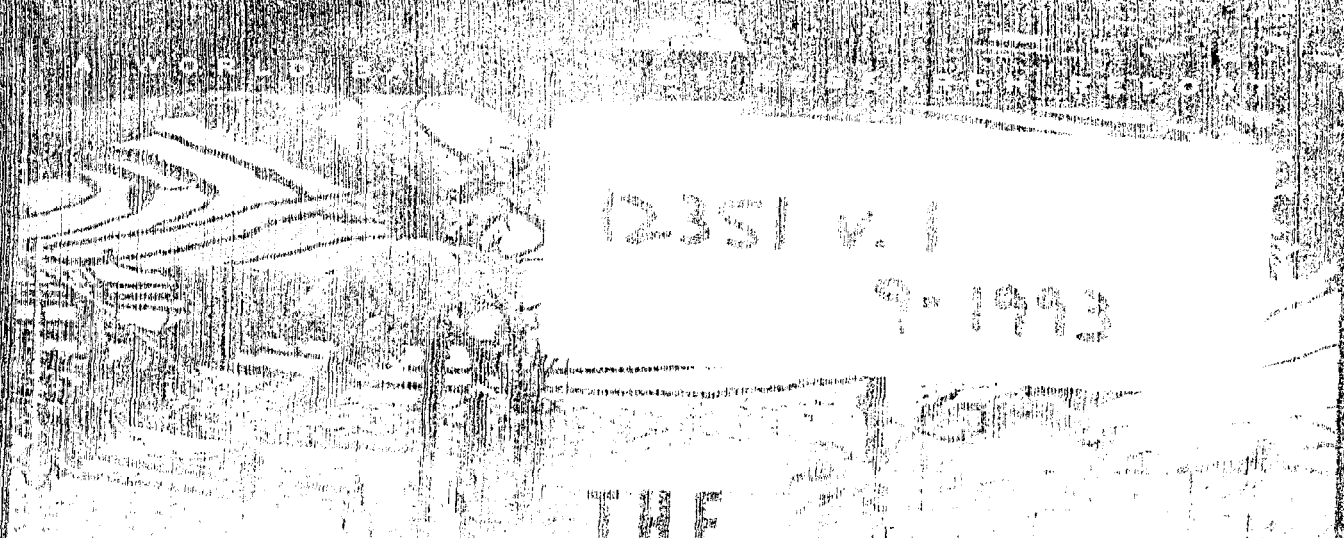


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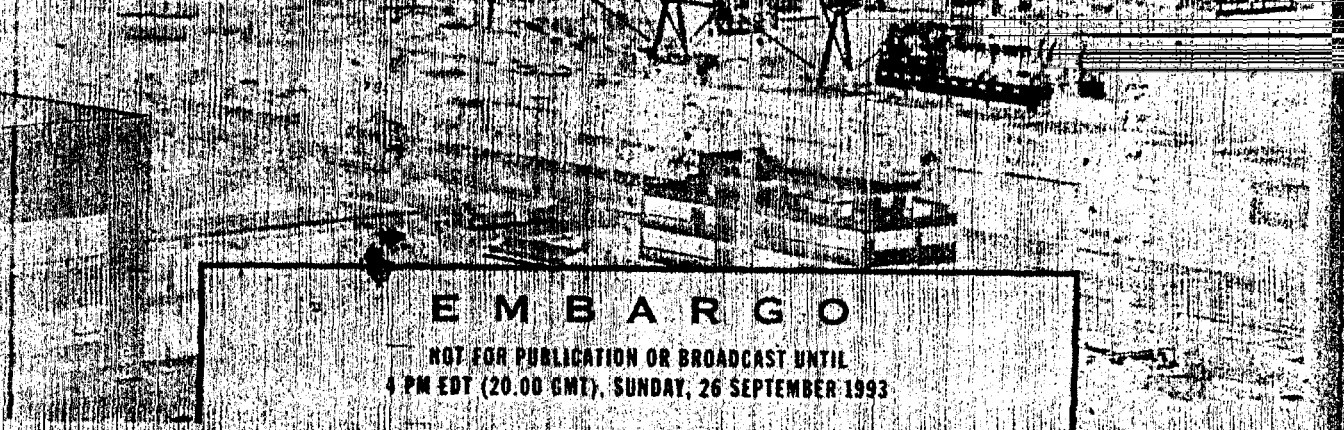
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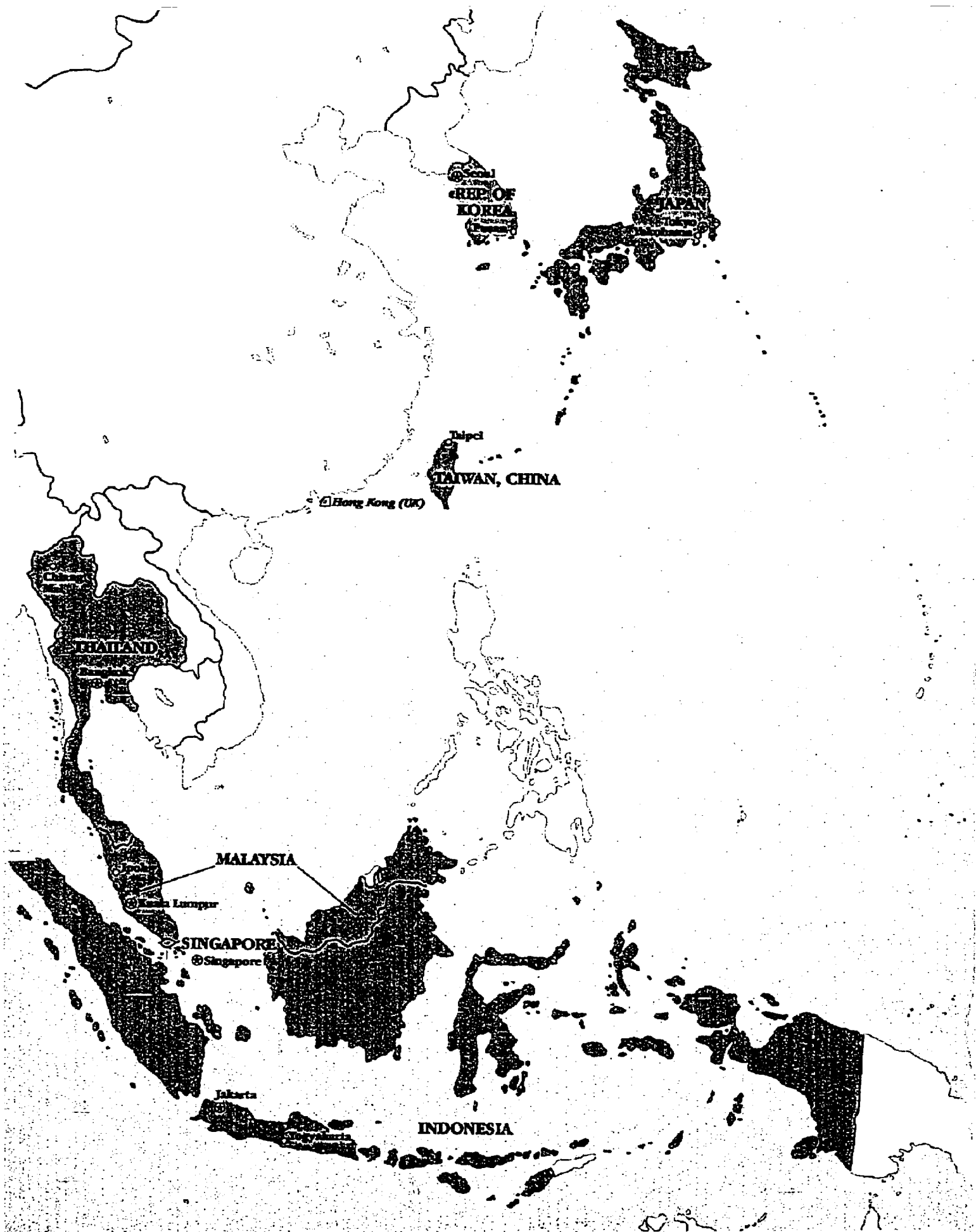
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THE EAST ASIAN MIRACLE

ECONOMIC GROWTH AND PUBLIC POLICY



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The East Asian Miracle

A World Bank Policy Research Report

The East Asian Miracle

Economic Growth
and Public Policy

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the bottom, the port of Pusan, Republic of Korea; courtesy of Jitendra Bajpai.*

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Foreword

DEBATES ON THE APPROPRIATE ROLE OF PUBLIC POLICY IN economic development have occupied policymakers and scholars since the study of developing economies began in earnest at the close of World War II. The success of many of the economies in East Asia in achieving rapid and equitable growth, often in the context of activist public policies, raises complex questions about the relationship between government, the private sector, and the market. Seemingly, the rapidly growing economies in East Asia used many of the same policy instruments as other developing economies, but with greater success. Understanding which policies contributed to their rapid growth, and how, is a major question for research on development policy. For these reasons I announced at the time of the 1991 Annual Meetings of the Board of Governors of the World Bank in Bangkok, Thailand, that our Development Economics Vice Presidency would undertake a comparative study of economic growth and public policy in East Asia.

