CHAPTER 13

FROM MIRACLE TO CRISIS TO RECOVERY: LESSONS FROM FOUR DECADES OF EAST ASIAN EXPERIENCE

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There has been much debate about whether there was or was not an East Asia miracle, and if there was, what contributed to it, and whether there are lessons that are applicable to other regions. By the same token, there has been much debate about what caused the East Asian crisis, what lessons should be drawn from that experience, and what insights the crisis itself sheds on the economic developments of the preceding three decades. As countries have recovered from the crisis—some more quickly than others—the debate has not diminished. Some have viewed the quick recovery as evidence of these countries' long-standing strengths, others as bearing testimony to the wisdom of the reforms that had been urged upon them in the midst of the crisis. The distinguished authors who have contributed to this volume, all with a long-standing interest in the region, have analyzed different facets of the East Asian experience refracted through the two years of crisis and with the benefit of nearly a decade of scholarship that has deepened our understanding of the miracle.

Instead of attempting to provide an overview of the volume and a synthesis of the findings that would go over ground already covered by Shahid Yusuf in chapter 1, I will indicate how my own thinking on East Asia has evolved since I contributed to the World Bank's miracle study, *The East Asian Miracle* (World Bank 1993), almost a decade ago. In doing so I will be at times complementing and at other times providing a counterpoint to the views of the other authors.

WAS THERE A MIRACLE?

As Shahid Yusuf has suggested, the debate as to whether what happened in East Asia deserves the appellation of a miracle is just a matter of semantics: whether we call it a miracle or not, the fact of the matter is that the increases in living standards were virtually unprecedented. Only a tiny number of other countries have succeeded in achieving comparable rates of saving on a voluntary basis, over an extended period of time, and even countries with considerably lower savings rates have found it difficult to invest comparable amounts (relative to gross domestic product) efficiently, with high and sustained incremental output capital ratios. A large part of the *real* debate on East Asia's development prowess revolves around explaining these high savings rates and the relative efficiency of investment.

There is another aspect of the miracle that has received all too little attention but plays a role in the sequel: capitalism has always been plagued by fluctuations, including financial panics. What is remarkable about East Asia is not that it experienced a crisis in 1997, but that it had experienced so few crises over the preceding three decades—two of the countries had not had one year of downturn and two had had one year of recession, a better record than any of the supposedly advanced and well-managed Organisation for Economic Co-operation and Development (OECD) countries. This experience naturally raises several questions: Were there features of the "miracle" that led both to growth and to relative stability? Did the crisis of 1997 represent a manifestation of weaknesses that had long been latent, a change in the world, with a failure of the region to make concomitant adaptations, or an abandonment—partly under the influence of outsiders—of long-standing policies? I will argue below that while there are elements of all three explanations, the last almost surely was pivotal.

THE TOTAL FACTOR PRODUCTIVITY DEBATE

Whether one can explain increases in East Asian incomes largely as a result of changes in inputs turns on technical issues discussed by Pack (see chapter 3 of this volume), Kim and Lau (1994), and Lau (1998). These have not been, and are not likely to be, ever cleanly sorted out: in effect, there is a problem of underidentification. Some now claim that "all" one has to do in order to attain rapid growth is to reach East Asian levels of saving and ensure that the funds are well invested. According to this view, there was little evidence of a "miracle" in the sense that the pace of total factor productivity (TFP) increase was not large at all. In fact the estimates by Kim and Lau (1994) suggest that TFP made no contribution to the growth of the newly industrializing East Asian economies. They underscore the significance of investments in physical capital, human capital, and research and development. The East Asian countries still lag far behind the major industrial countries in terms of TFP.

