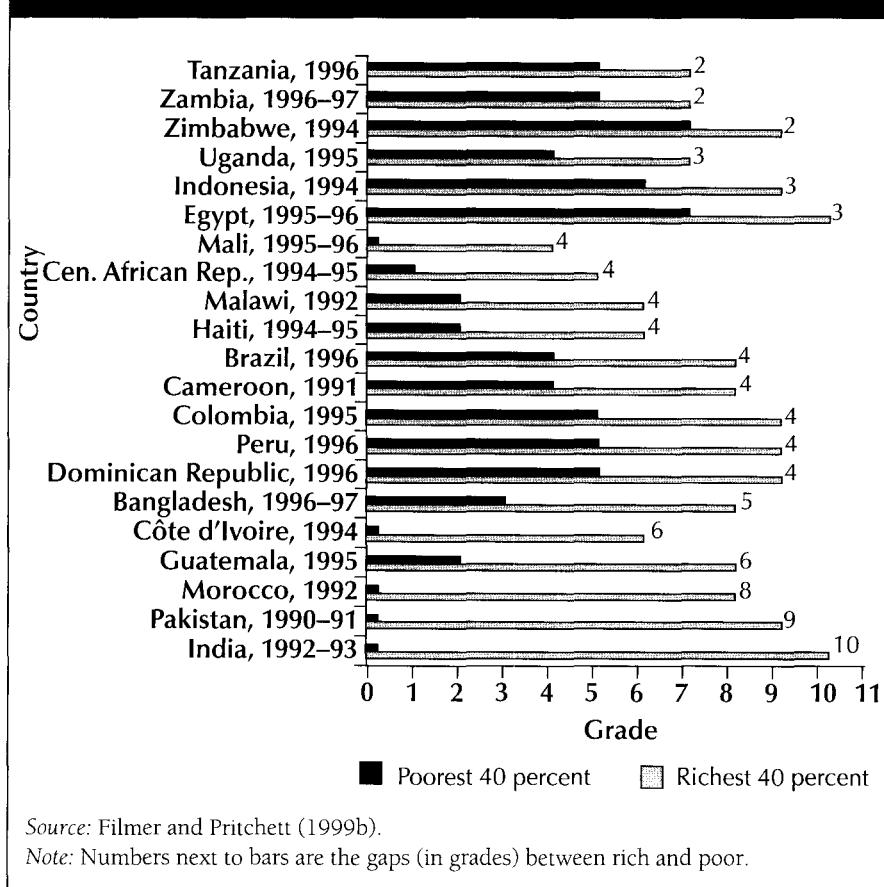


Source: Bonilla-Chacin and Hammer (1999).

found that the wealth gap, defined as the difference between the top 20 percent of an asset index and the bottom 40 percent, accounted for a large proportion of differences in enrollment rates. Enrollment rates varied from 4.6 percent in Kerala to 42.6 percent in Bihar.

In some countries, the differences in educational outcomes between the rich and the poor are staggering. A study of youths aged 15–19 in 20 countries showed that the poorest 40 percent of the population in five countries had a median of zero years of completed schooling; more than half of this group completed less than one year of school (figure 6). The education difference between the richest and poorest groups reached as high as 10 grades in India. Similar disparities in education attainment are found in Latin America (figure 7).

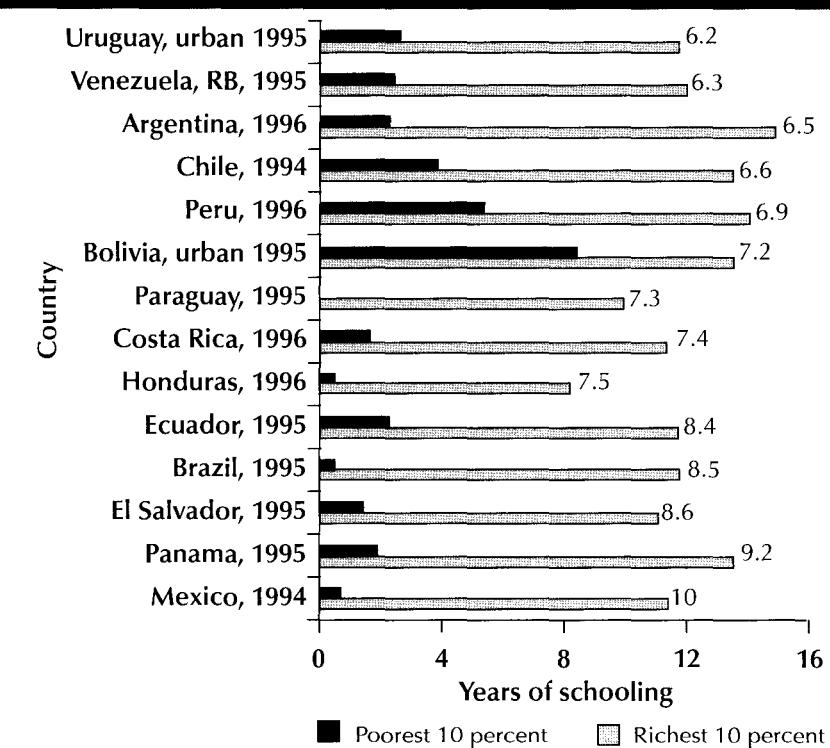
Figure 6 Median Grade Attainment for 15–19-Year-Olds from Rich and Poor Households, Selected Countries and Years



Source: Filmer and Pritchett (1999b).

Note: Numbers next to bars are the gaps (in grades) between rich and poor.

Figure 7 Years of Schooling for 25-Year-Olds from Rich and Poor Households in Latin America



Source: IDB (1998, p.27).

Note: Numbers next to bars are the gaps (in years of schooling) between rich and poor. The surveys for Argentina include only Greater Buenos Aires.

One implication of this large wealth gap is that demand for education is not independent of other endowments. Providing access to education inequalities influencing demand, such as gender gaps and the distribution of other productive assets such as land (discussed later), is important as well.

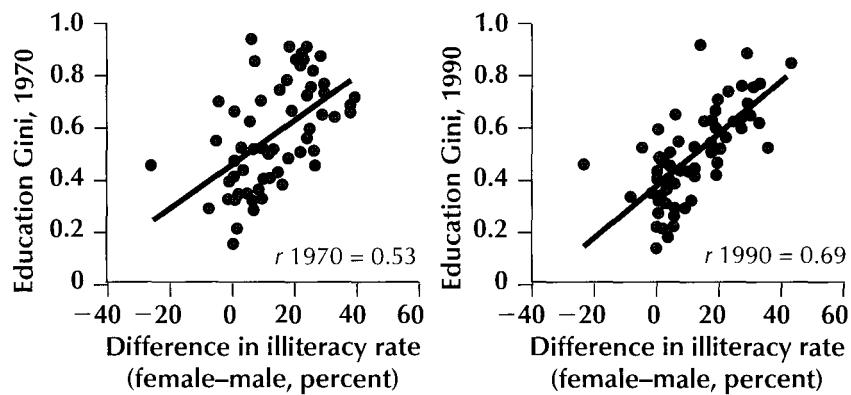
Social Exclusion. People who are excluded from mainstream society are less likely to be educated. Loury (1999) showed how social exclusion

changes human behavior and reduces the demand for schooling in inner cities of the United States. One reason that students drop out of school is because their peers have dropped out. In Bolivia, the inability of parents to speak Spanish is associated with higher mortality rates for children under two years old. In India, members of scheduled castes have higher mortality rates than other groups (Bonilla-Chacin and Hammer 1999).

Gender Gaps. In some countries gender gaps are an important cause of education inequality. Among many studies addressing gender gaps in education, Schultz (1998) found that some 65 percent of world inequality is between countries, 30 percent is between households in a country, and 5 percent is between gender inequality. Bouis and others (1998) found a significant difference in human capital investments, such as in nutrition, health care, and educational attainment, between boys and girls in the rural Philippines. In Bangladesh, which has the largest gender gap out of the countries reviewed, women's attitudes toward their daughters' education have been slow to change (Amin and Pebley 1994). However, recent efforts have resulted in encouraging progress (box 2). Knight and Shi (1991) found that educational opportunities were still unevenly distributed in China despite considerable progress. The pattern of educational attainment is affected by gender as well as by other factors, such as income of the provinces, rural-urban differences in income, and family background. Though on the decline, gender discrimination persists in China's rural areas (see Dubey and King 1996; King and Hill 1993; and World Bank 2000b for cross-country experiences).

The correlation is strong between inequality in education and gender gaps in literacy. Using a sample of 85 countries for which education Gini coefficients are available, Thomas, Wang, and Fan (2000) found that correlation coefficients between gender differences in illiteracy and education Gini coefficients increased significantly from 0.53 in the 1970s to 0.69 in the 1990s. While educational inequality declined, gender inequality accounted for much of the remaining disparities in educational attainment (figure 8). Reducing gender gaps in education is crucial to addressing the inequality in education.

Figure 8 Gender Gaps and the Inequality of Education, 1970 and 1990



Sources: Education Gini coefficients from Thomas, Wang, and Fan (2000); gender gap in illiteracy from World Bank (1999d).

Note: The figures indicate data for 85 countries.

Consequences of Large Dispersions in Education Outcomes

A society cares about the unequal distribution of education because it directly affects human welfare. Unequal distribution of education is both a source and a consequence of poverty and social exclusion. Poor children who drop out of school eventually form a core of disadvantaged citizens who will be left out of mainstream economic and social life. Unless such people can obtain training later in life to find a meaningful job, poverty reduction and social inclusion will remain out of reach.

A highly skewed distribution of education tends to be associated with reduced per capita income growth, even after controlling for labor and physical capital (López, Thomas, and Wang 1998). Unlike land and physical capital, which are tradable across firms and individuals, education and skills are not perfectly tradable. As a consequence, both the distribution and level of education enter the production function and affect the level and growth of output. Using panel data from 20 developing countries, López, Thomas, and Wang (1998) demonstrated the

Box 2 Supporting Girls' Education in Bangladesh

A revolution is taking place in schools across Bangladesh. Enrollment trends are changing and now more girls than boys can often be seen in schools.

The educational attainment of women in Bangladesh is among the lowest in the world, and the gender gap is among the largest. In 1997, the female-male illiteracy gap was as high as 23 percentage points. According to 1991 census data, only 20 percent of women could read and write, and only one in three students in secondary schools were girls.

In 1994, the government launched a program to increase support for female secondary education, to raise the female literacy rate from 16 to 25 percent, and to create employment opportunities for women. With support from the World Bank and other development partners, the program is being implemented successfully and has made Bangladesh a South Asia pioneer in this area.

The incentive program for girls, including fee exemptions and cash stipends, has generated tremendous enthusiasm for female education and has boosted the enrollment of girls in secondary schools. Girls' enrollment in the project districts is above expectations: enrollments rose every year and for every class. A total of 554,077 girls were awarded stipends in 1996, and the number was greater in 1997. In the Fulbaria Mohammad Ali High School in Savar, near Dhaka, girls out number boys four to one, a situation that was unthinkable a few years ago.

Source: Robboy (1999).

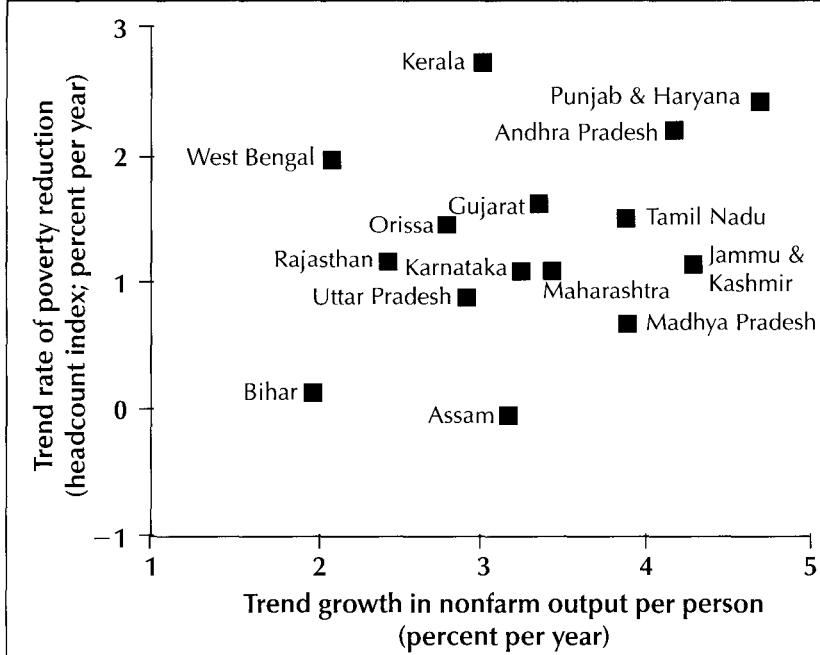
negative association between skewed distribution of education and economic growth. When a large part of the population is not educated, the low productivity of the labor force discourages investment in physical capital, and economic growth suffers.

The distribution of education also holds strong implications for the poverty-reducing impact of growth. Ravallion and Datt (1999), using data from 15 Indian states between 1960 and 1994, found that the poverty reducing association of growth varied according to initial conditions: growth contributed less to poverty reduction in states with

initially lower literacy rates, farm productivity, and rural standard of living relative to urban areas. In Kerala, where basic education is well distributed and literacy rates are the highest, for males and females, a percentage point increase in the growth rate was more strongly associated with poverty reduction.

In Assam and Bihar, which had similar nonfarm growth rates to that of Kerala, but low literacy rates and higher inequality in basic education, growth contributed little to poverty reduction (figure 9). For example, Bihar, with the lowest female literacy rate among the states studied, 29 percent, showed a 32 percent gender gap in literacy rates, and 6 million children ages 6–10 were not enrolled in school between 1992 and 1993.

Figure 9 Trend Rates of Poverty Reduction and Nonfarm Output Economic Growth in India, 1960–94



Source: Ravallion and Datt (1999).

Note: Trend rates of growth estimated by ordinary least squares regressions of the logarithms on time.

Other states, such as Maharashtra and Madhya Pradesh, had higher growth rates but lower poverty reduction rates than that of Kerala. More than fast growth, pro-poor growth is needed for poverty reduction. If all Indian states had an elasticity of poverty reduction like Kerala, poverty, as measured by the headcount index, would have fallen at a rate of 3.5 percent, instead of 1.3 percent, a year since 1960.

Improving the Efficacy of Public Spending

Markets alone cannot provide equitable access to basic education by the poor. As partly a public good, education provides positive spillovers that are not fully captured by individuals and firms. However, the market fails mainly at the lower end of the income distribution: without public investment in the education of the poor, society's investment in education would be suboptimal. Yet, as we have seen, public spending is only weakly associated with education outcomes, partly because of a bias toward the better-off. Increasing public spending is desirable, but not enough to deal with the inadequate human development outcome, therefore, we now turn to improving the allocation and efficacy of spending.

Allocate More Public Spending to the Education of the Poor

The composition of government expenditures on education and health influences human development outcomes. Public spending needs to concentrate on areas where market failure is pervasive and where positive spillover is largest: in primary and secondary schooling, especially for the poor. Given limited public resources, the balance needs to shift more toward investments in primary and secondary education. Additionally, the private sector and public-private partnerships should be encouraged to provide higher education where market failure is minimal.

Korea showed how a strong emphasis on primary and secondary education could eliminate illiteracy and reduce educational inequality. Korea allocated two-thirds of its public education spending to primary schooling in the 1960s and early 1970s (table 2). Public spending on secondary education rose from 22 percent in 1965 to 33 percent in 1990. Yet, public expenditures on higher education rarely exceeded

Levels	1965	1970	1975	1980	1985	1990
Primary	64.7	67.4	52.2	47.9	44.5	43.2
Secondary	21.8	20.9	37.1	33.8	37.7	33.1
Higher education	13.3	8.2	10.7	11.4	11.5	9.6
<i>Source:</i> UNESCO database.						

12 percent of the total public spending between 1965 and 1990. Tertiary education was mainly financed by private investments. Before the 1990s, India spent a larger share on higher education than did Korea and a smaller, but increasing, share on primary education. In the mid-1990s, India increased its spending on elementary schools and adult literacy programs from 20 to 31 percent of its total public spending on education, which was still far below that of Korea. To provide broader access to education and reduce the inequality, more remains to be done to improve the allocation of public investment in India.

Measured by public spending per student, public subsidies to higher education have been falling in many countries, but not fast enough to enable reallocation of public funds to basic education (table 3). Resource allocation is still biased against primary and secondary education in most countries. In the United States, the allocation of public spending has been balanced for more than 30 years, with subsidies to primary schooling at more than 20 percent of gross national product (GNP) per capita, the highest in the world. In Korea, due to the large number of students in primary schools, government support per student did not sufficiently emphasize primary education in the 1960s, even though more than 60 percent of total spending was allocated to primary education. This pattern was reversed in the 1980s, when public spending per primary school student exceeded that per college student. Associated with a strong emphasis on basic education, Korea was able to reduce education inequality rapidly. The United States has maintained the lowest education Gini coefficient in the world since 1965.

**Table 3 Public Expenditure per Student by Level,
1960s to 1990s**

Country	Level	Public expenditure per student (% of gross national product per capita)				Education Gini coefficient (national average, all levels)	
		1960s	1970s	1980s	1990s	1980	1990
Argentina	Primary	—	3.06	6.49	8.32	0.29	0.27
	Secondary	26.17	10.43	—	—		
	Tertiary	59.29	23.58	17.45	19.84		
Chile	Primary	6.92	6.08	12.53	9.20	0.32	0.31
	Secondary	—	12.01	12.58	8.80		
	Tertiary	151.71	67.46	79.69	23.36		
Korea, Republic of	Primary	6.21	7.86	12.79	14.86	0.34	0.22
	Secondary	8.64	7.39	10.76	11.88		
	Tertiary	36.67	28.02	10.49	5.83		
Mexico	Primary	4.34	—	3.97	7.18	0.50	0.38
	Secondary	—	—	8.61	13.93		
	Tertiary	70.72	—	32.43	35.66		
United States	Primary	22.05	28.45	26.28	19.83	0.12	0.15
	Secondary	—	—	18.77	23.86		
	Tertiary	73.73	58.84	37.85	22.91		
Venezu- ela, RB	Primary	8.50	7.37	4.80	2.39	0.39	0.42
	Secondary	21.26	17.60	18.34	7.07		
	Tertiary	121.76	100.00	65.74	37.38		

Sources: Public expenditure data are from the UNESCO database; education Gini coefficients are from Thomas, Wang, and Fan (2000).
— Not available.

Venezuela, in contrast, has favored higher education over basic education for more than four decades. While total public spending on education has increased from 4.3 percent of GNP in the 1970s to 5.1 percent in the 1980s and 4.6 percent in the 1990s, its allocation has worsened. In fact, the subsidies to primary and secondary education were reduced in the 1990s. This misallocation of public resources might partially explain the worsening of the education Gini coefficient in the 1990s.

Table 4 Public Current Expenditure per Student, India and Korea, Selected Years

Country	Level	1965	1970	1975	1980	1985	1990	1995
<i>Amount (1995 US\$ per student)</i>								
Korea, Republic of	Primary	92	207	182	386	701	955	1,890
	Secondary	—	223	134	339	541	786	1,295
	Tertiary	545	757	622	589	546	460	599
India	Primary	8	10	20	23	29	39	39
	Secondary	—	35	35	34	38	—	43
	Tertiary	—	—	—	189	227	299	260
<i>Percentage of gross domestic product per capita</i>								
Korea, Republic of	Primary	6.3	9.5	6.3	10.2	13.5	12.0	17.4
	Secondary	—	10.3	4.6	9.0	10.4	9.9	11.9
	Tertiary	37.2	35.0	21.5	15.6	10.5	5.8	5.5
India	Primary	4.3	4.8	9.2	9.7	10.6	11.8	9.9
	Secondary	—	24.9	15.8	14.8	13.9	—	11.0
	Tertiary	—	—	—	81.8	85.0	90.3	66.4
<p>Sources: Calculated from UNESCO and World Bank data.</p> <p>Note: Dollar amounts are not comparable across countries as they are not in PPP dollars, but are comparable over time.</p> <p>— Not available.</p>								

The Interaction between Demographics and Education

Public spending per primary-school-age student in Korea rose more than tenfold between 1970 and 1995 as population growth rates slowed and the economy expanded (table 4). Public spending per secondary student also rose. Rapid economic growth, together with a stabilizing and even declining student base, meant that far more resources were being devoted to fewer children, allowing dramatic improvements in the quality of primary education.

In India, rapid population growth and constraints on public funding meant that a quantity-quality tradeoff was likely to occur. In 1995, India spent US\$39 (in 1995 constant dollars) per pupil in primary schools, or 10 percent of its GOP per capita; Korea spent 17 percent (table 4). In Tamil Nadu, India, enrollment in primary and middle schools expanded

35 percent between 1977 and 1992, a major achievement, but the pupil-teacher ratio rose from 36 to 47 and school conditions worsened. Student achievement suffered as a result (Duraisamy and others 1998). These relationships point to a need to consider the interaction between demographics and education policy and a need for policies focusing on education of girls and women, education to improve reproductive health, and voluntary family planning as part of an overall development strategy centered on people (see also box 3).

Box 3 Population and Development

The link between population growth and economic development is a subject of contentious debate. The 1960s and 1970s were dominated by pessimistic, and sometimes alarmist, predictions that rapid population growth would lead to famines, resource exhaustion, deficiencies in saving, irreversible environmental damage, and ecological collapse (Ehrlich 1968). The population optimists believed that rapid population growth would allow countries to capture economics of scale and promote technological and institutional innovation (Simon 1976). In the 1980s, the alarmist views were replaced by moderated, time- and country-specific assessments of the net negative impacts of rapid population growth, which were considered to be small. Only weak or inconclusive links were found between demographic changes and economic growth (Bloom and Freeman 1988; Kelley 1988).

More recent investigations revealed fairly large, negative effects of rapid population growth and related demographic components on per capita economic growth. Kelley and Schmidt (1999) found that rapid population growth exerted a fairly strong, adverse impact on the pace of economic growth in 89 countries between 1960 and 1995. The positive impacts of density, size of population, and labor force entry were dominated by the costs of rearing children and maintaining an enlarged youth dependency age structure. Declining mortality and fertility each contributed approximately 22 percent to changes in output growth between 1960 and 1992, a figure that corresponds to approximately 21 percent of the average growth of per capita output, which was measured at 1.5 percent.

(Box continues on the following page.)

Box 3 Population and Development (*continued*)

Various components of demographic change have been successfully introduced into growth models. Bloom and Williamson (1998) showed that rapid demographic transition in East Asia led to fast growth in the working-age population between 1965 and 1990, expanded the per capita productive capacity, and contributed to the East Asia economic miracle. Other economic policies also facilitated the East Asians to realize the growth potential of the demographic transition.

Less evidence was available on the link between demographic change and poverty until recently. However, if rapid population growth has a negative effect on economic and wage growth, it would negatively affect poverty as well. Eastwood and Lipton (1999) found that higher fertility increases poverty both by retarding growth and by skewing the distribution against the poor. In addition, evidence shows that public sector programs targeted at the poor, such as basic education and health care programs, have contributed to reduced poverty. Rapid population growth will dilute the intensity of public investment, and as a consequence make quality of service improvements more difficult to achieve.

Source: Bloom and Williamson (1998); Eastwood and Lipton (1999); Kelley (1998); Kelley and Schmidt (1999).

Improve the Mix of Public and Private Spending

Korea also achieved a good mix of public and private financing in education. Since the mid 1960s, private colleges and universities have accounted for more than 70 percent of enrollments, private secondary institutions for more than 40 percent. Households assume a large share of educational costs, between 30 and 50 percent, depending on student education level. Tuition and related fees account for 40 percent of in-school expenditures for middle school, but rise sharply to 72 percent and more for high school and college students.

The most effective public-private mix depends on the extent of market failures and a variety of other factors. Higher education is crucial for technological progress and productivity growth, but it can be considered a private good, because most of the returns can be internalized

by individuals and firms. Whereas primary and secondary education have large spillover effects that are not fully captured by individuals and firms. Thus while government has a direct role in primary and secondary education, it needs to encourage private investments and public-private partnerships in higher education. The United States, for example, provides valuable experiences in this regard.

The policy environment, which can be defined by the degree of openness to trade and investment, for example, affects the demand for skilled workers and as a consequence people's willingness to pay for education. The quality of service provision for education, which is related to institutional capacities, also affects the willingness to pay. Similarly, the public-private mix in health care also depends on the nature of services and the degree of market failures in particular subsectors (Filmer, Hammer, and Pritchett 1999).

One successful intervention is the Quetta Girls Fellowship Program in Pakistan. Launched in 1995, the pilot project aimed at determining whether establishing private schools in poor neighborhoods was a cost-effective way of expanding primary education for girls. The program encouraged private schools controlled by communities, ensuring government support for three years. An evaluation analysis indicates that the program increased girls' enrollments by 33 percentage points, and boys' enrollment rose as well. Such programs offer promise for increasing enrollment rates in poor urban areas (Kim, Alderman, and Orazem 1999).

Decentralize Decisionmaking and Encourage Participation

How decisions are made also affects the efficacy of public services. Where institutional capacity is low, public spending on centrally planned and organized interventions is likely to be ineffective. Many countries are moving to decentralized decisionmaking to better match expenditures to local needs. Empirical evidence on the benefits of decentralized school management was rare until recently. A recent evaluation of El Salvador's EDUCO program (Community-Managed Schools Program) shows that enhanced community and parental involvement in EDUCO schools has improved students' language skills and diminished student absences, which may have long-term effects on achievement (Jimenez and Sawada

1999). Other studies have also shown that community-managed schools achieved better results in Indonesia and the Philippines (James, King, and Suryadi 1996; Jimenez and Paqueo 1996).

Several countries have been experimenting with voucher programs, which transfer resources to parents to help pay private school tuition. Colombia used a national voucher program from 1991 to 1997 to decentralize management and expand enrollment. The program was meant to address the deficiencies in the public education system, especially the low transition rate from primary to secondary schools by the poor. Only the poor were qualified for vouchers, which avoided subsidizing the wealthy as in previous voucher programs. Participation was a problem, however; only 25 percent of Colombia's municipalities joined the program, limiting the benefits. A careful evaluation of the program found that demand for secondary education and availability of space in private schools were key determinants of municipal participation (King, Orazem, and Wohlgemuth 1999). Such voucher programs are potentially beneficial to the poor.

In countries with corrupt and predatory governments, however, decentralizing decisionmaking may not be the answer. Corrupt officials are likely to reallocate public resources from the poor to elite interest groups, subsidizing the types of social services that benefit the rich. Empowering people to influence policy through democratization and a greater role for civil society and encouraging greater participation of the community and families are steps in the right.

Making Education More Productive

Improving the productivity of education for the poor takes more than investments in their education. To be more productive, the poor must be able to combine their human capital with other productive assets such as land, equity capital, and job opportunities in open and competitive markets.

Distribute Land More Equitably

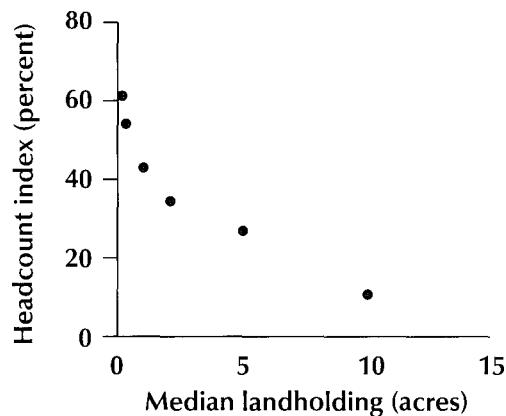
The poor are not just income poor; they also lack assets. In agrarian economies, disadvantaged households are usually landless or land poor.

In South Asia, southern Africa, and much of Latin America, poverty is highly correlated with landlessness (figure 10a). Income inequality also seems to be associated with inequality in landholding (figure 10b), although data on land ownership are weak.

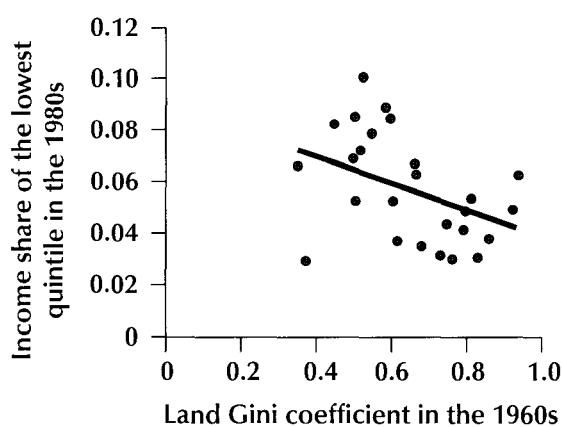
Land reform has many benefits for growth and poverty reduction, as suggested by empirical studies discussed later. In societies where a large segment of the population does not have access to the productive resources of the economy, strong demand for redistribution gives rise to civil unrest. Studies suggest that inequality in land ownership and income are correlated with subsequent lower economic growth (Alesina and Rodrik 1994); a one standard deviation increase in equality is associated with increases in growth of one-half to 1 percentage point (Persson and Tabellini 1994). Other studies showed that the initial inequality of assets, measured by land distribution, is more significant than income inequality in affecting subsequent growth (Deininger and Squire 1998; Li, Squire, and Zou 1998; Lundberg and Squire 1999). Still others have found initial land inequality, along with initial education inequality, to have strong negative links to economic growth and to the income growth of the poorest (Birdsall and Londoño 1998). In addition to being negatively correlated with growth, land inequality also appears to reduce the positive effect of human capital on growth through interaction effects (Deininger and Olinto 1999).

Redistributive land reform gives land to more efficient producers and reduces credit market imperfections, leading to improved investment decisions by the poor. Greater wealth, as measured by land ownership, also provides a safety net for the poor against external shocks and increases their ability to participate in the political process (Binswanger and Deininger 1997; Binswanger, Deininger, and Feder 1995). Ravallion and Sen (1994) noted that redistribution from land-rich to land-poor households would reduce aggregate poverty in rural Bangladesh. They also found that transfers from the budget would have the greatest impact on poverty if concentrated on landless and marginal farmers.

Widespread ownership of land improves not just equity, but also productivity (Berry and Cline 1979) and efficiency (Banerjee 1999). Better

Figure 10a Poverty and Landholding, Bangladesh, 1988–89

Source: Ravallion and Sen (1994).

Figure 10b Income Share in the 1980s and Land Gini Coefficients in the 1960s

Source: Deininger and Squire (1996).

Note: Data are country-specific decade averages. N = 27. $r = -0.40$.

land rights have facilitated investment in Ghana (Besley 1995), and possession of legal land ownership documents in Thailand has significantly impacted farmers' agricultural performances (Feder 1987, 1993). Many East Asian economies have widespread landholdings, a result of traditional ownership or land reform. In Korea, confiscated land at the end of World War II was first distributed to the tillers. Then in the 1950s the government distributed landlord properties, with nominal compensation, to 900,000 tenants, effectively eliminating tenancy. In Taiwan, China, the government obtained land from landlords in the early 1950s, compensated owners with shares in state enterprises, and then sold the land to tillers on favorable terms.

In China, the household responsibility system introduced in 1979 assigned collectively owned land to households for up to 15 years. The system, which was renewed for another 30 years in 1998, tied rewards more closely to farming efforts. Together with price and other reforms, the initiative resulted in a 5.7 percent annual rise in average grain yields from 1978 to 1984 and 1.8 percent thereafter. Nearly half of the total output increase in the period can be attributed to the household responsibility system (Lin 1992). One study found that access to land can improve nutritional status in China, because it serves both as a means of generating income and as a source of cheap calories relative to the market (Burgess 2000). Another study found that in rural China, wealth, especially land, is distributed more equally (Gini coefficient of 0.31) than income (Gini coefficient of 0.34). The main source of rural income inequality is wage income rather than the returns from land, an atypical pattern for a developing country (McKinley 1996).

Land reform is contentious and politically difficult. Market-assisted land reform has emerged in recent years as an alternative to traditional land reform, and is being implemented by Brazil, Colombia, and South Africa. The basic idea is that the state gives qualified, landless people a grant or a subsidized loan to buy land. This market-assisted approach differs from fully compensated land reform in two ways: there are neither explicit targets for land distribution nor fixed time schedules. In addition, the reforms are demand driven; people who want the land most will come forward to buy it. Some researchers contend that market-assisted

land reform has advantages, especially if combined with microcredit, extension programs, and complementary actions that facilitate agricultural cooperatives and contract farming (Banerjee 1999). The success of the programs can be enhanced if accompanied by efforts to make land markets more transparent and fluid and to involve the private sector (Deininger 1999). While it is still too soon to reach definitive conclusions on the costs and benefits of these reforms, some other studies have found that this approach benefits large landholders because land prices are likely to be bid up, requiring the poor to pay elevated prices (López and Valdes 2000).

Distribute Equity Capital and Foster Competition

A case can also be made for better distribution of equity through employee ownership plans. In industrial countries, employee stock ownership plans have been positively associated with firms' performances. Firms in the United States have used employee ownership plans in restructuring. For example, United Airlines negotiated significant wage concessions in return for a majority equity stake for employees. By communicating the benefits of the restructuring plan to its investors and employees, the company reduced the up-front restructuring cost, enhanced the effects of the restructuring, and thereby created additional shareholder value. Both investors and employees have benefited (Gilson 1995).

In countries hit by the recent financial crises, the sale of equity shares to employees may provide a way to recapitalize companies in desperate need of capital, and can also redistribute wealth and risks. Where restructuring leads to retrenchments, laid-off workers may be given equity shares in lieu of severance pay, and so benefit from the companies' restructuring and recovery. Employee ownership plans can also help reduce workers' resistance to restructuring (Claessens, Djankov, and Klingebiel 1999). Providing microfinancing to laid-off workers to establish small enterprises is another way to empower them to build physical and financial capital.

Privatization offers additional opportunities for redistributing equity. Because public enterprises were built using tax revenues, a certain proportion of the equity shares can justifiably be distributed or

sold at a discount to taxpayers during privatization. Properly designed privatization programs can reduce asset inequality and poverty. For example, using proceeds from the privatization of the six largest state enterprises, Bolivia established a pool of financial assets to fund a minimum flat pension for everyone in the country. While the amount provided is small, the program will reach the most vulnerable in society: the elderly poor who are unable to save for retirement. Hungary used its receipts from privatization to repay foreign debt, which raised its sovereign debt rating, reduced its interest payments, and benefited all citizens (Kornai 2000).