This volume is the summary of that program of research. It appears as the first in a series of Policy Research Reports, which are intended to bring to a broad audience the results of research on development policy issues carried out by staff of the World Bank. As reports on policy issues, we intend that they should help us to take stock of what we know and clearly identify what we do not know; they should contribute to the debate in both the academic and policy communities on appropriate public policy objectives and instruments for developing economies; and they should be accessible to nonspecialists. Because they summarize research, we also anticipate that Policy Research Reports will provoke further debate, both within the Bank and outside, concerning the methods used and the conclusions drawn.

What does this report tell us about the East Asian miracle? The research shows that most of East Asia's extraordinary growth is due to superior accumulation of physical and human capital. But these economies were also better able than most to allocate physical and

human resources to highly productive investments and to acquire and master technology. In this sense there is nothing "miraculous" about the East Asian economies' success; each has performed these essential functions of growth better than most other economies.

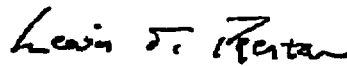
The eight economies studied used very different combinations of policies, from hands-off to highly interventionist. Thus, there is no single "East Asian model" of development. This diversity of experience reinforces the view that economic policies and policy advice must be country-specific, if they are to be effective. But there are also some common threads among the high-performing East Asian economies. The authors conclude that rapid growth in each economy was primarily due to the application of a set of common, market-friendly economic policies, leading to both higher accumulation and better allocation of resources. While this conclusion is not strikingly new, it reinforces other research that has stressed the essential need for developing economies to get the policy fundamentals right. The research also further supports the desirability of a two-track approach to development policy emphasizing macroeconomic stability on one hand and investments in people on the other. The importance of good macroeconomic management and broadly based educational systems for East Asia's rapid growth is abundantly demonstrated.

The report also breaks some new ground. It concludes that in some economies, mainly those in Northeast Asia, some selective interventions contributed to growth, and it advances our understanding of the conditions required for interventions to succeed. The authors argue that where selective interventions succeeded they did so because of three essential prerequisites. First, they addressed problems in the functioning of markets. Second, they took place within the context of good, fundamental policies. Third, their success depended on the ability of governments to establish and monitor appropriate economic-performance criteria related to the interventions—in the authors' terms, to create economic contests. These prerequisites suggest that the institutional context within which policies are implemented is as important to their success or failure as the policies themselves, and the report devotes substantial attention to the institutional bases for East Asia's rapid growth.

While these factors help to explain why apparently similar policies did not succeed in many other economies, the report also leaves unanswered many important questions. The market-oriented aspects of East Asia's policies can be recommended with few reservations, but the more

institutionally demanding aspects, such as contest-based interventions, have not been successfully used in other settings. Noneconomic factors, including culture, politics, and history, are also important to the East Asian success story. Thus, there is still much to be learned about the interactions between policy choices and institutional capability and between economic and noneconomic factors in development. Work in these areas will continue beyond this report.

The support of the Government of Japan for the research program on the high-performing Asian economies is gratefully acknowledged. The report is a product of the staff of the World Bank, and the judgments made herein do not necessarily reflect the view of its Board of Directors or the governments they represent.



Lewis T. Preston
President
The World Bank

August 1993

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The Research Team

THIS POLICY RESEARCH REPORT WAS PREPARED BY A TEAM LED by John Page and comprising Nancy Birdsall, Ed Campos, W. Max Corden, Chang-Shik Kim, Howard Pack, Richard Sabot, Joseph E. Stiglitz, and Marilou Uy. Robert Cassen, William Easterly, Robert Z. Lawrence, Peter Petri, and Lant Pritchett made major contributions. Lawrence MacDonald was the principal editor. Case studies of the seven developing high-performing Asian economies were undertaken under the direction of Danny Leipziger. The team was assisted by Maria Luisa Cicogniani, Varuni Dayaratna, Leora Friedberg, Jay Gonzalez, Jennifer Keller, May Khamis, Sonia Plaza, Myriam Quispe, Carol Strunk, and Ayako Yasuda. The work was initiated by Lawrence H. Summers and was carried out under the general direction of Nancy Birdsall.

The editorial-production team for the report was led by Alfred Imhoff. The support staff was headed by Sushma Rajan and included Milagros Divino, Jan-Marie Hopkins, Anna Marie Maranon, and Linda Oehler. Polly Means gave graphical assistance. Bruce Ross-Larson and Meta de Coquereumont provided additional editorial support. The map was designed by Jeffrey N. Lecksell. Mika Iwasaki coordinated work in Japan.

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Many individuals inside and outside the World Bank provided valuable contributions and comments. (Specific acknowledgment of their efforts is made in the Bibliographic Note at the end of the book.) Particular thanks are due to the following senior officials of the economies studied who reviewed and commented on an earlier draft: Seung-Chul Ahn, Isao Kubota, Shijuro Ogata, J. B. Sumarlin, Teh Kok Peng, Chikao Tsukuda, Tan Sri Dato Lin See Yan, and Cesar Virata. Vinod Thomas commented on several drafts and coordinated the comments of his colleagues in the East Asia and Pacific Region of the Bank. Comments by Carl Dahlman, Kemal Dervis, Mark Gersovitz, Ralph W. Harbison, Magdi Iskander, Hyung-Ki Kim, Danny Leipziger, Johannes Linn, Gobind Nankani, Miekko Nishimizu, Guy P. Pfeffermann, D. C. Rao, and Michael Walton contributed to the improvement of the book.

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Definitions

Economy Groups

FOR OPERATIONAL AND ANALYTICAL PURPOSES, THE WORLD Bank's main criterion for classifying economies is gross national product (GNP) per capita. Every economy is classified as low-income, middle-income (subdivided into lower-middle and upper-middle), or high-income. Other analytical groups, based on regions, exports, and levels of external debt, are also used.

Because of changes in GNP per capita, the economy composition of each income group may change from one Bank publication to the next. Once the classification is fixed for any publication, all the historical data presented are based on the same economy grouping. The income-based economy groupings used in this study are defined as follows:

- *Low-income economies* are those with a GNP per capita of \$635 or less in 1991.
- *Middle-income economies* are those with a GNP per capita of more than \$635 but less than \$7,911 in 1991. A further division, at GNP per capita of \$2,555 in 1991, is made between *lower-middle-income* and *upper-middle-income* economies.
- *High-income economies* are those with a GNP per capita of \$7,911 or more in 1991.
- *World* comprises all economies, including economies with sparse data and those with fewer than 1 million people.

Low-income and middle-income economies are sometimes referred to as *developing economies*. The use of the term is convenient; it is not intended to imply that all economies in the group are experiencing similar development or that other economies have reached a preferred or final stage of development. Classification by income does not necessarily reflect development status.

Analytical Groups

FOR ANALYTICAL PURPOSES, THIS STUDY GROUPS ECONOMIES into several regions, defined as follows:

- *High-performing Asian economies* (HPAEs), led by Japan, are identified by several common characteristics, such as very rapid export growth. The HPAEs are subclassified roughly according to the duration of their successful record of economic growth:
 - *The Four Tigers*, usually identified as Hong Kong, the Republic of Korea, Singapore, and Taiwan, China, have been growing rapidly for decades and have joined or approached the ranks of high-income economies.
 - *The newly industrializing economies* (NIEs) are Indonesia, Malaysia, and Thailand. They have joined the group of HPAEs more recently, within the last two decades.
- *East Asia* comprises all the low- and middle-income economies of East and Southeast Asia and the Pacific, east of and including China and Thailand.
- *South Asia* comprises Bangladesh, Bhutan, India, Myanmar, Nepal, Pakistan, and Sri Lanka.
- *Sub-Saharan Africa* comprises all economies south of the Sahara including South Africa but excluding Mauritius, Reunion, and Seychelles, which are in the Other Asia and Islands group.
- *Europe, Middle East, and North Africa* comprises the middle-income European economies of Bulgaria, the former Czechoslovakia, Greece, Hungary, Poland, Portugal, Romania, Turkey, and the former Yugoslavia, and all the economies of North Africa and the Middle East, and Afghanistan.
- *Latin America and the Caribbean* comprises all American and Caribbean economies south of the United States.

The regional grouping of economies in occasional parts of the text or tables may differ from that used in the main text of this study, described above. Such variations are noted where they occur.

Data Notes

- *Billion* is 1,000 million.
- *Trillion* is 1,000 billion.
- *Dollars* are current U.S. dollars unless otherwise specified.
- *Growth rates* are based on constant price data.

Historical data in this study may differ from those in other Bank publications because of continuous updating as better data become available, because of a change to a new base year for constant price data, or because of changes in economy composition of income and analytical groups.