However, I remain skeptical as to the robustness of the results generated by growth accounting. As Rodriguez-Clare has pointed out, slight (and plausible) changes in how human capital is measured can lead to markedly different results (Rodriguez-Clare 1996). The difficulties of aggregating capital are well known. Moreover, the standard Solow methodology for measuring TFP (based on the residual method) assumes that factors get paid their marginal product (as they would in fully competitive markets). But there is overwhelming evidence that, especially in many of the markets in East Asian countries, competition is far from perfect. Governments intervene in wage setting. This is important: because of the high rate of increase in capital, *if* a large weight is assigned to capital in measuring inputs, then, not surprisingly, the amount of TFP is low. The purported share of capital, say, in Singapore, is 50 percent—twice the figure of more developed countries. Thus, *if* the maintained hypothesis is that the industrial and developing countries are on the same production function, and differ only in capital per capita, one must assume that the elasticity of substitution is markedly less than unity—a hypothesis that is inconsistent with the longer-term historical data, which suggest an elasticity of substitution much closer to unity. This maintained hypothesis looks weaker still when we note that even today, with Singapore's per capita income comparable to that of more industrialized countries, the share of capital is considerably greater.

The unreliability of the Solow methodology has long been recognized: it is as if the distance between Newark and New York were to be determined by using a 12-inch rule to measure the distance between New York and Los Angeles and Newark and Los Angeles, and subtracting the difference. The errors in measurement of each of the components are likely to determine the outcome.

Alwyn Young's (1992) often-cited study arguing that the freedom of markets in Hong Kong, China, can explain the relatively rapid increase in its total factor productivity illustrates how the Solow technique can yield erroneous results. Not only is it the case that the measurement of total factor productivity increases can be unreliable, as we have just suggested, but the interpretation of the residual, what is left over after measuring inputs, is highly ambiguous. Assume that one could feel confident that Hong Kong's residual was greater than that of Singapore. Is it because of better economic policies? Or is it because Hong Kong was the entrepôt for the mainland of China, and as the mainland's economy grew, so did the demand for Hong Kong's services? In this interpretation, Young's explanation of Hong Kong's higher TFP relative to Singapore is turned on its head: Hong Kong's success actually was a result of the growth of perhaps the least free-market regime of the region.

In a sense, the total factor productivity debate is much ado about nothing. There has been a narrowing of the technology gap—and there is every reason to believe that this will continue. Those who argue for little TFP are not denying the decrease in the technology gap, but only that the technological gains were "purchased." But the key policy issue facing all developing countries remains: how to close the knowledge gap. It may be reassuring to know that technology can be acquired at a price. But money alone will not do the trick, or else many other countries would have narrowed the technology gap as well. At the very least, we have to allow for the possibility that governments in some Asian countries provided the preconditions, through a variety of channels, most notably their support for technical education. While the closing of the knowledge gap *may* have been a by-product of the high levels of investment, the successful countries made deliberate efforts to enhance the transfer of technology, including foreign direct investment.

SAVINGS

Similar issues surround many of the other components of the "miracle." Several governments deliberately promoted savings. In Japan, postal savings banks made it easier (and more secure) for those in the rural sector to save, while in Singapore the National Provident Fund, in effect, imposed a 42 percent savings rate on workers. There is a debate: Can the high savings rate be "simply" explained by characteristics of the economy, such as the high growth rate? If increases in consumption lag behind increases in income, then a high growth rate will be associated with a high savings rate. There may then be multiple equilibria in the short run—one with high savings and high growth, the other with low savings and low growth. But that leaves unanswered the key question: Why did East Asia gravitate toward one equilibrium, the rest of the world the other? Government action may have been a key determinant. Indeed, as in other multiple equilibria models, government actions, which move the economy from one equilibrium to another, can be self-sustaining; once the economy has moved to the new equilibrium, the intervention is no longer needed. Thus it may be the case that after Singapore succeeded in moving to the high growth/high savings equilibrium, there was no longer any need to "force" savings, and the government interventions made little further difference to total savings.

FINANCIAL MARKETS

When financial depth is measured by the ratio of money to gross domestic product, financial markets appear deeper in East Asia than in most of the rest of the developing world. To be sure, security markets emerged slowly, but broad-based equities markets require strong legal protections for minority shareholders—of a kind that relatively few industrial countries have succeeded in providing. Moreover, asymmetries of information imply that even in industrial countries, a very small percentage of new investment is financed by equity issues, in spite of their greater virtues in risk diversification. It is thus not surprising that East Asia relied heavily on bank-financed debt. There was always a risk with debt finance: with high, fixed obligations, an economic downturn could lead to firms facing cash constraints. But the countries of the region (especially the Republic of Korea) addressed the problem through a system of *flexible bank finance*, which had distinct advantages over securitized debt instruments. Bank finance is *infor-*