Privatization entails efficiency gains as well as social losses, and society must maintain a balance between the efficiency gains and social losses (and compensate the losers), if the gains are to be sustainable. After privatization in Mexico, there was a 24 percentage point increase in the ratio of operating income to sales. Of those gains in profitability, 10 percent were due to higher product prices, 33 percent to a transfer from laid-off workers, and the remaining 57 percent to productivity gains (La Porta and Lopez-De-Silanes 1999). To compensate those who suffer losses as a result of privatization, equity shares in lieu of severance pay could be distributed to laid-off workers, or other forms of income transfers could be financed by taxation.

Competition and regulation are vital for a market economy. The efficiency of a market economy depends on both private property and competitive markets, but many developing and transition economies lack both. Before and during privatization, competition and a regulatory framework must be introduced (Stiglitz 1999). Evidence from the United Kingdom shows that when big public enterprises were privatized, antitrust regulations were crucial to ensure transparent, equitable, and efficient allocations of resources (see also Herrera 1992). Privatizing large public firms that have a natural monopoly without first setting up antitrust regulations, as was done in Russia, can worsen the distribution of wealth and income. And it could create powerful, entrenched interests that undermine the possibility of viable regulation and competition in the future and block further broad-based reform measures (Kornai 2000).

Combine Human Capital with Opportunities in Open Markets

The urban poor must hire out their labor. Thus, the creation of job opportunities is critically important to the productive use of their human capital and to poverty reduction. The *World Development Report 1990* (World Bank 1990) proposed a strategy of broad-based, labor-intensive growth to generate income-earning opportunities for the poor. Some economies have pursued this strategy and more—they have combined investment in learning and education with openness, forming a virtuous circle. Examples include Japan in the 1950s and Hong Kong, China; Korea; Singapore; and Taiwan, China, from the 1960s through the 1980s.

The accumulation of knowledge influences a country's trade and competitiveness, and trade enhances the accumulation of knowledge, especially through imports. Lucas (1993) noted that to sustain knowledge accumulation, a nation must be outward oriented and a significant exporter. Young (1991) and Keller (1995) found that trade itself is not an engine of growth, but must operate through some mechanism, such as the formation of human capital, to affect growth.

Market openness facilitates technological progress and capacity building through various modes of learning, such as the importation of capital and intermediate goods, learning by doing, and on-the-job training. Foster and Rosenzweig (1995) found strong evidence of learning-by-doing and learning spillovers: farmers' own experiences and that of their neighbors with high-yield varieties significantly increased profitability. Farmers with experienced neighbors are significantly more profitable than others, and the spillover effects associated with learning from others are small, but not unimportant.

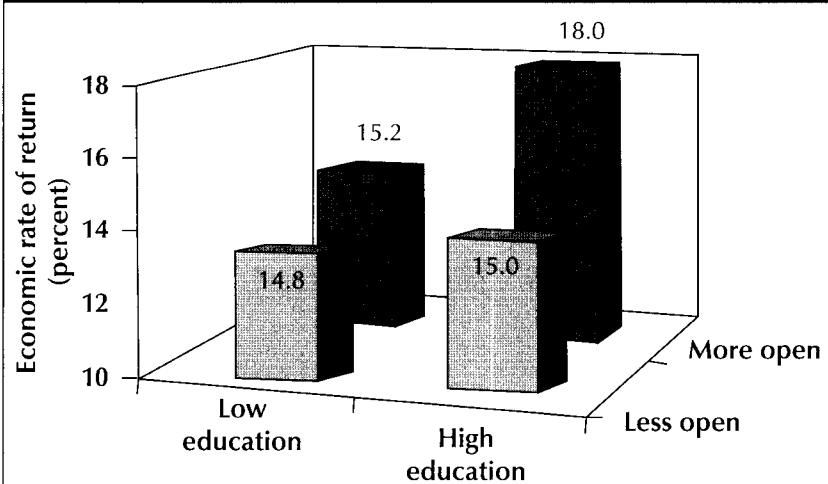
The link between overall economic policies and the impact of education is clear. The *World Development Report 1991* (World Bank 1991) found that among 60 developing countries from 1965 to 1987, economic growth rates were especially high for countries with high levels of education, macroeconomic stability, and market openness. The impact of trade openness on long-term growth thus depends on how well people can absorb and use the information and technology accompanying trade and foreign investment.

Increases in the stock of human capital tend to accelerate growth during market reforms and under an outward-oriented economic structure, but in their absence, education has no significant impact on growth. The growth effect of an interaction between openness and education was robust (López, Thomas, and Wang 1998). Similarly, for 1,265 World Bank projects, Thomas and Wang (1997) found that the rate of return was 3 percentage points higher in countries with both a more educated labor force and a more open economy than in countries that had only one or the other (figure 11).⁸

Protect Workers against Shocks

The urban poor usually lack adequate human capital for all but unskilled work. With increased openness and globalization, job opportunities for unskilled workers have become more scarce and incomes more volatile.

Figure 11 Education, Openness, and Economic Rates of Return in 1,265 World Bank Projects



Sources: Thomas and Wang (1997); annex 3.

Note: Economic rates of return are from the evaluation database of the World Bank's Operations Evaluation Department. Education is measured by the average level of schooling of the labor force, and openness by the logarithm of the foreign exchange parallel-market premium.

Diwan (1999) found that labor shares in GDP have been falling for more than 20 years in most regions. Consistent with this evidence, unemployment rates in Latin America have risen since the end of the 1980s. In 1989, only 5 or 6 of every 100 Latin Americans willing to work were unemployed; by 1996, nearly 8 of every 100 were not working.

Unemployment rose in East Asian countries hit by the recent financial turmoil, from previously modest levels to 4.5 percent in Thailand, 5.5 percent in Indonesia, and 7.4 percent in urban Korea (World Bank 2000a, p. 59). Perhaps even worse was the fall in real wages because the poor could not afford to remain unemployed. Real wages fell in 16 of 22 recessionary episodes in Latin America during the 1980s and 1990s. In 18 cases, after two years real wages remained lower than their precrisis levels (Lustig 1999). In East Asia, manufacturing real wages fell by 4.5 percent in Thailand, 10.6 percent in Korea, and 44 percent in Indonesia between 1997 and 1998 (World Bank 2000a, p. 57). As a result of both a decline in real wages and in employment growth, labor shares in GDP fell sharply following the financial crises, perhaps because labor is less mobile than capital, and so is forced to bear a large share of the financial burden of crisis resolution (Diwan 1999).

Urban unskilled workers are most vulnerable to external shocks, structural adjustment, and economic downturns. Lacking adequate human capital, they are often unable to adjust to changes in labor market demand. The problem is exacerbated by labor market distortions and weak labor market institutions that further hamper labor market adjustments. Labor market distortions need to be checked: the existence of child labor and distorted wage structures discourage demand for education. Governments need to help build labor market institutions and provide the labor market information that the poor need.

There is also the need to train or retrain displaced workers and increase their mobility across sectors. Ghana trained more than 4,000 people in vocational schools or apprentice programs, which offered instruction in such skills as dressmaking, electrification, and carpentry. Participants received certificates and tools after completing the training, giving them the human and physical capital to begin work immediately as self-employed workers. Many labor exchange centers were estab-

lished in China to retrain and redeploy displaced state sector workers in the private sector. Some of the proceeds from liquidating the assets of bankrupt state enterprises were used to redeploy unemployed workers. Such measures help to ease the rise in social tensions and inequality during transition periods.⁹

Conclusions

For growth to have an impact on poverty reduction, the assets of the poor must be augmented. This can be achieved either by investing in new assets, specifically, human capital, or by redistributing existing assets. This chapter has focused on investing in new assets by examining the quality and distribution of education and the causes and consequences of, and remedies for, large dispersions in educational attainment. When the quality of schooling is low and educational inequality is high, the poor are hurt most because human capital is often their main asset. Inadequate investment in the human capital of the poor exacerbates and perpetuates poverty and income inequality.

Improving the allocation of public expenditure in education is a key. Despite making efforts to this end, many countries have not been able to concentrate public investment on primary and secondary education. Inappropriate allocations of public expenditures have led to low average attainment per dollar spent on students, which affects mostly the poor. Governments need to reallocate public expenditure toward basic education, while at the same time enabling the private sector and public-private partnerships to increase efforts in higher education. Countries have compelling reasons to strengthen education at all levels. It can augment the poverty-reducing aspect of growth, in addition to improving welfare directly. It enables countries to participate effectively in the global economy.

Investing in education alone will not guarantee successful development or poverty reduction. Thus, this chapter went beyond education to issues related to the use of human capital, namely, the distribution of land and other productive assets and economywide policies. To reduce poverty, countries need a multidimensional strategy centered on peo-

ple. There is the need to ensure access to education and health services and distribute them well; to facilitate fuller use of the human capital of the poor; and to empower the poor with land, equity capital, training, and job opportunities made possible by opening to international trade, investment, and ideas.

Notes

1. On the importance of asset distribution, see, for example, Ahluwalia (1976); Birdsall and Londoño (1997); Chenery and others (1974); Deininger and Squire (1998); Kanbur (2000); Knight and Sabot (1983); Lam and Levison (1991); Lanjouw and Stern (1989, 1998); Li, Squire, and Zou (1998); Ram (1990); Ravallion and Datt (1999); and Sen (1980, 1988).
2. Some arguments here apply to health, but due to space limits, this chapter focuses only on education.
3. Certain assumptions apply here. This conclusion holds if there is a competitive market and two factors of production: physical and human capital. It is also true if human capital is decomposed to skilled and unskilled labor.
4. These measures, however, are sensitive to national promotion policies. Scores on internationally comparable tests represent an improvement over traditional indicators, but they are available for only a few developing countries, and they are not comparable over time. Due to these problems they are not used here.
5. The same is true for industrial countries. A study estimated the cost of different kinds of national class size reduction policies in the United States and found the operational costs could be as large as US\$2 billion a year (Brewer and others 1999).
6. There was heated debate of the “equity of what?” Sen (1980) sees individuals’ levels of functionings, such as literacy and nutrition, as attributes to be equalized. Others see the opportunities people face as the attribute to be equalized (Arneson 1989; Cohen 1989; Roemer 1993). Yet others consider the amount of resources as the attribute to be equalized (Dworkin 1981).
7. Many studies have compared income, land, and wealth Gini coefficients (for example, Leipziger and others 1992 for Korea). However, no study has compared education Gini coefficients with those of income and land. Income Gini coefficients are available only for selected years (Deininger and Squire 1996):

	1970	1977	1983	1990	1992		1970	1976	1980	1985	1988
India	0.30	0.32	0.31	0.30	0.32	Korea	0.33	0.39	0.39	0.35	0.34

8. The cross-country, project-level data set included variables on education, per capita income, openness, government expenditure, and project performance. The project data covered 3,590 lending projects in 109 countries evaluated by the Independent Evaluation Group for 1974–94, with a rating of overall performance (satisfactory/not) and economic rates of return.

9. For more discussion on labor market and social protection issues, see Basu, Genicot, and Stiglitz (1999); World Bank (1994) on old age crisis; and World Bank (2000c).

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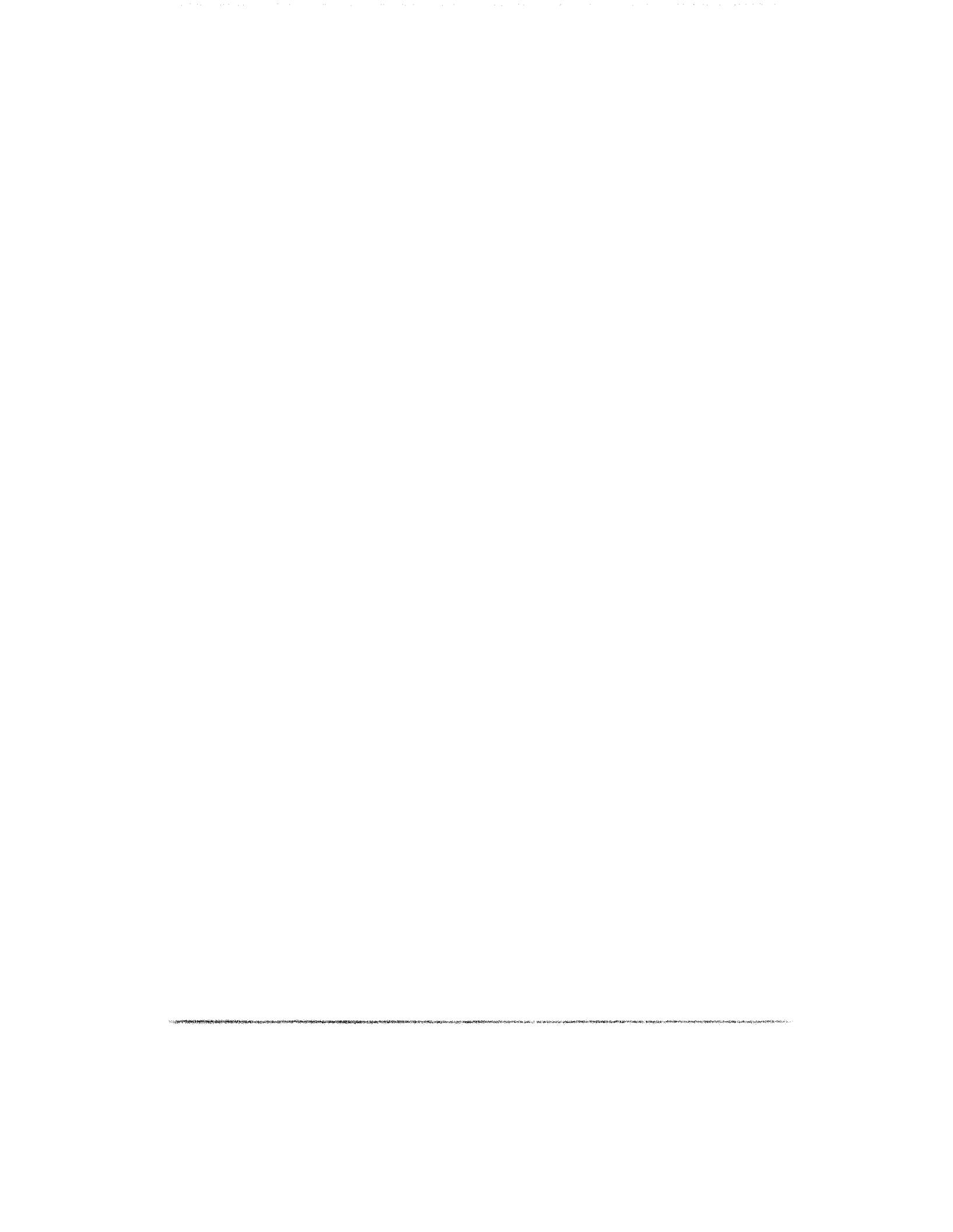
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Brazil's Agenda

by Vinod Thomas

An adequate conception of development must go much beyond the accumulation of wealth and the growth of gross national product . . . Without ignoring the importance of economic growth, we must look well beyond it.

—Amartya Sen, *Development as Freedom*

Each fall and spring during 2001–05, a Brazilian delegation led by the country’s finance minister met with the World Bank president and his team to take stock of progress. The meetings were always cordial and upbeat. Early concerns in this period were economic stabilization and the revitalization of growth. The extent and nature of World Bank support always featured in the discussion. The question was never whether there would be partnership, but rather how to shape it to fit Brazil’s needs.

The spring meeting of 2005 was the last between outgoing President James Wolfensohn and Finance Minister Antonio Palocci. The minister’s statement highlighted Brazil’s commitment to environmental sustainability, which was front and center in his comments. Acknowledging the difficulty of the issue, the World Bank president said that this was the best news he had received during these meetings.

These memorable encounters not only show the evolution of thinking in Brazil, but also provide a cross-country perspective. These discussions emphasize the comparative experiences of the large developing countries—high growth along with the need for macroeconomic stability in China and

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India, efforts to meet the challenge of good governance in Nigeria, recovery from natural disasters in Indonesia. In this international context, the great importance of Brazil and the country's reform agenda emerges clearly, as seen in the indications and interest of the incoming World Bank president, Paul Wolfowitz.

Most projections by outside experts place Brazil's prospects in the moderate range, below those of China, India, and other Asian economies. To be sure, these projections reflect the country's various constraints, as discussed throughout this book. But they also extrapolate the future based on recent trends. Past performance is not necessarily a predictor of future performance, especially in a country like Brazil, where breakthroughs appear imminent in so many areas—science and technology, trade, agribusiness, ecotourism, art, and culture. Some are traditional areas where one looks for value added; others are unique to Brazil. The reform agenda includes actions to improve social inclusion and augment the contribution of all citizens. It offers possibilities for making the most of the country's conventional and unconventional strengths, for changing course from the recent past and proving predictions wrong, as Korea did not so long ago.

Early in the new administration in 2003, President Lula hosted a one-day seminar on reform priorities with a special focus on international experience relevant to Brazil. Virtually the entire cabinet of ministers was present. Co-hosting the seminar was the World Bank president. Other international participants included Inter-American Development Bank president Enrique Iglesias, former prime minister of the Netherlands Willem Kok, and World Bank chief economist Nicholas Stern.

An hour into the deliberations, President Lula remarked that the meeting resembled the usual international forum, covering the required ground but lacking any sense of urgency or practical perspective. His intervention shook up the meeting. What followed was a sharply focused discussion of global experience with social assistance programs and the political economy of change, particularly in Mexico. If one clear priority for implementation emerged from the meeting, it was the idea of *Bolsa Família*.

The reform agenda can be broad. The question is how to set priorities and proceed with urgency. To some extent the components can be

phased in over time, but remaining open to opportunity and seizing the moment is vital. Surely this is more an art than a science. In this spirit, box 1 sets out five areas of opportunity and related reforms that Brazil is pursuing to help capitalize on them.

Investing in All Assets

As we look across all the areas affecting performance, a clear theme emerges: the need to emphasize human capital and people's welfare. While a focus on progress toward quantitative targets, such as school enrollment, is important, just as critical is a focus on the attributes of investments in human capital.

A second theme relates to physical capital and the need to achieve higher growth by improving productivity, especially that of smaller producers. An emphasis on productivity and inclusion, rather than on accumulation through subsidies to physical capital, would help to address the need for growth with equity.

A third theme concerns natural capital. Productivity is paramount: Brazil needs to use its precious natural resources wisely while also protecting them as a source of sustainable growth. It is widely accepted that countries must invest in both physical capital and human capital to grow. It is becoming equally evident that countries also need to invest well in their natural capital to grow.

Tying these three themes together to make it all happen are the institutional contributions, and in this regard it is important to ask how macroeconomic accounts are managed, how political transitions are carried out, and how natural resources are managed. These institutional connections should be recognized and supported. Furthermore, there are institutional gaps that need to be addressed: the high cost of doing business, weak coordination across sectors and tiers of government, and inadequate property rights in rural areas. Brazil can achieve its potential if it capitalizes on its institutional capabilities and turns the weaknesses around. Unleashing the power of the private sector is one step in that direction. Building on the decentralized municipalities is another. Drawing on the strength of civil society is a third.

Box 1 Scoring Goals

When you place Brazil's opportunities and constraints side by side, the question is what priorities for action are revealed. The list in the table below is the result of listening to what people have said about goals and options and then evaluating these against criteria for welfare outcomes (education, health, incomes), feasibility (such as productivity increase), the country's unique assets (human and natural resources), and the overriding role of institutions.

All the goals listed below are highly desirable and feasible over the next 15 years. But scoring goals requires a vision and a game plan that people can get behind. In many ways, each goal is also proxy for a certain stage of broader advancement that is within striking distance.

Corresponding to each goal is a priority area for action. These goals are not comprehensive, but each is a response to the question: which single direction would you press for before all others? Some of the actions, such as social security reform, require legislation and even constitutional approval; others, such as improving service quality, can be sparked by administrative actions.

Goals and Options for Brazil, 2005–2020

Goals	Areas of action
Achieve investment grade rating	Implementing the next round of social security reform
Advance in global competitiveness	Place a single-minded focus on the equality of education
Shift to greater equality	Carry out a campaign to boost impact of public expenditures
Upgrade natural assets	Enforce contracts in the states for environmental sustainability
Improve service quality	Improve the regulatory framework for energy and infrastructure
Reform the political process	Implement changes in the electoral and political financing mechanism

These goals and actions are, of course, interrelated. For example, better public spending complements an improved regulatory framework to spark private investments and growth. A shift to better quality in education together with a higher priority on sustainability leads to better use of natural resources. Political reform makes socioeconomic reform more viable and sustainable. These are some of the virtuous cycles the country hopes to generate.

In each of these aspects—human, physical, and natural capital—qualitative aspects emerge as important. That means that the reform agenda and its institutional underpinnings need to factor in the quality effects—the unifying theme of this book.

Growth and Beyond

Economic growth dominates discussions of development, as it should because of its pervasive benefits. But it is also important to focus on the broader aspects of welfare, including basic education, health, water, sanitation, shelter, and a clean environment. Even if the impacts of interventions along these dimensions are not immediately captured by poverty or income indicators, they contribute to real improvements in welfare and poverty and help to overcome the fatalistic belief that those who are born poor will remain poor. Ceará's experience in that regard could have far-reaching implications for how to strengthen poverty assessments and how to use targeted policies to improve service provision to the poor, increase welfare, foster inclusion, and redistribute consumption.

Economic growth will not be sufficient to reduce poverty rapidly in one of the most unequal countries in the world. Actions need to build on the progress already made in strengthening human capital, especially among the poor. Demographic shifts bring new challenges, such as the rising incidence of urban poverty, calling for new approaches.

What stands out in this review, with implications for other countries as well, is that a combination of growth and targeted income transfers is needed to make a significant impact on poverty. It would be worthwhile to extend the initial work mentioned here on understanding the nature and extent of welfare differences as a basis for stronger social programs.

The significance of the growth-poverty link goes even further. An inclusive approach that pays specific attention to poverty and welfare can contribute to faster growth and help to sustain it. For Brazil to achieve and maintain growth of, say, 7 percent, it will be essential to include a far larger share of the population in the production process. And in that way, effective social programs are not only good complements of growth, they are also contributors to growth.

If this is true, it calls into question some of the traditional thinking about development strategies. It used to be said that countries need to grow first and distribute later, or grow first and clean up later. The truth may be that growth and distribution and growth and a better environment go hand and hand, at least in Brazil.

More Productivity from All

Productivity growth is one of the keys to growth that is sustainable and inclusive. It can also trigger factor accumulation, which is critical to growth. The reform agenda needed to restore Brazil to a high-productivity growth track is by now quite well established. The agenda includes regulatory reform, labor market reform, and capital market reform to overcome the severe infrastructural bottlenecks, facilitate better use of human capital, and improve the use of natural capital. Some of these reforms are challenging to carry out, but real progress often requires some tough choices.

In the drive for growth, investments in capital should not be favored over investments in labor. That would only worsen income distribution, with little payoff in sustained growth. Also important is to avoid a bias against natural capital, which would impede progress toward sustainable growth. A relatively neutral stance toward all three forms of capital would enable Brazil to draw on its relative strengths while ensuring that growth is inclusive and sustainable.

The importance of and potential for productivity improvements comes through strongly in Brazil's particular circumstances, but has relevance for other countries as well. It would be useful to learn more about the relative importance of investments and productivity in the policy scenarios, their relative effects on fiscal outcomes and growth, and avenues for generating higher productivity and investments.

Sustainability for Poverty Reduction

The wealth of its natural resources sets Brazil apart from other countries. Though sometimes viewed as a constraint, Brazil's natural resources are a collection of valuable assets—some of them priceless. They are the

common patrimony of Brazil's people, making their preservation and prudent use prime considerations. Valued properly, they could be a strong force for sustainable growth with equity, Brazilian-style. Brazil will be that much richer if it succeeds in pursuing these goals successfully.

Sustainable use of natural resources would require great care in environmental management, with increasing attention to enforcement—including stronger control over illegal logging. Showing great promise are efforts to combine ecological and economic zoning with institutional strengthening, for example, in enforcement efforts in the Cerrado and the Caatinga.

Also promising are efforts to integrate environmental policies with overall reforms, making environmental measures proactive rather than remedial and mainstreaming them across sectors. Natural resource management also needs to rely more on economic incentives where possible (such as incentives to promote sustainable forest management), and less on costly, often unrealistic standards (such as for wastewater collection in urban areas).

The careful management and protection of natural resources is a key tool for economic growth and stability. Natural resource management assumes a special importance for poverty reduction and inclusive growth because these resources make up a large share of the assets of the rural poor, and environmental mismanagement harms both the rural and the urban poor.

While especially important in Brazil, a deeper understanding of the poverty-environment link could have broad implications. It would be valuable to follow up on the growth and poverty effects of alternative approaches to natural resource use in order to identify the most successful.

Political Reform

Brazil's political system, administration, and financial institutions are relatively developed and democratic. The federal contract and decentralization, with a strong role for states and municipalities, are major assets in Brazil's efforts to fulfill the aspirations of its people.

The institutional structure and political processes also slow the pace of reform, however. Some view the constitution as a stumbling block to progress and would like to see it reformed. While delays are sometimes a natural part of participatory and democratic processes, they also reflect the power of those who support the status quo. None of this is unique to Brazil, but attention to such political issues is at least as important as attention to the economic rationale of reforms.

The pace of economic reforms clearly suffered with the onset of the political crisis in 2005. Analysts agreed that, first of all, there should be full prosecution of the guilty. Second, the crisis should be taken as an opportunity to launch the much-needed political reforms.

Political setbacks, especially in a pre-election year such as 2005, are also not uncommon across countries. What is crucial is that where problems of governance and corruption are identified, the opportunity is seized to take action, as in the previous experiences of Chile, Finland, and others. Those countries that have not responded to such crises have seen prolonged political problems and economic decline.

Reforms of political processes have various facets. In light of this book's focus on economic welfare, however, a primary concern would be how political processes serve public welfare rather than vested interests. Reforms improving the rule of law, transparency, and recourse to legal and judicial processes are just some of the directions that might better align the use of public resources to public welfare rather than allowing capture by special interests.

Analysis of what needs to be done in Brazil has not been lacking (see, for example, Reis Velloso 2005; Gall 2005). The broad agenda for reform involves reducing opportunities for corruption while at the same time increasing its consequences. Analysts have highlighted several dimensions of reform. One aspect, on which some steps have been taken, relates to containing political influences in the public sector, for example, by limiting political appointments to public offices. Another has to do with electoral processes, including rules for public financing of election campaigns, transparency in the accounts of political parties, and supervision and review of political campaigns.

Brazil is among the most decentralized of countries. It also has relatively developed central institutions, such as its licensing regime. The challenge is to take advantage of the strengths at each level of government and to ensure that the country's great institutions are a force for sustainable development. For Brazil, more than for most countries, there may be much value in better integrating federal, state, and municipal agencies.

Brazil's people may be its greatest strength, but much of that strength is still untapped. Investments in human capital, which lagged in previous decades, are recovering strongly. Further efforts in this direction, to make human capital a special asset, are not only possible but also complementary to all other measures.

It will be crucial to take proper advantage of the enormous energy of Brazil's large and growing youth population. The last decade saw the largest increase in the number of young people: by 2003 there were some 34 million Brazilians between the ages of 15 and 24, nearly one-fifth of the total population (IPEA 2005). The country's civil society and its information media are complementary and positive forces. They could do much to mobilize youth, and the population in general.

One reason that efforts to generate greater participation and mobilize human resources are especially important for Brazil is that the country's financial saving rate is low. Given the debt and borrowing limits, total investment is constrained by these low savings. Reforms to generate more participation and contributions of the people, some of them discussed here, can help to relieve some of these constraints on financial savings and investment.

Meanwhile, Brazil can also augment its financial savings by dipping into its social and natural capital. Civil society is a powerful force for generating and applying all forms of savings, including through social movements, partnerships, and volunteerism (Villela 2005). Institutions, in the broadest sense, are vital for mobilizing these savings and putting them to work for development.

The nature of political and institutional reform deserves greater attention. Brazil is likely to achieve the largest gains by striking a better

balance between rules and flexibility, participation and stalemate, centralization and decentralization—issues important in any country, but especially in Brazil.

Shift to a Focus on Quality

Brazil has made good progress in setting quantitative targets in its development agenda. Impressively, municipalities track human development indicators, including those of the Millennium Development Goals. The indicators relate to goals at human and social levels as well as at macroeconomic and financial levels. The Fiscal Responsibility Law, implemented at all levels of government, is one of the most noted aspects of this broad tracking effort.

Qualitative aspects are also important. Brazil needs faster and better quality growth that is more inclusive and pro-poor, and it has the means to achieve it. Macroeconomic stability remains essential. Growth might also be faster and better sustained if the growth process were more inclusive, with greater attention to social and environmental sustainability.

Policymakers and stakeholders are coming to realize the importance of these fundamental interactions in the development process. Reflecting this realization in the policy agenda is not always easy. Progress thus seems vitally to depend on a commitment to political reform, however difficult this may be.

Tying It Together

All these many strands can be woven together into an approach that goes beyond business as usual and raises the bar for all Brazilians—with the promise of better outcomes. Each of the strands summarized below is based on discussions of individual issues throughout Brazil and on a common understanding of the initiatives that Brazil needs to undertake. The task now is to integrate them into an interrelated, ambitious, and yet highly doable agenda.

- *Stabilization remains necessary, but it is not sufficient to achieve the upside possibilities.* Government spending is high, and much can be done

to improve its composition and efficiency. Progress in this direction starts with creating greater flexibility in public resource use. Flexibility does not automatically mean more effectiveness, however. Rigorous monitoring and evaluation are needed to provide a sound basis for identifying the areas where spending can have the greatest impact.

- *Better distribution is not only a desirable end in itself but also the means to more and better growth.* There needs to be a greater focus on the quality of human development, including in education, health, and social assistance, with improvements in the quality of spending in these sectors and others. The quality of secondary education in Brazil is just one of the most noted areas for action.
- *The key to better distribution and higher growth is productivity.* Priorities and successes are often measured by how much is spent or invested. Yet it is productivity gains, not spending itself, that result in large differences in performance. Brazil needs more investments in infrastructure and other areas that will contribute to productivity gains. Coupling that with reforms in the regulatory framework, labor market, and the financial sector would not only bring higher returns to investments but also attract more investments.
- *Nontraditional approaches are vital in the search for higher productivity.* The knowledge economy could give Brazil a true competitive edge. So could complementing the usually emphasized areas such as industry with a focus on science and technology, arts and culture, and ecotourism—all areas where Brazil has uncommon advantages. Public-private partnerships and a stronger role for civil society could contribute to high-yielding initiatives.
- *It is crucial to invest in all assets, not just physical capital.* After a long period of neglect, the importance of human capital has been stressed in recent years, though quality issues require further attention. Today it is natural capital that is heavily undervalued, as reflected in the uncontrolled deforestation in some states, the pollution of water, and the degradation of coastal areas, in addition to urban problems. Market-oriented approaches that complement government policies and investments could help turn this situation around to the benefit of

all, but especially the poor. Few countries in the world could benefit as much as Brazil from a new and dynamic approach that combines environmental protection with infrastructure development.

- *Changes in policies and investments, even with a consensus, require political reform and not just administrative measures.* Administrative actions can make some headway, but real change—be it de-earmarking some revenues or reform of the social security system—depends on political and institutional reforms. Where there are opportunities for such reform, including in moments of crisis, it is essential to capitalize on them by taking prompt action.
- *Together, these changes represent a shift in the nature of the reform agenda from a focus on quantity to a focus on quality.* Both emphases are needed, and they complement each other. But increasingly, it is the quality of inputs and the quality of outputs that seem to matter. The mayors in the 2005 IBGE survey clearly understand this needed direction.

Brazil is marked by contrasts—between its wealth and poverty, its achievements and gaps, its prospects and challenges. A common refrain is that Brazil has enormous potential, that it is a country of the future. Yet an ambitious reform agenda must be started today, if tangible results are to reach the majority of Brazilians who will make this future.

If these actions are taken, substantial progress is within reach. The needed reforms go all the way from administrative improvements and economic policy changes to deeper institutional and political transformations. Their focus does not stop with stabilization and primary surpluses, however necessary these may be. Such quantitative measures can help to avoid certain problems, but they are not nearly imaginative enough to seize the opportunities that await Brazil.

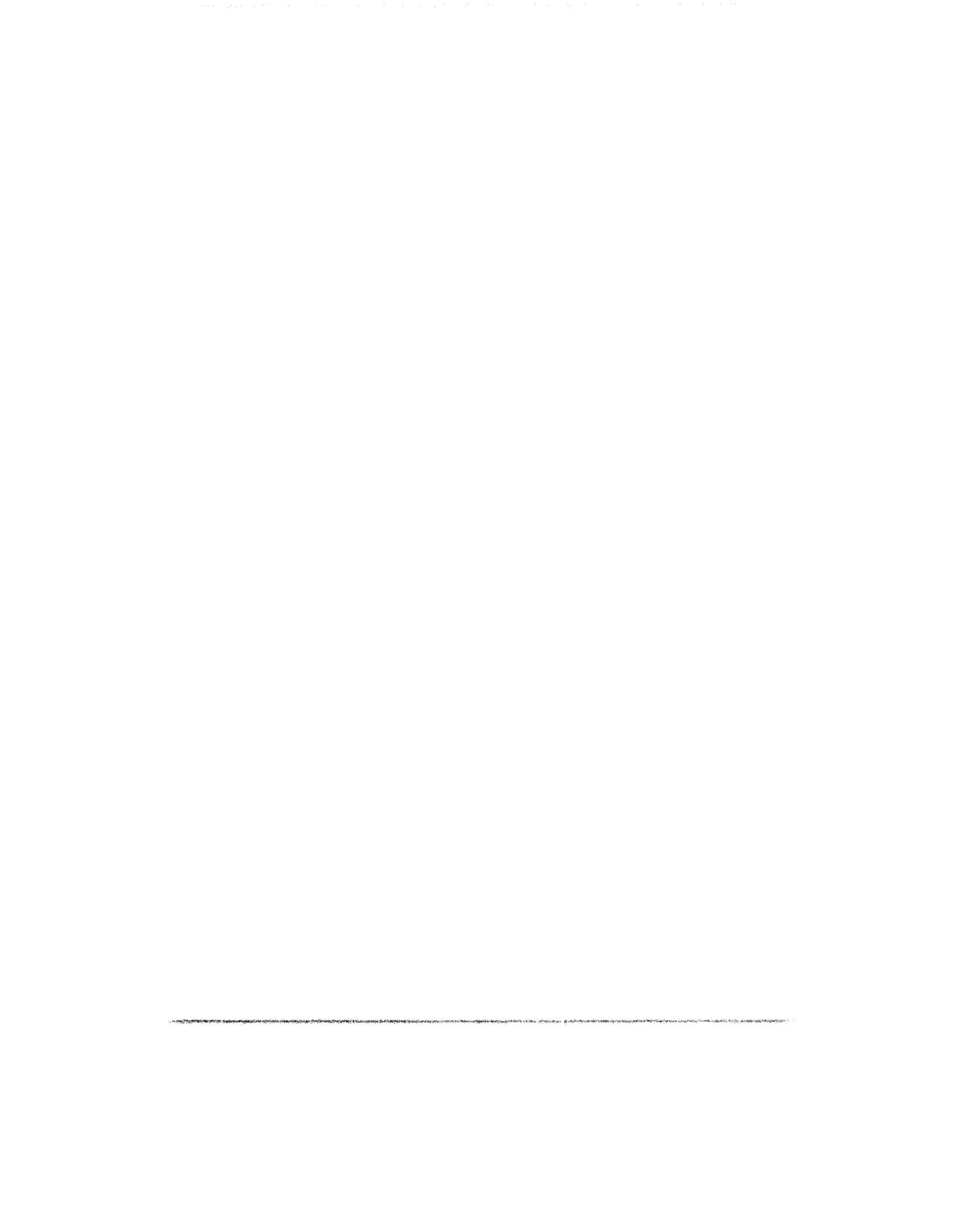
A successful development agenda will be Brazilian in nature because it needs to address Brazilian issues. Not only is the “Brasília consensus” a holistic approach to development, but it also recognizes that without greater social inclusion from the start, traditional formulas will

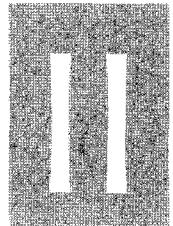
not deliver greater competitiveness and higher growth rates, let alone greater equity. The environmental and social sustainability of growth, too, would bear the Brazilian stamp, recognizing the enormous upside of valuing all the country's assets.