Acronyms and Initials

CPI	Consumer price index
DFI	Direct foreign investment
GDP	Gross domestic product
GNP	Gross national product
HPAES	High-performing Asian economies
IMF	International Monetary Fund
ISIC	International Standard Industrial Classification
MITI	Ministry of Trade and Industry, Japan
NIES	Newly industrializing economies
OECD	Organization for Economic Cooperation and Development (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States)
PPP	Purchasing power parity
R&D	Research and development
TFP	Total factor productivity
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization



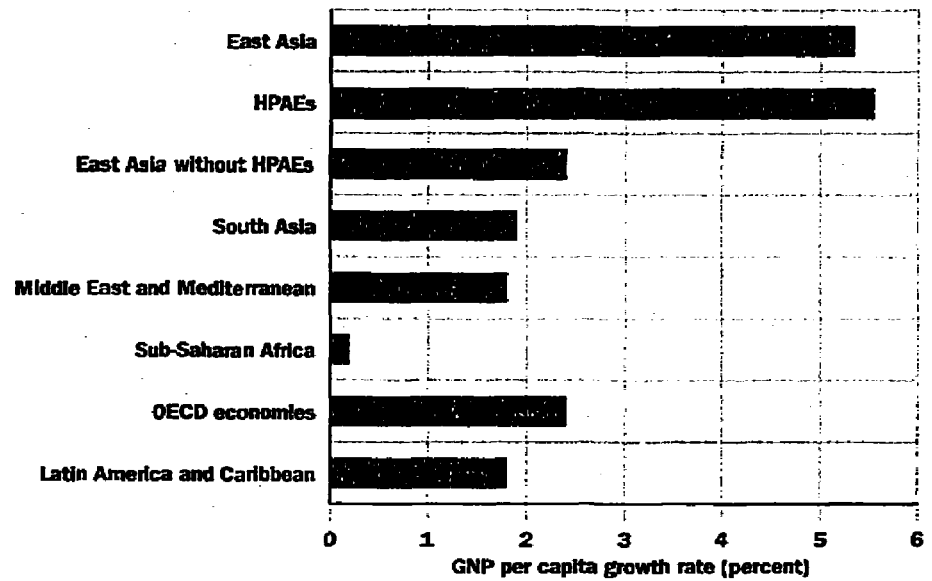
Overview: The Making of a Miracle

EAST ASIA HAS A REMARKABLE RECORD OF HIGH AND sustained economic growth. From 1965 to 1990 the twenty-three economies of East Asia grew faster than all other regions of the world (figure 1). Most of this achievement is attributable to seemingly miraculous growth in just eight economies: Japan; the “Four Tigers”—Hong Kong, the Republic of Korea, Singapore, and Taiwan, China; and the three newly industrializing economies (NIEs) of Southeast Asia, Indonesia, Malaysia, and Thailand. These eight high-performing Asian economies (HPAEs) are the subject of this study.*

Selecting any set of economies and attempting to understand the origins of their successful growth are necessarily arbitrary processes.¹ Botswana, Egypt, Gabon, and Lesotho in Sub-Saharan Africa have also been among the world’s top growth performers in the past two decades, as have such diverse economies as Brazil, Cyprus, Greece, and Portugal (see figure 2). Why focus on eight economies in East Asia? In part the choice reflects popular interest; it has become common to see references to the “Asian Economic Miracle.” In part it reflects recent attention by the academic and development policy communities to the relationship between public policies—which some authors have argued have a number of common threads in the eight economies, especially Japan, Korea,

*Recently China, particularly southern China, has recorded remarkably high growth rates using policies that in some ways resemble those of the HPAEs. This very significant development is beyond the scope of our study, mainly because China’s ownership structure, methods of corporate and civil governance, and reliance on markets are so different from the those of the HPAEs, and in such rapid flux, that cross-economy comparison is problematic. We touch on China’s recent development in chapters 1 and 3. The economic transition in China is the subject of current research by the Policy Research Department of the World Bank (see Bibliographic Note).

Figure 1 Average Growth of GNP per Capita, 1965–90



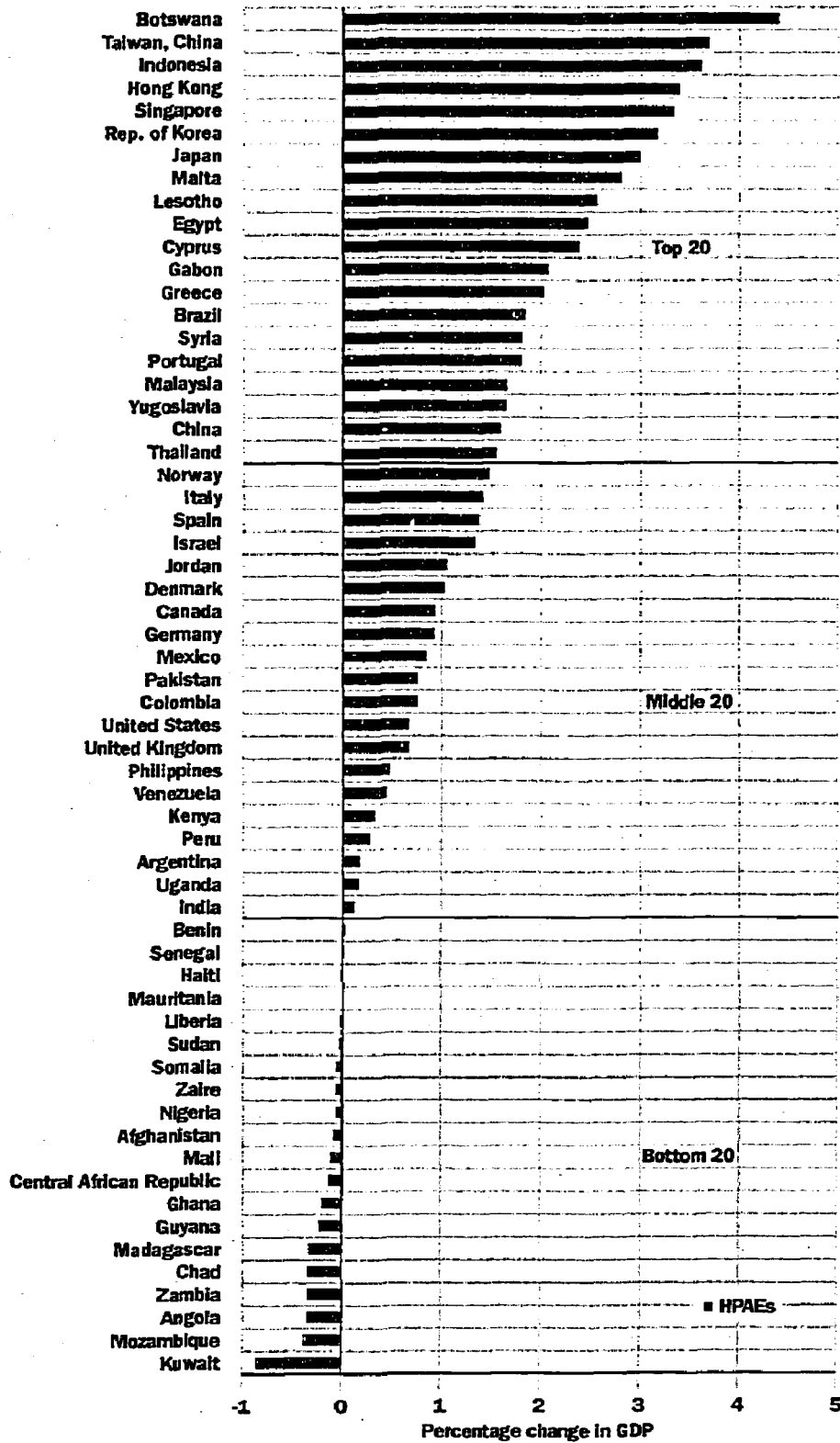
Source: World Bank (1992d).

Singapore, and Taiwan, China—and rapid growth. And in part it reflects the belief of those involved with this study that the eight economies do share some economic characteristics that set them apart from most other developing economies.

Since 1960, the HPAEs have grown more than twice as fast as the rest of East Asia, roughly three times as fast as Latin America and South Asia, and five times faster than Sub-Saharan Africa. They also significantly outperformed the industrial economies and the oil-rich Middle East–North Africa region. Between 1960 and 1985, real income per capita increased more than four times in Japan and the Four Tigers and more than doubled in the Southeast Asian NIEs (see figure 2). If growth were randomly distributed, there is roughly one chance in ten thousand that success would have been so regionally concentrated.