mation intensive, entailing, in principle, close monitoring of the borrower. So long as the firm's net worth remains sufficiently positive, a cash flow shortage need not be a problem: the bank can roll over loans and make good on any shortfalls, *provided the bank itself is in a position to make loans*. Thus, it is largely when there are macroeconomic problems, which make it difficult or unattractive for banks to lend, that the high leverage becomes problematic. But one can argue that government has a responsibility not only to maintain macrostability, but to mitigate the consequences of any residual volatility. It can do this in several ways: for example, regulatory forbearance (on capital adequacy standards) or capital injections into the banking system. In East Asia, the rationale for government interventions was even stronger: given the state of development of the capital market, there was, as we have noted, less reliance on equity than in more developed countries. Hence, there was a need for alternative mechanisms for societal risk sharing—to compensate for the market failure. The government "bailouts" *in the face of macroeconomic instability* were a form of risk sharing (in effect, converting the debt into partial equity), with limited adverse incentive effects. If the government restricted itself to bailouts associated with macro-instability, it avoided any incentive for excessive risk taking, other than investments that were excessively correlated with the economy as a whole. In principle, good supervision could mitigate this risk, though in practice it does not seem to have done so, at least in Thailand and Korea.

A number of East Asian governments played a large role both in helping create financial institutions and in maintaining their capacity to lend. Historically, financial institutions in most countries have lent largely for trade credit and collateralized real estate. Development lending (long-term investment lending) by banks is limited. But in countries such as Korea, the government helped create a number of banks and encouraged them (through a variety of mechanisms) to go beyond these traditional lending avenues. *Financial restraint* (as opposed to financial repression) led to faster economic growth as well as the growth of the banking sector. By limiting competition and lowering deposit rates, governments in some East Asian countries increased the profitability of banking, and thus both the net worth and the franchise value. Some of the benefits were passed on to borrowers in the form of lower lending rates. The lower rates at which both firms and financial institutions had access to funds enhanced bank and corporate equity—especially important in an environment where directly raising new equity was difficult. The higher level of bank and corporate equity enabled firms to undertake riskier—and higher-return—investments. Moreover, since the marginal propensity to save of corporations was higher than that of individuals, and the interest elasticity of household savings was very low, the effective transfer of funds from the household to the corporate and banking sector led to higher national savings, again enhancing economic growth.

As noted above, given the almost inevitable limitations on equity markets as a source of finance, growth could have been sustained only by a high debt policy. The alternative would have been to limit expansion to what could be financed by retained earnings. East Asian countries thus faced two challenges: finding alternative ways of enhancing equity and managing the risks associated with high debt.

The financial restraint described in the previous paragraph represented the most important way that governments helped strengthen the equity bases of firms. To be sure, some of the governments recognized the importance of the legal reforms that would facilitate the creation of a deeper equity market; at the same time they realized that even in the most advanced of the industrial countries, well-established firms financed only a small percentage of their investment by new equity issues.

Accordingly, much of the burden of risk management was placed on the banking system, which, often under government pressure, rolled over loans in the face of macroeconomic shocks. However, in such cases the government often tacitly or explicitly underwrote the risks incurred. This risk absorption mechanism, while it allowed countries like Korea to weather some of the macroeconomic shocks (like the oil price increases of the 1970s) far better than other countries, was put under stress in the 1990s from several sources. First, the countries of the region liberalized their capital markets quickly, under pressure from the International Monetary Fund (IMF) and the U.S. Treasury (and the decision to seek OECD membership), before the appropriate regulatory structures were in place. The pressure for rapid liberalization also meant that the gradualist strategy of the early 1990s was set aside. With the focus on rapid liberalization, and insufficient attention to the details, what appeared in hindsight as mistakes were almost inevitable.

While the reduced extent of government involvement in banking—presumably with less policy (and "connected") lending—should have strengthened the banking system, liberalization increased the scope for risk taking (for example, by eliminating the restrictions on speculative real estate lending that had been a hallmark of Thailand's policies in the miracle period) and the incentives for doing so (greater competition reduced the franchise value, and therefore the incentive for prudential behavior) at the same time that it increased the risks that the banking systems were exposed to. Compounding these problems was the fact that just at the time that *better* regulation was required, government regulators found it virtually impossible to keep their best and brightest, who were lured away by higher salaries offered by the private sector. Finally, the strictures against the risk-sharing mechanisms that had been customary under the earlier regime in some countries meant that firms had to fend for themselves to a greater degree—though their financial structures did not have time to adapt.