This is an invitation to advance Brazil's future: to recognize distribution and inclusion as part of growth, to value natural resources, to emphasize nontraditional areas of trade and growth, and to blend political and economic reforms. Doing so could mean the difference between performance that is mediocre and that which is exceptional—and exceptional in a uniquely Brazilian way.

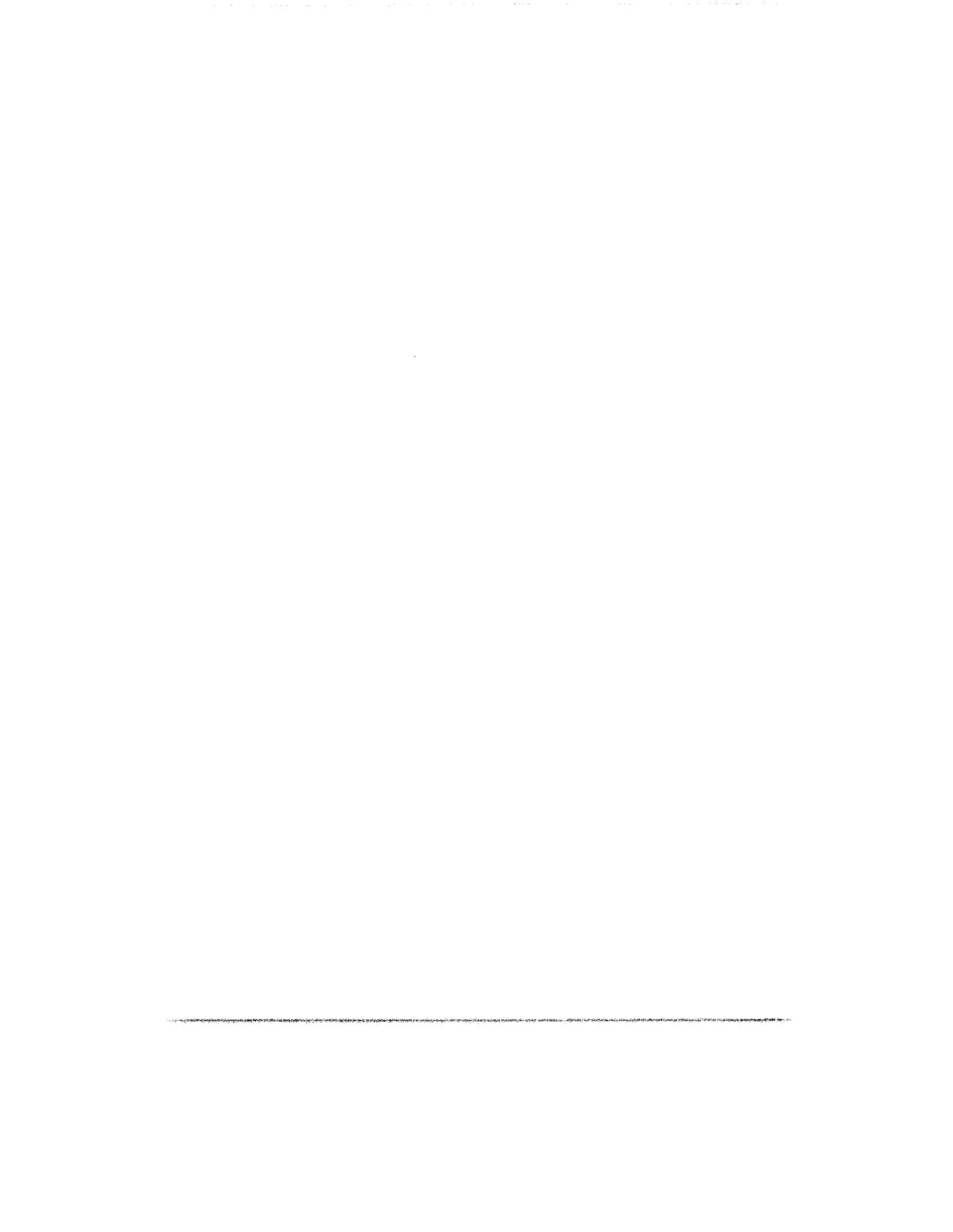
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Reflections from Outside: Contributions to Shaping the Thinking on Development



From Inside Brazil: Vinod Thomas's Vision

by Joseph E. Stiglitz

Brazil is one of the world's largest countries and a powerful economic force on the global stage. It has yet to capitalize fully on all its advantages and potential—but it is on its way.

In 2006, Vinod Thomas published *From Inside Brazil: Development in a Land of Contrasts*. Previously Brazil Country Director for the World Bank, Vinod spent three years there overseeing Bank work and development aid. He was in a perfect position, with first-hand knowledge, to discuss why Brazil had not been able to achieve growth, and how it could do so. The book is concise but rich—a model of what to do and a reflection on some wonderful experiences.

I was fortunate to have the chance to talk about the book when it was launched and to comment on Vinod's insight and knowledge about the country, illustrated so well by the book. Brazil has many lessons to teach, both historically and today. There is a longstanding joke that Brazil has always been the country of the future. But until 1980, Brazil's growth was impressive, averaging some 5.7 percent over the previous three-quarters of a century.

In one sense, one of the legacies of the recent past—of the bleak years of the 1980s and '90s—has been that Brazil and Latin America have low expectations. Many Brazilians seemed happy if the economy grew by just 3 percent, because that was so much better than the growth to which they had grown accustomed. Yet that shouldn't be the way it is. Their aspiration should be for growth of 6 percent or more.

What brought growth to an end in Brazil in earlier years is a subject of enormous controversy. Some say it was the debt crisis, some the high interest rates that the United States had when Paul Volcker, as chair of the US Federal Reserve, set to fight inflation there. Others believe it was the collapse of the

import substitution strategy. In my view, what really slowed economic growth was the debt crisis, which was precipitated by the unprecedented high interest rates, given the high level of indebtedness assumed in the '70s. The borrowing, partly induced by the low real interest rates of that period, enabled Brazil to avoid the downturns associated with the high oil prices that so many other countries in other parts of the world experienced.

Brazil has been a conundrum of sorts, and Vinod's book helps us understand that conundrum. In many ways, the country has been a model of success. Vinod described its macro stance, its taming of inflation, and its achievement of primary surpluses. Its growth in exports too has been impressive. The numbers are actually quite astounding. Between 2002 and 2005, exports doubled. That's a fantastic record. It is a 25 percent annual increase in exports. One might expect that to have led to extremely robust growth. But this didn't happen.

Some suggested that, in contrast to East Asia's export-led growth, Brazil had managed to have export-led nongrowth. The question is, why?

First, I should say a little bit about the source of Brazil's export growth. Partially, it was the high commodity prices during that period. But there was also an increase in the volume of exports.

Second, the government played a large role in some of the successes. For instance, the Ministry of Trade and Industry was active in promoting exports and took a very aggressive stance. So Brazil provides a real case of a government actually succeeding in promoting development.

Technology also played a role. Embraer is one of the largest aerospace conglomerates in the world, and it is headquartered in Brazil. This company has been a real success. In the 2000s it was one of the country's top exporters. Technology related to its work spawned the development of other products and parts and had a real impact in further development of technology.

Brazil's success in technology has other dimensions besides exports. For example, by the mid-2000s, Brazil had achieved energy independence. One of the ways it did this was by developing new technology. Brazil's cars have been ahead of the game in moving toward biofuels.

The country developed a program that will affect one of its longstanding problems: income distribution. The demand for biofuels leads to the demand for sugar. So the car industry is helping raise the price of sugar, which has risen significantly, benefitting sugar cane growers.

The question then is where the country's economy fell short. A clue can be gained by examining the ways Brazil is different from India and China and from the other countries of East Asia. That may give some insight into why export growth did not lead to growth of the economy.

One issue is equality. East Asia has among the lowest levels of inequality among developing countries. Brazil has historically been among the highest. In spite of that, the country has had great success in improving its performance as measured by several social indicators. Normally, that is very difficult to achieve in the face of high inequality—social indicators tend to deteriorate as inequality increases. So if one looks at countries where social problems (such as health and malnutrition) have persisted, they are mostly at the bottom in income distribution. If a country has a lot of people with low incomes, it is hard to get health indicators up.

Given this, Brazil's achievements in health and education are all the more impressive, considering that the underlying inequality problem had yet to be addressed. Now that inequality is being brought down—and there is still some distance to go before Brazil is comparable to East Asia on this score—there could be a virtuous cycle with progress in social indicators.

The country's high interest rates are, however, probably more important in explaining why high export growth did not lead to high overall growth. In the mid 2000s, Brazil's interest rates were the highest of any of the emerging markets, indeed of almost any country in the world. High debt and high interest rates meant that a very large fraction of gross domestic product was collected in taxes just to be redistributed to bondholders.

The effect of the high interest rates on economic growth would have been even worse if it were not for the role of the development banks, which managed to ensure that capital was made available, at least to

some businesses, at lower interest rates. But lending rates for enterprises that did not have access to BNDES—the national Brazilian bank—or to the state development banks were extraordinarily high. The high interest rates were obviously a dampener on economic growth.

High lending rates were, at least in part, a consequence of monetary policy, which had been excessively tight. Brazil spent years trying to establish credibility with the financial markets.

A third, major issue for Brazil has also been of concern to Vinod—environmental sustainability. Vinod has been very active at the World Bank in promoting an understanding of the importance of environmental sustainability. This is of particular relevance to Brazil, which has the largest rainforest in the world.

Brazil, like other tropical countries with large rainforests, has been providing an invaluable environmental service for the whole world—yet it has never been compensated for this service. The rainforests provide carbon sequestration and biodiversity. The value of these services is enormous. Though it's very hard to place a value on biodiversity, we can put a value on carbon sequestration because of the carbon trading system, which was developed to establish a way to value these environmental services.

One of the points Vinod makes in his book is that the *social* value of such services is much greater than their commercial value. Converting the Amazon Basin into farmland would generate income. But that income would pale in comparison to the value of the environmental amenities the land provides—biodiversity, discoveries, carbon sequestration, etc. Yet the world is not paying for those amenities, and without anyone receiving immediate payment for them, there is little incentive to use these resources in that way.

This is not a small point. It is a significant issue for the world, both in terms of development and in terms of environment. The equivalent of emissions from the deforestation in Brazil and Indonesia together between 2006 and 2010 will undo something like 80 percent of all the carbon emissions reduction under the Kyoto Protocol. So all that Europe and Japan are doing to reduce carbon emissions is being undone by

deforestation in these two counties. Thus, if you think that global warming is important—and anyone who studies it comes to that conclusion—this is a very serious global environmental issue.

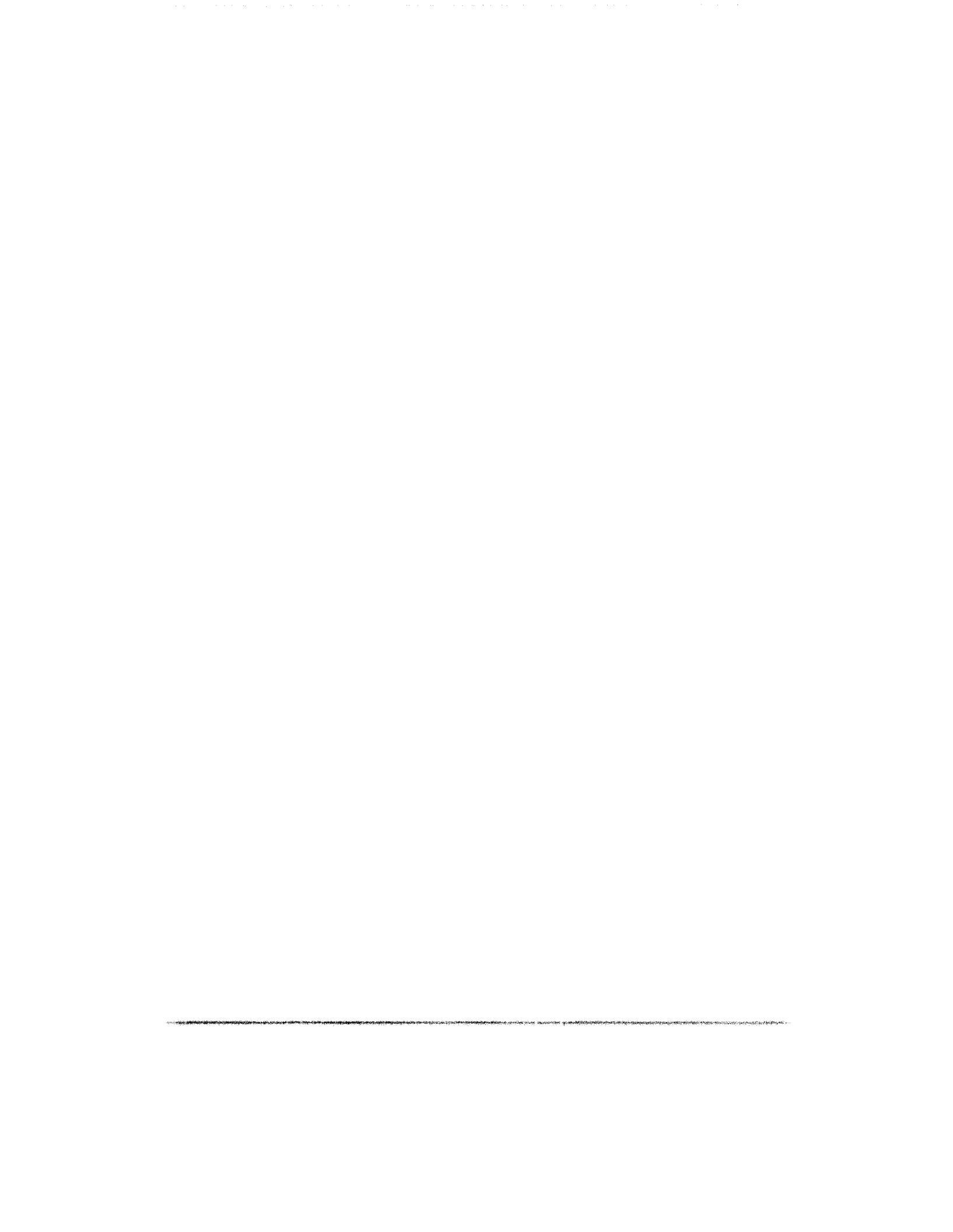
In terms of dollars, if you value not just Brazil's rainforest but all the rainforests together, the value of developing countries' carbon services is probably greater than the value of all the foreign aid these countries are getting today. So if the countries were compensated, it would double the level of foreign aid. This is clearly both a global environmental issue and a global financial issue.

Unfortunately, if the incentives aren't in place, the rainforests won't be preserved. One of the problems is that the Kyoto Protocol made a critical mistake: it provided incentives for countries to plant forests for carbon sequestration and for developing a carbon trading system, but it failed to address deforestation. As a result, there are more incentives for cutting down forests and then replanting them than for leaving them alone—quite frequently a far more environmentally valuable state.

It is imperative that Brazil's voice be heard on this issue. There are obviously some special interests inside Brazil that oppose this; they want to get the land at a below-market value, and they want to engage in what they won't call deforestation, but commercialization. But although some special interests within Brazil may gain from such commercialization, too often the country as a whole does not—and the world will be deprived of the invaluable environmental services of the rainforests.

Preserving Brazil's rain forests is extremely important for the country's sustainable development. This sustainable development is, in turn, essential for its egalitarian development—and equality, as noted earlier, is one of the large issues Brazil faces today.

Vinod's expertise on Brazil and his book set the stage for an interesting and vital debate on one of the most fascinating countries in the world. What's wonderful about his book is that it gives you a flavor of the richness and complexity of the country and the problems that it faces.



Brazil – Vision of a Developed Country and the Economy of Knowledge

by João Paulo dos Reis Velloso

Based on all this, let me mention my main conclusions about Brazil at the outset. They are threefold. First, the country has among the best prospects in the group of large world economies, based on its human, natural, geographic, and institutional strengths and potential for building on them. But second, realizing this potential requires strong and urgent actions by the government and Brazilian society in a second phase of reforms that is focused on the quality dimension. And third, while this reform agenda is ambitious, covering a number of areas, it is at the same time realistic and pragmatic, because progress in one area feeds progress in others in a virtuous cycle.

Vinod Thomas¹

Having been an economist in Brazil and holding various government positions there, I have a vision for the development of the country. As the head of the National Forum, which seeks solutions to economic problems in Brazil, I believe these ideas are strong and in line with visions that Vinod has had during his career.

Vision of a Developed Country

Idea: The Great Transition

Our proposal is to transform Brazil from an emerging country into a developed country, in two or three decades. It is our legacy to the next generation.

How? Brazil would have to advance, fast and continuously, in that direction, being as competitive (economically) as the main emerging countries, like China

and India. And it will have to be more advanced than those countries in a number of ways: socially, politically, culturally, and ecologically.

This is the Great Transition.

Is it feasible? Yes—but difficult. We have failed before. In the 1970s we were competing with Korea. Today, Korea is a developed country. Brazil is still an emerging one.

The Pillars (Noneconomic Factors)

There are just a few noneconomic pillars for this Great Transition:

- I. An active and modern society. Bertrand de Jouvenel said, “A society of lambs tends to generate a government of wolves.”
- II. A modern political system. This is indispensable to democracy and development.
- III. Quality education for all, at least up to the high school level.
- IV. High priority given to the entrepreneurial spirit. This applies to both micro and small business.

The Development Strategy: Taking Advantage of the Knowledge Economy to Develop Great Opportunities

Modern Development: “The Economy of Knowledge”

The modern economic paradigm is the economy of knowledge. Why is knowledge so powerful? It is cumulative and inexhaustible. The model for Brazil, derived from the World Economic Report of 1998/99 (*Knowledge for Development*), encompasses three dimensions:

- I. Taking knowledge, in all forms—higher education, R&D, generic technologies (information technology, for example), specific technologies (sectoral), process engineering, product engineering, modern methods of management, design, logistics—to all sectors in the economy, including agribusiness, modern mining, and oil/gas.
- II. Eliminating low-technology sectors. The intangibles will be taken to the whole economy.

III. Taking knowledge, in all forms, to all segments of society, even low-income segments.

The meaning of these dimensions? No form of exclusion will be accepted.

The consequence of these dimensions? Comparative advantages will tend to be created.

Knowledge (and institutions) will constitute the bulk of total factor productivity (Solow's Residue) and total factor productivity will become a development variable and an instrument to accelerate development.

Using the Knowledge Economy to Develop Great Opportunities

With the Knowledge Economy, Brazil can:

- I. Transform the natural resources sectors—in which Brazil is very rich²—into areas of medium and high technological contents.
- II. Develop, selectively, certain segments of advanced technologies.

The bottom line: There is no dichotomy between natural resources and advanced technologies. Using the “modern endowments” of the knowledge economy, it is possible to transform natural resources into an asset for the economy and, sometimes, into a springboard to reach areas of advanced technologies, as some Scandinavian countries did.

The Knowledge Economy and Great Opportunities

Priority Opportunities

The point, then, is that the Knowledge Economy creates the conditions to develop several great opportunities that, taken as a whole, will transform the economy and lead Brazil along the route of development.

The main opportunities include the following:

- I. Universalizing innovation and technological progress (competitive large companies and modern small business)—“innovation as the strategy of the company, not one of the strategies.”

- II. Using “pre-salt” oil to transform the Brazilian economy (through the construction of a large industrial complex around it; it will include sectors like nanotechnologies). This would provide both opportunities and challenges.
- III. A new energy matrix for Brazil. The emphasis would be on increasing the share of hydroelectric power and on a new system of mass transportation for large cities (subways and suburban trains).
- IV. Having a strategy for development of the electric car in Brazil.
- V. Transforming potential into opportunity—biotechnology on the basis of biodiversity (Brazil has the largest biodiversity of the world—but uses only 1 percent of it).
- VI. Using the “Scandinavian model” to build large industrial complexes around natural resource sectors (agribusiness-agroindustry, modern mining—metallurgy, oil-petrochemicals). There has to be a cluster of industries around the natural resources sectors.
- VII. A bioeconomy—mainly a new stage in the development of bioenergy (second generation ethanol, bioplastics).
- VIII. A strategy for the development of technologies of communications (including “cloud computing”).
- IX. Development of organic electronics, aiming at organic chips.
- X. A strategy for the development of modern small business (for exports and innovation).
- XI. Development of “creative industries” (culture, arts, and entertainment).

Essentially, transforming these opportunities (or most of them) into reality has now become feasible. And this makes Brazil one of the most promising candidates in the developed world.

Social Development and Poverty

The main point is to have a social development strategy that defines two priority social objectives for the next decade:

- I. Elimination of extreme poverty (not enough family income to cover food expenses).
- II. Reduction of 50 percent of those living in absolute poverty (not enough family income to cover basic needs).

The Transforming Power of Culture

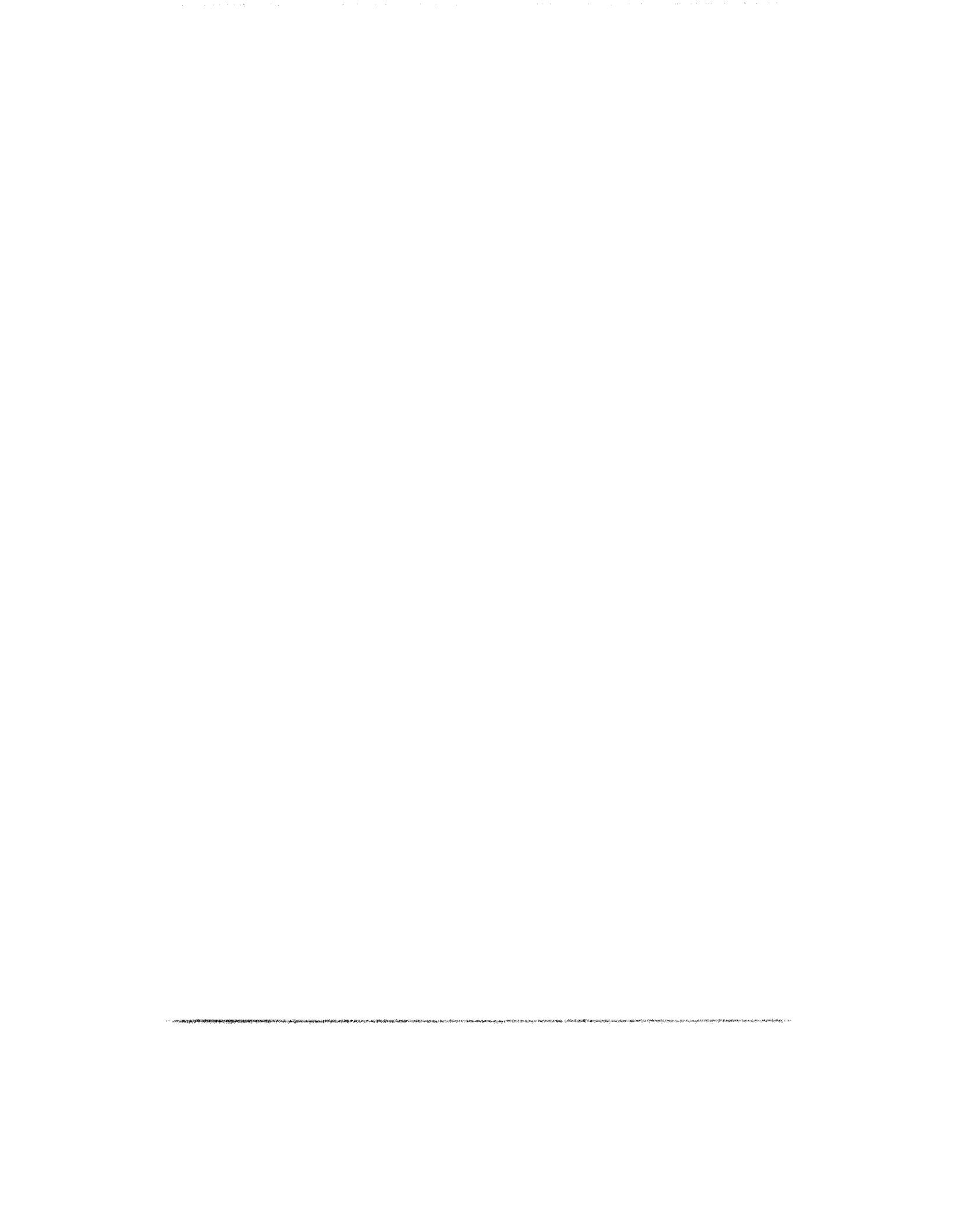
Without cultural development, there is no development. It is the “joyless economy.”³ Cultural development and cultural inclusion bring an “economy with joy.” Even the poor, in *favelas* (slums) demand culture.

Then, there is a need to support “creative industries.”

The Global Opportunity here: Generating a “green GNP” (“green agriculture,” “green industries,” and “green services”) to transform Brazil into an ecological power.

Notes

1. *From Inside Brazil—Development in a Land of Contracts*, by Vinod Thomas, Stanford University Press, 2006.
2. “Nature was, perhaps, too prodigal with Brazil” (*The Economist*).
3. Tibor Scitovsky, *The Joyless Economy—The Psychology of Human Satisfaction*, Oxford University Press, New York, 1976.



Vinod Thomas and the Colombian Economy

by Roberto Jungsuito

This book on Vinod Thomas's achievements during his professional career at the World Bank and particularly during his recent experience as head of the Independent Evaluation Group cannot be published without including at least a note on his early and very important contributions to policymaking in Colombia during the mid 1980s. That was the period of the Latin American debt crisis and a juncture where the country was near to a balance of payments crisis and had to undertake significant structural reforms in order to reestablish economic growth and regain access to the international capital market.

At the time, Vinod had been assigned as a young economist to the World Bank mission to Colombia. Perhaps it was his first experience as a policy advisor in economic issues in a foreign country. His responsibilities as an economist were very large, because Colombia listened to the World Bank's policy advice more than the International Monetary Fund's, and Vinod, though not formally, was in fact the Bank mission member who was able to get the full confidence and support of the Colombian economic authorities.

What all of us—the Colombian economists in government at the time (I was then Minister of Finance of Colombia during the Administration of President Belisario Betancur)—appreciated most about Vinod was his capacity to suggest very practical and down-to-earth policies based on rigorous macroeconomic principles that we had all learned in graduate school. We were also impressed by his ability to explain complex economic analysis in simple and intuitive terms. It is no surprise, then, that years later he excelled as Director of the World Bank Institute.

Even though Vinod, at the time, helped in the early design of a structural reform strategy, which was later discussed with the International Monetary

Fund and presented to the Colombian Congress and to the international financial community “banking committies” at a period when lending to Latin America had been closed, the example that I would very much like to bring forth regards his policy advice on one particular issue: agricultural policies.

Vinod's major contribution was convincing Colombian policymakers and congressmen that we had to abandon our highly protectionist agricultural policies, which were based on high tariffs, import licensing, government interventions, and price controls, and to reorient agriculture to the export markets through appropriate macroeconomic policies. Though from the theoretical viewpoint, we tended to agree with Vinod's views, we were extremely reluctant to dismantle and reduce protection in the face of the very low international reserve position of the country. His solution came about with his suggestion to undertake a significant World Bank sector loan, which provided balance of payment support with the conditionality of dismantling the high protectionist stand.

His book *Linking Macroeconomic and Agricultural Policies*, published in 1985, explains clearly the Colombian agricultural policies at the time and Vinod's suggested way out. It was a key contribution to the understanding of Colombian agricultural policy and to economic development.

Urbanization and Globalization in the 21st Century: Emerging Challenges

by Rakesh Mohan

I spent the first 15 years of my professional life thinking about and working on urban issues; it is now almost as long since I had occasion to work directly on the urban problem. My pursuit of urban issues in those earlier years overlapped with the interest of Vinod Thomas in the subject. In fact, the two of us started out together in the urban economics division of the World Bank more than three decades ago. We share some of the best recollections of our professional lives.

Looking back, I am reminded of the enormous strength of that urban division, the likes of which I have seldom seen since. The issues we grappled with are still with us today, even if in different forms, and the insights we gained remain highly relevant, even seen through lens of the 21st century. So I am pleased to have the opportunity to think back and reflect again on the issues of urbanization. The crucial questions concern the prospects of urban growth over the next 30 years or so and the key challenges that must be confronted.

Urban Growth in the Next 30 Years

Let me start with a quote from the UN Population Fund (2007): “People intuitively perceive the advantages of urban life. This explains why millions flock to the cities every year. Yet many planners and policy makers in rapidly urbanizing nations want to prevent urban growth.” The truth in this observation is borne out by the truly epochal change that we are going through today. For the first time in human history, more people live in urban areas than in rural.

Apart from the statistical, demographic aspect, I would presume that as the majority of the world begins to live in cities, attitudes toward cities will change. The best contribution is indeed to change the views of academics, analysts, policymakers, donors, nongovernmental organizations, and the like, toward a more positive welcoming attitude to urbanization and urban growth: only if this attitudinal change takes place can we begin to think constructively about all the serious problems that we are likely to face and then have a chance of solving them. We must change our attitude from being afraid of urbanization to preparing for it.

The starting point for justifying this perspective must be the realization that, despite unprecedented urbanization over the last 50 years, and indeed the whole century, overall welfare has actually increased in almost every dimension that we can think of: income growth, reduction in poverty, access to services, electricity, telecom, water, sanitation, education, and health. Never before have as many people had the kind of access to services as they have today. For example, even Mumbai's pavement dwellers have access to the city's municipal schools. And they certainly have better access than where they came from. But, of course, we have a long way to go.

Geographically, the focus of change will now be Asia and Africa. Europe experienced rapid urbanization in the 19th and early 20th centuries. North America followed with some lag; Latin America followed suit in the second half of the 20th century. The 21st century will truly be Asia's urban century. By 2030, about 55 percent of the world's urban population will be in Asia.

What is also interesting is that about 16 percent will be in Africa—about equal to Europe and North America combined. So the focus of our deliberations in relation to shelter, water, sanitation, and everything else connected with urbanization will have to be on Asia and Africa: and these two regions themselves contain great complexity as well as heterogeneity.

Widespread, all-pervading urbanization is a truly 20th century phenomenon. Although we have evidence of cities in antiquity, such as Memphis, Babylon, Thebes, Athens, Sparta, Mohenjodaro, and Anurad-

hapura, among others, there is little evidence of widespread urbanization in the early years of civilization. Rome was perhaps the first city to reach a population of 1 million around the time of Christ. Only in 1800 did London become the second city to reach this size.

In 1800, only 2 percent of the world's population was urbanized. By the year 1900, only about 15 percent of the population—about 250 million—lived and worked in urban areas, fewer than the total urban population of India today, which itself is a tad less than 30 percent of India's total population. Over the next 100 years, the 250 million became 2.8 billion, almost 49 percent of total population; so the pace of urbanization in the 20th century was truly unprecedented, and it is a wonder that the world has coped as well as it has. The last 50 years have been truly remarkable in terms of the number of people who were absorbed by the world's cities.

In the first half of the 20th century, the total accretion to urban population in the world was only 500 million. During the next 50 years, from 1950 to 2000, as many as 2.1 billion people were added to the world's urban areas. The important point that I want to make through this brief historical sketch is that the first 30 years (2000–2030) of this century will witness a similar addition of 2.1 billion people or thereabouts, so the pace of addition in terms of magnitude is again totally unprecedented. And two-thirds of these will be in Asia.

Now that we have a grasp of the magnitudes; we can go forward to speculate on what the new challenges that we face will be.

Globalization

With free trade and globalization, along with the “death” of distance, prices of traded products have almost equalized across the world. The price of most goods is not dissimilar across most of the world. What then provides the source of advantage to any country? It is the relative productivity of cities that will provide the key source of comparative advantage to each country. Thus globalization has added further focus to the importance of city-level efficiency.

The staggering change that took place over the last 50 years is likely to be compressed in the next 30. Those countries that are not able to make their cities efficient and productive will lag behind. What can we learn from the developments that have taken place over the last 30 years or so in Asia? Who would have thought that North Americans and Europeans would begin to fear the juggernaut of Asian productivity and efficiency? How has this efficiency been achieved?

A key feature of this rapid gain in economic efficiency in Asia that is little appreciated is that this efficiency has been achieved mainly through the efficiency of its leading cities. The rapid economic growth of Asia in the last half century must be among the most spectacular periods of development in recorded human history. What have been the characteristics of this growth?