The HPAEs have also been unusually successful at sharing the fruits of growth. Figure 3 shows the relationship between the growth of gross domestic product (GDP) per capita between 1965 and 1990 and changes in the Gini coefficient, a statistical measure of the inequality of income distribution. The HPAEs enjoyed much higher per capita income growth at the same time that income distribution improved by as much or more than in other developing economies, with the exceptions of Korea and Taiwan, China, which began with highly equal income distributions. The HPAEs are the only economies that have high growth *and* declining

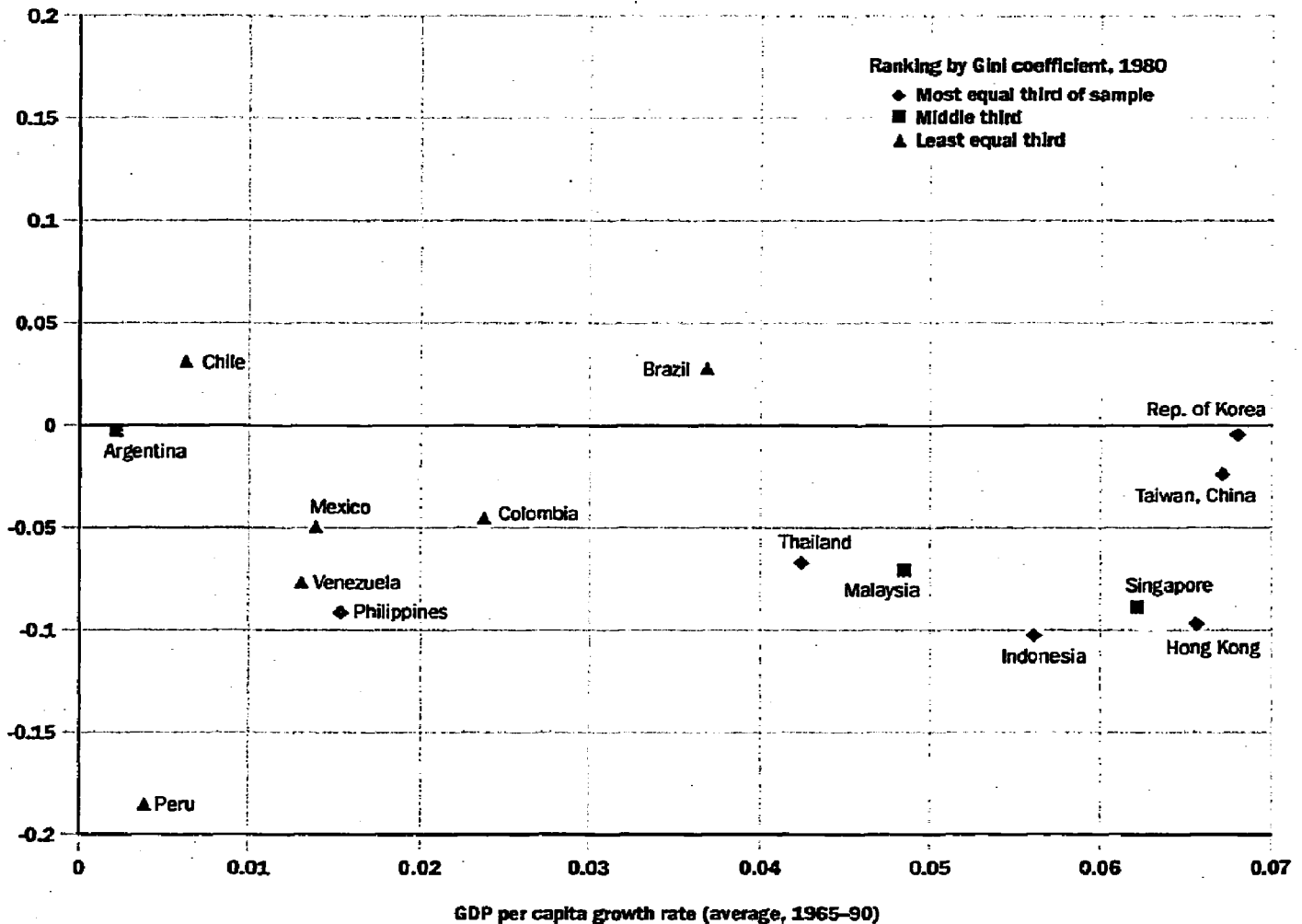
Figure 2 Change in GDP per Capita, 1960-85



Source: Summers and Heston (1988).

Figure 3 Change in Inequity and the GDP per Capita Growth Rate

Change in average Gini coefficient (1980s minus 1960s)



Note: Figure 3 plots the relationship between average per capita income growth and changes in the decade average of the Gini coefficient from the 1960s to the 1980s; a negative number indicates that income became less concentrated. The decade average is used because data are available for different years in different economies; the decade average for the 1960s begins with data from 1965.

Source: World Bank data.

inequality. Moreover, the fastest growing East Asian economies, Japan and the Four Tigers, are the most equal.

As a result of rapid, shared growth, human welfare has improved dramatically. Life expectancy in the developing HPAEs increased from 56 years in 1960 to 71 years in 1990. (In other low- and middle-income economies, life expectancy also rose considerably, from 36 and 49 to 62 and 66 years, respectively.) In the HPAEs, the proportion of people living in absolute poverty, lacking such basic necessities as clean water, food, and shelter, dropped—for example, from 58 percent in 1960 to 17 percent in 1990 in Indonesia, and from 37 percent to less than 5 percent

in Malaysia during the same period. Absolute poverty also declined in other developing economies, but much less steeply, from 54 to 43 percent in India and from 50 to 21 percent in Brazil from 1960 to 1990. A host of other social and economic indicators, from education to appliance ownership, have also improved rapidly in the HPAEs and now are at levels that sometimes surpass those in industrial economies.

What caused East Asia's success? In large measure the HPAEs achieved high growth by getting the basics right. Private domestic investment and rapidly growing human capital were the principal engines of growth. High levels of domestic financial savings sustained the HPAEs' high investment levels. Agriculture, while declining in relative importance, experienced rapid growth and productivity improvement. Population growth rates declined more rapidly in the HPAEs than in other parts of the developing world. And some of these economies also got a head start because they had a better-educated labor force and a more effective system of public administration. In this sense there is little that is "miraculous" about the HPAEs' superior record of growth; it is largely due to superior accumulation of physical and human capital.

Fundamentally sound development policy was a major ingredient in achieving rapid growth. Macroeconomic management was unusually good and macroeconomic performance unusually stable, providing the essential framework for private investment. Policies to increase the integrity of the banking system, and to make it more accessible to non-traditional savers, raised the levels of financial savings. Education policies that focused on primary and secondary schools generated rapid increases in labor force skills. Agricultural policies stressed productivity and did not tax the rural economy excessively. All the HPAEs kept price distortions within reasonable bounds and were open to foreign ideas and technology.

But these fundamental policies do not tell the entire story. In most of these economies, in one form or another, the government intervened—systematically and through multiple channels—to foster development, and in some cases the development of specific industries. Policy interventions took many forms: targeting and subsidizing credit to selected industries, keeping deposit rates low and maintaining ceilings on borrowing rates to increase profits and retained earnings, protecting domestic import substitutes, subsidizing declining industries, establishing and financially supporting government banks, making public investments in applied research, establishing firm- and industry-specific

export targets, developing export marketing institutions, and sharing information widely between public and private sectors. Some industries were promoted, while others were not.

At least some of these interventions violate the dictum of establishing for the private sector a level playing field, a neutral incentives regime. Yet these strategies of selective promotion were closely associated with high rates of private investment and, in the fastest-growing economies, high rates of productivity growth. Were some selective interventions, in fact, good for growth?

In addressing this question, we face a central methodological problem. Since we chose the HPAEs for their unusually rapid growth, we know already that their interventions did not significantly inhibit growth. But it is very difficult to establish statistical links between growth and a specific intervention and even more difficult to establish causality. Because we cannot know what would have happened in the absence of a specific policy, it is difficult to test whether interventions increased growth rates. Other economies attempted similar interventions without success, and on average they used them more pervasively than in the HPAEs. Because the HPAEs differed from less successful economies both in their closer adherence to policy fundamentals and in the manner in which they implemented interventions, it is virtually impossible to measure the relative impact of fundamentals and interventions on HPAE growth. Thus, in attempting to distinguish interventions that contributed to growth from those that were either growth-neutral or harmful to growth, we cannot offer a rigorous counterfactual scenario. Instead, we have had to be content with what Keynes called an "essay in persuasion," based on analytical and empirical judgments.

Our judgment is that in a few economies, mainly in Northeast Asia, in some instances, government interventions resulted in higher and more equal growth than otherwise would have occurred. However, the prerequisites for success were so rigorous that policymakers seeking to follow similar paths in other developing economies have often met with failure. What were these prerequisites? First, governments in Northeast Asia developed institutional mechanisms which allowed them to establish clear performance criteria for selective interventions and to monitor performance. Intervention has taken place in an unusually disciplined and performance-based manner (Amsden 1989). Second, the costs of interventions, both explicit and implicit, did not become excessive. When fiscal costs threatened the macroeconomic stability of Korea and

Malaysia during their heavy and chemical industries drives, governments pulled back. In Japan the Ministry of Finance acted as a check on the ability of the Ministry of International Trade and Industry to carry out subsidy policies, and in Indonesia and Thailand balanced budget laws and legislative procedures constrained the scope for subsidies. Indeed, when selective interventions have threatened macroeconomic stability, HPAE governments have consistently come down on the side of prudent macroeconomic management. Price distortions arising from selective interventions were also less extreme than in many developing economies.

In the newly industrializing economies of Southeast Asia, government interventions played a much less prominent and frequently less constructive role in economic success, while adherence to policy fundamentals remained important. These economies' capacity to administer and implement specific interventions may have been less than in Northeast Asia. Their rapid growth, moreover, has occurred in a very different international economic environment from the one that Japan, Korea, and Taiwan, China, encountered during their most rapid growth. Thus the problem is not only to try to understand which specific policies may have contributed to growth, but also to understand the institutional and economic circumstances that made them viable. Indeed, the experience of the Southeast Asian economies, whose initial conditions parallel those of many developing economies today, may prove to have more relevance outside the region than that of Northeast Asia.