The criticism from the West compounded these problems, and not only in contributing to the massive flight of capital. It was not clear to what extent cronyism had played a role or to what extent cronyism Asian-style was different from cronyism American-style. Certainly, the publicly orchestrated, privately financed bailout of LTCM (Long-Term Capital Management), where CEOs seemed to use their corporate positions to bail out their private positions, raised questions about crony capitalism, corporate governance, *and* financial regulation even in the most advanced of the industrial countries. The fact that the *marginal* lenders in Korea were Western banks suggested bad judgment might be playing a more important role in bank lending policy than hidden government influence. Nonetheless, Korea took to heart the criticism of the government/banking/industrial nexus of the *chaebol*, and these concerns played a key role in the restructuring of the Korean economy, and indeed, are likely to play an important role in the rebalancing of political power as well.

These reforms are likely to lead an economic system that, while it exposes the country to greater risks[1], is better able to manage risks than the one that it replaced, and one that is likely to suffer less from political influence in resource allocation. Whether they will lead to an economic system better able to manage risks than the one that prevailed before liberalization is a moot question; the process of integration into the global economy has advanced to the point where it would have been hard, at best, to adapt that system to today's world. But it is also surely the case that the reforms, including the limitations on debt-equity ratios (as a result of both government pressure and the recognition of the huge risks that the high volatility in interest rates that mark IMF macromanagement strategies impose on highly levered companies) will imply that future long-term growth rates will almost surely be lower than they otherwise would have been.

INDUSTRIAL POLICY AND THE ROLE OF GOVERNMENT

Those who put their faith in the market tend to downplay the role of government during the miracle period, particularly in the northeast Asian countries—but they can, at times, elevate its role when it comes to the crisis of 1997–98. Evidently, according to this view, during the period of success, markets drove the efficient allocation of resources, and more recently, it is government that has been the source of the problem. But again, the evidence is to the contrary: over time, the role of government in resource allocation has diminished in the 1990s, not increased.

Earlier, I noted the wide array of government programs, for example, to promote savings, strengthen and expand financial institutions, enhance education, and ensure macrostability. I also touched upon some of the controversies surrounding the role of government in promoting savings and in strengthening and broadening financial institutions. Perhaps the most contentious issue of all relates to the role of industrial policies, which several contributors to this volume have critically assessed.

It is clear that the government intervened in the allocation of resources. For instance, some governments promoted exports by making credits more available to successful exporters and by directing credit to selected sectors. Where such policy was subject to strict rules, the corruption and distortions associated with more ad hoc policies was avoided or at least kept relatively limited. It is also clear that the sectors that were supported grew and, in many cases, have become the foundations of these countries' economies as they enter the new millennium.

Part of the success of the leading East Asian economies relates to the closing of the technology/knowledge gap. Of this, there can be little doubt. The externalities and public goods aspects of knowledge provide a theoretical rationale for a role of government. In other countries that have implemented successful growth strategies, governments have pursued active policies promoting the production and dissemination of knowledge and technology, going well beyond just the protection of intellectual property through patent and copyright laws. In the United States, the increases in productivity in agriculture in the 19th century were promoted by the land grant colleges, with their research and extension services. The U.S. telecommunications industry was promoted by government, by establishing the first telegraph line, between Baltimore and Washington, in 1842, and, more recently, by creating the Internet. Moreover, industrialization occurred within the United States behind the protection afforded by industrial tariffs. Would the countries in the East Asian region have succeeded in closing the knowledge and technology gap had they limited themselves simply to education? Possibly, but there is little historical precedent for such an achievement.[2]

Still, the subject of industrial policy remains highly controversial. The controversy surrounds two questions—the counterfactual and the aggregative *quantitative* significance of these interventions, that is, what would have happened otherwise, did they work and did they make much difference? The more extreme critics argue that, by and large, they were distortive and thereby counterproductive. A few failures, such as Japan's attempt to "rationalize" the automobile industry and inhibit the entry of Honda into car production, are cited time and time again. In my view, some of the criticism is misplaced. These arguments suggest that these countries would have grown even faster but for the interventions—possible, but not very probable. Today, as Korea has joined the OECD and become a major player in some of the key electronics industries, one hears less criticism of Korea's high-technology strategy.