Starting with Japan, a common feature of Asian economic strategy has been the heavy concentration of economic activity in and around coastal regions. In Japan, infrastructure investment was concentrated in the Tokaido region—the Tokyo-Nagoya-Osaka Corridor. More than 60 percent of its urban population was concentrated in this region by 1970. In South Korea, there was similar concentration of urban infrastructure and transportation investment in the Seoul/Pusan regions. By the mid-1970s, 70 percent of the South Korean urban population resided there. In Taiwan, a similar strategy was adopted in the development of Taipei/Kaohsing. This was followed by Singapore and Hong Kong as city states, Jabotabek (the Jakarta region) in Indonesia, Bangkok in Thailand, Kuala Lumpur and environs in Malaysia, and finally in the coastal regions in China. The result is a mega urban corridor stretching from Tokyo to Sydney through Seoul, Taipei, Shanghai, Hong Kong, Kuala Lumpur, Singapore, and Jakarta.

Through this strategy of concentration and contrary to popular wisdom, these countries probably achieved great economies of scale in the provision of urban infrastructure and services. Great economic efficiency was achieved through the proximity of many activities: agglomeration economies and scale economies. Distance got killed—both within the respective countries with regard to economic activity and across borders. Thus, the great manufacturing engines of South East Asia got intertwined with each other and across the Pacific with America. This contributed to

flattening of the world. Tom Friedman (2005) shows how the world is inextricably intertwined through this concentrated urbanization: a good deal of off-shoring of production is concentrated in Asia. India has carried this concept further through concentrating its service activities in a few inland cities: it has turned the concept on its head by killing distance through satellites and jumping inland.

One consequence of this emerging urban pattern is that the traditional notions of a city deriving from and servicing its hinterland have become obsolete. Now, with low transportation and communication costs, cities are more likely to be linked with their counterparts across borders than with their own hinterlands. The source of their comparative advantage is to be found within, not from their hinterlands. This is not dissimilar to the thriving city states around the Mediterranean in medieval times.

New Challenges of Globalization for Cities

The lesson that we learn from Asia is that we must focus on city efficiency. Our traditional notions of city efficiency are focused on the provision of efficient infrastructure, such as water, sanitation, sewerage, urban transportation, power, and communication. This focus will indeed have to continue. What Asia has shown is that we can economize on this through concentration of economic activity. I will return to some financing implications of this investment in hard, physical infrastructure a little later. What then is new about globalization with respect to cities? I believe that now we will have to focus as much at the city level on what might be called softer areas of infrastructure. What are these softer areas? And what do we need to do?

Knowledge: With a good deal of world output having become disembodied—witness the increasing share of services in world output—the key to city efficiency and comparative advantage will be the generation of knowledge. It is no accident that cities have been the cradles of civilization. Face-to-face interaction, argumentation, and debate form the sinews of knowledge generation. Tokyo hosts 113 universities, and Beijing 59. Similarly, Hong Kong, Singapore, Seoul, Kuala Lumpur, and Bangkok are all attempting to ramp up their higher education and research

activities. Similarly, it is no accident that the Indian cities that have prospered over the last decade and a half, such as Bangalore, Hyderabad, Pune, Chandigarh, Chennai, and Delhi, all happen to be well endowed with educational institutions and research facilities. So conscious generation of knowledge activities will be crucial to the welfare of cities. Such knowledge activities encompass the location of colleges and universities, research laboratories, art, and cultural institutions alike.

Vocational Education: But it is not just tertiary-level education that is important. Both service and manufacturing activity need a great deal of technical support. With machines now increasingly embodying information technology, and service activities of all kinds also dependent on such technology, the days of unskilled labor are numbered. Thus, tertiary education and research and development themselves need a solid base in facilities for active vocational education. Bismarck in the 19th century recognized this and began the famed German vocational education system, which greatly enabled Germany to catch up in the latter part of the 19th century and then set new standards for productivity growth. So cities that actively focus on vocational education will win: public-private partnerships here are a must and provide huge opportunities for innovation. The generation of employment activity in cities is a must, but this will increasingly be skill based.

Secondary/Primary Schooling: Needless to say, vocational education and higher education cannot thrive without a solid base in secondary and primary schooling. Once again, the key to success will be ramping up quality in school systems from the bottom to the top. With great progress having been made over the past half century in literacy, it is now time to turn to quality enhancement. In developed countries, with their demographic transition to increasingly ageing societies, existing schools will get fewer customers. In developing countries, it will be the opposite for some time.

Health: Despite the ravages wrought by high densities of urban population, it is still true that the health of even the urban poor is better

than that of their rural counterparts. With more than half of the world's population in urban areas, it is now that much easier to provide better quality health services in a concentrated manner.

With the Asian urban population expected to double in the next 30 years, there is a great opportunity to improve overall health—in Africa as well. We will need to focus on the provision of both public health and curative services. I mention these education and health issues in particular, because concentration of population in cities is highly conducive to the delivery of these services. Furthermore, globalization and technical change are rendering the unskilled obsolete—hence the need for a specific city focus.

Urban Amenities: One issue that has received little attention in the accelerated urban growth of the past 50 years is the provision of urban amenities. This is what sets apart the great cities of Europe—London, Paris, Rome—from those elsewhere, especially those in the developing world. One consequence of globalization is that there is now vastly increased transborder mobility of the professional classes. Among other things, this is resulting in two important consequences. One, people are demanding international salaries wherever they are, thus probably leading to higher inequality.

And second, they are also demanding recreational amenities, clean environments, efficient and comfortable transportation, and international-level communication services. Thus, there is great pressure to invest, possibly prematurely, in world-class facilities at much lower average income levels. We are also witnessing the emergence of an increasing number of gated communities, isolating the elite from the rest. Urban authorities must think of these issues carefully and turn this trend on its head by providing better amenities for all.

Enrique Peñalosa, the great and innovative former Mayor of Bogota, did much to address this issue and looked at public space as the great equalizer. He believed that if the best urban amenities are provided for common consumption in public spaces, there would be much less incentive for the elite to segregate themselves in gated communities. Accordingly, as Mayor of Bogota, he transformed the city by concentrat-

ing on the improvement of public spaces and public provision of urban amenities. Bogota was characterized by what looked like a noisy, chaotic, and polluting private urban transportation system. He innovated by instituting the new famous high-quality, high-capacity bus system known as the Trans Millenio. He favored investment in mass transit over expressways for cars.

Unlike other cities, where roads for cars are typically widened and pedestrian pavements narrowed, he did the opposite. Public pedestrian space has been widened and roads narrowed. Consequently, many more people are seen on the streets, rendering the city safer. Another remarkable innovation, perhaps one of a kind, that he did was the provision of international quality public libraries all over the city—from poor areas to richer ones.

Finally, he also improved many of the available green spaces. The consequence of all this is that Bogota is now much more livable; the poor have increased dignity; and the city has become much more vibrant. I have dwelt at some length on Peñalosa's exploits since I worked extensively on Bogota in the late 1970s: I could never have imagined such a turnaround in that city. There are many lessons for all of us in such counterintuitive, innovative thinking.

So the advent of globalization is reinforcing the need for cities to become more consciously knowledge based. Cities are also becoming more interconnected across borders; thus, a successful city or network of cities needs efficient airports, ports, other transportation, and communication. Unskilled labor is obsolete so much more attention has to be given to all levels of education. The provision of urban amenities for all is a must to prevent accelerating trends of increasing polarization of the rich and poor. Bogota shows that this is not a pipe dream.

Demographic Changes

One big change that we will witness over the next few decades is that the weight of natural population growth in urban growth will become higher, relative to rural-urban migration. Although this will make life easier in some respects, it may be more difficult in others. It will raise

social issues related to ageing: with continued improvements in health, sanitation, water supply, and the like, people will live longer and longer, even at low income levels. At the other end, depending where a country is in the demographic cycle, either there will be increasing demand for schooling—and increasingly so for secondary and higher education, as retention rates improve and as demand for skills increases—or there will be need to shut down schools. The demand for space in crowded cities for schooling will need to be addressed, and also the issue of what kind of schooling. Another demographic phenomenon is that the largest cities begin to slow down in growth after reaching some size level, and other cities start to grow faster. Again, different kinds of problems will arise. The older, larger cities will need renewal of old infrastructure. This is difficult to do physically and is expensive—and will need financing.

Much greater growth will take place in the next level of size—both in terms of population and size. To the extent that these cities will be growing in a new era, it is likely that they will have lower densities and will grow faster physically. This will undoubtedly lead to new tensions at the urban periphery between the existing landowners and the putative new ones. It will also raise issues with regard to transportation investment: how much for public transit and how much for private modes? With the real cost of private transportation declining, will it be a losing battle against the ravages of the automobile. This issue goes back to the Peñalosa philosophy: can we leapfrog and provide public transit of a quality that will attract the better off? This is a very difficult issue: I don't pretend to have answers, but I do believe that it poses great challenges for the future.

The fastest growing cities in the coming decade will also probably be the poorest: Dhaka, Ho Chi Minh City, Lagos, and others in Africa. Will they cope as well as their predecessors? Do we need to give them special attention? Where will the resources come from? Or will they raise new problems that we have not yet seen? With ageing and increasing incomes, household sizes will fall; more health facilities will be needed; and the absence of adequate social security will lead to hitherto unforeseen problems. Have we thought of these problems? What will we do?

Cities and the Poor

Most approaches to the urban poverty issue have concentrated on the issue of slums and shelter for the poor. I believe that we need to separate the issues of income generation and the provision of living environments. The issue of income generation is addressed by overall macromanagement and strategies to encourage overall economic growth. This can be helped at the city level by policies that do not discourage entrepreneurship and growth. Education, skill generation, and health facilities are of the utmost importance, but also policies that do not discourage the use of cities as incubators of entrepreneurship. Elitist tendencies toward banishing the informal sector are clearly antithetical to entrepreneurship and growth. If a city grows, and peoples' incomes grow, then it is bound to attract more migrants.

At the lowest level of income, we need to understand that *no* level of "formal" housing is affordable. The poor basically have to squat. But no public policy can encourage squatting. Squatting can't be planned for. Initial squatting cannot, in general, be condoned, but can often be followed by eventual legalization. This needs creative and constructive tension. What is also less understood is that the poorest, apart from squatting, are generally renters from the next level of households in terms of income.

Much of the financing of incremental housing is done by poor renters. Typically, these renters would be from the extended family, or from the extended community back home. If one solution for shelter for the poor is increasing recognition of rentals, much greater understanding is also needed of the renters actually acting as financiers of the house owners.

Provision of shelter for the poor will remain chaotic; the best we can do is to expand their access to land and not be too nasty to them. I do believe that the best strategy for helping the urban poor includes the following points:

- Make the city economy vibrant.
- Promote employment growth.

- Take care of education.
- Take care of health.
- Take care of clean water.
- Take care of sanitation.
- Reduce barriers to entrepreneurial entry.
- Promote mobility.
- Provide security of tenure.
- Equalize public spaces.

Financing

There are basically two kinds of financing needs: financing for public goods and services and financing for private goods and services. In the first case, the provision of public goods and services has to be paid for by a tax cash flow and in the second case by a flow of user charges. In between, there is scope for public-private partnerships.

The solutions are relatively simple; their implementation is not. A well-conceived and implemented property tax can finance most public goods. This has always been very difficult to implement, but with the advent of information technology, the maintenance of property registers, regular updating, etc. has now become very easy in principle. With increasing urbanization, property values will keep rising; hence, this can be a very buoyant flow.

Once cash flow is ensured, any amount of financial engineering can be achieved. The key issue is that as urbanization and city growth accelerate, the urban infrastructure investment has to be front loaded, which then provides services over a very long period of time. For example the basic sewerage systems of Mumbai (Bombay) and Kolkata (Calcutta) are over 100 years old but still continue to function. Thus, property tax cash flows have to be leveraged to generate the upfront finances for investment in infrastructure. The servicing of these leveraged funds has to be over and above the needs for maintenance expenditures. Life would be easy if financing sources were such that civic authorities could raise resources so the repayment schedule matched the benefit schedule.

A scan of urban financing systems across the world does not reveal any uniformity in pattern. Germany has used its mortgage banks to sell Pfandbrief bonds, which enjoy high credit quality next only to the Bund. These mortgage banks issue the Pfandbriefs and then intermediate the funds to states and municipal authorities for infrastructure investment. There is a complex system of credit enhancements that makes it feasible to raise long-term funds. But this credit quality has been earned over more than a century, during which time the municipal authorities have made sure that their tax and user charges systems can redeem the resources raised. In the United States, the decentralized municipal bond system has largely financed urban infrastructure.

Here also, because the ability to raise resources depends on the retention of healthy credit ratings, municipal authorities have a very strong incentive to stay solvent and service their bond holders. In principle, therefore, such systems have been successful because they have ensured that towns and cities face an incentive structure that encourages them to remain creditworthy and essentially self-financing.

In Asian countries, financial markets have not been sophisticated enough to allow for such financing methods yet. Financing for urban infrastructure has usually come from higher-tier governments, which raise resources from taxes, or from banks and financial institutions that have been typically government owned or sponsored. Such systems are not designed to avoid moral hazard: the recipient towns and cities do not have as strong an incentive to be essentially self-financing. The 1990s saw increasing attempts to privatize the provision of urban infrastructure, but this has met limited success at best. Given the magnitude of urban population accretion expected over the next 30 years, I see little choice. If Asian and other cities are to thrive and prosper, they will have to develop self-sustaining local taxation and user charge systems so that they can tap national and international financial markets for their financing needs.

Most utility services are private, in the sense that their consumers can be identified. The Latin American experience of the 1960s and 1970s shows that it is indeed feasible to improve services through user charges. Again, once the cash flow is there, any financial engineering can be done to raise funds. User charges are resisted in the name of the poor.

The biggest beneficiaries are the rich. In principle, all activities should be charged for: the poor who cannot pay for such services should be subsidized. They tend to be self-selected and can be identified without too much difficulty.

For example, the poorest do not have taps in their homes—self-selection can be achieved by making public taps free, while charging fully for water supplied to all who have a tap in their homes. The rapid expansion of mobile phones in urban areas in India suggests that even the poor can pay for services that they value. Much needs to be done here to show that subsidies generally go to the rich and that utilities need to be paid for.

The basic message is that we need to look for and ensure cash flows. They are usually there but often go in the wrong direction. As long as there is cash flow, the activity can be financed. Where the cash flow is from local taxes, the activity being financed is essentially a public good; where it is from user charges, it is essentially a private good. The former has to be supplied by the public sector, whereas the latter is susceptible to privatization. Activities in between can be supplied by public-private partnerships.

The task before us is to improve local municipal governments and utilities (public or private) so they can be creditworthy. If domestic bond markets are developed enough, bond financing can be raised for such activities. One caveat is important: because cash flows arising from the consumption of urban services are basically in local currency, foreign financing of such services should generally be avoided, unless adequate risk mitigation is feasible to compensate for currency risk.

A rising tide lifts all boats. Economic growth is the key. The important message is that urban growth is welcome and that all we need to do is to prepare for it. We need to rid policymakers, academics, analysts, nongovernmental organizations, and donors of what in India is called the “third-class train compartment mentality.” Those who succeed in boarding a crowded train do not want others to come in. Existing city residents tend to want to discourage new city entrants. Urban growth must be more inclusive.

Everything needs more innovative, thoughtful planning. Thus, the major thrust has to be on training for urban governance: An enduring puzzle is how we treat urban governments and those who work in them. Cities are among the most complex and exciting mechanisms to manage. Large metropolitan cities also have large budgets. Yet city managers generally have low prestige, are paid poorly, and hence often lack the competence to manage modern growing cities, especially in developing countries. The largest cities are bigger than most countries. Yet urban management, urban planning, and the like are not sexy occupations. Schools of urban management, urban financial management, and urban planning are few and far between, particularly in developing countries.

Conclusion

Our approach to the future of urbanization in the next 30 years has to be informed by the realization that more urban population will be added during this period than any comparable period in history. This growth will be concentrated in Asia and Africa, so the best global thinking on urban management has to be brought to bear in these regions.

The ongoing process of globalization and technical change will bring many new challenges, including many that cannot be foreseen today. We will certainly have many more large concentrations in Asia and Africa, and we will need to learn how to manage their infrastructure needs, both physical and social. We will need to focus more than ever before on the “soft” parts of urban needs connected with health, education, and the provision of urban amenities. Approaching public space as the great equalizer will have to be part of this approach.

The demographic transitions of this century will be different from those of the last century; with overall rates of population growth falling everywhere, and with the weight of urban population increasing, there will be much more organic urban population growth than from rural urban migration. With increasing longevity everywhere, cities will get older everywhere: social security will be an issue, and providing appropriate facilities for the aged will be an issue, including special arrangements for their transportation.

There will certainly be many poor people in the growing Asian and African cities. With increasing globalization and concomitant growth in income inequality, we will have to be careful to forestall natural processes by which the rich try to segregate themselves in urban enclaves. Encouraging growth of entrepreneurship and urban employment opportunities in our cities must be pursued, not discouraged. There are often many impulses to thwart such growth; these must be resisted. The provision of urban services needs to be done on a sound financial basis for them to be sustainable, but the approach has to be inclusive to engender healthy city growth.

As we cope with this kind of urban growth, it is of the utmost importance that city governance and management is made much innovative, flexible, and responsive. We need intelligent urban governance, because problems keep changing and need dynamic responses. Urban management needs to become much more professional and attractive so that the next generation of urban managers is the best and brightest.

This brings me to the international dimension of urban infrastructure financing. It is usually the case that, when a country begins its rapid urban growth phase and its financial markets are yet to develop, the only way to tap long-term funds is to take recourse to external savings, which are then to be repaid over a long period of time. The typical historical experience has been that the regions undergoing intensive urbanization had to mobilize external savings intensively, followed by periods of balance of payments crises and debt defaults. In Asia, too, the 1997 financial crisis was partially reflective of large external resource flows that were suddenly reversed, as was the Latin American debt crisis of the 1980s. Since then, however, it is puzzling that the region as a whole has exhibited financial surpluses that are being invested in Europe and North America. In the current debate on global imbalances, the assumption seems to be that these imbalances seem to be of a relatively durable nature, partly reflecting the favorable economic demographics of Asia and the converse in the West.

I remain somewhat puzzled by this financial turn of events. I would have expected that the demands of infrastructure investment, particularly that of urban infrastructure, would be such that regional domestic

savings will not be adequate to finance the required investment. Perhaps the explanation really lies in the Asian reaction to the 1997 financial crisis, and we may expect higher investment levels in the years to come. The magnitude of urban population growth expected in China, India, Indonesia, Pakistan, and Bangladesh over the next 30 years is such that pressures on international resource mobilization are bound to arise.

Urban infrastructure investment will then exceed available savings in these countries, and the current alleged savings glut will disappear over a period of time. Will there then be enhanced competition among Asian countries from available international savings? With the emerging adverse demographics in the West, and hence low savings rates there, will this competition lead to the emergence of higher real interest rates in the years to come—the exact converse of the current situation of excess world liquidity and low interest rates? If that happens, the task of urban policymakers and central bankers alike will become that much more difficult. The efficient intermediation of financial savings within countries, and across countries, will therefore be as important for urban development as for financial market development per se and for monetary policymakers in the years to come.

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Shaping the Development Debate: The Contributions of Vinod Thomas

by George S. Tolley

In addition to honoring Vinod Thomas, the present volume will help document his outstanding professional contributions. These include his contributions to the understanding of economic development, to bringing about effective economic development policies in countries around the world, and to building institutions to promote policies, among several others. His accomplishments have taken place during his steadily advancing career at the World Bank, culminating in his being appointed Director-General of the Independent Evaluation Group and special Vice President at the Bank, reporting not to the President but to the Board of Governors.

Over the years, Vinod's work at the Bank has had tremendous impacts. In addition to his influence within the World Bank Group, his influence is felt as a frequent speaker at international gatherings and as a member of international advisory bodies. Even more widely, he is a well-known author of books and articles in distinguished publications on a variety of subjects related to development.

Vinod is highly original and path-breaking in his ability to combine the best of economics with constructive insights on how to achieve needed economic development objectives that are consistent with overall social goals.

Many will know about one or more of the pinnacles of his accomplishments. Fewer may be familiar with the full breadth of the multiple pinnacles. Limitations of space permit only an airplane or even a Space Shuttle view here of some of the pinnacles. I hope that together the chapters will give some idea of the totality of his work, though I am not sure that a single volume can fully

convey what amounts to several important careers embodied in one person.

Without pretending to fully cover the waterfront, I will offer only some brief comments on the high spots for recent years. I will concentrate most of my remarks on Vinod's role in increasing the understanding of economic development and on his career in earlier years when he and I worked closely together.

Contributor to the Understanding of Economic Development

Vinod was responsible for and was the architect of the World Bank's definitive World Development Report, *The Challenge of Development* (1991), which synthesized and evaluated decades of development experience. *The Quality of Growth* (Oxford University Press, 2000) explored how similar rates of economic growth can lead to quite different impacts on people and considered how to improve on the outcomes. This book has had worldwide influence as reflected in its having been translated into several languages. Among his other widely cited articles concerning the economic development question have been "Why Quality Matters" (*The Economist*, October 2000); "Recent Lessons of Development" with Larry Summers in *World Bank Research Observer* (July 1993); and "Distortion, Interventions, and Productivity Growth: Is East Asia Different?" with Yan Wang in *Economic Development and Cultural Change* (1996). His steady output of writing in recent years has included further advancement of his economic development ideas.

As a leader of work at the World Bank, Vinod developed unique insights on economic development that contribute to the field beyond what others have done. He goes into a next level of detail beyond previous work, uncovering a new round of phenomena that he proceeds to analyze. The approach is characterized by creativity, maturity, and balance. He offers constructive policy suggestions far beyond the generalities about development often offered in the literature. His results are based on in-depth cross-country analyses that uncover unique phenomena and exceptions to the usual, more general approaches. He contrib-

utes to explaining these diverse phenomena and uses the explanations as bases for sound policy suggestions.

In his analysis of the growth experiences of East Asian countries, for example, Vinod has pointed out significant similarities and differences among the countries and investigated them. He brings a wider set of considerations than usual to understand the phenomena. Initial conditions or endowments have been a major consideration. These go beyond the well-known predisposition of the successful Asian economies toward export orientation to labor force characteristics conducive to hard work, and values conducive to encouraging widespread sharing in development among populations at large. Another major consideration is policy. Policy approaches are found to have been more than usually flexible in the successful Asian countries, subject to change and adaptation and often in response to changing conditions and to pursuit of more effective ways to promote developmental goals—but still subject to sometimes inexplicable differences among the countries. Another major consideration is the institutional setting in each country, featuring the nature of the bureaucracy, degree of political stability, and varying degrees of predisposition to intervene in markets.

To appreciate the departure of this approach in the analysis of economic growth, a step back may be helpful. There have been many advances. A case can be made that Vinod and his colleagues at the World Bank have made a far greater contribution to the field than is generally recognized.

In a reminiscence about the field that is far from systematic, the surge of interest in economic growth in the years following World War II, Edward Denison helped turn a corner in thinking about growth, supplanting the view dominant since the 19th century that all that was needed to grow economically was to be frugal; that is, save to grow. Economic growth had been explained by physical capital accumulation, narrowly defined as accumulation of nonhuman durable assets. These are productive enough to yield a return over and above what is necessary to cover depreciation, earning the net real returns used to pay the real rates of return observed on market equity and debt instruments.

Denison's telling empirical questions, based on what came to be known as growth source analysis, or aggregate production function approach, asked, among other things, whether rates of return on physical capital are great enough to explain observed growth. Multiplying the observed rates of return on physical assets by measures of the yearly growth in these assets and noting that the elasticity of output with respect to a factor of production is approximately equal to the share of income paid to the factor revealed that only a minority of growth can be explained by physical capital accumulation. True, the persistent 2 percent annual historical growth in income per worker in the United States was accompanied by an approximately equal 2 percent annual growth in the physical capital stock per worker. However, physical capital receives at most one-third of income (the estimate would most likely be considerably less if returns could be measured more accurately). If physical capital were the only source of growth, with an elasticity of output of one-third, physical capital would lead to persistent per worker income growth of less than 1 percent per year, instead of the observed 2 percent per year.

A further question became where the rest of the growth was coming from. Concern spread to the contribution of education and other forms of human capital formation to growth, and, when there was still growth left over to be explained, to the so-called *residual*. The residual was initially identified as catch-all technological change. A popular strand of literature became models tracing theoretical growth paths leading to a long-run golden age where the rate of technological change would be equal to the savings rate. Though intellectually intriguing, this line of thinking ultimately did not lead to practical understanding of why nations differ in their level and rate of growth of income.

Analysts at the World Bank, among whom Vinod was a leader, properly did not rely on these growth models and other models that still relied on narrow economic variables. These were important in some ways and captured much attention among academic investigators, without, however, going far in understanding the true mainsprings of economic growth.

Yet a more fruitful line of thinking from a practical point of view identified the residual with increases in total factor productivity from

research and development. Education and research and development were recognized as important to growth of advanced nations but still did not explain the impediments holding lower-income nations down. The emerging successes of Asian nations could be explained in proximate terms as transfer of technology from more advanced nations, along with importation of capital to supplement domestic savings needed to acquire the capital used in modern production. The export-oriented growth of Asian nations, applying modern technologies and their low-cost labor advantage, gave them a competitive advantage in world markets that was conducive to rapid growth. Their superior performance contrasted with the sluggish performance of countries elsewhere that relied on protectionist policies. This idea is now well accepted and underlies much of the World Bank's work on development, but Vinod's and the World Bank's work goes on to layers of sophistication and importance that begin to solve the more underlying puzzles encountered in explaining growth.

Consistent with the observation of T. W. Schultz that all people in the world have the same intrinsic abilities and should therefore have the same per capita income level, technology transfer from developed to less-developed nations attracted attention as a way to contribute to rising incomes in some lower-income nations. This idea broadened into a conception of *catch-up growth*, as exemplified by Robert Lucas, who has noted tendencies in market economies for lower-income countries to grow faster the farther they are behind high-income countries. Catch-up growth theories are more relevant empirically than many other academic theories and are closer to the World Bank approach. However, they do not explain the major consideration that income level alone leaves major differences in income growth of low-income nations unexplained.

In the end, although the growth source literature opened economists' eyes to the idea that growth comes from more than physical capital, it did not provide an explanation of why the growth sources are subject to change, which is at the heart of understanding growth.

Vinod was a leader in correctly identifying and analyzing the details of policy and institutional impediments as reasons for low incomes in third-world countries. Various non-World Bank commentators have

focused on one or the other particular type of impediment, such as insecure property rights or rent-seeking by entrenched groups. Often these have focused on one particular impediment and often have had an ideological motivation. They have typically been short on realistic constructive ideas on how to overcome the impediments.

Although attention in the economic development literature when discussing Asia has been primarily focused on the continent's highly successful economies, Vinod and his World Bank colleagues have investigated the many differences in performance in Asia both among the successful nations and between the successful and less-successful nations. Why did the Philippines, with initial conditions superior to those in some more successful Asian countries, get left behind? Among the successful countries, why are the growth policies so varied? Economic development specialists give much attention to the exceedingly poor performance of the Marxist-communist countries of the world, with the unwarranted inference that therefore all one needs to do to develop is to have a market economy. But this turns out to be only a necessary and not a sufficient condition. As is well known, counterproductive institutional arrangements and policies exist in myriad forms in the market economies of the world, miring many of them down. Policies ostensibly to promote growth in the rapidly growing economies of Asia vary inexplicably. And in the end, what do we know about why the Asian-type success stories are concentrated in Asia with relatively little spread to the rest of the world? Vinod has contributed to explaining these puzzles and has set forth the agenda of concerns for future economic development work.

Vinod's work has been recognized in the policy world, but my view is that he remains too unrecognized in the academic world. The attempts of academic investigators to grapple with the fundamental problem of how to explain economic growth have often not progressed much beyond conventional economic variables. When they have, they have often not done so in a balanced way. Nor have they generally progressed to a good enough understanding of what causes growth impediments to explain how they can be overcome, too often leaving as the only resort unrealistic admonitions for policymakers to change their behavior.

Vinod's work progresses beyond the received academic work. In my opinion, it has not yet caught up with Vinod.

An Antecedent: *Agricultural Price Policies and the Developing Countries*

Let me turn now to some of Vinod's earlier work, when our association was particularly close. His early writings stand as lasting and highly useful contributions to knowledge about particular development issues and how to deal with them. In this work one can begin to see the continuity of his career. Roots of later work can be found in his earlier work.

Agricultural Price Policies and the Developing Countries, with G. S. Tolley and C. M. Wong (1982), is on a narrower topic than Vinod's later work on general economic development. This book is an antecedent showing the type of commitment that flowered in his later work, attempting to bring comprehensive, objective, and useful aid to decision making in developing countries.

Agricultural price policies have taken a variety of forms. They have been undertaken in pursuit of goals that have varied greatly from country to country. They have almost always been undertaken in the sincere belief in their efficacy, though sometimes they received overzealous support among benefited groups. A common feature has been a general lack of accurate knowledge on the part of those undertaking the policies of what the true effects will be. The limited professional infrastructure capable of analyzing the consequences of sometimes complex economic interventions has led, to a greater or lesser degree, to hasty and ill-informed decisions about policies. The consequences have ranged from governments being thrown out of office, as when food promised during shortages has not become available, to unintended, large government expenditures interfering with other fiscal needs, to deleterious effects sometimes outweighing beneficial effects, to effects opposite to what was intended, to simple waste from imperfect program design.

A motivation of *Agricultural Price Policies and the Developing Countries* was, if you will, to provide technical assistance to developing countries dealing with agricultural price policies to aid in making them more

effective. We attempted to provide a tool kit for understanding their consequences and even more to aid in making them contribute more fully to their intended goals.

To encompass a wide range of different purposes of agricultural price policies and to ensure empirical relevance, we first reviewed experiences in Korea (rice price policy under rapid development), Bangladesh (efforts to raise food production under poverty), Thailand (rice in an international setting), and Venezuela (attempts to satisfy consumers and producers for a country with lagging food production in a volatile international setting, complicated by interrelated effects of policies on grain and livestock production). For each of these countries, we reviewed the goals of their agricultural price policies and assessed the extent to which the goals were met.

In the second part of the book, we dissected the types of policies considered in the first part, using the tools of applied welfare analysis as supplemented by dynamic considerations, including overall economic development effects. We attempted to show how to rigorously estimate the effects of policies on people as producers, consumers, and taxpayers in the economy at large. The tools provided the means to design policies that could avoid previous unintended deleterious consequences and more effectively meet goals.

In a follow-up to the price policy book, Vinod, James Snyder, and I wrote a chapter entitled “What We Know About Agricultural Prices, Policies and Supply,” in *Essays in Honor of D. Gale Johnson* (1996). We extended the work on agricultural price policies in three ways: (1) considering the effects of agricultural prices on induced innovation, (2) providing a regression analysis for a large number of countries, and (3) presenting a public choice analysis of why price policies took the course they did in various countries.

Developing economies continue to struggle with trying to provide low-cost agricultural products to urban consumers while maintaining farmer incomes. Many do this under unstable domestic market conditions, and many continue to be subject to the vagaries of unpredictable world market fluctuations, against which the countries attempt to protect themselves.

The work on agricultural price policies remains at least as relevant today as when it was written. It has been offered in the same constructive vein as the more general economic development work discussed above. As a coauthor, I owe Vinod a debt because, without his prodigious extra effort, the book would not exist.

Another Antecedent: *The Economics of Urbanization and Urban Policies in Developing Countries*

The Economics of Urbanization and Urban Policies in Developing Countries, published by the World Bank in 1987 and edited by Vinod and myself, was concerned with developing a unified framework bringing together major strands of work by investigators from universities and the World Bank on urban problems in the developing world.

It dealt with the role of cities in economic development stressing their role in open economies, representing a move from traditional closed economy models previously used to explain the relative growth of urban and rural populations. The role of productivity of modern activities carried on in cities was stressed, along with the lever of international trade to enable early realization of the gains without having to wait for the development of domestic markets. At the same time, roots of urban problems in market failures were analyzed. The burning question of whether city sizes should be controlled was analyzed. Evaluation was undertaken of whether cities are “too big” in the context of size and location policies of third world countries. Public managerial problems in cities were considered, ranging from fiscal problems to housing, transport and pollution.

Excerpts from the Foreword by Anthony Churchill help tell the story:

Urban problems have become more acute in recent decades as people have flocked to cities...In coming years, as population growth continues throughout the developing world, urban problems promise to become increasingly severe. This volume seeks to promote better understanding and evaluation of policies designed to cope with these issues.

To devise policies intelligently, we need to understand why urbanization has taken the forms we see today and what its future course is likely to be. Considerable progress has been made recently in the economic analysis of urbanization as a whole and its facets, including employment, housing, transport, pollution and poverty. This book draws together studies of the causes of observed urbanization patterns and builds on them to provide a better foundation for policy analysis...

Urban policies are of two main types. The first attempts to influence the degree of urbanization and the distribution of population among regions and cities.... A second type of urban policy attempts to make the best of urbanization by coping with the urban management problems encountered during economic development, particularly as they are aggravated by urban policies.... A unique contribution of this book is that the findings as a whole provide a unified framework... The studies build on progress to date to make new contributions that should be of value to policymakers, advisers, project analysts, and observers of urban problems.

Part I provides the underpinnings for understanding urbanization... Part II provides a framework for policy analysis. Correction of market failures, redistribution of income, and other goals are considered as basis for policy... The remainder of the book draws on the first two parts to derive tools for the evaluation of policies (page v).

The book is a forerunner of continuing urban work on city externalities and agglomeration that has served to emphasize the interrelation between economic development and city growth. This later work has reinforced the continuing importance of the 1987 volume.

As with the price policy book discussed above, I owe Vinod deep gratitude for his coauthorship and coeditorship, without which the book would not have come to be.

A Sequel on Growth: China's Regions

My own later work has continued to benefit from the earlier work that Vinod and I did together and from Vinod's insightful and balanced analysis of economic development in more recent years.

In following Vinod's contributions after the time we collaborated closely, I have particularly benefited from his analyses of differences in development experiences among nations. He was among the first to bring understanding to the reasons for, and differences among, the developmental experiences in East Asia. In contrast to many narrower analyses, Vinod has taken a balanced approach, not only identifying the multiple common causes but going beyond to answer questions of why they have differed, including important issues of initial conditions, policies, and institutions. His approach transcends temptations to dwell on one overriding consideration. To my mind, Vinod's work remains the best in this area. I have benefited from it in continuing work at the University of Chicago, investigating development in eastern and western China, where many of same types of differences among nations that Vinod analyzed have come into play among the different provinces of China.