The book is organized as follows: chapter 1 describes the distinguishing characteristics of the East Asian economic miracle, rapid growth with equity, and uses economic models to attempt to account for this growth. Chapter 2 reviews policy explanations for East Asia's economic success and introduces the framework that we will use throughout to explore the relationship between public policy and economic growth. Chapter 3 discusses pragmatism and flexibility in the formulation of policies that led to two important characteristics of the HPAEs' economic performance: macroeconomic stability and rapid growth of manufactured exports. Chapter 4 discusses the role of institutions. Chapter 5 looks at the role of public policy in the HPAEs' unusually rapid accumulation of physical and human capital, while chapter 6 analyzes the means used to achieve efficient allocation of resources and productivity growth. Chapter 7, in conclusion, assesses the success of East Asian policies and their applicability in a changing world economy. The remainder of this

overview parallels the organization of the book, highlighting the central arguments and conclusions.

The Essence of the Miracle: Rapid Growth with Equity

THE EIGHT HPAES ARE HIGHLY DIVERSE IN NATURAL RESOURCES, population, culture, and economic policy. What shared characteristics cause them to be grouped together and set apart from other developing economies? First, as we noted above, they had rapid, sustained growth between 1960 and 1990. This in itself is unusual among developing economies; others have grown quickly for periods but not for decades at such high rates. The HPAEs are unique in that they combine this rapid, sustained growth with highly equal income distributions. They also all have been characterized by rapid demographic transitions, strong and dynamic agricultural sectors, and unusually rapid export growth (see chapter 1).

The HPAEs also differ from other developing economies in three factors that economists have traditionally associated with economic growth. High rates of investment, exceeding 20 percent of GDP on average between 1960 and 1990, including in particular unusually high rates of private investment, combined with high and rising endowments of human capital due to universal primary and secondary education, tell a large part of the growth story. These factors account for roughly two-thirds of the growth in the HPAEs. The remainder is attributable to improved productivity. Such high levels of productivity growth are quite unusual. In fact, productivity growth in the HPAEs exceeds that of most other developing and industrial economies. This superior productivity performance comes from the combination of unusual success at allocating capital to high-yielding investments and at catching up technologically to the industrial economies.

Public Policies and Growth

What was the role of public policy in helping the HPAEs to rapidly accumulate human and physical capital and to allocate those resources to high-yielding investments? Did policies assist in promoting rapid produc-

tivity growth? There are several explanations for East Asia's success. Geography and culture were clearly important; however, they do not entirely account for the high-performing economies' success, as the presence of unsuccessful economies in the same region attests. Among the variety of policy explanations, two broad views have emerged (see chapter 2).

Adherents of the *neoclassical view* stress the HPAEs' success in getting the basics right. They argue that the successful Asian economies have been better than others at providing a stable macroeconomic environment and a reliable legal framework to promote domestic and international competition. They also stress that the orientation of the HPAEs toward international trade and the absence of price controls and other distortionary policies have led to low relative price distortions. Investments in people, education, and health are legitimate roles for government in the neoclassical framework, and its adherents stress the importance of human capital in the HPAEs' success.

Adherents of the *revisionist view* have successfully shown that East Asia does not wholly conform to the neoclassical model. Industrial policy and interventions in financial markets are not easily reconciled within the neoclassical framework. Some policies in some economies are much more in accord with models of state-led development. Moreover, while the neoclassical model would explain growth with a standard set of relatively constant policies, the policy mixes used by East Asian economies were diverse and flexible. Revisionists argue that East Asian governments "led the market" in critical ways. In contrast to the neoclassical view, which acknowledges relatively few cases of market failure, revisionists contend that markets consistently fail to guide investment to industries that would generate the highest growth for the overall economy. In East Asia, the revisionists argue, governments remedied this by deliberately "getting the prices wrong"—altering the incentive structure—to boost industries that would not otherwise have thrived (Amsden 1989).

The revisionist school has provided valuable insights into the history, role, and extent of East Asian interventions, demonstrating convincingly the scope of government actions to promote industrial development in Japan, Korea, Singapore, and Taiwan, China. But, in general its proponents have not claimed to establish that interventions per se accelerated growth. Moreover, as we shall show, some important government interventions in East Asia, such as Korea's promotion of chemicals and heavy industries, have had little apparent impact on industrial structure.

In other instances, such as Singapore's effort to squeeze out labor-intensive industries by boosting wages, policies have clearly backfired. Thus neither view fully accounts for East Asia's phenomenal growth.

The Market-Friendly View. In describing the policies associated with rapid growth, *World Development Report 1991* (World Bank 1991b) expands on the neoclassical view, clarifying systematically how rapid growth in developing countries has been associated with effective but carefully limited government activism. In the "market-friendly" strategy it articulates, the appropriate role of government is to ensure adequate investments in people, provide a competitive climate for private enterprise, keep the economy open to international trade, and maintain a stable macroeconomy. Beyond these roles, the report argues, governments are likely to do more harm than good, unless interventions are market friendly. On the basis of an exhaustive review of the experience of developing economies during the last thirty years, it concludes that attempts to guide resource allocation with nonmarket mechanisms have generally failed to improve economic performance.

The market-friendly approach captures important aspects of East Asia's success. These economies are stable macroeconomically, have high shares of international trade in GDP, invest heavily in people, and have strong competition among firms. But these characteristics are the outcome of many different policy instruments. And the instruments chosen, particularly in the northeastern HPAEs, Japan, Korea, and Taiwan, China, sometimes included extensive government intervention in markets to guide private-sector resource allocation. The success of these northeastern economies, moreover, stands up well to the less interventionist paths taken by Hong Kong, Malaysia, and more recently Indonesia and Thailand.

A Functional Approach to Understanding Growth. To explore these varying paths to economic success, we have developed a framework that seeks to link rapid growth to the attainment of three functions. In this view, each of the HPAEs maintained macroeconomic stability *and* accomplished three functions of growth: accumulation, efficient allocation, and rapid technological catch-up. They did this with combinations of policies, ranging from market oriented to state led, that varied both across economies and over time.

We classify policies into two broad groups: fundamentals and selective interventions. Among the most important fundamental policies are those that encourage macroeconomic stability, high investments in

human capital, stable and secure financial systems, limited price distortions, and openness to foreign technology. Selective interventions include mild financial repression (keeping interest rates positive but low), directed credit, selective industrial promotion, and trade policies that push nontraditional exports. We try to understand how government policies, both fundamental and interventionist, may have contributed to faster accumulation, more efficient allocation, and higher productivity growth.

We maintain as a guiding principle that for interventions that attempt to guide resource allocation to succeed, they must address failures in the working of markets. Otherwise, markets would perform the allocation function more efficiently. We identify a class of economic problems, coordination failures, which can lead markets to fail, especially in early stages of development. We then interpret some of the interventionist policies in East Asia as responses to these coordination problems—responses that emphasized cooperative behavior among private firms and clear performance-based standards of success.

Competitive discipline is crucial to efficient investment. Most economies employ only market-based competition. We argue that some HPAEs have gone a step further by creating contests that combine competition with the benefits of cooperation among firms and between government and the private sector. Such contests range from very simple nonmarket allocation rules, such as access to rationed credit for exporters, to very complex coordination of private investment in the government-business deliberation councils of Japan and Korea. The key feature of each contest, however, is that the government distributes rewards—often access to credit or foreign exchange—on the basis of performance, which the government and competing firms monitor. To succeed, selective interventions must be disciplined by competition via either markets or contests.

Economic contests, like all others, require competent and impartial referees—that is, strong institutions. Thus, a high-quality civil service that has the capacity to monitor performance and is insulated from political interference is essential to contest-based competition. Of course, a high-quality civil service also augments a government's ability to design and implement non-contest-based policies.

Our framework is an effort to order and interpret information. We are not suggesting that HPAE governments set out to achieve the functions of growth. Rather, they used multiple, shifting policy instruments

in pursuit of more straightforward economic objectives such as macroeconomic stability, rapid export growth, and high savings. Pragmatic flexibility in the pursuit of such objectives—the capacity and willingness to change policies—is as much a hallmark of the HPAEs as any single policy instrument. This is well illustrated by the great variety of ways in which the HPAEs achieved two important objectives: macroeconomic stability and rapid export growth (see chapter 3).

Achieving Macroeconomic Stability and Export Growth

More than most developing economies, the HPAEs were characterized by responsible macroeconomic management. In particular, they generally limited fiscal deficits to levels that could be prudently financed without increasing inflationary pressures and responded quickly when fiscal pressures were perceived to be building up. During the past thirty years, annual inflation averaged approximately 9 percent in these economies, compared with 18 percent in other low- and middle-income economies. Because inflation was both moderate and predictable, real interest rates were far more stable than in other low- and middle-income economies. Macroeconomic stability encouraged long-term planning and private investment and, through its impact on real interest rates and the real value of financial assets, helped to increase financial savings. The HPAEs also adjusted their macroeconomic policies to terms of trade shocks more quickly and effectively than other low- and middle-income economies. As a result, they have enjoyed more robust recoveries of private investment.