The more subtle criticism is that while there was considerable fanfare surrounding the industrial policies, they really were not of much quantitative significance. To be sure, they affected *particular* industries; but did they make much difference *in the aggregate?* (Interestingly, there is a parallel argument *against* the critics; the Harberger triangles associated with most price distortions are of second-order importance.) The controversy remains unresolved: How much credence can be put in the admittedly flawed econometric techniques that sometimes seem to suggest that these interventions played a limited role, versus the broader analysis, which links these policies to the sectors that are playing key roles in the economies in the region today?

To understand the central features that contributed to the rapid growth in the region one can look across countries for *common* policies. That is, the countries in the region shared some policies in common, while they differed in others. Most have high savings rates, though the *particular* policies they used to achieve that high savings rate differed. They have differed in their attitudes toward foreign direct investment. While foreign direct investment was at the center of Singapore's and Malaysia's strategies, Korea and Japan relied on investment by their own firms.

The fact that almost *all* of the economies in the region had industrial policies (with the exception of Hong Kong, which benefited from the industrial policies of its neighbor, mainland China) *suggests* that such policies were an important part of their growth strategies, whether or not the highly imperfect econometric techniques for quantifying such impacts succeeded in verifying such claims.

One of the principal ways that industrial policies were pursued was through interventions in financial markets. As I have noted, government both encouraged some forms of lending (for exports, to small and medium-size enterprises, to particular sectors) and, at times, in a few countries, discouraged other forms of lending (for speculative investment in real estate). These interventions in the capital market too have been widely criticized, both for their potential for corruption and for their distortions in resource allocation. But again, the relevant question concerns the counterfactual. One can argue that the interventions were helping to address market failures that are endemic in capital markets. Again, other successful "market" economies, like the United States, have massively intervened in the capital market—quite recently, more than a quarter of all loans in the United States either were intermediated by government or government-sponsored enterprises or had government guarantees. Governments, like any human institution, are fallible, and so one should not expect *perfection* in resource allocation. The question is, given the imperfections, would growth have been higher had governments intervened far less in their financial markets? This question is even harder to answer than the previous one, since in every country, governments intervene in financial markets, if only to ensure the safety and soundness of the financial system and to protect consumers against fraud.

In retrospect, perhaps the criticism that should have been leveled is that the government did not take strong enough actions, not that it intervened too much: it deregulated the financial sector when it should have been asking what was the *appropriate* set of regulations, and it did not do enough to ensure good corporate governance, which would have been necessary to create an effective stock market.

A third area of contention is the role of cooperation between business and government, which is also examined by several authors in this volume. The coordination provided by Japan, Inc., or Malaysia, Inc., was, at one time, widely lauded. In effect, it was argued that market prices do not convey all the relevant information. However, even while it was lauded, many warned of the risks: cooperation could become capture and lead to corruption. It is hard to assess the *relative* importance of corruption—both relative to what occurs in other countries and relative to the benefits that accrued from cooperation. There is corruption in every society. Campaign contributions lead to corporate welfare, including special tax benefits for housing, large subsidies for agriculture, and a host of other tax expenditures and direct subsidies. Were the distortions in Korea, say, larger than those in the United States? There is no way of ascertaining the answer to that question. And were the costs of the distortions greater than the benefits that accrued from the cooperation? The fact of the matter is that we simply do not have tools with which we can answer these questions with any degree of certitude.