Principle thrusts of previous concerns about economic performance of the provinces in China have centered on the lagging performance of western China relative to eastern China, with attempts to ascertain whether there is a tendency toward income convergence between the two parts of China. At the policy level, measures concerned with western China's lagging performance initially centered on transportation infrastructure investments designed to make western China more accessible, with some more recent widening of policies, especially to education and training.

In our work at Chicago we are viewing provincial performance as a matter principally of *not convergence* implying that the rich provinces bend down toward the poor, but rather as principally a matter of *catch-up* of income in the process of growth toward income levels in the advanced economies of the world. We are searching for reasons for impediments to development that will throw light on the great variation

in performance of different provinces, leading to reasoned ideas on policies that will be effective in overcoming growth barriers.

Among several ways that China differs from other rapidly developing nations of Asia is that it is vastly bigger. In some ways, the provinces of China are like separate developing nations. Indeed, many of the individual provinces are larger than other Asian nations, and great distances separate many of the provinces. China's rural to urban migration shares the well-publicized declining proportion of population engaged in agriculture that has typified developing nations. We have made estimates of intra- and interprovincial migration from primary to nonprimary employment and find that the majority of migration has taken place within provinces. Only a minority of the migration takes place between provinces. Most provinces feature very substantial movements from primary to nonprimary employment within the same province. The individual provinces are urbanizing rapidly. Incomes are rising as part of provincial adjustments throughout China.

Our current work builds in part on work we did on the relation between rural and urban experiences and their link through internal migration. Gross domestic product in all provinces is rising rapidly, with differences in the rate of rise being due to institutional and related retardations of development. A part of the analysis is spatial modeling of the effects of interprovincial transportation improvements. We find that the improvements lead to rises in the rate of growth of outlying western provinces but are by no means the major influence.

Meanwhile, the large numbers of people still engaged in primary employment on traditional low-income farms provide a pool of potential migrants to cities if they can earn a living commensurate with that realized in farms. They provide to a first-order approximation an essentially perfectly elastic supply of labor that will hold unskilled wage rates of labor in China down as long as there is a supply of migrants willing to move if wages in cities show any tendency to rise. Our projections indicate that it will be two decades or more before the population engaged in primary production is reduced to the low scarcity proportions observed in other countries when the migration is completed. Only then will wages of lesser skilled labor throughout modern China begin a really substantial

rise toward world levels. We appear to be at the beginning of a period of gradual transition toward higher wages, moving along a gradually upward sloping supply curve of unskilled labor. The press features stories about rising wages, which, however, are largely anecdotal. The lack of systematic wage data precludes exact estimates, but our age-specific demographic economic projections of migration as Chinese modernization proceeds give estimates of how long we will be proceeding along the upward sloping supply of lower skilled labor until the supply becomes essentially perfectly vertical in about two decades. Until that time, China through its exports seems likely to exert continuing substantial downward pressure on earnings of lesser skilled labor throughout the world.

The Environment

Vinod has published widely on environmental problems of developing countries, both academically and in the more popular press. He exhibits the all-too-rare combination of sound economic analysis with reasoned consideration of distributional and broader goals.

Roots of Vinod's later work on the environment can be found in his early environmental work, which honed the tools of applied welfare analysis in the estimation of the benefits and costs of environmental controls with careful awareness of externalities as a source of environmental failures needing to be corrected. He used these as he brought his policy wisdom to bear on environmental issues around the world.

Deserving of notice is Vinod's unique and important work on the increasing frequency of environmental disasters as a possible consequence of global warming. One observes with awe its prescience here in 2011, a substantial time after publication, this year's unprecedented Ring of Fire earthquake-tsunami in Japan and the unprecedented multi-state tornado storm in the United States. These serve to bear out his analysis.

Policy Participant and Policy Advisor

As Country Director for Brazil and Vice President of the World Bank from 2001 to 2005, Vinod was in charge of the Bank's financial portfolio

in Brazil and led negotiations with the government. He was responsible for aiding Brazil's macroeconomic, social, and environmental initiatives. Growing out of his extensive experience in Brazil, Vinod authored the widely acclaimed book, *From Inside Brazil: Development in a Land of Contrasts* (2006), which has become a standard reference. It is a culmination of his imagination and maturity in giving advice on a country's challenges.

He has advised in China, India, and Korea. He has been a speaker at the World Economic Forum, the Brazil National Forum, the Asian Development Bank, and the International Monetary Fund. He is an advisor to the Emerging Markets Forum.

He has made various lasting contributions to the economies of Colombia, Peru, Chile, and Bangladesh. He still visits these countries to provide advice and has become an expert on financial matters.

Institution Builder

Others closer to Vinod's recent work will know the details, but Vinod appears to have accomplished break-through achievements in evaluation. He has made serious program and policy evaluation a reality. Achieving effective program evaluation in government has been a largely unmet challenge. Sponsors of policies and those charged with carrying them out believe so wholeheartedly in the worthiness of what is done that they often see little need for evaluation. Often there is a fear that efforts will be shown in a less-than-perfect light, or that the pot will be stirred up by the suggestion of unsettling changes. Achieving good evaluation is certainly one of our greatest needs and one that has been stubbornly resistant to being met.

As Director-General of the Independent Evaluation Group (IEG) reporting to the World Bank's Board of Governors rather than the President, with reports being made public, Vinod has created truly effective independent evaluation that is being copied by other agencies. Path-breaking evaluations concerning trade, natural disasters, education, the environment, climate change, and Africa's agriculture have led to important agency changes. He brought together under one tent of oversight

the three parts of the World Bank Group: the World Bank working with governments, the International Finance Corporation working with private entities, and the Multilateral Investment Guarantee Agency, also working with private entities. He has adopted measures to ensure that the IEG's independent voice will be long-standing and institutionally grounded.

Meanwhile he has ensured that IEG is an active member of the Evaluation Cooperation Group and is an advisor to other groups, including the United Kingdom's evaluation group and the Asian Development Bank's evaluation office.

Vinod's contributions to institution building have not been limited to his most recent activities. Earlier, as Vice President of the World Bank Institute, he was responsible for expanding the Economic Development Institute into the vastly larger World Bank Institute, with greatly expanded and improved functions. He also established the Global Distance Learning Network, and fostered meaningful cooperation among numerous partners around the world. He oversaw the Joint Program with the African Development Bank and supported the African Virtual University. He chaired the Joint Vienna Institute providing economic and social training programs for the former Soviet and Eastern European economies.

Friend

Vinod has remained my friend and confrere. Though we have been engaged differently in recent decades, a transcending professional and personal affinity exists between us. Our recent differing work has common roots dating to the times when we worked closely together. An underlying concern, shared by many other than ourselves, has been understanding economic development of lower-income nations and, based on this understanding, helping overcome barriers impeding development. In our joint work, we shared the vision that economic policy can be shaped for the better if (1) it is based on the best solid and objective economic analysis that can be brought to bear and (2) it is devoted to the purpose of improving the quality of decision mak-

ing, free of ideological predispositions. Many actual and recommended policies do not live up to these precepts. The lack is often greatest in less-developed countries, where the level of economic literacy is low and the quantity and quality of public discourse is limited. The affinity is further strengthened by our strong common interests in poverty and the environment.

In Vinod I have encountered a gifted and kindred investigator and scholar. In addition to its careful foundation in sound analytic understanding, a characteristic of Vinod's approach to policy is that it is constructive. He finds criticism aplenty in current policies of a country, but they are couched not in admonition or ideology but rather in terms of opportunities they offer for improvement.

As someone who is very well acquainted with Vinod, I can say with confidence that he ranks among the most vigorous and productive scholars active today, bar no one in the world. He is unusually personable and likeable.

It has been a privilege and gratifying experience to work with Vinod. Not the least of the rewards has been association with a truly wonderful person, whose fine traits as a human genuinely interested in the well-being of others—extending down to the personal level and offered in a spirit of kindness and humanity—have undoubtedly been an important contributor to his uniquely successful career.

Bracing for a Tumultuous Future

by Kristalina Georgieva

My World Bank colleague Vinod Tomas has a long and distinguished record of service—one that has allowed him to witness and be part of some of the most profound changes shaping today's world. His work helped the World Bank and its many clients understand better what makes economies grow, how to lift up millions of people from poverty, why development is more equitable in some places and less so in others, and what to do about the growing competition for resources. We crossed paths many times, and at one point in the early 2000s we were privileged to head the World Bank offices in two major emerging market economies (Vinod was based in Brazil, while I was in the Russian Federation). Some 11,000 kilometers away from each other, we saw first-hand how in both places sound macroeconomic policies and a strong natural resource base defined the upward trajectory of the countries and made them part of the quartet commonly known as BRICs (Brazil, Russia, India, and China). But we also witnessed the difficulties that rapid growth causes for those left behind and the risks it creates for the environment. And it was these last themes that connected Vinod and me more than anything else throughout our careers. We have always shared a passion for the environment and a conviction that the quality and equality of growth matter more than its speed.

As I painfully learned at the World Bank, and even more so in my new capacity as European Union Commissioner for International Cooperation, Humanitarian Aid and Crisis Response, the world today may be richer, but it is also more fragile. In 2005, for the first time, the developing countries produced more gross domestic product in purchasing power parity than the developed ones. Also for the first time, more people lived in cities than in rural areas. As new poles of growth started to emerge, the rise of the middle classes in the developing world became irreversible and an increasingly important factor in resource allocation across the globe. The World Bank expects the world's middle class to

triple in three decades, from 430 million in 2000 to nearly 1.2 billion in 2030—almost entirely due to growth in the emerging economies. If these numbers are adjusted to local purchasing power, today already more than 2 billion people belong to the middle class.

This is good news in terms of standards of living for those who join the middle class ranks. But the other side of this coin is growth of consumption, demand for resources, and pressures on the global environment. Despite the growth of the middle class, the numbers of the “bottom billion” remain unchanged, and approximately half the people in the world still live on less than 1 percent of its wealth. If the current trends of population growth, quality of economic development, and environmental pressures continue, those left behind will only swell in numbers, inflaming more vulnerability, emigration waves, and conflicts.

Yes, today we live in a multipolar world and, as we saw in 2010, there are more engines to pull the global economy out of trouble, among them the two countries—Brazil and Russia—that Vinod and I know well. Yet much of the optimism about these new engines of growth is clouded by the upward trends in commodity and food prices, and the implications they have for the poorest people around the world. And a new critical risk is building up: a growing vulnerability to natural disasters in both mature and emerging economies. The World Bank has estimated that just in the past decade, natural catastrophes have affected around 2.6 billion people—a billion more than during the previous decade.

The two markers of the shift in balance between the developed and the developing world, 2005 and 2010, are also years recording global peaks in the upward trend in the frequency and intensity of disasters. The very beginning of 2005 will be remembered with the effort to cope with and bring relief to the victims of the Asian tsunami that struck on December 26, 2004, killing more than 235,000 people. Later, Hurricane Katrina topped the list of costliest disasters to date. Back in Asia, a massive earthquake took at least 87,000 lives and left millions displaced in northern Pakistan, while in South America, Hurricane Stan killed more than 1,100 people in El Salvador and Guatemala.

The year 2010 was another high point on the disaster curve, pummeling the planet with 950 natural disasters—of which at least five qualify

as mega-disasters. As early as January 12, 2010, a 7.2 magnitude earthquake ravaged Haiti, killing close to 300,000 people, shattering the lives of 2 million others, and provoking a humanitarian crisis from which Haiti still struggles to recover. Another, much stronger, 8.8 magnitude earthquake, rattled Chile, causing 800 deaths and severe housing and infrastructure damage. In the months that followed, drought pushed up the risk of hunger in some of Africa's poorest regions. Record high temperatures turned timber into ash in the region around Moscow, and later in the year in parts of Israel. Floods covered a fifth of Pakistan's territory and shredded the livelihoods of millions in Sri Lanka, West Africa, and Brazil. Flooding did not bypass Europe, where its impact stretched from Poland, through the Western Balkans, to Moldova. The eruption of a minor Icelandic volcano closed airspace for days on end, stranding thousands of passengers and millions of tons of goods and inflicting a major loss on the airline industry.

But increased frequency and magnitude of disasters are not the only problems. We also face a growing complexity and spillover of impacts, leading to much larger crises to cope with. We saw this in 2005, when Hurricane Katrina produced a triple disaster—the destructive storm surge, the flooding that resulted from broken levees, and the massive pollution caused by the oil spill. We saw this also in 2010, when Haiti suffered two interrelated disasters—the earthquake and the cholera epidemics that followed. In March 2011 we saw it in Japan, where the earthquake triggered a massive tsunami, which in turn caused a major nuclear accident.

Indeed, 2011 provides the evidence that 2005 and 2010 were not just aberrations, but that we need to brace for more bad news. Barely four months into the year, Australia has suffered catastrophic floods and New Zealand a major earthquake; Japan has been engulfed in a triple earth, water, and atomic calamity that is likely to cost 3 percent of its gross domestic product; and tornados struck the United States with a terrible force.

The harsh truth is that the confluence of disasters we experience today is related to the very issue of sustainability on which Vinod and I have been working on throughout our professional lives. What we observe

is neither incidental nor likely to abate any time soon, particularly if we judge by the factors that cause so many disasters and make their destructive potential so high.

Through its effect on weather patterns, climate change is one of the game-changers responsible for this trend. In Europe alone, more than 90 percent of the disasters that happened in the past decade are directly linked to extreme weather. It warms up oceanic surfaces and thus triggers hurricanes; it pushes up continental temperatures and hence kills crops through either protracted droughts or biblical floods; it unleashes heat waves that ignite forest fires and melt glaciers.

Examples of the effect of climate change are the extraordinarily violent hurricane seasons of both 2005 and 2010. According to recent research, both years ranked close to the top in storm totals on record in the Atlantic region. In just that area, 2010 saw 19 tropical storms and 12 hurricanes—five of them major. One of them—Tomas—barely missed Haiti, which at that time was struggling both with the earthquake aftermath and the cholera epidemics. Haiti was spared, but other countries were not—the damage hurricanes inflicted in 2010 is estimated to cost 8.06 billion EUR (\$11.6 billion). And according to meteorologists, 2011 is expected to be another year of high hurricane intensity. And that should come as no surprise: the reason for this unusual storm activity has been determined to be the record sea surface temperatures in the North Atlantic.

A second factor in the rising impact and frequency of disasters is the intensity of industrial activity and the associated risk of incidents such as chemical spills. Although we are often powerless in front of Nature's random cruelty, we are equally vulnerable to the prospect of disaster caused by our own industries, factories, and energy sources. The past year has given us too many examples of the destructive potential of man-made disasters—the Deepwater Horizon oil rig explosion, the Hungarian red mud spill, the Fukushima Nuclear Power plant.

Third, the rise of disasters is particularly challenging in combination with the current demographic growth. We will see the world's population surge to 7 billion by this year's end, increasing the number of

vulnerable people and putting them at even higher risk. But the implications of this demographic record go even further: Demographics affects economic growth and the demand for raw materials, food, and commodities; it changes political relations; it shapes development or lack of it. Among the communities that will contribute the most to population expansion, many are vulnerable to these risks—for instance, Liberia, Afghanistan, Western Sahara, and Niger, which are the countries with the highest fertility rates, and which are also among the poorest and most disaster prone in the world.

Fourth, urbanization significantly increases the human and economic costs of disasters. Although cities offer more opportunities and in many countries are the main contributors to growth, poverty reduction, and an increased standard of living for millions of people, higher concentration of population and economic assets in urban areas also means a higher toll when a disaster hits. This is particularly important in the developing world, where uncontrolled and unplanned urban development has already given ample evidence of this risk.

And the trend in increased frequency, intensity, and complexity of natural disasters is accompanied by fragility caused by the changing nature of security challenges—from terrorism and failed states, to civil wars and migration. Consider, for instance, the recent conflict in Côte D'Ivoire, which started as a political battle between a former and a newly elected president, but which, barely four months later, had turned the country into a battlefield for rivaling militias who fought among the population, targeted civilians, and cut off hospitals' water supply. This created a massive human displacement inside the country and a wave of refugees toward neighboring countries—particularly Liberia, where the host communities were already living on the verge of a humanitarian crisis and malnutrition.

How does this change our vision for development? The link is complex. First, we must recognize that just one random event like a natural disaster, or a purposeful act of terrorism, can not only thwart the development prospects of a country or a region, but also has an impact on the whole world. We have seen examples of the jittery response of the world markets to major disastrous events—the 9/11 terrorist act in the United

States in 2001 or the earthquake, tsunami, and nuclear incident that hit Japan on March 11, 2011. If we look at the map of the new emerging economic powers—the countries on which we rely for the new impetus of growth for the global economy—we see that it coincides troublingly with the map of areas that are most prone to disasters, thus adding a risk to world growth prospects that has not yet been fully assessed. Neither have we made sufficient progress in thinking about the interdependence of different risks—to our economy, finances, climate, food security, communications, health—nor how we can address them in a comprehensive manner.

Second, this matrix of interlinked reasons for man-made and natural disasters is particularly challenging in the context of underdevelopment, as disasters strike most severely less developed countries, killing hundreds of thousands of people every year, affecting millions, and causing billions in annual damage. Disasters set back years of economic growth, thwart its quality, and damage its inclusiveness. As we have seen on numerous occasions—from the 2004 Asian tsunami to Haiti to Pakistan—disasters can derail societies, nations, and regions in their efforts to provide their members with a better life today and better promise for tomorrow.

Thus, sound development is the best disaster risk reduction factor. The earthquakes in Haiti and Chile illustrate this well. In Haiti, the earthquake killed 230,000 people, and according to the Inter-American Development Bank, the damage it caused costs over 5 billion EUR (\$7.7 billion). In contrast, the much stronger earthquake in Chile inflicted between 3 and 5 billion EUR (\$4–7 billion) in damage and took 800 victims, most of whom died not in the quake, but in the tsunami that followed. This difference is so enormous because Haiti is the least developed country in the Western hemisphere; it was so badly damaged not because the earthquake was so huge, but because of decades of bad governance. Chile, in contrast, has an excellent prevention and reaction system and sound building codes. It suffered the sixth largest recorded earthquake in history, and of course, that caused serious structural damage and the loss of homes and livelihoods. But most of the buildings resisted the shock. Those that didn't were mainly old, built with tradi-

tional clay bricks, or wooden houses on the coast, which were washed away by the tsunami.

Third, we must do more to reach the right balance between disaster risk reduction and disaster response. Studies show that every dollar invested in prevention and preparedness brings 4–7 dollars in returns, yet the world continues to spend more on response and reconstruction, and not enough on reducing vulnerability and risks. Being properly prepared can make the difference between a manageable emergency and a catastrophe. Sustainable development policies stimulate just this kind of preparedness and can therefore achieve a double goal—not only reducing poverty, but also reducing vulnerability to disasters. Although it is impossible to predict where and when disasters will happen, in many regions of the world one thing is certain—natural disasters are a permanent threat. The anticipation of these recurring events may make people feel powerless when they face the destructive forces of nature. But the success of disaster preparedness programs proves that a lot can be done to minimize risks and that we are far from helpless when disaster strikes.

This increasing frequency and intensity of disasters has called for a rethink of what Europe is doing to prepare for and respond to disasters. We have long been in the lead in addressing the challenge of climate change and in promoting both mitigation and adaptation to its impacts. This remains a top priority for the European Union, at home and internationally. We believe the time has come for green growth and in our Europe 2020 strategy have spelled out the transformative steps needed to achieve it.

We cannot avoid disasters altogether, but there is a lot we can do to limit their damaging potential. We in Europe have included disaster risk reduction as a priority—both in European Union member states and in our aid policies around the world. Inside the Union, substantial financing is available in the European budget for disaster prevention—for instance, strengthening riverbanks to avoid floods and replanting lands affected by deforestation.

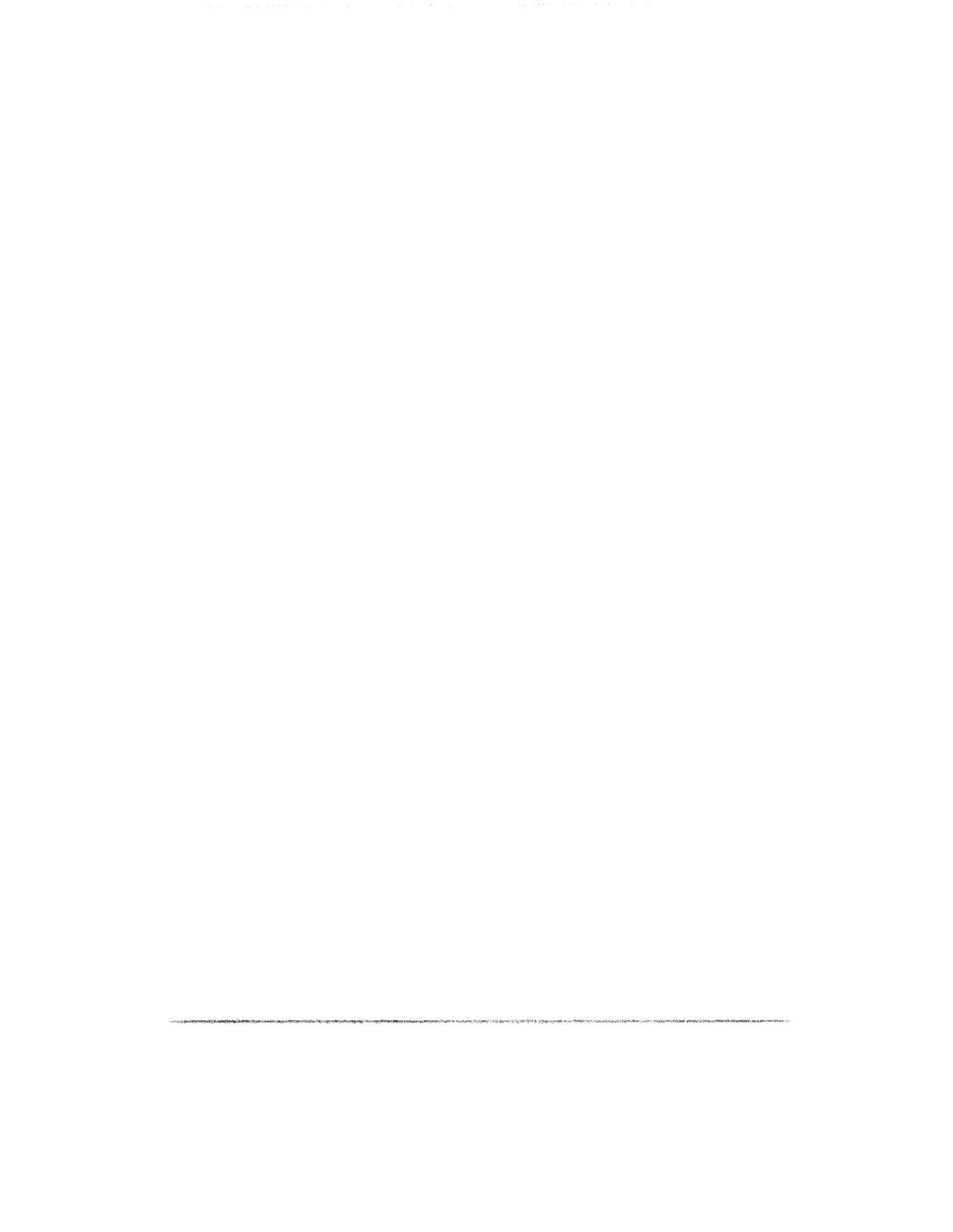
Outside the European Union, we help countries reduce the risk of disasters through our preparedness and prevention programs, funding

adaptation activities in countries most vulnerable to climate change. For instance, in 2010 we supported the Greater Horn of Africa deal with droughts. We reached out to some 12 million people in Djibouti, Eritrea, Ethiopia, Kenya, Somalia, and Uganda, whom we help adapt to increasingly severe and unpredictable weather patterns: through teaching water-management techniques and encouraging the use of drought-resistant seeds. Another example is the support we provide for disaster risk reduction programs at the community level. It covers seven disaster-prone regions: the Caribbean, Central America, South America, Central Asia, South Asia, South East Asia, and South East Africa and the Southwest Indian Ocean. The projects we finance through this instrument, often implemented by the beneficiary communities themselves, contribute to decreasing vulnerability and raising the ability to cope with disasters—through training, building capacity, raising awareness, establishing or improving local early-warning systems, and contingency planning.

In the fragile world we live in today, we must strive to better understand risks and strengthen the agility of our physical and institutional infrastructure to cope with them. For me and my team, and for my colleagues around the world, this means three things. First, it means focusing on the whole disaster cycle, from prevention and preparedness (ensuring that hazards do not turn into disasters and that disasters do not evolve into major crises) through response (ensuring the mobilization and deployment of adequate resources where needed, when needed, and as soon as needed after a disaster strikes) to resilience (building back better) and ensuring that a disaster does not permanently stifle development.

Second, it means building up global solidarity in the face of mega-disasters, so we are collectively better prepared when the next one strikes. For this, I see a tremendous role for the global financial institutions, such as the World Bank, where Vinod and I had the chance to work. They provide the right forum to place natural disasters in development context, to make the economic case for preparedness and prevention, and to discuss the policy choices that can reduce risks and increase resilience. They also offer tools like disaster risk insurance that can help nations pool resources against the devastating powers of nature.

Last, but not least, it means a shift to a risk management policy mindset—at global, national, community, and individual levels. Our world is prone to multifaceted crises, whether caused by men or nature, and we have an obligation to our children to develop the capacity to deal with them.



Central Asia's Trade— Rising to the Challenge

by Kazi M. Matin

Introduction

The longstanding view that trade policy liberalization has to be accompanied by other reforms at the border and behind the border to generate sustained expansion and diversification of trade are nowhere more relevant than in Central Asia. In addition, these countries have to cooperate with each other to provide *regional public goods* such as transit rights and energy, without which they cannot diversify or expand trade in a sustained manner. Thus, continued diversification and expansion of trade, critical for employment and equity, faces many challenges.

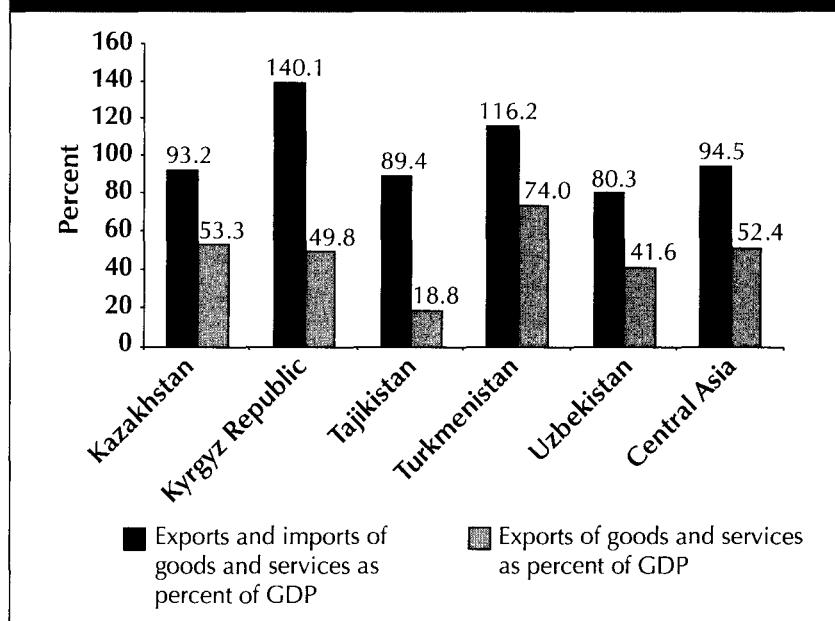
The countries of the subregion are diverse in respect of their characteristics and their chosen development paths. Uzbekistan is five times the smallest country Tajikistan in terms of population and Kazakhstan is twenty-five times the smallest in terms of economic size. Kazakhstan, Turkmenistan, and Uzbekistan are rich in oil and gas resources, while the Kyrgyz Republic and Tajikistan are not. All of them are landlocked and some double landlocked. Trade policy barriers have come down the most¹ in these countries since the transition began, but there remains a large unfinished agenda in other areas. Among the countries in this subregion, Turkmenistan is the least open, followed by Uzbekistan, while the Kyrgyz Republic is the most open (as the only World Trade Organization member), followed by Kazakhstan and Tajikistan.

Between 2000 and 2008 Central Asia's trade grew rapidly, though diversification was mainly in respect to partners rather than products. Two-thirds of merchandise exports comprised fuels, ores, and metals, but exports excluding those items have nevertheless exhibited robust growth, as indeed have services exports. Total merchandise imports also expanded rapidly, financed in part by oil and gas receipts, as well as remittance inflows. Today, total

trade of goods and services as a share of gross domestic product ranges from 140 percent for the Kyrgyz Republic to around 90 percent for Kazakhstan and Tajikistan and percent for Uzbekistan (see Figure 1).

The growth and diversification of trade that has taken place so far is no doubt owed to the reforms that liberalized trade policy as well as those that improved their business climate and trade facilitation, and probably to investments in rails and roads within individual borders. But in addition it is owed to similar investments made by neighbors in a coordinated manner, so as to ensure transport connectivity across these countries, to the east to China and to the south toward South Asia, instead of just north and west to the Russian Federation, as was the case in Soviet times. Nevertheless, the current state of private investment climate and trade facilitation within individual countries leaves a lot to be desired, and without significant improvements, sustained expansion and diversification of trade will be difficult.²

Figure 1 Share of Trade and Exports in GDP (%), 2007–08 Average



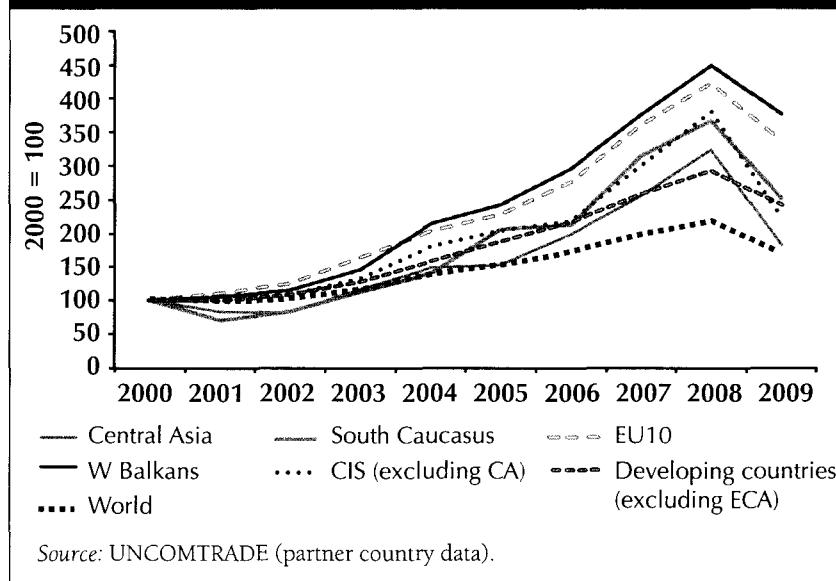
Central Asian countries also need each other. *Individually* they cannot ensure transportation to external markets for their exports and imports or assure reliable energy or irrigation for their firms and farms. Without cost-effective, reliable rails and roads and assured transit rights through neighboring countries, firms in each country cannot transport goods competitively from and to Russia, Europe, China, or Turkey, which are important sources of imports and markets for exports;³ some of these countries are double landlocked, requiring transit rights through more than one country. Ensuring reliable energy for their firms also requires agreements with neighbors; even the Kyrgyz Republic and Tajikistan, which have significant potential for generating their own hydropower, cannot do this without agreements with lower riparian or with neighbors for transmission rights to export surplus power. Successful regional cooperation is needed for the provision of essential regional public goods for producers, farmers, and traders in individual countries.

Recent Trade Performance

Between 2000 and 2008 total merchandise exports rose five and half times, driven mainly by fuel, ores, and metals exports. Kazakhstan accounts for three-quarters of Central Asia's total exports, followed by Turkmenistan and Uzbekistan, each accounting for around a tenth, and the two smallest economies together account for the rest. In fact, Central Asia's share in world exports more than doubled over this period, led no doubt by Kazakhstan and Turkmenistan. The global crisis reduced exports sharply, but the recovery to precrisis levels is under way.

Exports excluding fuels, ores, and metals grew by three and half times exceeding the CIS and world average (Figure 2), albeit with little product diversification. Most of the growth in these exports came from growth in existing products to existing markets or existing products to new markets. Specifically, in Tajikistan, Kazakhstan, and the Kyrgyz Republic around 80–95 percent of the export growth came from existing exports to existing markets and to new markets, implying little growth in new products (Coulibaly 2010). The markets for these non-oil–non-mineral resource exports continue to be Russia and the CIS⁴ and in 2008 they

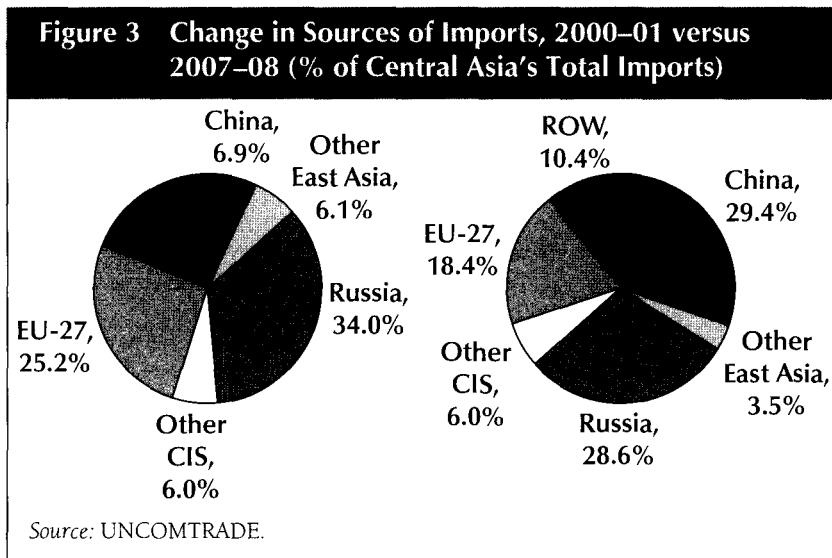
Figure 2 Merchandise Exports (excl. fuel, ore, and metals)—Central Asia versus Others (Index, 2000 = 100)



bought the largest share of these exports, though other markets are taking a higher share than before; Central Asian countries depend on them for most of the labor-intensive, low-technology exports that account for a good deal of the employment.