Many of the policies that fostered macroeconomic stability also contributed to rapid export growth. Fiscal discipline and high public savings allowed Japan and Taiwan, China, to undertake extended periods of exchange rate protection. Adjustments to exchange rates in other HPAEs—validated by policies that reduced expenditures—kept them competitive, despite differential inflation with trading partners.

In addition to macroeconomic policies, the HPAEs used a variety of approaches to promoting exports. All (except Hong Kong) began with a period of import substitution, and a strong bias against exports. But each moved to establish a pro-export regime more quickly than other developing economies. First Japan, in the 1950s and early 1960s, and then the Four Tigers, in the late 1960s, shifted trade policies to encourage manufactured exports. In Japan, Korea, and Taiwan, China, govern-

ments established a pro-export incentive structure that coexisted with moderate but highly variable protection of the domestic market. A wide variety of instruments was used, including export credit, duty-free imports for exporters and their suppliers, export targets, and tax incentives. In the Southeast Asian NIEs the export push came later, in the early 1980s, and the instruments were different. Reductions in import protection were more generalized and were accompanied by export credit and supporting institutions. In these economies export development has relied less on highly selective interventions and more on broadly based market incentives and direct foreign investment.

Building the Institutional Basis for Growth

Some economists and political scientists have argued that the East Asian miracle is due to the high quality and authoritarian nature of the region's institutions. They describe East Asian political regimes as "developmental states" in which powerful technocratic bureaucracies, shielded from political pressure, devise and implement well-honed interventions. We believe developmental state models overlook the central role of government-private sector cooperation. While leaders of the HPAEs have tended to be either authoritarian or paternalistic, they have also been willing to grant a voice and genuine authority to a technocratic elite and key leaders of the private sector. Unlike authoritarian leaders in many other economies, leaders in the HPAEs realized that economic development was impossible without cooperation (see chapter 4).

The Principle of Shared Growth. To establish their legitimacy and win the support of the society at large, East Asian leaders established the principle of shared growth, promising that as the economy expanded all groups would benefit. But sharing growth raised complex coordination problems. First, leaders had to convince economic elites to support pro-growth policies. Then they had to persuade the elites to share the benefits of growth with the middle class and the poor. Finally, to win the cooperation of the middle class and the poor, the leaders had to show them that they would indeed benefit from future growth.

Explicit mechanisms were used to demonstrate the intent that all would have a share of future wealth. Korea and Taiwan, China, carried out comprehensive land reform programs; Indonesia used rice and fertilizer price policies to raise rural incomes; Malaysia introduced explicit wealth-sharing programs to improve the lot of ethnic Malays relative to

the better-off ethnic Chinese; Hong Kong and Singapore undertook massive public housing programs; and in several economies, governments assisted workers' cooperatives and established programs to encourage small and medium-size enterprises. Whatever the form, these programs demonstrated that the government intended for all to share the benefits of growth.

Creating a Business-Friendly Environment. To tackle coordination problems, leaders needed institutions and mechanisms to reassure competing groups that each would benefit from growth. The first step was to recruit a competent and relatively honest technocratic cadre and insulate it from day-to-day political interference. The power of these technocracies has varied greatly. In Japan, Korea, Singapore, and Taiwan, China, strong, well-organized bureaucracies wield substantial power. Other HPAEs have had small, general-purpose planning agencies. But in each economy, economic technocrats helped leaders devise a credible economic strategy.

Leaders in the HPAEs also built a business-friendly environment. A major element of that environment was a legal and regulatory structure that was generally hospitable to private investment. Beyond this the HPAEs have with varying degrees of success enhanced communication between business and government. Japan, Korea, Malaysia, and Singapore have established forums, which we call deliberation councils, in which private sector groups are invited to help shape and implement the government policies relevant to their interests. In contrast to lobbying, where rules are murky and groups seek secret advantage over one another, the deliberation councils are intended to make allocation rules clear to all participants.

Using Deliberation Councils. In Japan and Korea technocrats used deliberation councils to establish contests among firms. Because the private sector participated in drafting the rules, and because the process was transparent to all participants, private sector groups became more willing participants in the leadership's development efforts. One by-product of these contests was a tendency to reduce the private resources devoted to wasteful rent-seeking activities, thus making more available for productive endeavors. Deliberation councils also facilitated information exchanges between the private sector and government, among firms, and between management and labor. The councils thus supplemented the market's information transmission function, enabling the HPAEs to respond more quickly than other economies to changing markets.

Institutions of business-government communication have not been static in the HPAEs. The role of the deliberation council is changing in Japan and Korea to a more indicative and consensus-building role, along functional as opposed to industry-specific lines. In Malaysia the councils appear to be increasing in importance and scope. In Thailand the formal mechanisms of communication have generally been used to present businesses' positions to government and to reduce the private sector's suspicion of government. In institutional development, as in economic policymaking, East Asian governments have changed with changing circumstances.

Accumulating Human and Physical Capital

Drawing on the strength of their institutions, East Asian economies used a combination of fundamental and interventionist policies to achieve rapid accumulation of human and physical resources. Fundamentals included such traditional government obligations as providing adequate infrastructure, education, and secure financial institutions. Interventions included mild repression of interest rates, state capitalism, mandatory savings mechanisms, and socialization of risk (see chapter 5).

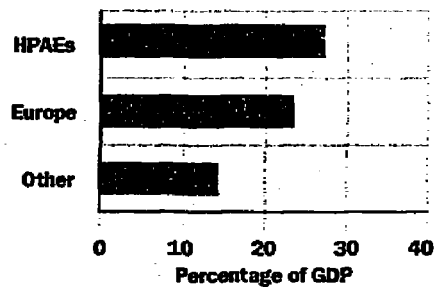
Building Human Capital. The East Asian economies had a head start in terms of human capital and have since widened their lead over other developing economies. In the 1960s, levels of human capital were already higher in the HPAEs than in other low- and middle-income economies. Governments built on this base by focusing education spending on the lower grades; first by providing universal primary education, later by increasing the availability of secondary education. Rapid demographic transitions facilitated these efforts by slowing the growth in the number of school-age children and in some cases causing an absolute decline. Declining fertility and rapid economic growth meant that, even when education investment as a share of GDP remained constant, more resources were available per child. Limited public funding of post-secondary education focused on technical skills, and some HPAEs imported educational services on a large scale, particularly in vocationally and technologically sophisticated disciplines. The result of these policies has been a broad, technically inclined human capital base well-suited to rapid economic development.

HPAE education policies also contributed to more equitable income distributions. To be sure, initial conditions helped to set up a virtuous circle: initial low inequality in income and education led to educational

expansion, which reinforced low inequality. In addition, by focusing spending on primary and secondary education, and leaving demand for tertiary education to be largely met by a self-financed private system, governments served large segments of the population that otherwise would have lacked access to education.

Increasing Savings and Investment. The HPAEs increased savings and investment with a combination of fundamental and interventionist policies. Two fundamental policy areas provided a foundation for high and rising savings rates. First, by avoiding inflation, the HPAEs avoided volatility of real interest rates on deposits and ensured that rates were largely positive. As a result, the HPAEs have generally offered higher real interest rates on deposits in the financial system than other developing economies. Second, they ensured the security of banks and made them more convenient to small and rural savers. The major instruments used to build a secure, bank-based financial system were strong prudential regulation and supervision, limits on competition, and institutional reforms. In Japan, Korea, Malaysia, Singapore, and Taiwan, China, postal savings systems lowered transaction costs and increased the safety of saving while making substantial resources available to government. These initiatives promoted rapid growth of deposits in financial institutions (see figure 4).

Figure 4 Savings Rates of HPAEs and Selected Economies, 1970-88



Note: Europe includes Austria, Belgium, Denmark, Finland, France, the Federal Republic of Germany before reunification, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. "Other" includes these developing economies: Argentina, Brazil, Chile, Colombia, Côte d'Ivoire, Egypt, Ghana, India, Mexico, Morocco, Nigeria, Pakistan, Peru, Sri Lanka, Turkey, Uruguay, Venezuela, the former Yugoslavia, and Zaire.

Source: Summers and Heston (1991).

Some governments also used a variety of more interventionist mechanisms to increase savings. Singapore and Taiwan, China, maintained unusually high public savings rates. Malaysia and Singapore compelled high private savings rates through mandatory provident fund contributions. Japan, Korea and Taiwan, China, all imposed stringent controls and high interest rates on loans for consumer items, and levied stiff taxes on so-called luxury consumption. Whether these more interventionist measures to increase savings improved welfare is open to debate. On one hand, making consumers save when they would not have otherwise imposes a welfare cost. On the other, the benefits are apparent in the rapid growth of these economies. Savings, forced or not, generated high payoffs based on consistently high rates of return to investments. In contrast to other economies that have used compulsory savings, such as the former Soviet Union, welfare costs were clearly offset by substantive benefits.

The HPAEs encouraged investment by several means. First, they did a better job than most developing economies at creating infrastructure that was complementary to private investment. Second, they created an investment-friendly environment through a combination of tax policies

favoring investment and of policies that kept the relative prices of capital goods low, largely by avoiding high tariffs on imported capital goods. These fundamental policies had an important impact on private investment. Third and more controversial, most HPAE governments held deposit and lending rates below market clearing levels—a practice termed financial repression.