This poses both easy and hard policy questions. It is easy enough to say that the government should do everything it can to reduce corruption, and that government interventions should be designed in such a way as to mitigate the risk of corruption. It is easy enough to explain why corruption has adverse effects on economic growth. It is harder to design and implement corruption-resistant strategies. It is even harder to assess with any precision the impact of the particular level and forms of corruption on the growth of the economy.[3]

Reducing the scope for rent seeking is clearly one aspect of corruption-resistant policies. But in many countries, reforms intended to reduce rent seeking, in particular, privatizations, have themselves been highly corrupted. In the light of *market* and *government* failures, there are two alternative strategies: to focus on one and ignore the other or to try to address the weaknesses in each, viewing the public and private sectors as *complementary*. Singapore illustrates nicely the advantages of the latter approach. It undertook great efforts in reducing public corruption and, by most accounts, succeeded remarkably well. In doing so, it employed, in part, what have now become standard efficiency wage/incentive approaches. It relied heavily on the private sector but did not shy away from an active government role, not only in social policy but also in industrial policy. It developed a highly effective financial regulatory system, earning its marks when it excluded BCCI (the Bank of Credit and Commerce International), which succeeded in duping the United States' regulatory authorities. And partly because of the soundness and credibility of its financial system—based on effective regulation—it has become a regional financial center.

CONCLUDING REMARKS

Whether one calls it a miracle or not, the increases in income and reductions in poverty in East Asia were real and impressive. They showed that development is possible and that rapid development could be associated with egalitarian policies that greatly reduced poverty. And the contrasting experiences in the rest of the world showed not only that development was not inevitable but indeed that there seemed something very unusual about what had occurred in East Asia, the most populous region of the world. The crisis has tarnished that record only slightly and, if anything, together with the strong recovery in several of the countries, may have reinforced the conclusion that there is something very special about these countries. At the same time, the rapid growth in India over the past decade (especially if one looks at *particular* states within India) shows that East Asia has no monopoly on growth. India's success suggests that other countries too can achieve rapid economic growth and, at the very least, reinforces the need to understand the ingredients that contribute to success.

At one level, the problem of interpreting the miracle, crisis, and recovery is that we have an underidentified system: we do not have the controlled experiments that would allow us to assess what would have happened *but for*. If, say, the governments had simply had good macromanagement but not liberalized markets earlier, would growth have been even faster, and would the crisis not have occurred? We have a wealth of countries in other regions that followed different policies. On the basis of this juxtaposing their experience with that of East Asia, we can offer a few suggestions for the future.

All of the countries in the East Asian region will need to reexamine their *risk management* strategies: as their economies have become increasingly open, they are more exposed to the vagaries of international markets. For instance, as noted by Ito in chapter 2 of this volume, currency and term mismatching poses severe risks to banks in the management of their portfolios. East Asian countries will need to determine how to reduce their exposure, how to reduce their overall sensitivity to the risks that remain, and how to insulate the most vulnerable elements of their population. Some of these changes will likely result in a slowing down of growth, while some of the changes will actually enhance their ability to grow more rapidly, by becoming more integrated into the global economy. For instance, Korea's rapid growth, as noted, has been based on a high debt policy. Without debt finance, firms would have had to rely on retained earnings, and growth would inevitably have been slower. Lowering debt equity ratios *may* thus lead to lower growth. But institutional reforms may lead to a strengthened equity market—although I must repeat that even in the most advanced industrial countries, relatively little new investment is financed through equity issues, and few countries have managed to create equity markets with dispersed ownership. But the reforms under way in Korea may strengthen equity markets, and so the country will be in a better position to both sustain growth momentum and manage shocks at the same time.

The weakness of safety nets is not a surprise, given that prior to the recent crisis the countries in the region had faced few economic downturns. But even in this area, some of the countries have shown an impressive level of institutional creativity: Singapore's provident fund has integrated the various social insurance programs and, in a relatively short span of time, improved housing, health, and income security.[4]

The countries of the region face enormous challenges going forward. They have fundamental strengths on which to build, but they will have to adapt in numerous ways to the changing global environment and the changes in their own economies. The role of government will have to be redefined. Just as before they were misled by the chimera of deregulation—they should have asked instead what is the *right* regulatory structure for their current situation—so too in the future, they will have to resist accepting without question the current mantras of the global marketplace of ideas. There will have to be *strengthened* regulation of securities markets and an improved overall legal environment, especially in areas such as corporate governance and bankruptcy. The legal structures will have to comport with international standards, yet be adapted to their own special situations; wholesale borrowing will not work. The countries have moved toward democracy; democratic institutions and processes will need to be strengthened. Progress on all these fronts in most of the countries has already been impressive. Transparency is being increased, with Thailand even incorporating a right-to-know within its constitution.