There has been much greater geographic diversification in the imports of Central Asia. Between 2000–01 and 2007–08, Russia's share in total imports fell from 34 to 28 percent, while China's share rose from 7 to 29 percent (Figure 3). Diversification of import sources has moved further away from its Russia and CIS centric character. China's shares in imports are much higher for individual countries than the average reveals, ranging from 77 percent of imports for the Kyrgyz Republic to 43 percent for Tajikistan and 25 percent for Kazakhstan.

This trend toward geographic diversification in imports and exports reflects their citizens' and firms' preference to buy imports from the least cost country and to sell exports in the best market possible. Even though most of these countries are yet to accept World Trade Organization obligations, they appear to have chosen policy autonomy and



multilateral trading for the most part. This has been made possible by the opening of China's western borders; by increased transport connectivity to the east and south, an important departure from the Soviet times; and by the reforms that have gradually opened up the economies. In fact, although countries in this region have signed a large number of regional agreements, they were mostly for nontrade objectives, as is evident from the large share of multilateral trade that these countries actually conducted.

A large part of Central Asia's multilateral trade is also carried out through "non-standard channels" and not recorded in these countries' statistics. Most of this trade is, however, legal, as it feeds the large bazaars, a key aspect of economic activity in the region. The Kyrgyz Republic and Kazakhstan are the largest official participants in this form of trade, in line with their relatively more open environments. In fact, both countries adopted a "simplified customs arrangement" with low tariffs and a light touch with inspection that are applicable to small exporters and importers that live around the border areas (some up to 30 miles on each side). Under this arrangement the Kyrgyz Republic operates almost like a regional entrepot, selling Chinese consumer goods in its two huge bazaars⁵ to customers inside the country but also those

from other Central Asian countries that have more restricted economic regimes. Chinese exports of consumer goods to Kyrgyz are re-exported by Kyrgyz entrepreneurs to Kazakhstan and to other countries of Central Asia, using their relatively well-developed trucking and logistics services, which were built mainly to cater to the bazaars; this amounts to as much as \$3 billion a year. Even more important, Kyrgyz firms also import fabrics and other accessories to convert them into garments for exports into Kazakhstan and Russia through both nonstandard and standard channels. Garment exports as well as trucking and logistics services provide an important source of employment, and one that has been growing in recent times.

Private Investment Climate

Growth and diversification of trade depend on private investment. Such investment is typically mobile and very responsive to incentives. Countries with large domestic markets, plentiful low-cost labor, and easy access to markets are attractive to investors, so these countries can do with poorer business and governance environments, relative to countries without those characteristics. Natural resource-rich countries are also able to attract investors in resource sectors, but not easily in non-resource exports necessary to create employment. Central Asia, with relatively small domestic markets and landlocked or double landlocked economies, has an initial disadvantage; it needs business and governance environments superior to other countries' to attract both domestic and foreign investments into nonresource sectors.

Since the transition began, all countries of Central Asia have made some progress in improving their business environment, as reflected in the Doing Business (DB) ratings. Kazakhstan and the Kyrgyz Republic have probably made the biggest improvements, followed by Tajikistan and Uzbekistan. Kazakhstan has the advantage of a larger economy and a larger middle-class market, though it does not compare favorably on that score in relation to countries elsewhere; it has made improvements in the business environment, as reflected in overall DB rating, but on construction permits and trading across borders it does not perform

well. The Kyrgyz Republic is a much smaller economy with a very limited domestic market, but it adopted more market-oriented policies soon after its independence and has continued liberalization of the private sector rules and regulations, as reflected in better overall DB ratings. However, it does poorly in respect of trading across borders (Table 1). Tajikistan has also improved its business environment but lags far behind the other two, with Uzbekistan coming in last. In all the countries, perceptions about corruption remain high and the track records of policy consistency and respect for property rights are limited.

In business enterprise surveys of these countries, firms consistently cite absence of reliable electricity as a major constraint for the private sector, in addition to regulations, taxes, and corruption (BEEPS 2010). Lack of reliable power is a surprising constraint in a region that has plentiful energy resources. This is in part due to the uneven distribution of such resources across countries and also to problems of poor management by power utilities and low tariffs. In the Kyrgyz Republic and Tajikistan, the problems go beyond the above factors, which are in the

Table 1 Indicators of Business Climate

DB			GCI	CPI
2011 Rank out of 183 countries			2010–11 Rank out of 139 countries	2010 Rank out of 178 countries
Overall	Trading across borders	Registering property		
-59	181	-28	72	105
-44	156	-17	121	164
139	178	-87	116	154
150	169	185	n/a	172

Note: Doing Business (DB), the Global Competitiveness Index (GCI), and the Corruption Perceptions Index (CPI), issued by the World Bank and the World Economic Forum and Transparency International, respectively, are used commonly to assess aspects of the business environment. DB is an assessment of the cost of meeting the laws, regulations, and processes for businesses in the country with individual components like trading across borders and registering property; the GCI is a complex mix of factual data and opinion; and, CPI, as its name implies, is a collection of perceptions collected from investors.

country's own control, to those requiring cooperation with neighbors for ensuring adequate power generation to ensure year-round reliable energy for firms, a *regional public good* for these countries.

Central Asia's economies must move aggressively to improve their private investment climate and make progress beyond their competitors, which have larger domestic markets, more skilled labor, and easier access to external markets. It will be important to liberalize regulations and restrictions more than competitors, to create a track record of respect for property rights, and to improve reliability of energy supply for firms. Even with these improvements, investors may not find it profitable to invest in exports if they cannot transport goods competitively to external markets or have access to power. Yet without these improvements, private investment in nonresource sectors will be more limited and the benefits from trade policy liberalization are not likely to be sustained or equitable.

Trade Facilitation

For most countries, trade facilitation seeks to reduce costs of international shipping, which includes domestic transport to port, logistics at ports and customs, and shipping itself. But for the landlocked and double landlocked countries of Central Asia the focus is still on reducing the cost of domestic transport to border checkposts and the cost of logistics and customs at those border posts; in addition, there is still the issue of how to transport exports across neighboring countries. The latter is less in the control of individual countries, as roads built to reach the border checkposts would require corresponding roads on the other side of the border if these roads are to reduce cost. In fact, today the costs of trade are higher here than almost anywhere else in the world, due in part to the disadvantageous mix of poor physical (or "hard") infrastructure domestically and high transactions costs (or poor "soft" infrastructure).

Central Asia is surrounded by some of the world's most dynamic economies, so transport, even long distance overland transport, can be competitive if it is efficient. The challenge is to identify comparative advantages in transport as well as in trade. That will require public

policy and public investment because transport is an area of large fixed costs and positive externalities, but in a way that allows market forces to guide decisions. The top-down planning and collaboration need to be flexible enough to avoid compounding wasteful spending on unnecessary infrastructure while allowing responsiveness to unforeseen demand for increased capacity on certain routes or by certain modes. The current approach to this challenge in Central Asia is to identify corridors⁶ for priority investments combined with trade facilitation.

Increasingly, the obstacles to trade in Central Asia are not just poor physical infrastructure but more the “softer” side of trade facilitation, especially at border checkposts. Police and customs officials are not doing their jobs, in part due to poor capacity but also due to pressures to supplement their incomes. Customs processes remain time-consuming, multiple government entities have responsibility to clear consignments, and visa regimes are difficult. If trade growth is to be sustained and promoted, the soft infrastructure of trade facilitation has to be improved in addition to the hard infrastructure of rail, road, and air within countries. The opportunities lie in the potential for substantially reducing the costs of trading and increasing the volume and gains from trade, and this is still a task for national governments, which, as everywhere, have primary responsibility for maintaining the physical infrastructure in their countries and are the only parties that can reduce the red tape and attack the corruption at border checkposts.

Regional Cooperation in Transit Rights over Land

Transit corridors are regional public goods and should be managed as such through international/regional cooperation. Such cooperation in roads and transit arrangements could reduce the tragedy of anti-commons, where people promoting self-interested goals choke off trade that would be otherwise beneficial. The regulation of national borders, the search for public revenue through levies on traders, and the spread of petty corruption all increase the cost of trade, while sensitivity to newly acquired sovereignty and personal antipathies of leaders inhibit regional cooperation. International financial institutions can and should

continue to play a role in this respect by providing advice, assistance, and coordination, as well as participating in the relevant policy dialogue in each country.

Clearly there has been much progress in regard to regional cooperation in transport and transit rights through the development of transport corridors. Corridors combine investment in hard and soft infrastructure and are amenable to monitoring (for example, by time-cost studies of a standardized truck or container), which permits ex post evaluation of policy actions and their success. They have already established greater transport connectivity not only to the west and the north, which existed before, but also to the east and south. The *north-south road corridor*, which links the cities of Dushanbe, Khujand, Osh, Bishkek, Almaty, and Astana to the Afghan-Tajik border at Nijny Panj (southern Tajikistan) and to the Kazakh-Russian border at Petropavlovsk (northern Kazakhstan), makes possible transportation from Central Asia to markets in Russia, Europe, and South Asia; similarly, the west-east corridor, with links to the north-south corridor, connects Russia, Kazakhstan, and China.

There is a lot to be said for regional cooperation to expand and diversify transport corridors through the integration of road, rail, and air transport systems, as well as the harmonization of border posts and customs procedures. This would prevent the creation or maintenance of monopoly positions in transit and in transshipment platforms, so a denser menu of corridors is needed to provide alternatives. The development of Aktau port on Kazakhstan's Caspian shore, for example, allowed direct trade from Kazakhstan to Baku without requiring material to pass through Turkmenistan; this was also used by Uzbekistan, some of whose trade has been diverted to this route, which is longer but less troublesome than using a Turkmenbashi port. Uzbekistan's restrictive border policies encouraged the Kyrgyz Republic to nationalize its road network so that the main Osh-Bishkek road no longer passes through Uzbekistan; it has also encouraged Tajikistan to use routes via Osh and Almaty rather than via Tashkent. Similarly, the strategic development of new transit corridors to the east led to the progressive shift in trade toward China and improvements in corridors to the south to help with increased trade with South Asia once Afghanistan has stabilized.

Central Asia has made a good start on meeting the challenge of transport and transit rights across countries. The hard infrastructure has developed and is developing quite well with good regional cooperation, but there is still a long way to go to complete and implement the cross-border agreements that comprise the “soft” infrastructure. Efforts to improve effectiveness of transport corridors and to promote their conversion to economic corridors with economic spillovers into service stations, food outlets, and small businesses around them depend a lot on ensuring effective and cost-competitive transit rights and border crossings. This is a key determinant of competitiveness and is where the future challenge of expanding and diversifying trade lies.

Regional Cooperation in Energy

Private firms in nearly all countries cite the absence of reliable power supply to be a major constraint to investment, production, and exports (BEEPS 2010). Although inefficiencies in domestic transmission and distribution and low tariffs account for a part of this problem, a significant part is caused by the recent breakdown of the Central Asian Power System (CAPS) of the Soviet era. CAPS combined thermal power systems of Kazakhstan, Turkmenistan, and Uzbekistan with the hydro systems of the Kyrgyz Republic and Tajikistan to ensure mutual dependence on each other and adequate and reliable power supply all year round;⁷ this was particularly helpful for countries dependent on hydro systems and vulnerable to winter shortages, when water availability is low and power demand is high.

CAPS has been under strain ever since the 1990s and finally broke down in the face of the severe winter of 2007–08. In search of greater energy security and self-sufficiency, the three oil- and gas-rich countries increased thermal and transmission capacity, thereby reducing their dependence on CAPS. This is evident from a decline in Central Asian electricity trade to a sixth of the level it was in 1990. This came to a head in 2007–08, when the system failed to deliver. A dry year in 2007 reduced summer water inflows into Kyrgyz and Tajikistan reservoirs and lowered summer exports, making it difficult for them to accumulate balances needed to buy power or gas in the winter. Gas prices rose that

year, too; in addition the severe winter of 2007–08 reduced water and hydro power generation further, leading to severe electricity rationing in the winter and adverse effects on the economy.

The Kyrgyz Republic and Tajikistan were the worst affected by the breakdown, but their power self-sufficiency depends on successful regional cooperation to share water and transmission rights, in addition to domestic actions to increase efficiency in the use of power. Clearly raising tariffs, rationalizing operations of state-owned power utilities, and investing in better transmission and distribution systems are actions that are no different than what is done in countries elsewhere. However, adding to power generation to meet winter demands cannot be done by the two countries on their own. New hydro projects will require cooperation with lower riparian countries to ensure adequate irrigation water for the later. Additional hydro capacity will generate larger summer surpluses to export to countries outside Central Asia (for example, to Russia, South Asia, and so forth) to make these new hydro projects financially viable, and they require cooperation with several neighboring countries for the rights of power transmission over their territory.

Conclusion

There is no doubt that countries of Central Asia have done very well over the last decade in expanding trade, including exports (excluding fuels, ores, and metals), and this has been an important contributor to growth in these countries. There has also been a gradual diversification of trading partners during this period, especially noteworthy for imports, where China is playing a bigger role than Russia. However, there may be few grounds for complacency about sustaining and increasing future growth and diversification of trade, critical for employment and equity, given the challenges these countries face.

The Central Asian countries individually and as a group have to focus on the challenges in following three areas:

- Behind the border reforms relating to domestic reforms to improve the private investment climate and property rights to increase private

domestic and foreign investment, and to ensure there are locations in the country where it is competitive to produce for the external market.

- At the border reforms refer mainly to trade facilitation having liberalized trade policy, and this relates to reducing cost of domestic transport to border checkposts and cost of logistics of customs and other agencies at the border checkposts. This is a large and difficult agenda, given political, security, and bureaucratic interests.
- Regional cooperation for provision of regional public goods of transit rights and energy refers to the special situation that Central Asian countries face that makes their trade agenda more daunting than elsewhere.

Notes

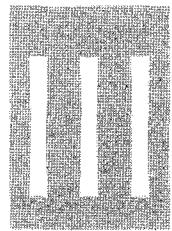
1. Trade policy liberalization in these countries began with price liberalization opening up domestic markets to international prices. Import tariffs were lowered, import quotas were removed, and export taxes were reduced, though all of these happened later and more slowly than in other transition economies of Eastern Europe and Central Asia.
2. Lagging reforms in the private sector and in trade facilitation have been found to be responsible for substantial differences across countries in respect of the beneficial impact of trade policy liberalization on exports, employment, and poverty (Limao and Venables 2001; Iwanow and Kirkpatrick 2009).
3. Kazakhstan is probably the least dependant on transit rights and on regional energy, as it borders the two large markets of Russia and China, and possesses sufficient fossil energy resources to be self-sufficient; however, it receives a third of its irrigation water from outside its borders. In contrast, the Kyrgyz Republic and Tajikistan are the most dependent on other countries, as they need both transit rights and energy; Uzbekistan also depends on transit rights to access external markets to the north and east and also for irrigation water.
4. Trade with Russia and CIS have remained far in excess of what is predicted by “normal” economic factors (Fidrmuc and Fidrmuc 2003; Broadman 2005), even after several years of transition. The hysteresis in former Soviet Union countries’ trade has been explained variously by remoteness and by being landlocked (Kaminski, Wang and Winters 1996; Gafe, Raiser, and Sakatsume 2005), poor access to markets, weak institutions, poor product quality (for example, Bevan et al., 2001), and so forth.
5. The two bazaars are Dordoi outside Bishkek and Karasu outside Osh, both being the largest bazaars in the region.
6. Several initiatives such as the Central Asian Regional Economic Cooperation, supported by the Asian Development Bank, the UN Special Program for the Economies of Central Asia, and the regional organizations such as the Eurasian Economic Community and the Shanghai Cooperation Organization support “transport corridors,” which cover both hard and soft infrastructure along the corridors. Even where the

road and rail connections along the corridors are well advanced, the soft infrastructure, especially at border checkposts, is not.

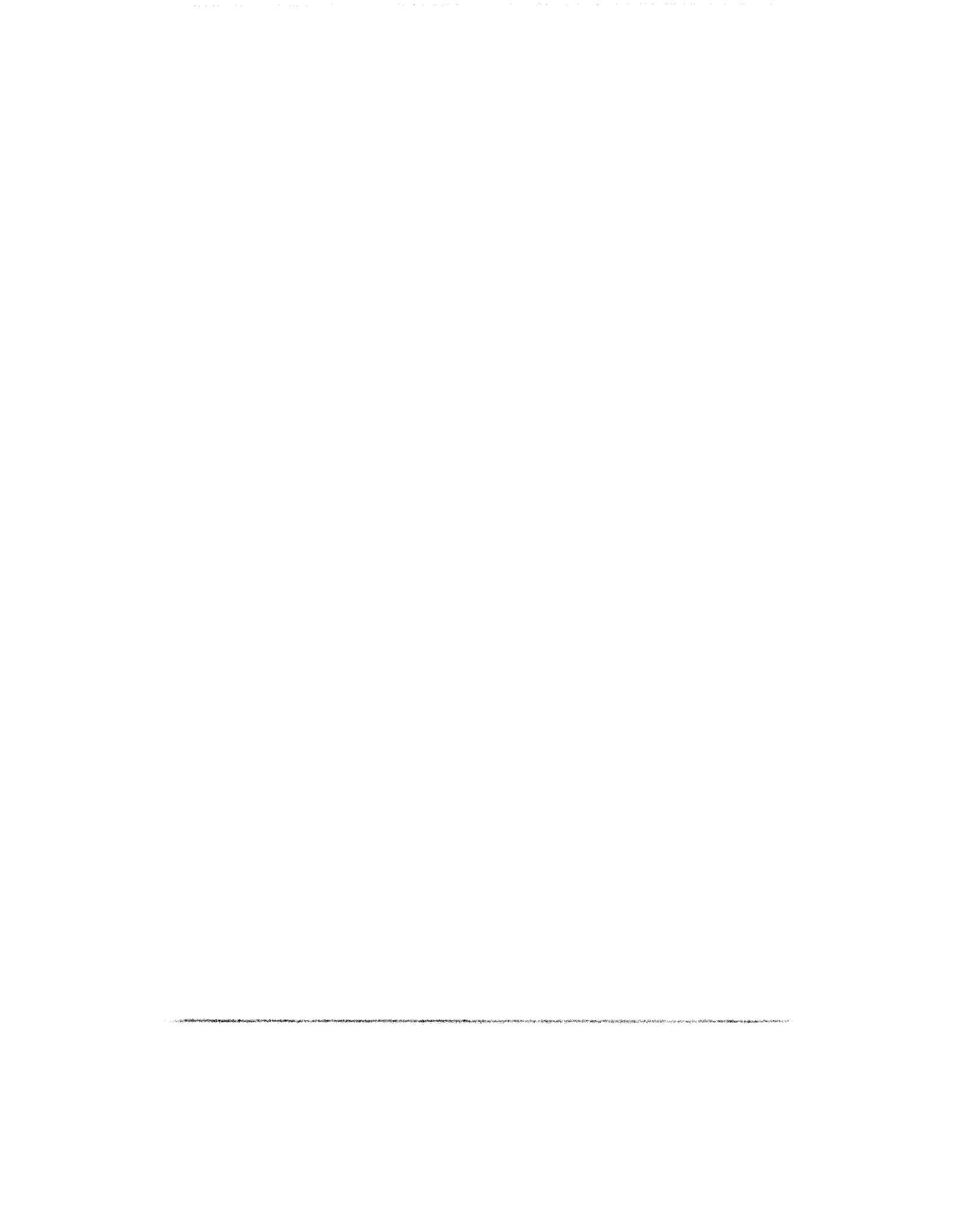
7. Four countries of Central Asia that trade energy under CAPS have surplus power production relative to peak demand, but the Kyrgyz Republic and Tajikistan have summer surpluses and winter shortages and thus depend on other countries to provide power during winter, which can be paid for by their power exports during summer. The net balances were settled at the end of the year.

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Reflections from Inside: The Transformation of the Independent Evaluation Group



New Directions in Development Evaluation

by Daniela Gressani and Patrick Grasso

Vinod Thomas was the head of the Independent Evaluation Group (IEG) of the World Bank Group¹ during an eventful period for the development community, when learning and adapting gained in both importance and urgency. Not only did the international community set higher expectations for the standards of internal governance and for the role in global governance of the World Bank Group; it also developed greater awareness of the challenges posed by climate change, food security and the global economic crisis of 2008–09. Ensuring that evaluation played an influential role during this eventful period was Vinod Thomas’s priority. To this end, he made a determining contribution to three major thrusts of IEG: shortening the feedback loop between evaluation and action; enhancing evaluation synergies across development institutions; and making the World Bank Group’s instruments and processes more effective.

Background

Independent evaluation at the World Bank Group dates from 1975, when the post of Director-General of Evaluation was established as head of a unit reporting to the Board of Executive Directors, rather than to the President.² Originally focused on evaluation of individual projects, the Independent Evaluation Group (IEG) has expanded its role and reach in a variety of ways under a succession of Directors-General.

In its early years, IEG concentrated on ex post evaluation of completed projects. This conformed to the charge given by World Bank Group President Robert McNamara when he first established the Operations Evaluation Unit, predecessor to IEG, in 1970: “The principal task of this unit will be to review past lending operations with the central objective of establishing whether the actual

benefits of the completed projects are in accordance with those expected at the time of appraisal and, in case of divergence, the reasons.”³

From this beginning developed a system of project self-evaluation at completion, with IEG providing an independent validation, along with in-depth independent evaluations for some projects. Over time, however, it became apparent that although this kind of operation-by-operation completion reporting was adequate for purposes of accountability assessment, it was limited in its utility for learning or helping guide the design and execution of future work. The identification of lessons of broad relevance and applicability in fact requires looking across projects and the conditions under which they are implemented—whether specific to country, sector, instrument, etc.

By the 1990s the model of ex post, project-level evaluation was being overtaken by events. New challenges from both outside (for example, the “Fifty Years Is Enough” movement⁴) and inside (for example, the 1992 Portfolio Management Task Force report on project quality⁵) demanded changes in how IEG conducted its evaluation business. In 1997 Director-General Robert Picciotto charted a new direction through a renewal process that focused on five objectives: moving evaluation to the higher plane of country, sector, and global program evaluation; building evaluation capacity, especially in developing countries; investing in knowledge and partnerships; promoting management for results; and shortening the feedback loop from evaluation to operations, while filling evaluation gaps.⁶

By the time that Vinod Thomas became Director-General in 2005, both the internal and external environments were demanding that evaluation show its worth by informing ongoing decisions, providing a broader perspective on what works (or does not) in development, and helping improve the performance of the World Bank Group and other development organizations.

Shortening the Feedback Loop

Although IEG already had made shortening the feedback loop one of its strategic objectives as part of the 1997 renewal, progress toward this

goal was modest. There was some success at the country level, where Country Program Evaluations,⁷ introduced in the mid-1990s, were timed to be conducted as new Country Assistance Strategies were due, providing opportunities to use evaluation findings to shape future programs. Later, when the Bank adopted a requirement for Country Assistance Strategy Completion Reports before new Country Assistance Strategies were agreed, IEG developed a validation system for these self-evaluations at the country program level. This new IEG instrument, covering all Country Assistance Strategies and tightly focused and timed to feed into the consideration by the Board of a new Country Assistance Strategy, represents considerable progress in making evaluative lessons available at the time they can be most useful. With the same objective, IEG also expanded its program of sector reviews, where possible tying them to pending changes in sector strategies and articulating recommendations for future strategies. Like Country Program Evaluations, sector evaluations remain, however, a complex instrument, requiring significant lead time; thus, they are less apt to provide lessons in a flexible and timely manner.

Developments outside the World Bank Group were going further to make evaluation feedback more timely and effective. By the early 2000s, a number of development institutions had begun to introduce real-time evaluation, studies that were conducted as projects and programs were under way, rather than after they were completed.⁸ The concept of real-time evaluation derives from the distinction between *summative evaluation* and *formative evaluation*.⁹ Summative evaluation focuses on results of projects, programs or activities; *ex post* evaluation typically is summative. By contrast, formative evaluation is designed to assess progress and identify areas for possible improvement throughout the process, from design to completion. Real-time evaluation typically is formative.

Also outside the World Bank Group, prospective evaluations—evaluations that use the results of past operations to assess the likely success of future ones—increasingly were used to shorten the feedback loop. This kind of work was pioneered at the Program Evaluation and Methodology Division of the US Government Accountability Office in 1990 through its development of the prospective evaluation synthesis.¹⁰ Others have worked on different prospective evaluation methods,¹¹

although the prospective synthesis seems particularly apt for IEG, which has a large body of project, country, sector, and global evaluations from which to draw.

Early in his tenure, Vinod Thomas pushed IEG to move more aggressively on shortening the feedback loop through prospective synthesis and real-time evaluation approaches. A galvanizing event was the Pakistan earthquake that struck in October 2005. The Bank's country team was aware that IEG was conducting an evaluation of responses to natural disasters and asked for help in devising a response strategy. IEG quickly supplied the team with initial findings on what had been found to be effective in past such events. The country team found IEG's work relevant and timely—and IEG found that it could improve its effectiveness by doing prospective evaluation work.

Since 2008, IEG has used a combination of prospective synthesis and real-time evaluation to provide timely feedback on the global crisis. First, it reviewed the experience of past financial crises¹² to identify lessons relevant to the World Bank Group response as the crisis was breaking out. This prospective synthesis evaluation identified a number of lessons that proved highly relevant in the World Bank Group response to the global crisis of 2008–09, in particular the critical importance of delivering speed with quality, leveraging resources through partnerships, and factoring in environment and climate change considerations. Following this evaluation, IEG provided a series of real-time evaluative findings on the activities of the World Bank Group¹³ as its response to the crisis was being implemented, again to identify timely lessons that could inform Bank Group actions. This assessment of ongoing activities identified, among other things, the need going forward to strengthen World Bank Group's support for crisis preparedness and its own preparedness, as well as to focus on the fiscal consequences of the global crisis beyond the immediate response.

The value of prospective and real-time approaches in bringing to the fore evaluative lessons at the time they are most needed to influence development policy and operations is quite obvious in these two cases. IEG has since conducted other prospective syntheses for a series of natural disasters that have hit developing countries during 2010, including Haiti's earth-

quake and the floods in Pakistan and West Africa. This work has been consistently appreciated by the World Bank Group and development partners and has developed into a well-established line of work for IEG.

At the same time, the potential benefits from a broader use of prospective and real-time approaches beyond crises also became evident. An important prospective evaluation was the first of the climate change series,¹⁴ which focused on energy policy reform with the objective to “seek lessons from policy experience in the energy sector to guide future policies on greenhouse gas mitigation.”¹⁵ The evaluation looked at a broad range of Bank projects and programs in the energy sector, and also at non-Bank experience, to identify win-win approaches that—by removing energy subsidies and promoting energy efficiency of end users—could reduce greenhouse gas emissions and at the same time generate economic benefits for governments and citizens.

Enhancing Evaluation Synergies across Development Institutions

Development evaluation often has been limited by focusing on the work of individual organizations, but this is a bit like looking for lost keys only under a lamp post because that is where the light is. Valuable lessons can be learned by taking advantage of the synergies that come from looking across organizational boundaries to learn development lessons. However, institutional barriers had long limited IEG’s ability to realize these synergies—within the World Bank Group as well as over the broader development community.

Within the World Bank Group, these barriers cut across the Bank (IBRD and IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA). Some 20 years after the establishment of an independent evaluation unit at the World Bank, an evaluation unit reporting to the Director-General was established for IFC in 1995; one for MIGA followed in 2002. Each of the three departments was housed in its respective institution, and it was not until 2003 that the first truly joint report by the Bank and IFC evaluation departments was carried out; the MIGA department also participated.¹⁶

Looking at development effectiveness across World Bank Group institutions offered great opportunities not only for learning from different organizational structures that share the same ultimate goal—fighting poverty—but most important for learning across public and private sector activities. This was the focus of the first joint report mentioned above, which looked at private participation in electricity and assessed the impact of different instruments on private sector development in this sector.

As Director-General, Vinod Thomas set out to exploit this potential. With the support of the Board, he completed the process of making the IFC and MIGA evaluation departments fully independent, and in 2008 brought the three departments together into one functional group, with a combined management team. He also arranged for the three departments to move into a common space, breaking down the physical and social barriers among the groups. This allowed for much greater communication and cooperation on evaluation work across the entire World Bank Group. Finally, in January 2011, he reconfigured the structure of IEG to further facilitate evaluation work across Bank Group institutional boundaries, by establishing departments for public sector evaluations, private sector evaluations, and country, global, and corporate evaluations.

These changes were designed to facilitate evaluation across the World Bank, IFC, and MIGA—which has become a strategically important part of IEG’s work program during Vinod Thomas’s tenure. The majority of sector and thematic evaluations is now conducted across institutions, as is IEG’s annual report on results and performance. The value of this approach has been amply demonstrated by the impact of these joint evaluations. A recent example is the evaluation of the safeguards and sustainability policies¹⁷ put in place by the World Bank Group to prevent and mitigate adverse effects of its projects in people and the environment, which provoked a debate—currently in progress—on the structure of accountability and grievance redress mechanisms in the World Bank Group. This grew out of the IEG recommendation to build on the different strengths on the World Bank and IFC/MIGA processes, and specifically to create a conflict resolution mechanism in the Bank similar to what is in place in IFC and MIGA, to complement its Inspection Panel;¹⁸ and that the Compliance Advisor/Ombudsman¹⁹ of IFC and

MIGA strengthen the independence of the compliance review process by submitting findings directly to the Board.

Country evaluations now also prominently include all three World Bank Group institutions, and this approach has been formalized by the establishment of a department in IEG dedicated to cross-institution evaluation of country, corporate, and global programs. This approach has already demonstrated that it can facilitate the identification of synergies that have come to fruition, as well as missed opportunities for country-level cooperation within the World Bank Group. In the case of Peru,²⁰ for example, the Country Program Evaluation highlighted that IFC investment had demonstrated clear additionality, complementing IBRD's role, though MIGA needed to be more proactive in leveraging the strong field presence of the World Bank and IFC.

At the project level, most evaluations remain institution centered, but selected cluster project evaluations have been conducted across institutional boundaries. One example that has yielded very important findings is the evaluation of a cluster of World Bank and IFC activities supporting the Chad-Cameroon pipeline.²¹ The evaluation concluded that the fundamental development objectives of this program—reducing poverty and improving governance through sustainable use of oil resources—were not achieved despite the technical and financial success of the main pipeline project, principally because of lack of government ownership. This perspective on development effectiveness could not have been obtained by looking at individual activities in isolation.

The value of evaluation work cutting across the World Bank, IFC, and MIGA has, however, not supplanted institution-specific evaluations, especially when they can shed light on important, institution-specific aspects of development impact. The IFC poverty impact evaluation and the MIGA financial guarantees evaluation have aimed at informing strategy design and implementation in the corresponding institutions; the Bank cost benefit evaluation has been directed to highlighting an important limitation in the Bank approach to investment lending.

The potential for evaluation impact of looking across institutions does not stop at the boundaries of the World Bank Group. Vinod Thomas also

took the lead in an ambitious effort to bring together evaluative findings from across the multilateral development banks. Most of these major banks have their own independent evaluation departments. In 1996 these organizations created the Evaluation Cooperation Group (ECG), a cooperative group with the primary purpose of strengthening the use of evaluation for greater development effectiveness and accountability.

The ECG initially concentrated its efforts on harmonizing evaluation methods by developing good practice standards for evaluation and benchmarking members against those standards. But at a meeting in 2005, Thomas proposed that the ECG, as a group, take on a substantive topic to which members could contribute evaluation findings and lessons. The objective was to bring together data and experience from across the multilateral development banks in order to provide a more comprehensive review of what was learned on a particular development issue. The first such effort looked at the nexus between infrastructure development and environment.²² It demonstrated both the feasibility and the value of sharing evaluative findings from multilateral development banks in a systematic fashion to glean lessons that are relevant for development effectiveness across a broad range of institutions. These syntheses have become a regular part of the work of the ECG, helping to illuminate major development issues in a new way. Most recently, an ECG paper presenting key lessons emerging from evaluations of agriculture and agribusiness across multilateral development banks highlighted the critical importance of boosting agricultural productivity and the need to focus multilateral development bank support for this challenge—following the near-exhaustion of opportunities to expand agricultural lands and associated inputs and the decline of attention to agriculture that has taken place for two decades until the mid-2000s.²³

Making Bank Group Instruments and Processes More Effective

IEG long has evaluated World Bank Group instruments and processes. The first such study, on delays in project effectiveness, was carried out in 1975.²⁴ Only in the late 1990s did such evaluations become a regular part of IEG's work program, thanks to the 1997 renewal initiated

by Robert Picciotto that created a group specifically to do process and corporate studies.

Early evaluations of corporate processes and instruments tended to address broad strategy and management issues, such as aid coordination, IDA, and the Highly-Indebted Poor Countries Program.²⁵ Evaluations of this kind remain important today, as, for example, the gender evaluation and the evaluation of regional programs, in addition to the evaluation of safeguards and sustainability policies, already noted. A particularly influential evaluation on World Bank Group instruments was that on guarantees,²⁶ which put squarely on the agenda the need to increase the flexibility of MIGA's business model to increase its performance and impact—and led to amending MIGA's Convention.

Aside from its work on the use and quality of monitoring and evaluation instruments in the World Bank Group, IEG generally did not assess the quality of Bank Group instruments. However, the increasing use and importance of new instruments—such as indicator-driven measurement systems to guide Bank lending, regional strategies, or subnational instruments—made such reticence untenable. During the tenure of Vinod Thomas, IEG began to take a systematic look at a wide range of Bank instruments and processes.

Underlying this change is recognition that independent evaluation has an important role to play in making the World Bank Group's instruments more effective in meeting the world's development needs. Just as independent evaluation traditionally has provided verification of the extent to which the Bank Group projects and programs are meeting their objectives, it now also aims to provide assurance that the decision-making processes and other instruments the World Bank Group is employing are of good quality and effective in doing what they are designed to do. This expansion of IEG's role marks an important development that is complementary to the efforts on shortening the feedback loop to operations and leveraging the synergies from cross-institutional evaluation.