Japan, Korea, Malaysia, Thailand, and Taiwan, China, had extended periods of mild financial repression. To be sure, increasing interest rates from negative to zero or mildly positive real rates and avoiding fluctuations (by avoiding unstable inflation) encourages financial savings. But because savings are not very responsive to marginal changes in positive real interest rates, HPAE governments were able to mildly repress interest rates on deposits with a minimal impact on savings and to pass the lower rates to final borrowers. Because savers were mostly households and borrowers were mostly firms, this resulted in a transfer of income from households to firms and in a change in the form in which savings were held, from debt to corporate equity.

Holding down interest rates on loans increases excess demand for credit, which in turn leads to rationing of credit by the government itself or by private sector banks working with government guidance. This heightens the risk that capital will be misallocated. Thus there is a trade-off between the possible increase in investment and the risk that the increased capital will be badly invested. There is some evidence that in Japan, Korea, and Taiwan, China, governments allocated credit to activities with high social returns, especially to exports. If this was the case, there may have been benefits from mild financial repression and government-guided allocation; microeconomic evidence from Japan supports the view that access to government credit increased investment (see chapter 6).

Generally, financial repression is associated with low economic growth, especially when real interest rates are strongly negative. But tests of the relationship between interest rates and growth in Japan, Korea, and Taiwan, China, do not show the negative relationship between interest rate repression and growth found in cross-economy comparative studies (see chapter 5). While we cannot establish conclusively that mild repression of interest rates at positive real levels enhanced growth in northeast Asia, it apparently did not inhibit it.

Finally, some governments, especially in the northeastern Asian tier, have encouraged investment by spreading private investment risks to the

public. In some economies the government owned or controlled the institutions providing investment funds, in others it offered explicit credit guarantees, and in still others it implicitly guaranteed the financial viability of promoted projects. Relationship banking by a variety of public and private banking institutions in Hong Kong, Japan, Korea, Malaysia, Singapore, Thailand, and Taiwan, China, involved the banking sector in the management of troubled enterprises, increasing the likelihood of creditor workouts. Directed-credit programs in Japan, Korea, and Taiwan, China, signaled directions of government policy and provided implicit insurance to private banks.

Efficient Allocation and Productivity Change

Some policies that favored accumulation in the HPAEs, including financial repression and the socialization and bounding of risk, could have adversely affected the allocation of resources. Similarly, industrial targeting could have resulted in extensive rent-seeking and great inefficiency. Apparently they did not. The allocational rules followed by HPAE governments—particularly the devices used to shift market incentives—are therefore among the most controversial aspects of the East Asian success story (see chapter 6).

Like policies related to accumulation, policies affecting allocation and productivity change fall into fundamental and interventionist categories. Labor market policies tended to rely on fundamentals, using the market and reinforcing its flexibility. In capital markets, governments intervened systematically, both to control interest rates and to direct credit, but acted within a framework of careful monitoring and generally low subsidies to borrowers. Trade policies have included substantial protection of local manufacturers, but less than in most other developing countries; in addition, HPAE governments offset some disadvantages of protection by actively supporting exports. Finally, while interventions to support specific industries have generally not been successful, the export-push strategy—the mix of fundamental and interventionist policies used to encourage rapid manufactured export growth—has resulted in numerous benefits, including more efficient allocation, increased acquisition of foreign technology, and more rapid productivity growth.

Flexible Labor Markets. Government roles in labor markets in the successful Asian economies contrast sharply with the situation in most

other developing economies. HPAE governments have generally been less vulnerable and less responsive than other developing-economy governments to organized labor's demands to legislate a minimum wage. Rather, they have focused their efforts on job generation, effectively boosting the demand for workers. As a result, employment levels have risen first, followed by market- and productivity-driven increases in wage levels. Because wages or at least wage rate increases have been downwardly flexible in response to changes in the demand for labor, adjustment to macroeconomic shocks has generally been quicker and less painful in East Asia than in other developing regions. Rapid adjustments helped to sustain growth, which in turn made more rapid real wage growth possible.

High productivity and income growth in agriculture helped to keep East Asian urban wages close to the supply price of labor. In contrast to many other developing economies, where the gap between urban and rural incomes has been large and growing, in the HPAEs the incomes of urban and rural workers with similar skill levels have risen roughly at the same pace; moreover, the overall gap between urban and rural incomes is smaller in the HPAEs than in other developing economies.

In Sub-Saharan Africa, Latin America, and South Asia, where wages in the urban formal sector are often pushed up by legislated minimum wages and other nonmarket forces, urban wage earners often have incomes twice their counterparts' in informal sectors. In contrast, the gap between the formal and informal sectors in East Asia is only about 20 percent. Smaller income gaps contribute to overall social stability, thus enhancing the environment for growth.

Capital Markets and Allocation. Most HPAEs influenced credit allocation in three ways: (i) by enforcing regulations to improve private banks' project selection; (ii) by creating financial institutions, especially long-term credit (development) banks; and (iii) by directing credit to specific sectors and firms through public and private banks. All three approaches can be justified in theory, and each has worked in some HPAEs. Yet each involves progressively more government intervention in credit markets and so carries a higher risk.

Government relationships with banks in the HPAEs have varied widely. In Hong Kong banks are private and regulated primarily to ensure their solvency. In Indonesia, Malaysia, Singapore, and Thailand, banks are privately owned and exercise independent authority over lending. While governments have broadly guided credit allocations through

regulations and moral suasion, project selection is generally left to bankers. In other HPAEs, banks have been subject to direct state control or stringent credit allocation guidelines. For example, Indonesia, Korea, and Taiwan, China, tightly controlled the allocation of credit by public commercial banks.

Each of the HPAEs made some attempts to direct credit to priority activities. All East Asian economies except Hong Kong give automatic access to credit for exporters. Housing was a priority in Singapore and Hong Kong, while agriculture and small and medium-size enterprises were targeted sectors in Indonesia, Malaysia, and Thailand. Taiwan, China, has recently targeted technological development. Japan and Korea have used credit as a tool of industrial policy, organizing contests through deliberative councils to promote at various times the shipbuilding, chemical, and automobile industries.

The implicit subsidy of directed-credit programs in the HPAEs was generally small, especially in comparison to other developing economies, but access to credit and the signal of government support to favored sectors or enterprises were important. In Korea, the subsidy from preferential credit was large during the 1970s, resulting in a large gap between bank and curb market interest rates. This gap has declined sharply in recent years, as Korea has shifted away from heavy credit subsidies to selected sectors. In Japan implicit subsidies were small, and the direction of credit may have been more important as a signaling and insurance mechanism than as an incentive.

Although East Asia's directed-credit programs were designed to achieve policy objectives, they nevertheless included strict performance criteria. In Japan, public bank managers chose projects on basic economic criteria, employing rigorous credit evaluations to select among applicants that fell within government sectoral targets. In Korea, the government individually monitored the large conglomerates using market-oriented criteria such as exports and profitability. In some cases, major enterprises that failed to meet these tests were driven into bankruptcy. Recent assessments of the directed-credit programs in Japan and Korea provide microeconomic evidence that directed-credit programs in these economies increased investment, promoted new activities and borrowers, and were directed at firms with high potential for technological spillovers. Thus these performance-based directed-credit mechanisms appear to have improved credit allocation, especially during the early stages of rapid growth (see chapter 6).

Directed-credit programs in other HPAEs have usually lacked strong, performance-based allocation and monitoring and therefore have been largely unsuccessful. Even in the northern-tier economies, the increasing level of financial sector development and their increasing openness to international capital flows have meant that directed-credit programs have declined in importance, as the economies have liberalized their financial sectors.

Openness to Foreign Technology. The HPAEs have actively sought foreign technology through a variety of mechanisms. All welcomed technology transfers in the form of licenses, capital goods imports, and foreign training. Openness to direct foreign investment (DFI) has speeded technology acquisition in Hong Kong, Malaysia, Singapore, and, more recently, Indonesia and Thailand. Japan, Korea and, to a lesser extent, Taiwan, China, restricted DFI but offset this disadvantage by aggressively acquiring foreign knowledge through licenses and other means.

In contrast, other low- and middle-income economies such as India and Argentina have adopted policies that hindered the acquisition of foreign knowledge. Often they have been preoccupied with supposedly excessive prices for licenses. They have refused to provide foreign exchange for trips to acquire knowledge, been restrictive of DFI, and have attempted prematurely to build up their machine-producing sectors, thus forgoing the advanced technology embodied in imported equipment.

Promoting Specific Industries. Most East Asian governments have pursued sector-specific industrial policies to some degree. The best-known instances include Japan's heavy industry promotion policies of the 1950s and the subsequent imitation of these policies in Korea. These policies included import protection as well as subsidies for capital and other imported inputs. Malaysia, Singapore, Taiwan, China, and even Hong Kong have also established programs—typically with more moderate incentives—to accelerate development of advanced industries. Despite these actions we find very little evidence that industrial policies have affected either the sectoral structure of industry or rates of productivity change. Indeed, industrial structures in Japan, Korea, and Taiwan, China, have evolved during the past thirty years as we would expect given factor-based comparative advantage and changing factor endowments.