Each of the countries faces its own individual challenges: Thailand needs to strengthen its secondary and tertiary education; in Korea, there is widespread support for reducing the role of the *chaebol;* in Indonesia, the difficult and delicate process of decentralization will have to be addressed. But while each of the countries faces different challenges, most of the countries are well poised to take advantage of many of the opportunities that are afforded by globalization and the new economy: the government-led strategies of closing the technology gap and investing heavily in human capital have placed several of the countries in a position not only to avail themselves of the new technologies, but even to become leaders in their exploitation.

Gazing through our cloudy crystal ball into the future, we can see prospects for continued robust growth—probably at a somewhat more muted pace, but still fast enough to continue the process of closing the gap between the countries in the region and the more advanced industrial countries. There are reasons for expecting a slowdown:

- Diminishing returns eventually set in. There are diminishing returns not only to capital but to investments in knowledge as well. It is almost surely easier to close the gap in knowledge (by a given amount) when the gap is moderate than when the gap is small.

- The export-oriented strategy may encounter difficulties, as such policies become widely imitated, and the world becomes saturated with the goods that represented the traditional comparative advantage of East Asian economies, and more broadly, as they become larger relative to the rest of the world. This can be a problem especially for China. Clearly, East Asia will again have to develop new sources of dynamic comparative advantage—just as the countries in the region have repeatedly adjusted over the past four decades.
- The larger countries will face concern about growing regional inequalities. These concerns will drive strategies that focus more attention on these regions. The successes achieved in some areas imply that it may be possible to sustain high growth rates even as the benefits are broadened out, but many of the poorer regions face severe geographical disadvantages.
- Even with new safeguards, the increased openness to volatile foreign capital flows will make it difficult to manage the economies with debt-driven growth. But even with substantial legal reforms, such as those related to corporate governance, it will be difficult to channel efficiently the high savings into the corporate sector through equity markets. Thus, firms will have to rely more on retained earnings, and this will slow down growth.

The growth slowdown itself will present a challenge: Many economic structures have become adapted to high-growth scenarios, and the moderation of growth will, accordingly, require potentially serious adjustments.

But beyond these economic challenges are the broader challenges: increases in gross domestic product are a means to an end, not an end in itself. Elsewhere I have spoken of the broader mandate for democratic, equitable, sustainable development and traced out some of the implications for the countries in the region in the coming decades (Stiglitz 1998, 1999). Here, I emphasize two aspects: First, the development of the region has been accompanied by enormous urbanization. The cities that have expanded need to be made more livable—with better public transportation systems, improved environments, and public amenities, such as parks. Second, the success of the region has been based in part on building on existing social capital, reaching broad social consensus, maintaining reasonable levels of social cohesion, and fostering a broader sense of community. In some cases, doing so has not been easy: the societies are highly ethnically fractionated. The most successful governments have realized the importance of these *social* policies (including egalitarian income distribution and education policies), not only as ends in themselves but even as *necessary* for long-term economic growth. The challenge going forward is to maintain these traditional values as the process of globalization and market development continues; there will be strong forces leading to greater inequality and undermining traditional cultural norms.

NOTES

1. The argument that some advocates of capital market liberalization for East Asia (where high savings rates meant that there was little need for additional outside capital) put forward, that such capital would help stabilize the economies, never had any empirical support—even before the East Asia crisis; short-term capital flows tend to be procyclical, not countercyclical.
2. In this respect, the controversy, discussed earlier, about whether closing of the technology gap was a result of "investments" is not the central issue.
3. Many rankings show China at the high end of the corruption scale. Does this suggest that but for the corruption, the economy would have grown *significantly* faster? Interestingly, most of the regression studies showing that corruption has an adverse effect on growth (such as the 1997 *World Development Report* [World Bank 1997]) do not include China. If China was included, weighted appropriately by its size, to what extent would the standard cross-country regressions be changed? There are good theoretical arguments for believing that corruption does have adverse effects. The question being raised is that there are severe problems in assessing with any precision the *magnitude* of those impacts.
4. One can show that there are distinct advantages to be gained from integration of social insurance programs, allowing for greater risk mitigation with less attenuation of incentives.

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