A key element of IEG's recent evaluations of corporate processes and instruments has been a perspective on quality going beyond narrow technical aspects to questions of design, use, and relevance. The

evaluation of Doing Business²⁷ assesses an instrument that has acquired great importance and has generated great controversy, including outside the World Bank Group, by providing country rankings based on indicators of their level of effort at reducing barriers to business entry and operation. The evaluation examined not only issues of appropriate design of indicators, representativeness of sources, and transparency of data changes; it also assessed the use of these indicators as proxy for progress on reform of the business environment, well beyond their ability to measure a subset of business costs, and recommended greater clarity and transparency about their limitations in this context. Another important evaluation of a Bank instrument focused on the Country Policy and Institutional Assessment,²⁸ the principal measurement tool of development effectiveness at the country level and a determinant of allocation of IDA resources. That tool also develops country rankings based on indicators of their level of effort in broad areas of economic management and institutional reform. The evaluation provided not only an assessment of technical quality and characteristics of the Country Policy and Institutional Assessment, but also their disclosure and use in IDA resource allocation.

Most recently, IEG evaluated an instrument that the World Bank Group has developed and used exclusively for Africa, with the objective to support the achievement of the Millennium Development Goals and effective utilization of aid by that region. The evaluation of the Africa Action Plan²⁹ assessed not only the design of the instrument, but also the top-down process through which it was formulated and the resulting shortcomings in its implementation. The evaluation provided an input to the formulation of a new World Bank strategy for Africa, which was developed on the basis of a more inclusive and consultative process and is expected to lead IEG to conduct new evaluative work at the regional level.

Conclusion

The six years during which Vinod Thomas has served as Director-General of Evaluation at the World Bank Group have been times of great institutional change, for the Bank Group in general and for independent

evaluation in particular. These changes have had important implications for the conduct and use of evaluation.

For IEG, the development of a new strategy and a new organizational structure have moved the organization far from its roots in ex post project evaluation to real-time and prospective evaluation, while breaking down internal and external barriers so that evaluations can provide more learning from a wider range of experiences. This combination of new methods, broad syntheses, and a focus on instruments and processes has increased the relevance and value of independent evaluation.

Notes

1. *World Bank Group* is used here to refer to International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA). *World Bank* refers to IBRD and IDA.
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3. Grasso, Wasty, and Weaving, 2003, p. 155.
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15. IEG, 2009.
16. Fernando Manibog, Rafael Dominguez, and Stephan Wegner, 2003, *A Review of the World Bank Group's Experience with Private Participation in the Electricity Sector*, Washington, DC: World Bank.
17. IEG, 2010, *Safeguards and Sustainability Policies in a Changing World*, Washington, DC: World Bank.
18. The Inspection Panel of the World Bank is the independent recourse mechanism for IBRD and IDA. It responds to concerns of people who believe they have been adversely affected by Bank-financed operations.
19. The Compliance Advisor/Ombudsman is the independent recourse mechanism for the IFC and MIGA. It responds to complaints from project-affected communities with the goal of enhancing social and environmental outcomes on the ground.
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28. IEG, 2010, *The World Bank's Country Policy and Institutional Assessment: An Evaluation*, Washington, DC: World Bank.
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On Strategy and Independent Evaluation

by Hans-Martin Boehmer

“All of us are strategists, whether we like it or not.”¹

The concept of evaluation has been around for many years. In the World Bank, it can be traced back at least to 1973, when Robert McNamara, then President of the World Bank, established the first Operations Evaluation Department to provide him with an honest assessment of the organization’s performance.

Today, it would be unimaginable for the work of a public institution not to be subject to some form of evaluation. The Institutions of the US government are subject to evaluation by the US Government Accountability Office, and similar institutions exist in most developed and developing countries. In international institutions, particularly those involved in development, an increasingly strong system of evaluation has evolved. Public interest in these institutions and public expectations for good governance have raised a clearer distinction between self-evaluation and independent evaluation. Today, though to varying degrees, all the major regional and global development institutions have independent evaluation functions.

Yet it was not until 2010 that the Independent Evaluation Group (IEG) of the World Bank Group became the first evaluation group of a multilateral development bank to establish a department with responsibility for “strategy” (as well as learning and communication) that was on a level equal to those conducting the core evaluative work. It is probably fair to say that had it not been for Vinod Thomas’s determined push, this department would not exist today.

“It is better to be a good strategist than a bad one.”²

Although it may seem obvious to some, thinking about strategy in the context of an independent evaluation function is far from the norm. In fact, when asked what “strategy” means for an independent evaluation function, it often takes considerable time and effort to explain and often still leaves one with more questions than answers.

Unlike its mother institutions, the World Bank, the International Finance Corporation, and the Multilateral Investment Guarantee Agency, IEG has a well-defined mandate.³ In fact, members of the Board of Executive Directors are often careful to ensure that units such as IEG carry out their mandate effectively and efficiently, but don’t stray beyond the boundaries of their mandate. In contrast, organizations such as the World Bank have long been accused of “mission creep.”⁴ The clarity of IEG’s mandate, and a shared understanding of it, is essential to the strategy formulation. The key elements of the mandate are as follows:

- Assess the relevance, efficacy, and efficiency of World Bank Group operational programs, and their contribution to development effectiveness
- Appraise other World Bank Group evaluation systems and methodologies, including self-evaluation methodologies
- Work closely with development partners to foster international evaluation harmonization, to develop evaluation capacity in developing countries, and to encourage evaluation of the international development system.

Typically, implementing an effective strategy requires a clearly defined outcome objective, as well as a careful assessment of capabilities and choices. Although the mandate is clear on what activities are expected from IEG, it does not have an outcome objective and therefore leaves open the question of the essential impact IEG’s work seeks to have. In fact, the question of the outcome objective is essential to the question of strategy—without it, translating the mandate into action would simply boil down to doing the job well, irrespective of the outcome. In my few years working with Vinod Thomas, one thing has defined his vision of

IEG in my mind more than anything else—good work is a prerequisite, but cannot be the final contribution that IEG is making to the World Bank Group and the broader development community.

So the question then remains—how does IEG make a contribution to the World Bank Group? The Bank Group's governance has been subject to much debate.⁵ IEG is situated within the World Bank Group, though with a considerable degree of independence. There can be no doubt that IEG's ultimate purpose and mission is to contribute to the Bank Group's overall mission. There have been a variety of articulations over the years, the most recent put forward by President Zoellick early in his tenure: “It is the vision of the World Bank Group to contribute to an inclusive and sustainable globalization—to overcome poverty, enhance growth with care for the environment, and create individual opportunity and hope.”⁶

Despite its mission, the World Bank Group as a whole does not have a clear operational strategy with defined outcome goals. This complicates the role of independent evaluation, as ideally it should challenge assumptions within the strategy, test its robustness, and ultimately lead to continuous learning and adaptation to enhance the development effectiveness of such a strategy.

In the absence of a clear strategy articulation by the institution, choices in evaluation need to be related to the essential challenges that the organization faces and where evaluation, particularly independent evaluation, can have an impact. To help articulate those choices, IEG has over the past three years set out strategic directions that guide its work—(i) to respond rapidly to emerging challenges, (ii) to forge stronger links with World Bank Group directions, and (iii) to promote greater IEG integration. While these directions are clear, they provide only partial guidance on how best to ensure IEG's impact.

To take the question of impact one step further, I found it useful to think about the Bank Group in its broader multilateral context, and the essential challenges that these organizations face in the coming decades. Again, President Zoellick articulated this challenge well by saying, “The new multilateralism must respect state sovereignties while solving interconnected problems that transcend borders.”⁷

This articulation of the fundamental challenge rings even more true today, following the global economic crisis, than it did even at the time these remarks were delivered. In fact, much of IEG's recent work has been devoted to those border-transcending problems—water, climate change, food and agriculture. Addressing each of these problems from an evaluation perspective is challenging; even more challenging is addressing their inter-connectedness.^{8, 9}

“Ideology, Ignorance, and Inertia”¹⁰

So what is an independent evaluation group to do? Despite, and perhaps because, of the absence of a clear operational strategy and outcomes by the World Bank Group, the role of independent evaluation is a precious opportunity for the organization to ask the right questions. Those questions—evaluation questions—each must serve a clearly defined purpose,¹¹ with each purpose closely linked to IEG's mandate, the Bank Group's mission, and an understanding of the essential development challenges of the future.

Every organization comes with its flaws, and many of them exist for good reasons. The World Bank Group is no exception.¹² Despite employing perhaps a greater concentration of doctorate degrees than any other organization in the world, for the Bank Group, fighting ideology and inertia remains a constant struggle. There are reasons why even today, the words “Washington Consensus” are associated with the World Bank and the International Monetary Fund nearly a quarter century after the term was first used.

Challenging assumptions must be among the first evaluative purposes. An independent evaluation group is particularly well placed to challenge both long-standing assumptions—for example, good projects add up to good development¹³—and assumptions made about the future—for example, all growth will lead to poverty reduction. To be clear, the purpose here is not to find what's wrong, but to have within an evaluation portfolio sufficient focus on challenging assumptions to guard against following an entrenched ideology, or even the risk of doing so.

Unblocking reform is an equally important function that can often best be served by an independent evaluation group. Inertia, at least in the World Bank Group, is typically not the result of “laziness”—quite the contrary. It is typically the result of policy compromises among shareholders, or prior management decisions that cannot easily be revisited without stakeholders questioning why. Here, independent evaluation can and should play an important part in unblocking obstacles that keep the organization from changing its course.¹⁴

Informing policy debates is a third critical evaluative purpose. Unlike the caricature of the Washington Consensus, the World Bank Group has moved a great distance in taking the concept of country ownership seriously. As a result, the notion of technocrats imposing reforms on uninformed developing countries is largely a perception of the past. Nevertheless, informing discussions around development policies through evidence remains a principle purpose of evaluation—just like ideology can perpetuate false assumptions, ignorance can lead to overlooked opportunities. Among its peer evaluation departments in multilateral development banks, IEG has embraced this concept probably more than any other in trying to bring evidence right into global and national development policy dialogues; though much more remains to be done.¹⁵ Doing so takes some courage, as virtually all IEG evaluations contain elements with which some audiences will agree and others will strongly disagree. The leadership of a Director-General in standing behind uncomfortable messages vis-à-vis a critical external or internal audience is essential. Vinod has been exemplary in making the case for informed policy debates.

This short inventory of evaluative purposes is, of course, not intended to be exhaustive. As with any public sector institution, the World Bank Group is accountable to its shareholders as well as the general public. It is clear that IEG therefore has an important role to play through its accountability function. Similarly, development remains an uncertain business, and the World Bank Group must take not only financial risks, but also developmental risks. Contributing to a sound assessment of these developmental risks is another important purpose of evaluation.

“One should guard against preaching to young people success in the customary form as the main aim in life.”¹⁶

IEG, or any other independent evaluation group, must guard against the risk of its own inertia. The World Bank Group has a very strong and persistent corporate culture. Independent evaluation often serves as the final “judge” of the success and failure of programs that staff may have devoted years of their lives to make work, often under difficult circumstances. Nobody wants to have his work characterized as unsuccessful, regardless of whether a more successful outcome could have been feasible. This makes independent evaluation powerful; it also makes it integral to the incentives for staff to focus on doing the right thing.

The judgment of success and failure, of what methods to use, and of what standards to apply must be aligned with the evaluative purpose. What was considered success in the past may not be right for the future. Over the last few years, IEG has expanded its evaluation toolkit beyond retrospective evaluation. As the challenges of the future become increasingly interconnected and transcend borders, adopting new evaluation methods that are consistent with the evaluation purposes remains an important agenda if IEG is to fulfill its mandate effectively. It is my strong hope that the course Vinod has charted during his time at IEG, particularly the push for impact and innovation in methodologies, will remain as a lasting contribution that will only grow stronger in the years ahead.

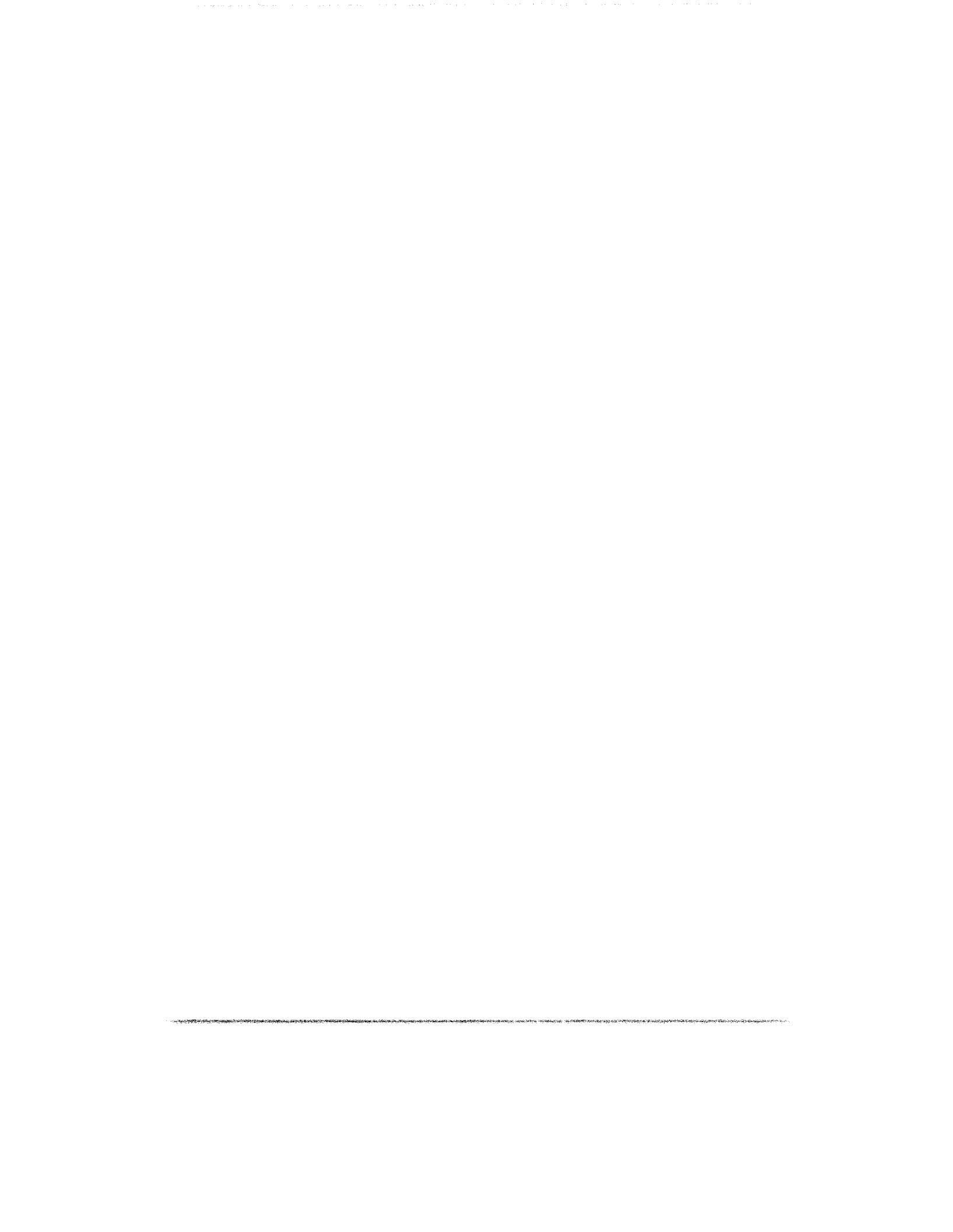
Notes

1. Dixit and Nalebuff (2008).
2. Dixit and Nalebuff (2008).
3. The World Bank refers to the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA).
4. See, for example, Einhorn (2001).
5. See, for example, Zedillo (2009).
6. Zoellick (2007).
7. Zoellick (2008).
8. IEG has attempted to do this leading up to the World Bank and International Monetary Fund Spring Meetings in 2011 by hosting a high-level dialogue, jointly with

- the World Bank Institute: The Challenge of Managing Crisis in a Rapidly Changing World.
9. See also Thomas (2011).
 10. See Banerjee and Duflo (2011).
 11. I have to thank Prof. Mel Mark, a member of IEG's External Advisory Group, for pointing me to the idea of a Portfolio of Evaluative Purposes.
 12. See Weaver (2008) for an interesting account.
 13. IEG has found consistently that country-level performance of World Bank Group programs falls short of project-level performance within the same country.
 14. This was very much the case in IEG's evaluation of safeguard policies (IEG 2010).
 15. I want to acknowledge Shanta Devarajan, the current World Bank Chief Economist in the Africa Region, who speaks about "nourishing conversations with evidence" as one of the goals behind his very successful blog.
 16. Quote attributed to Albert Einstein.

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Evaluation for Results

by Jiro Tominaga

The mission statement of the Independent Evaluation Group (IEG) of the World Bank Group, “Improving Development Results through Excellence in Evaluation,” epitomizes the vision that Vinod Thomas pursued during his tenure as Director-General, Evaluation (DGE). During the time Vinod led IEG, development stakeholders worldwide increased their focus on improving and measuring development results. Various international initiatives, including the Monterrey Conference on Financing for Development, the Paris Declaration on Donor Harmonization, and the Accra High-Level Forum for Aid Effectiveness, attest to this shift. To sharpen IEG’s focus on results, Vinod stressed four areas: relevance, timeliness, a mixed approach, and independence.

Relevance

Evaluation must be relevant to the current development challenges to make a meaningful contribution. Thus, evaluation topics must be strategically selected, and their recommendations must be applicable to future work. In this context, understanding the drivers of the development agenda is vital to ensuring the quality of evaluations. During Vinod’s tenure at IEG, there were three distinct characteristics of rapidly changing environment affecting IEG’s strategic directions.

First, because of tighter linkages across countries, it was increasingly clear that the costs of failure have become much higher than they were before. Two prominent transformative changes that affected IEG’s operation were the global financial crisis and climate change. On the former, the extraordinary speed with which the situation unfolded made it vital that actions be taken rapidly: obtaining lessons in real time therefore became essential. Ex post findings—IEG’s primary evaluation approach—are likely to come too late and to have little value.

Second, it became evident that to focus on results, one needs to look for cross-cutting solutions. The focus should be on those results that contribute to sustainable development at both the outcome and the impact levels. Such results are typically generated through extended causality chains comprising interlinkages of activities and interventions undertaken by government agencies, international organizations, the private sector, and civil society organizations. Thus, defining results involves capturing synergies and missed opportunities from cross-project and cross-sectoral linkages.

Third, there has been a growing recognition of the importance of policies and knowledge services as well as financial support. Diverse forms of policy support, capacity building, and knowledge services are becoming major tools of engagement for many development institutions in middle-income as well as low-income countries. Development results are driven not only by the volume and quality of financing, but also by the knowledge and learning that accompany the funding.

In this era of growing complexity and rapid transformation, IEG set three strategic directions to ensure that its operations remain relevant to the key development challenges of the times. These directions include responding to emerging issues, forging stronger links with World Bank Group directions, and promoting greater integration of IEG's work. The underlying thrust is the effort to maintain flexibility in order to maximize the value of evaluative knowledge in addressing global uncertainties and the World Bank Group's changing role. IEG's work program was set to ensure that the discussion of issues with strategic significance to the Bank Group would benefit from the findings of independent evaluations.

Each strategic direction introduced a new approach to how business was done in IEG. For example, rapid response to an emerging issue was not a conventional tool in IEG's arsenal. Today, quick turnaround notes have become an established product to offer insights while actions are being developed or adjustments are being made. Examples of such a note include those related to the global financial crisis in 2008 and the earthquake in Haiti and the floods in Pakistan and West African countries in 2010.

The effort to continue engaging on issues with particular importance for the World Bank Group has also increased in the past several years.

IEG has been providing inputs to sector strategies and corporate issues in various ways. Large-scale evaluation reports are most visible, but brief IEG statements at the time of Board meetings and evaluation notes consolidating relevant findings have proven highly effective. Challenges remain to ensure that follow-up to recommendations is made, and IEG maintains its skills and knowledge base to remain on top of the evolving issues. In this context, IEG introduced the notion of programmatic engagement in issues with particular importance to the World Bank Group. This approach is expected to provide flexibility and just-in-time inputs as situations develop around these topics.

Finally, to respond to the growing importance of the interlinkages between the activities of the public and private sectors, the integration of IEG was actively pursued. When Vinod assumed the position of DGE in 2005, he inherited an organization comprised of three independent evaluation departments attached to the World Bank, the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA)—located in different World Bank Group buildings. At the time of his departure, IEG consists of three departments responsible for evaluating public sector activities, private sector activities, and country and corporate programs, as well as a strategy and communication department. Staff affiliated with different World Bank Group institutions work together in these departments—a reflection of a considerable institutional transformation that took place in the years since 2005.

Timeliness

The period that Vinod headed IEG was a challenging time for evaluators. International development was undergoing a fundamental transformation. One major aspect of this is the growing significance of emerging economies in the overall world economy, as underscored by the establishment of the G-20 as a premier policy coordination body in the wake of the 2008 financial crisis.

Meanwhile, the global financial crisis and the growing concerns over climate change put a heightened premium on the timeliness of evaluative findings. On both issues, short-term actions will make a critical difference to

the pace and degree of changes taking place in the medium to long term. An evaluation that comes late—even when performed with the highest quality and using the most sophisticated techniques—will fail to have the desired impact. The cost of waiting to evaluate until projects are completed is high, so timely feedback is crucial. The greatest challenge is to provide evaluative insights while actions are being formulated. The following approaches that IEG took in this extraordinary environment have generated some promising outcomes; their full contributions are yet to be known.

First, a series of briefs rather than a large report covering many years proved to be effective in informing policies as they progressed and contributed to midcourse adjustments. In 2008, IEG initiated a three-phase evaluation of World Bank Group activities related to climate change mitigation and adaptation. The first report in this series, which was completed in 2008, examined energy policies, including energy pricing and subsidies (IEG 2008a). The second phase focused on investments in projects and technologies to affect development and mitigate greenhouse gases (IEG 2010a). The third phase will look at the emerging challenges of climate adaptation.

The evaluation of the World Bank Group's responses to the 2008 financial crisis is another example. Since the crisis began, the Bank Group has committed \$138 billion to its members and disbursed a record \$81 billion—including \$21 billion to the world's 79 poorest countries (IEG 2010b). The expansion is vast, the costs of errors are large, and the actions taken are irreversible. This evaluation, which consists of a series of brief notes and large-scale reports to be published over several years, looks at lessons learned as well as the quantity, quality, and key drivers of the World Bank Group's response to the crisis. It identifies emerging issues; draws attention to the importance of speed, quality, coordination, and preparedness; and highlights the urgency of attention to climate change issues.

Second, each transformation is unique. At the same time, all transformations share certain similarities. In a time of crisis, when urgent actions are needed, useful lessons can be drawn from a study that builds on these similarities. Consolidation of useful findings from previous evaluative work, as well as customization to fit the situation at hand, is a valuable evaluative strategy.

A note that IEG issued a month after the January 2010 earthquake in Haiti (IEG 2010c) drew on a large-scale IEG evaluation of World Bank Group responses to past natural disasters (IEG 2006c). This note emphasized that the vital elements for success in disaster responses are the nature of the immediate response, diagnosis, project design and supervision, use of local capacity, private sector links, and coordination among partners, including those within the Bank Group. Many of the lessons from previous episodes remained relevant; at the same time, Haiti's distinct country conditions also had to be kept in mind. Similar notes were produced after the devastating floods in Pakistan and West African countries.

IEG also examined the World Bank Group responses to financial crises that had occurred between 1993 and 2003 in the hope of identifying lessons that could inform the response to the new crisis (IEG 2008d). This study pointed to several factors vital for addressing a crisis. Both the speed of the response and the quality of the intervention were found to be crucial. With the premium on speed, results frameworks that link objectives, program costs, and benefits take on added importance. Financial and risk management, as well as environmental and social safeguards, are critical to ensure that resources reach their intended beneficiaries. During past financial crises, poverty issues did not get sufficient attention. In addition, climate change and environmental problems need to be integral factors in any crisis response.

Several features of the initial support programs to respond to these crises are consistent with the directions that emerged from evaluative evidence. For example, the composition of the World Bank Group response to the 2008 financial crisis seems aligned with the need for poverty reduction and financial stability. In Haiti, as recommended in IEG's note, the World Bank and its partners were involved from the outset in the development of the response program.

Taken together, these examples point to the value that evaluations can add in a time of uncertainty characterized by rapidly shifting priorities. It pays to conduct evaluation alongside the implementation of response measures. It is particularly useful when an evaluation provides views in a shorter time horizon, as assumptions change rapidly. Therefore, waiting until the entire event unfolds to conduct ex post evaluations would have limited relevance.

These efforts involve moving evaluations upstream. An outcome of such a shift is that it could blur the line between evaluation and policy development, with a potential risk to the real and perceived independence of evaluative function. Clear and transparent guidelines to mitigate the risks would be useful.

The experience also shows that examining the past can guide actions in the future. The key is to extract lessons at the level of strategic, overall direction as well as principles for specific actions that, although valuable, may not be applicable in all cases.

A Mixed Approach

Evaluation against results should be the goal at all times, but the growing recognition of the linkages between projects and programs across development partners and multisectoral activities adds a new dimension to evaluation. In this complex environment, it is increasingly clear that the strict application of objectives-based evaluation—the primary approach of multilateral development banks' evaluation function—contributes little to improvement in results. It has become evident that evaluations should capture unintended consequences, both positive and negative. At the same time, evaluators need to draw on diverse views and multiple disciplines to address the cross-cutting nature of emerging issues.

Results-Objective Gap

The growing focus on results is the driver for an effort to close the gap between the objectives-based approach and evaluation against results, an attempt to capture outcomes beyond those stated for the project. For example, a project's stated objective might be to provide clean water, but the evaluation of such a project would be flawed if it omitted the complementary health benefits or resettlement costs or did not consider unanticipated effects of the project on a city's growth and revenue.

The inquiry in objectives-based evaluation is whether the stated objectives were met. In the shift toward a results-based model, the emphasis should be on the results contributing to poverty reduction and sustainable development. The convergence of objectives-based and

results-focused evaluation may be achieved when the objectives are results based. In other words, an assessment against the stated objectives could be a proxy for results-based evaluation if the objectives are formulated as results. Constructing a well-defined results framework becomes a vital first step in such a case.

Another way to get closer to results is to consider omitted objectives as complementary or conflicting aspects. For example, an IEG evaluation, *From Schooling Access to Learning Outcomes—An Unfinished Agenda* (IEG 2006b), found that two-thirds of Bank primary education projects focused on increasing enrollment and reducing dropout rates, and almost every project emphasized getting the necessary materials, such as books and blackboards, to schools. However, only one-fifth of projects had objectives explicitly covering the expected outcomes, such as improving reading, writing, and mathematical skills. Although most projects focusing on improved learning outcomes succeeded in achieving their objectives, the inappropriate targeting of intermediate outcomes in many projects lowered projects' effectiveness.

The Doing Business Indicators build on the premise that businesses are more likely to flourish if there are fewer and simpler regulations. The indicators successfully drew attention to the burdens of business regulation and offered a consistent yardstick for comparing countries' regulation as seen from a private firm's point of view. Regulations, however, generate social benefits, such as safety, environmental protection, worker protection, and transparency. An IEG evaluation of the Doing Business Indicators (IEG 2008b) suggests that what is good for an individual firm is not necessarily good for the economy or society as a whole. Focusing only on the Doing Business Indicators can distort the policy priorities by sending signals that discourage good and valuable regulations.

Cross-Boundary Interlinkages

Examining growing cross-boundary interlinkages is essential in today's development evaluation. The synergies between public and private sector operations are particularly consequential in light of the growing significance the private sector plays in development. IEG's evaluation of the World Bank's support for trade (IEG 2006a) found that the objective was

for accountability, it is essential to cover a broad range of activities, making it difficult for impact evaluation to serve as the only solution to the attribution challenge. Evaluation needs to find alternative means to fill the gap. It would be realistic to use impact evaluation as one of the methodologies in the mix of diverse approaches needed to delineate results.

These examples, and many others, show the critical value of not taking an eye off the final results and of evaluators' role in ensuring that multifaceted nature of development activities is recognized. The challenges in today's environment require the flexible evaluation strategies that match the growing complexities of the development scene, the value of impact evaluations in getting at attribution, and the need to complement them with approaches from a toolkit of mixed methods and approaches.

Independence

Independence of the evaluation function is essential to ensure objective accounts of institutions' effectiveness. Without independence, evaluative findings could lose credibility, and thus their impact. An independent evaluation function is also important to prevent gaming of internal incentives and disincentives (Thomas and Tominaga 2010).

Much debate has taken place on the institutional framework for the evaluation function. Some argue that only external evaluators can safeguard the independence of evaluations. At the other extreme, the bulk of evaluations undertaken by government agencies and international development organizations remain as self-evaluation. Evaluation functions in multilateral development banks, including the World Bank Group, were created to serve as independent evaluation groups *within* the institutional architecture to validate self-evaluations and enhance accountability.

The independent evaluation functions within the institutional architecture encompass the inherent tension between the dual roles of independent assessor and engaged advisor. Some would seem to err on the side of too little independence and some too little engagement. Yet it is important to capture the benefits of both: independence and engagement. A critical question for the DGE is what the best balance is between

independence and engagement in view of improving results and ensuring credibility.

The source of IEG's independence is the DGE mandate and associated institutional processes. These collectively ensure IEG's organizational independence. The processes related to the appointment and evaluation of the DGE are critical. The Board appoints the DGE and conducts the DGE's performance evaluation. Impartiality is further safeguarded by preventing the DGE from subsequent employment in the World Bank Group. The DGE reports to the Board, not to Bank Group management, and provides the findings of each evaluation without negotiating or clearing them with management.

Equally important is behavioral independence, which must complement organizational independence. In particular, the issues involved with potential conflicts of interest need to be addressed systematically. For example, it is common to allow evaluators to move to and from the affiliated organization after some time in the independent evaluation unit. To manage the risks inherent in such interchanges, IEG developed and issued recusal guidelines to prevent evaluators from assessing their own past work, or to negotiate for operational positions in areas they are evaluating.

Disclosure of the evaluation reports is another vital measure to sustain this balance. Evaluation reports should be made available for public scrutiny to enhance the accountability of the evaluated institution as well as of the evaluation itself. It is crucial that the evaluation group develop its own disclosure policy, separate from that of the affiliated organization, to avoid potential influence on the timing, modalities, and degree of disclosure.

In the end, however, it requires determination at the institutional level to protect independence. An important task of the evaluator is to deliver the messages as he or she sees them. To ensure credibility, tough decisions have to be made in favor of clearer messages as opposed to self-restriction, keeping in mind that the accountability of the evaluatees will be strengthened that way.

Two articles in *The Wall Street Journal* symbolize the turnaround in IEG's perceived independence that happened during Vinod's tenure.

On May 31, 2007, the *Journal* published an article, “Zoellick’s Clean-Up Duty,” in which the abolishment of IEG was called for. The article says,

Beyond the INT [Integrity Vice Presidency], Mr. Zoellick would also do the bank—and the English language—a favor by abolishing the Independent Evaluation Group. Despite its name, the group, which is supposed to provide independent assessments of the effectiveness of bank projects, is staffed by bank employees who have every incentive to kiss the hand that feeds them. If the bank truly wants “independent evaluation,” it would be better served asking Transparency International to set up a field office in the atrium of the bank’s D.C. headquarters.

After three and half years, another *Wall Street Journal* (Europe) article covering the IEG report on the World Bank Group’s response to the financial crisis (“World Bank is lauded for helping ease crisis,” November 19, 2010) says,

The IEG is an in-house auditor for the bank and is known for its independence, having sharply criticized the bank’s practices on corruption and agricultural policy.

Maintaining the appropriate balance between independence and engagement continues to be a difficult challenge for IEG. Leaning to either side would result in evaluations that are detached from the World Bank Group’s operational needs or that lack credibility. Neither situation can contribute to development results. Combining the measures to protect and enhance organizational and behavioral independence, as well as disclosure as pursued in recent years, offers a useful approach to build on down the road.

Concluding Thoughts

Evaluations must contribute to improving results, but today’s increasingly complex and uncertain environment poses a formidable challenge

to evaluators. A number of actions that IEG took under Vinod's leadership have scored some success.

First, the strategic directions gave IEG the flexibility to systematically address emerging issues and enabled the group to maintain engagement in issues of great relevance to the World Bank Group's direction. Real-time evaluation is an innovation that came out of the new directions. A series of notes on rapidly evolving subjects enabled IEG to provide timely input to inform discussions at the Board and to the senior management of the Bank Group. These notes cover a shorter time horizon than a traditional evaluation, but given the uncertainties involved, they may well be the most effective way to make evaluation useful for timely decision making.

Brief notes consolidating lessons from similar events also proved useful at times of urgent need for evaluative knowledge. Lessons from the past can be a guide to the future, even in an uncertain time and even though every case is different. The key is the ability to discern common threads emerging across events and to identify principles applicable in individual cases.

Second, evaluation for results increases the importance of looking beyond the stated objectives to find synergies and unintended consequences. Given the multiple sectors, players, and interventions involved in producing outcomes, it is vital that the evaluation team be able to assess the situation from diverse perspectives. A team with cross-cutting expertise is critical. At the same time, diverse evaluation methods, including impact evaluation, should be brought to bear to draw lessons under a complex environment. It pays to appreciate diversity and complexity in a time when unpredictability is the norm.

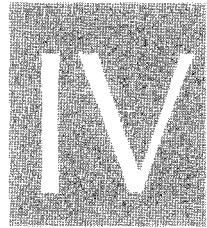
Third, underpinning the quality and credibility of all this work is the independence of the evaluation function. Maintaining and enhancing organizational and behavioral independence is vital. Disclosure and the determination of the evaluation function's management team both play a key role in keeping the system honest.