It is not altogether surprising that industrial policy in Japan, Korea, and Taiwan, China, produced mainly market-conforming results. While these governments selectively promoted capital- and knowledge-intensive industries, they also took steps to ensure that they were fostering profitable, internationally competitive firms. Moreover, their

industrial policies incorporated a large amount of market information and used performance, usually export performance, as a yardstick. Efforts elsewhere to promote specific industries without better information exchange and the discipline of international markets have not succeeded. This has been the case with the ambitious industrial policy programs in Brazil and India, and with the more limited but also disappointing efforts to build an aerospace industry in Indonesia and to promote heavy industries in Malaysia.

Export Push: A Winning Mix of Fundamentals and Interventions. One combination of fundamental and interventionist policies practiced in the HPAEs has been a significant source of rapid productivity growth: the active promotion of manufactured exports. Although all HPAEs except Hong Kong passed through an import-substitution phase, with high and variable protection of domestic import substitutes, these periods ended earlier than in other economies, typically because of a compelling need for foreign exchange. In contrast to many other economies, which tried to preserve foreign exchange with stricter import controls, the HPAEs set out to earn additional foreign exchange by increasing exports. Hong Kong and Singapore adopted trade regimes that were close to free trade; Japan, Korea, and Taiwan, China, adopted mixed regimes that were largely free for export industries. In the 1980s, Indonesia, Malaysia, and Thailand have adopted a wide variety of export incentives while gradually reducing protection. Exchange rate policies were liberalized, and currencies frequently devalued, to support export growth. Overall, these policies exposed much of the industrial sector to international competition and resulted in domestic relative prices that were closer to international prices than in most other developing economies.

The northern-tier economies—Japan, Korea, and Taiwan, China—halted the process of import liberalization, often for extended periods, and heavily promoted exports. Thus while incentives were largely equal between exports and imports, this was the result of countervailing subsidies rather than trade neutrality; the promotion of exports coexisted with protection of the domestic market. In the Southeast Asian HPAEs, conversely, governments used gradual but continuous liberalization of the trade regime, supplemented by institutional support for exporters, to achieve the export push. In both cases governments were credibly committed to the export-push strategy; producers, even those in the protected domestic market, knew that sooner or later their time to export would come.

East Asia's sectoral policies were usually geared toward export performance, in contrast to the inward-oriented policies of less successful developing economies. Japan, Korea, Singapore, and Taiwan, China, all relied on economic performance criteria, usually exports, to judge success. For example, in Taiwan, China, the government suspended domestic-content requirements that interfered with the exports of foreign investors. In addition, sectoral policies were closely monitored and frequently adjusted. Thus, many of East Asia's "industrial upgrading" programs of the late 1970s and early 1980s were substantially modified or abandoned when they failed to produce satisfactory results. Using the export rule meant that even programs of selective industrial promotion were indirectly export promoting.

Manufactured export growth also provided a powerful mechanism for technological upgrading in imperfect world technology markets. Because firms that export have greater access to best-practice technology, there are both benefits to the enterprise and spillovers to the rest of the economy that are not reflected in market transactions. These information-related externalities are an important source of rapid productivity growth. Both cross-economy evidence and more detailed studies at the industry level in Japan, Korea, and Taiwan, China, confirm the significance of exports to rapid productivity growth.

These experiences suggest that economies that are making the transition from highly protectionist import-substitution regimes to more balanced incentives would benefit from combining import liberalization with a strong commitment to exports and active export promotion, especially in those cases in which the pace of liberalization is moderate.

Policies for Rapid Growth in a Changing World Economy

WHAT ARE THE BROAD LESSONS OF SUCCESS IN THE HPAEs? Their rapid growth had two complementary elements. First, getting the fundamentals right was essential. Without high levels of domestic savings, broadly based human capital, good macroeconomic management, and limited price distortions, there would have been no basis for growth and no means by which the gains of rapid productivity change could have been realized. Policies to assist the financial

sector capture nonfinancial savings and to increase household and corporate savings were central. Acquisition of technology through openness to direct foreign investment and licensing were crucial to rapid productivity growth. Public investment complemented private investment and increased its orientation to exports. Education policies stressed universal primary schooling and improvements in quality at primary and secondary levels.

Second, very rapid growth of the type experienced by Japan, the Four Tigers, and more recently the East Asian NIES has at times benefited from careful policy interventions. All interventions carry costs, either in the direct fiscal costs of subsidies or forgone revenues, or the implicit taxation of households and firms, for example, through tariffs or interest rate controls. Unlike many other governments that attempted such interventions, HPAE governments generally held costs within well-defined limits. Thus, price distortions were mild, interest rate controls used international interest rates as a benchmark, and explicit subsidies were kept within fiscally manageable bounds. Given the overriding importance ascribed to macroeconomic stability, interventions that became too costly or otherwise threatened stability were quickly modified or abandoned.

Whether these interventions contributed to the rapid growth made possible by good fundamentals or detracted from it is the most difficult question we have attempted to answer. It is much easier to show that the HPAEs limited the costs and duration of inappropriately chosen interventions—*itself an impressive achievement*—than to demonstrate conclusively that those interventions maintained for a long time accelerated growth. Our assessment of three major uses of intervention is that promotion of specific industries generally did not work and therefore holds little promise for other developing economies. Mild financial repression combined with directed credit has worked in certain situations but carries high risk. Export-push strategies have been by far the most successful combination of fundamentals and policy interventions and hold the most promise for other developing economies (chapter 7).

But are these approaches feasible in the early 1990s? While limited repression of interest rates may have contributed to overall higher rates of investment in Japan, Korea, and Taiwan, China, these three northeastern economies undertook their initial growth spurts—and their most sustained and forceful repression of interest rates—during a period when it was possible for a developing economy to close its financial mar-

kets to the outside world. Furthermore, strong bureaucracies and a general climate of government-private sector cooperation meant that their restrictions on capital outflows were more effective than similar restrictions in many other economies. In today's increasingly global economic environment, few governments have the ability or desire to close their financial markets. Indeed, many East Asian governments are in the process of liberalizing restrictions on capital flows. In such circumstances, the scope for repressing interest rates without provoking capital flight is sharply narrowed. However, in some exceptional instances, very mild financial repression of short duration to increase corporate equity remains a viable option. This has been the case in Malaysia, which has wide open financial markets but nonetheless succeeded with very mild financial repression for more than a year.

The export-push strategy appears to hold great promise for other developing economies. But the conditions of market access under the General Agreement on Tariffs and Trade (GATT), and other trading arrangements, will hamper developing economies' use of policies viewed as unfair in major industrial-economy markets. Subsidies to exports and directed-credit programs linked to exports are not generally consistent with the GATT and may therefore invite retaliation from trading partners. Furthermore, like financial repression, these highly directed interventions require a high level of institutional capacity now lacking in most developing economies. Fortunately, many powerful instruments of export promotion are not only within the institutional capacity of many developing economies but remain viable in today's economic environment. Creating a free trade environment for exporters, providing finance and support services for small and medium-size exporters, improving trade-related aspects of the civil service, aggressively courting export-oriented direct foreign investment, and focusing infrastructure on areas that encourage exports are all attainable goals that are unlikely to provoke opposition from trading partners. Indeed, some or all of these have been part of the export push in Indonesia, Malaysia, and Thailand. These three economies, the most recent participants in the "economic miracle," may show the way for the next generation of developing economies to follow export-push strategies.

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The phenomenal success of the HPAEs is already inspiring attempts at imitation. We have shown that the HPAEs used an immense variety of

policies to achieve three critical functions of growth: accumulation, allocation, and productivity growth. The sheer diversity of these policies precludes drawing any simple lessons or making any simple recommendations, except perhaps that pragmatic adherence to the fundamentals is central to success. These market-oriented aspects of East Asia's experience can be recommended with few reservations. More institutionally demanding strategies have often failed in other settings and they clearly are not compatible with economic environments where the fundamentals are not securely in place. The use of contests in Japan and Korea required competent and insulated civil servants. In parts of Sub-Saharan Africa and Latin America, and elsewhere in Asia where such institutional conditions are lacking, activist government involvement in the economy has usually gone awry. So the fact that interventions were an element of some East Asian economies' success does not mean that they should be attempted everywhere, nor should it be taken as an excuse to postpone needed market-oriented reform.

The success of the HPAEs broadens our understanding of the range of policies that are consistent with rapid development. It also teaches us that willingness to experiment and to adapt policies to changing circumstances is a key element in economic success. In the following chapters we explore more fully the contribution of fundamental and interventionist policies to East Asia's remarkable growth, and the crucial role that institutions have played in their evolution and application. As we shall see, making a miracle is no simple matter.

Note

1. Japan, which has been firmly in the ranks of industrial economies arguably for all of this century, may at first seem to be an inappropriate subject for study. However many of the policy instruments used by the Japanese government during the period of rapid growth, 1950-73,

have been used subsequently by developing economies. Thus, notwithstanding Japan's longer history of modern economic growth, it may provide some useful insights into the relationship between public policy and growth.