As uncertainties grow, evaluations with a focus on results become even more important in guiding the future. Evaluators face a clear

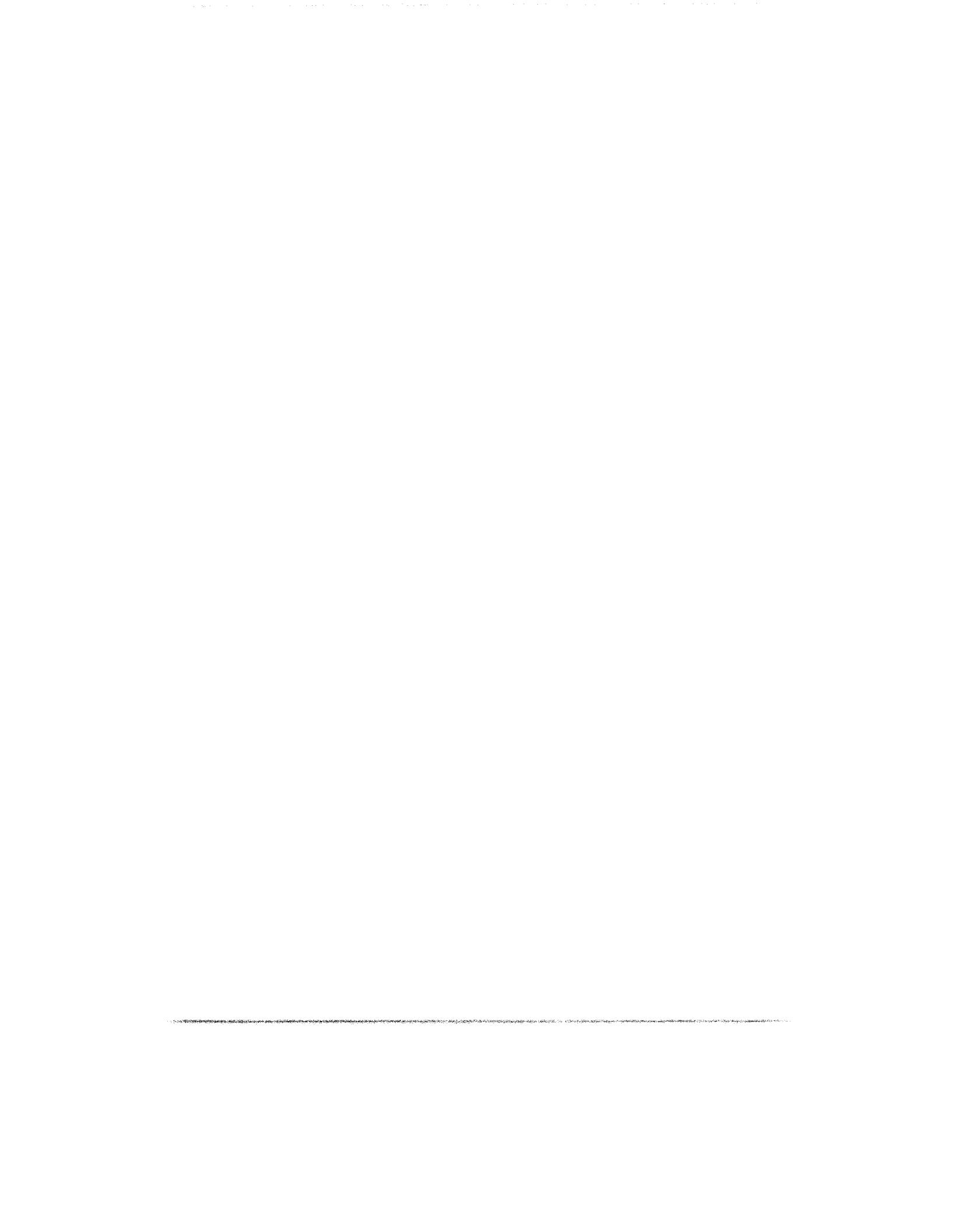
opportunity to provide guidance based on the analysis of the past and the present. IEG's experience points to the value of taking a holistic approach to strengthening the evaluation system consisting of the strategy, evaluation approaches, and independence.

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The Last Word



Reflections on My World Bank Group Career

by Vinod Thomas

Over the past 35 years, my professional life dovetailed the evolution of thinking on development in the countries and at the World Bank Group. In this journey, lessons learned—from both successes and failures—have been plentiful, associations with clients and colleagues have been rich, and issues of concern have been complex and challenging.

I have worked in support of the World Bank Group, realizing its enormous strengths and unique potential to help improve the living standards of millions of people and the well-being of the planet. In that spirit, I have taken highly supportive as well as critical positions regarding the Bank Group's directions, especially in my most recent assignment as the head of independent evaluation, a position that calls for objective and candid assessments of the performance of the institution.

I have valued these years of work at the World Bank Group enormously and consider it a true privilege to have had this opportunity. I now have this special chance to record in these pages put together by Ray Rist and Heather Dittbrenner some of what I learned in the company of colleagues—in the Independent Evaluation Group (IEG), at the World Bank Group, and beyond—with whom I had the good fortune to work over the years.

Formation of Experiences

Changing emphasis, if not changing fads, characterized development work over the decades. Late in the 1970s, it was clear how a flourishing research department at the World Bank resulted in a great deal of spillover benefits, not only for the organization but also for the rest of the world. Research in urban economics, the area in which I started with Douglas H. Keare, Rakesh Mohan, and others, anticipated some of the future changes. At the same time, the neglect of

the subject at the World Bank in later years was costly for the effectiveness of development work. My thinking on the priority for connecting research to policy was shaped by my unique experience at the University of Chicago with my great mentor George S. Tolley and others.

Agriculture was another such area of priority in the 1970s and '80s, but of declining importance subsequently. During the 1980s I was intensely involved in the work on agriculture in Bangladesh and Colombia. Bangladesh's Minister Obaidullah Khan championed the cause of investments in agricultural productivity, and Colombia's then Minister Roberto Junguito showed how agricultural performance was linked to macroeconomic policies. The World Bank's research and policy analysis made a crucial contribution in the areas of agricultural price policies, as did its work on trade policy reform, where I had the good fortune to work with Jaime De Melo, John Nash, Kazi Matin, and others.

Today, many rightly blame the rising food prices on the declining stress placed on agricultural productivity in the recent decades. Efforts are under way to reverse this past trend through higher investments, but the crucial question is whether these investments will translate into results on the ground.

During my work on the 1991 World Development Report, I was struck by the vision of then President Barber B. Conable on the interlinkages among economic growth, social progress, and environmental sustainability. Chief Economist Stanley Fischer emphasized the need to establish analytical underpinnings behind these links and their implications for action (I recall his handwritten note to me: "How are you going to incorporate the environment within development priorities?"). The interconnections featured in the report under the subsequent Chief Economist Lawrence H. Summers, who nevertheless was skeptical about the importance of the environment in growth.

Chief economists at the World Bank have been vital for the direction of the institution. Even when their views were not accepted during their time, they were often embraced later. Joseph E. Stiglitz's scathing comments on the International Monetary Fund's misplaced role in Asia during the financial crisis of the 1990s were uncomfortable to both the Fund and the

World Bank at that time, but these ideas have now become part of conventional wisdom. Justin Yifu Lin today is providing a compelling perspective on industrial policy that would not have had traction a decade ago.

My most exhilarating years were in the East Asia region during the first half of the 1990s, when the description of the East Asian Miracle went hand in hand with a recognition of the uncertainties and fragilities of the domestic and global economies. I learned a great deal from the region's Vice President Gautam Kaji, who deftly maneuvered the relations in a region that was at once supremely confident of its achievements and also in great need of support.

Learning programs for World Bank Group staff and for the clients were the focus of the World Bank Institute that I headed in the second half of the 1990s. Here is where I witnessed most vividly the broader vision of development set out by President James D. Wolfensohn. I recall Mr. Wolfensohn explaining to the Board of Directors why learning programs were as important as lending operations and how the two interacted to provide stronger results on the ground—and why the World Bank needed to be in the forefront of forging this link.

The environment was not far behind in Mr. Wolfensohn's priority. I remember him asking at one of the management meetings, "Does anyone care about biodiversity?" to which no one responded. Kristalina Georgieva, Andrew Steer, and others did pioneering work in this area, and several years later I was struck by the enormous emphasis the current President Robert B. Zoellick placed on the subject (for example, his leadership for the initiative to save the tiger), even as the rest of the institution was slow to follow suit on the importance of biodiversity or the environment. Mr. Zoellick's span of interest and concern has been remarkably broad, which has served to foster (rightly) the broad concept of development that the World Bank has come to support—embracing financial, economic, social, and environmental aspects.

Personal and Family Reflections

I am blessed to have a wife and three children who have always been next to me and supported me in my endeavors as a World Bank staffer.

As with many large organizations, working for the Bank sets a certain lifestyle and pace. People outside the Bank may not realize that World Bank staff deeply care about development issues, travel long distances to get their job done, and are willing to relocate to faraway places. I remember being posted in Brazil as a Country Director, which was one of the most fascinating experiences for me and my family.

Being in Brazil was an opportunity to return to my deep interests in the workings of development all at once in one place—macroeconomics, urban issues, education, health, and the environment (I had spent a year and half earlier in the 1980s at the University of São Paulo on leave from the Bank). The relation with the country was exceptionally rewarding. A memorable event was a visit to India at the invitation of President Luiz Inácio Lula da Silva on his first visit to that country. Another was my writing of a book on Brazil in collaboration with former Minister João Paulo dos Reis Velloso. There were tensions, too: I recall strong resistance from the Ministry of Finance officials to our wanting three pillars in the country strategy for Brazil—the third being the environment.

The move to Brazil was interesting for my family as well. I spoke some Portuguese, which was helpful during our relocation. But my wife Leila and children Milan, Aman, and Amita had to learn the language as they started life in Brasilia. My Portuguese, however, was far from adequate in the early going. I recall some of the events in my first year when I spoke in English and relied on a translator. At one of these meetings, I remember switching to Portuguese to please the audience. To my dismay, the translator continued to translate—Portuguese into Portuguese.

We had our share of homesickness initially and had to adjust to the new lifestyle, building our social networks and getting used to the new culture. Aside from the association with the international community through work and school, we built friendships with Brazilian families as we visited various places. We formed a very strong bond with our landlords, the Perezes, who became dear friends.

My last posting in my Bank career was as the Director-General of IEG. The job of an independent evaluator is to call it like it is, for which the support of the Committee on Development Effectiveness and the Board

has proved critical. For the most part, IEG has been able to function as an impartial provider of evaluation findings for the Board's deliberations and the institution's learning.

Since the first day I joined IEG, it was my mission to make the unit more effective and increase its impact on World Bank Group operations, as I strongly believed in its role as a catalyst for change. IEG also made progress in furthering knowledge sharing within the Bank Group. Since 2010, IEG has adopted processes to mainstream and track which of its recommendations were implemented by the Group's management and how effective they were. It is a big step forward—both for strengthening IEG's impact and for making its work better and more aligned to the institution's goals.

During my six years, IEG has evolved into an integrated organization covering the World Bank, the International Finance Corporation, and the Multilateral Investment Guarantee Agency, emphasizing collaboration across these departments and providing insights into the functioning of the whole World Bank Group. In my last year, we carried out a reorganization to formalize the concept of "one IEG." Some questioned why these changes were being initiated in my last year at IEG. My conviction was that they needed to be done because they were the logical follow-up to all we had done previously and precisely because it was my last year at IEG. As it turned out, the changes seem to have eventually facilitated working across boundaries, having flexibility to deploy resources and share lessons across institutions and sectors. I would like to pay tribute to my wonderful colleagues in IEG who worked with me in this transformation, including Hans-Martin Boehmer, Patrick Grasso, Daniela Gressani, and Jiro Tominaga, who contributed to this volume.

The Value of Independent Evaluation

IEG's mandate is to comment on development effectiveness, which includes the impact of the World Bank Group programs as well as processes that deliver the programs. In 2011 IEG carried out its first full-fledged self-evaluation. The report notes areas where IEG needs to improve its early involvement for greater effectiveness, where Bank

management could assume a less defensive stance on the findings, and where the Committee on Development Effectiveness needs to be a stronger supporter of independence.

As I wrote in one of my exchanges with the Committee members, IEG's strength is in its independence, which makes its findings credible and strong. With independence also comes the obligation to be transparent and accountable. There were times when World Bank Group management was able to put evaluation findings to good use. But there were also times when it did not want the findings to get traction. There were also moments in the past when some members of the Committee on Development Effectiveness were uncomfortable with differences between IEG and Bank management. On one occasion, some members asked IEG to sort out these differences and come back with a negotiated position—which would have diminished the value of having an independent assessment.

But because of a comprehensive disclosure policy that IEG has, we were able to be fully transparent and to voice our findings. In the long term, this seems to have helped strengthen the organization, benefited those who were evaluated, and sometimes supported the funding of some of the programs.

Some of the difficult and critical evaluations, despite disagreements, have been the most influential or effective in the long term—for example, the assessment of health, nutrition, and population or Doing Business. The tensest moments concerned assessments that covered institutional processes. One such occasion was my note to the Board on the need for a change in leadership and direction during the time of President Paul D. Wolfowitz. IEG's proposal to evaluate the internal governance of the organization encountered strong objection from Bank management, as well as some members of the Board, and IEG did not pursue this direction. The proposal to evaluate matrix management also was objected to by management, but with Board support, IEG has proceeded to do this evaluation.

Another matter of tension involved the process for the selection of the Director-General, on which IEG provided input, asking that the process be independent and transparent. IEG advocated a change in the selection process and recruitment of a new Director-General at IEG. To avoid misperception and ambiguity of IEG's independence, it was suggested

that the Board of Directors be the sole decision maker in the recruitment for this position. This was important, considering that since 2004 the development community has been pressuring for fuller disclosure and independent assessments of the work of development organizations, which was further reiterated in the 2009 Zedillo Commission report.

Evaluators found much to cheer about in the functioning of the World Bank Group as well. The Bank Group comes through as a strong organization with more checks and balances than most other similar organizations. Overall, its performance has improved in the past three decades. In fiscal years 2009–10, the World Bank’s leadership and response to the financial crisis was striking, with loan disbursements that exceeded those of the more publicized International Monetary Fund. An evaluation supported the International Finance Corporation’s new direction to emphasize development effectiveness and poverty reduction. Another major evaluation emphasized the efforts across the World Bank, the International Finance Corporation and the Multilateral Investment Guarantee Agency to follow up on safeguards. In fact, a recurrent theme has been that wherever the three parts of the World Bank Group pulled together, the organization’s unique role was better realized.

In all this, the progression of the processes of learning has clearly been nonlinear. So have been the development and revision of ideas over these past decades.

Lessons from Development

We have known for some time that sustained and sustainable development is the most pressing challenge facing the human race. Despite the enormous opportunities created by the advances in technology, some 1 billion people—one-fifth of the world’s population—still live on less than \$1.25 a day, a standard of living that the United States and Europe attained two centuries ago.

The decade of the 2000s saw unprecedented economic growth in the two most populous nations, China and India, and solid expansion in much of the developing world. Yet the plight of the poor and conditions of poverty remain harsh. Income distribution across and within countries

has worsened for the most part in the decade. Periodic financial crises and the new challenges posed by climate change have made development that much more daunting.

In the past, development efforts may have mattered primarily to the citizens of poor countries. But now demographic, political, and technological trends make development an urgent priority for rich countries as well. Ninety-five percent of the growth in the world's labor force will take place in the developing world over the next quarter of a century.

With the end of the cold war, economic and environmental issues now occupy the center of the diplomatic stage, and these issues will increasingly involve developing nations. As improvements in transportation and communication shrink the world, rich and poor countries inevitably impinge more and more on each other. The Internet's impact on the less-advanced nations and the sharp increase in migration and remittances already signal major changes.

In this connection, a remarkable transformation in views about how governments can best promote economic development has occurred. It was once thought that government needed to occupy an economy's commanding heights by allocating credit, rationing foreign exchange, ensuring against dependence, and operating key industries. Then the view changed to the belief that government should step out of the business of development.

Today it is widely accepted that government has an important responsibility for setting the regulatory framework and ensuring it is followed, but not directing the production and distribution of goods and services. The private sector's role would be that much more enhanced for economic activities and generating economic growth. It is in those tasks for which markets prove inadequate or fail altogether—for example, investing in education, health, or physical infrastructure—that government has a central role.

Why Quality Matters

The Economist of October 7, 2000, emphasized the centrality of growth in reducing poverty. I agree with that. But I also argue that it would be

a big mistake to neglect, as the magazine did, lessons on how to achieve more and better growth—growth that is sustained and whose benefits flow to all.

The number of poor people in the world (outside China) has been rising, including in India, the second most populous country in the world. To reverse this trend, economic growth is crucial. At the same time, it is not merely more growth but also better growth that determines how much welfare improves—and whose welfare. Countries with similar incomes and growth over the past three decades have achieved widely differing outcomes in education, health, and environmental protection.

These experiences demand that we seek answers beyond the “Washington consensus.” Understanding the process of growth, including its social, environmental, and institutional aspects, builds country ownership and improves development outcomes. Quantity versus quality is a false dichotomy. The two are jointly determined, and their interaction is what decides whether the results will be good, bad, or indifferent.

First, severe inequalities in investment in education and health imply that millions of people lack opportunities to improve their lives. Educational differences in India are one reason the impact of growth on poverty is five times greater in Kerala than in Bihar. Poland, the United States, Canada, and the Czech Republic seem to provide the most equitable opportunities for schooling; at the other extreme, Egypt, India, Pakistan, and Tunisia have much greater educational inequalities.

Second, poor governance retards growth and particularly hurts the poor. Large-scale corruption allows domestic elites and some transnationals to steer policies and laws to their own advantage, at others’ expense. Civil and political liberties and freedom of the press help reduce corruption, improve the effectiveness of social spending and safety nets, and increase the productivity of investments.

Third, improving environmental quality and protecting natural resources spur growth and welfare directly, especially for the poor. Dealing with pollution in cities, the depletion and deterioration of water supplies, or the destruction of forests and precious biodiversity is urgent

and can make a big difference. Indonesia's forest fires, caused partly by bad policy, caused at least \$8 billion in direct losses in 1997–98, arguably harming the poor even more than did the financial crisis.

Some question whether this broader agenda is too ambitious. It should not be. The quality agenda is not a veiled demand for big government. Rather, it is an invitation to all parts of society, within market-friendly policy frameworks, to participate in development. This calls for strengthening government and nongovernment institutions alike.

Triple Danger

Today we face a threefold global crisis—economic and financial downturn, a rise in food prices and poverty, and climate change and environmental stress—presenting joint threats to life and well-being on this planet. Increasingly, it would be a mistake to think that governments should deal with poverty and the environment only after they have put the financial crisis behind us. In the absence of high growth, it is hard to see how poverty will be lessened or environmental actions financed. And unless carbon emissions are cut and poverty reduced, growth prospects will be doomed.

The truth is that poverty and climate change are no longer distant threats to economic growth. Climate change presents the greatest threat to sustaining high growth. In the past 100 years, the world economy expanded sevenfold, the global population increased from 1.6 to 6.5 billion, and the world lost half of its tropical forests. Consequently, atmospheric carbon dioxide levels are now 385 parts per million and rising fast. This is close to the 450 ppm threshold beyond which it may be impossible to achieve the Cancun-agreed goal of limiting global temperature rise to 2° Celsius.

National economies are already seeing the effects of climate on local agriculture. Natural disasters are on the rise: remarkably it is the hydro-meteorological events, not the geological ones, that have shot up, suggesting the ominous link to global warming. The proximate reason for the doubling of wheat prices over the past year is the collapse of production in the former Soviet Union and elsewhere, linked to unprecedented heat waves and floods.

The economic costs, including the losses caused by air pollution, water contamination, and solid wastes, as well as deforestation, are estimated to amount to some three percent of gross national product in China as well as India, Argentina, Turkey, and elsewhere. Strikingly, prevention is often far cheaper than cure—whether it's curbing industrial pollution, arresting deforestation, or reinforcing structures in disaster-prone areas.

Sustained growth has been the most powerful means to reduce poverty, especially in China, India, and elsewhere in Asia. China's growth averaged 10 percent yearly for the past 25 years, lifting some 400 million people out of poverty. But allowing poverty to balloon jeopardizes political stability and continuation of growth itself, increasing the prevalence of failed states and making the world less safe for investment and trade. Some 150 million more people slipped into poverty worldwide during the financial crisis of 2007–08 and a further 50 million during 2010 because of food price rises.

Yet it is unquestionably tough to attack the three heads of the hydra simultaneously. Deep down, it is my conviction that growth paradigms and models need, for industrial and developing countries alike, an overhaul. The aim ought not to be just the pace of growth but its patterns and quality, if progress is sustained. This line of thinking opens up large issues for discussion and by its sheer breadth might even come in the way of pragmatic action.

Therefore, it is wise to pursue win-win opportunities. Remarkably, the threefold crisis offers some unique opportunities that can be seized. There are policies, investments, and deals that can help these nations separately and collectively confront two if not all three of these dangers at a single swipe.

First, this is the time for nations to reverse policies that sacrifice the climate in the name of immediate growth. The most egregious example is energy subsidies, which cost almost a third of a trillion dollars in 2007 worldwide. These are frequently justified as protecting the vulnerable, but the bulk of subsidies does not reach the poor. They also encourage energy waste and drain fiscal resources.

Another dual-purpose policy is to set up robust social safety nets, providing a boost to consumption while lifting millions out of poverty. Conditional cash transfers in Brazil and Mexico are examples of efforts to both reduce poverty today and, by tying them to children's education and health, boost future growth. Outlays amounting to just about 1 percent of gross domestic product can make the difference.

Second, this is the chance for countries to invest in energy efficiency. Government funding for green and carbon-saving technologies, as in the United States or China, could not be better timed. Taking advantage of declining capital costs of hydro, wind, geothermal, and solar energy, it would pay to invest in these technologies now, anticipating the resurgence of fossil fuel prices.

Such investments would help sever a link that has long been the bane of antipoverty campaigners. No country has managed to lift living standards without increasing its carbon footprint. But under today's vastly changed global environment, it is essential that they do so. Global warming hurts the poor the most. Climate change is causing a spike in natural disasters as well as gobbling up arable land and reducing water availability in critical areas.

Third, this is the moment to make deals that will lead to a surge in financing for development and its effective use. You only have to look at global projections to see that the boost to growth from the fiscal stimulus is envisaged to be greater in developing countries. That is because infrastructural investments or policy improvements can deliver sharper increases in growth in these economies than in the more affluent ones.

Hard though it may be to sell this idea in rich nations, their governments might consider proactive actions that promote capital flows to emerging economies as well as augment development assistance in low-income settings. When the world is increasingly dependent on developing economies to re-energize the failing global economic system, support for such financial flows would be an important aspect of the global stimulus.

Policies aimed at immediate growth at the expense of social safety nets or greener investments will be suicidal. Economic, social, and envi-

ronmental dimensions of the recovery are no longer distinct goals with phased solutions. They are part of the same package of needed actions.

Lessons from Evaluation

Evaluation often confirms existing knowledge, but sometimes it also brings out factors that otherwise get short shrift in discussions and actions. Some of these factors can be crucial links in the chain connecting actions and results in development. The lessons follow a logical path from *what* results are (or should be) the focus of attention, to *how* those results are being measured, to the *use* of information on those results to improve development results.

One issue is that focusing exclusively on short-term objectives can impair long-term results. Such a partial focus can incur high sunk costs and may do more harm than good. For example, responses to natural disasters often target reconstruction but not mitigation or prevention. But disasters should be treated as risks to development, not interruptions in development. IEG found that among countries that had received World Bank support to deal with disasters, fewer than half of Country Assistance Strategies even discussed disaster response.

Focusing only on intermediate outcomes also may put at risk the achievement of desired results. An example was the Bank's primary education projects that focused on increasing enrollment and reducing drop-out rates until 2005, while they largely ignored the long-term goal of learning. The new Education Sector Strategy in 2011 put the central focus on results and learning, in part following IEG's evaluation findings.

Second, country-level results differ significantly from project-level results. Country objectives tend to be broader than project goals and are likely to be affected by factors well beyond the scope of any project, or even the portfolio as a whole. For example, the Chad-Cameroon oil pipeline project was well implemented and a financial success; but the main country-level objectives—capacity building in the sector, improved governance, and reduced poverty—were not met.

Third, ignored or missed cross-sector linkages may lead to shortfalls in outcomes and impacts: Often outcomes in a sector are linked

to results in other sectors in nonobvious ways, and it pays to take them into account. For example, in Bangladesh, rural electrification has done more than bring power to communities. An IEG evaluation found that it also has reduced child mortality by helping raise incomes through better business opportunities, improve delivery of health services, and increase water sterilization.

Fourth, the approach to measuring results can send wrong signals when what is being measured does not match the claim. For example, the Doing Business Indicators claim to measure the overall state of the business regulation in a country, if not the state of country reform. But it is a misleading indicator of regulation and reform, as by and large it only values the lower cost to business from lighter regulation and lower taxes, and not the benefit to society from a certain degree of regulation.

Also, averages can miss crucial targets. A project or program may be successful on average, but fail to address the right constraint or reach targeted beneficiary groups. For example, the Bank's community-directed projects aimed to reach the poor, but an evaluation found that benefits tended to be greater for the better-off than for the poorest, and in some cases the poor were worse off.

Fifth, the past can sometimes be an inadequate guide to the future. Changing environments and new challenges make a direct application of findings from past work to future efforts problematic. For example, the Bank's work in water has improved steadily, but its focus on water availability does not provide much learning to help in coastal zone management, pollution reduction, or groundwater conservation.

Also, identifying missed opportunities can help craft better strategies. For example, evaluative evidence shows that reducing energy subsidies, which often go disproportionately to the better off, leads to efficiency gains, creating a win-win situation in which conservation can be linked to better targeting of subsidies to the poor.

In all this, the timing of monitoring and evaluation is crucial. Evaluative information can be effective only if it is delivered when it can affect key decisions. Thus, early evaluations of Mexico's conditional cash transfer program showed positive results on schooling, health, labor

supply, and consumption just as a new administration was coming into office, convincing them to retain the program.

Concluding Thought

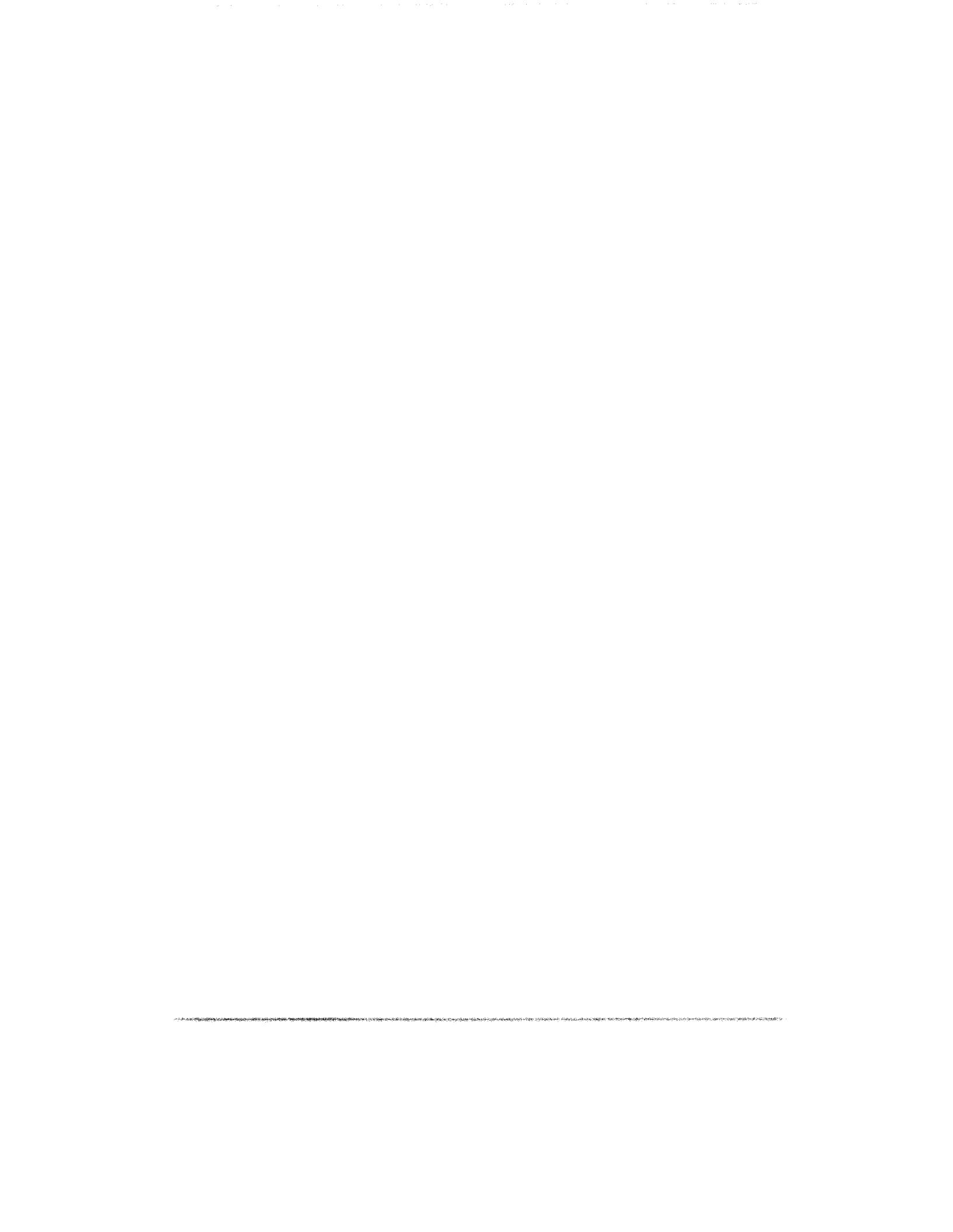
Each of us approaches work and life somewhat differently; we have different roles, and our expectations vary greatly. But we all do our work to the best of our ability. And when that work is seen to have been useful or to have had an impact, fulfillment is also high.

The World Bank Group is a unique organization with enormous strengths as well as vulnerabilities. Its greatest value comes from the interaction its staff have with the clients and the people they work with. It is my hope that open dialogue all across the board will remain every bit a part of the process of these interactions, and by the same token the organization will use all its strengths in the service of its clients.

Working for the Bank has been an extraordinarily enriching experience personally for me and my family. Moving to different places and meeting amazing people from around the world who deeply care about making the world a better place formed my family values and instilled a strong sense of community and responsibility in my children.

With the opportunities that the World Bank Group provides to its staff and clients, it still has a distance to go in responding to urgent global needs. Evaluations tell us that World Bank Group needs better coordination on knowledge sharing, stronger links across various units and institutions, and a keener eye on getting results on the ground.

Let me conclude with a saying from Mahatma Gandhi: “If I keep on saying to myself that I cannot do a certain thing, it is possible that I may end by really becoming incapable of doing it. On the contrary, if I have the belief that I can do it, I shall surely acquire the capacity to do it even if I may not have it at the beginning.” This might be a motto for anyone who works on development—aiming to see a world without poverty, conflict, and environmental destruction.



About the Authors

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Stanley Fischer has been Governor of the Bank of Israel since May 2005. Prior to joining the Bank of Israel, Stanley was Vice Chairman of Citigroup. He was the First Deputy Managing Director of the International Monetary Fund. Before he joined the IMF, Stanley was the Killian Professor and Head of the Department of Economics at the Massachusetts Institute of Technology. Before that he was Vice President, Development Economics and Chief Economist at the World Bank. He was Assistant Professor of Economics at the University of Chicago until 1973 and Associate Professor in Economics at MIT, where he became full Professor in 1977. He has held visiting positions at the Hebrew University, Jerusalem, and at the Hoover Institution at Stanford. Stanley is a coauthor of *Macroeconomics* and of *Lectures in Macroeconomics*. He earned a B.Sc (Economics) and M.Sc. (Economics) at the London School of Economics and obtained his Ph.D. in economics at the Massachusetts Institute of Technology.

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Daniela Gressani has been the Deputy to the Director-General and Senior Advisor to the Director-General of the Independent Evaluation Group since 2009. Before that, she was Vice President for the Middle East and North Africa Region of the World Bank. She has been in the World Bank since 1988, serving in a number of senior positions, including Country Director for Central Europe and the Baltic States; Interim Director at the Office of the President; Director for Strategy and Operations, Latin America and the Caribbean Region; Sector Manager for Poverty Reduction and Economic Management, Europe and Central Asia and the Middle East and North Africa; as well as various assignments as economist (1988–97). Prior to joining the World Bank, Daniela served as an economist in the Research Department of the Central Bank of Italy. An Italian national, Daniela holds an M.Sc. degree in Economics from the London School of Economics and Political Science.

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Roberto Junguito became President of Aero Republica (now Copa Airlines Colombia) in 2005, leading the airline's turnaround process including the alliance with Copa Airlines. Prior to joining Aero Republica, Roberto was Planning Vice President and Chief Operating Officer at Avianca. From 2001 to 2003, he was vice president of Valores Bavaria, where he was involved in defining the portfolio strategy of this private equity fund and recruiting its top management team. For four years he worked at McKinsey & Company on a variety of projects in the financial sector, consumer goods and services, and industrial products. One of his major projects was the development and implementation of the Transmilenio transportation system in conjunction with the Bogotá Mayor's Office. He currently serves in the Universidad de los Andes Board of Directors. Roberto has a degree in industrial engineering from Los Andes University in Bogota, Colombia. He also earned an MBA from Wharton School and an M.A. in international relations from the University of Pennsylvania.

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Donald Keesing spent more than 20 years at the World Bank and its private investment affiliate, the International Finance Corporation. Prior to his work at the Bank, starting in 1975, he was a professor of economics at Colombia University (1964–68), Stanford University (1968–72), and the University of North Carolina at Chapel Hill (1972–75). He is the author of *Improving Trade Policy Reviews in the World Trade Organization* (1998) in addition to numerous publications on international trade.

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Vinod Thomas is Director-General and Senior Vice-President, Independent Evaluation Group (IEG) at the World Bank Group. He reports directly to the Board of Executive Directors and oversees the activities of IEG. He was formerly Country Director for Brazil and Vice President of the World Bank. In this capacity, he managed the Bank's large lending and nonlending portfolio in Brazil, helped shape the dialogue with the government and the Bank's Brazil Country Assistance Strategy, and participated in key events with the government. Prior to that, he was Vice President of the World Bank Institute (WBI). Before heading WBI, he held positions as Chief Economist for the World Bank in the East Asia and Pacific Region. He was the staff Director for the 1991 World Development Report, entitled *The Challenge of Development*. He was also Chief of Trade Policy and Principal Economist for Colombia. Vinod joined the Bank in 1976. He has a Ph.D. in Economics from the University of Chicago, a master's degree from Western Michigan University, and B.A. Honors from St. Stephen's College, Delhi. He is the author of more than a dozen books, numerous journal articles, and opinion pieces in areas from trade and macroeconomics to project evaluation and finance.

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James D. Wolfensohn was the ninth president of the World Bank. During his 10 years as President, Mr. Wolfensohn focused the spotlight on the institution's true purpose—fighting global poverty and helping the world's poor forge better lives. Under his leadership, the World Bank implemented a range of significant reforms to help achieve its mission and broke ground in several major areas including corruption, debt relief,

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