Economic Development in East and Southeast Asia

Essays in Honor of Professor Shinichi Ichimura

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Edited by

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PREFACE

This volume is compiled as a tribute to Professor Shinichi Ichimura who has contributed so much to creating a better understanding of development issues and problems in Asia. As shown by the biographical information on the pages following the preface, his active involvement in joint projects and various institutions has enhanced our knowledge of development issues; but his accomplishments go beyond this. Through his active participation in academics and the development of institutions that are dedicated to studying development issues of the region, Professor Ichimura has also contributed to the welfare and development of young scholars who are interested in Asian economic development. Professor Ichimura's accomplishments are numerous and impressive. It is only fitting, therefore, to dedicate this volume to a man who has contributed so much and who continues to share his wealth of knowledge and insights.

The articles that are collected in this volume span a wide range of topics.

As is befitting for a book dedicated to Professor Ichimura, all of the articles examine and discuss development issues and problems that have faced or are being faced by the countries of East and Southeast Asia. Both of the editors and all of the authors in this book have had the pleasure and honor of working with Professor Ichimura at one time or another; and each of us has gained from Professor Ichimura's knowledge and experience. Our heartfelt appreciation goes out to Shinichi Ichimura for his dedication to the economics and academic profession, and for his many contributions to creating a better understanding of the development issues faced by the countries of the region.

This volume represents the combined efforts and dedication of many persons. We would like to thank Professor Mitsuo Ezaki of Kyoto University for his generous support throughout this project. Special thanks go to Janis Togashi for her untiring efforts and outstanding support in preparing the volume for publication. We also acknowledge David Puhlick and Audrey Shono for their editorial assistance, and Cynthia Nakachi for the secretarial help in preparing the manuscript. Without the support, dedication and hard work of these people, this project would never have been completed.

SHINICHI ICHIMURA, 1925–

Professor Shinichi Ichimura was born in Kyoto, Japan in 1925. After being graduated from the Department of Indonesian Languages, Osaka College of Foreign Languages in 1941, he entered and was graduated from the Faculty of Economics, Kyoto University in 1949. After graduate work in economics at Columbia University in 1950–51, he moved to the graduate program at the Massachusetts Institute of Technology, where he obtained a Ph.D. in Economics in 1953. In 1963, he was awarded a Doctor of Economics (under the old system) from Osaka University.

His professional life so far may be divided into two parts. In the first period, Professor Ichimura was a member of the faculty of Wakayama University (Faculty of Economics) from 1949–56, and of Osaka University (Institute of Social and Economic Research) from 1956–68. During this period he also taught at Johns Hopkins University (1959–60), the University of California at Berkeley (1965–66), and the University of Pennsylvania (1966–67). His interests during this time included both the theoretical and empirical aspects of the then current economic issues including studies on related goods, consumer surplus, nonlinear business cycle theories, national income analysis, demand and suppy of money, international trade, and input-output analysis, and the Japanese economy. He produced a number of professional articles and books on these subjects both in English and in Japanese. In the course of this first period, his interest shifted from theoretical research to empirical studies and began to focus more on the Japanese economy. Furthermore, in 1963, he was elected Fellow of the Econometric Society, and was coeditor of *Economics Studies Quarterly* from 1960–65.

His move to the Center for Southeast Asian Studies at Kyoto University in 1968 signals the beginning of the second period of his professional life. At this time his interests changed dramatically and shifted to the study of the Southeast Asian economies. His research encompasses such topics as regional economic research on South Sumatra, agricultural development and the green revolution, the effect of climatic factors on the socio-economic structure of Southeast Asian countries, Japanese jointventures in Southeast Asia, cultural conflicts and labor-management relations, cultural and institutional factors and appropriate technology, economic development of Indonesia, the scope of economic development of Asia, political aspects of development policies, and debt accumulation in connection with the North-South problem.

Not only has he generated a great deal of research in the study of East and Southeast Asia, but he has also continuously encouraged and assisted many young scholars in Japan interested in the field. He has organized private study groups on the Southeast Asian economies, and has directly trained young students. In other words, he has been keenly interested in the welfare and development of young scholars who would like to study Southeast Asian countries. He is an educator as well as a scholar.

Professor Ichimura served as the Director of the Center for Southeast Asian Studies at Kyoto University (the "Center") for ten years from 1969–79. In this period, the Center grew from an infant institution to a highly-respected research institution, and is now well-recognized as a true center for the study of Southeast Asian countries in Japan.

During this second period, Professor Ichimura was also a visiting faculty member at the Universitat Bonn (1980), the East-West Center in Honolulu (1985), the National University of Singapore (1985), and Columbia University (1986). At the same time, he has energetically traveled the world at the request of international organizations and governments. Professor Ichimura has served on a number of advisory committees for various Ministers of the Government of Japan. He has also been serving as a member of the advisory committee for Development Planning for the Director General of the United Nations since 1972. Today, he is still seen in action in various corners of the world.

Recently, Professor Ichimura with other prominent Asian economists established the East Asian Economic Association (EAEA). With its academic orientation and its emphasis on the application of economic theory to current issues and problems in East and Southeast Asia, EAEA is unique and is expected to be in the forefront of development studies of the region. Professor Ichimura has become the editor of EAEA's journal, *Asian Economic Journal.*

In March 1988, Professor Ichimura retired from Kyoto University and then helped to establish Osaka International University. He has become Vice-Chancellor, Director of the Institute of International Relations, and Professor of Economics at the University. He continues, with even more elan, his study of Asian countries after his "retirement". For example two books were published in 1988 under his editorship: (1) *Challenge of Asian Developing Countries* (Tokyo: Asian Productivity Organization), and (2) *Indonesian Economic Development* (Tokyo: Japan International Cooperation Agency — an Indonesian edition is forthcoming from the University of Indonesia).

CONTENTS

INTRODUCTION

SEIJI NAYA
and
AKIRA TAKAYAMA

The dynamic economic performances of the East and Southeast Asian nations have caught the attention of many around the world. During the 1970s and 1980s, these economies as a group grew faster than most other countries in the world. Over the period 1970–79, for example, real GDP grew at an annual average rate of more than 9 percent in the newly industrialized economies (NIEs) — which include Hong Kong, Korea, Singapore, and Taiwan — and more than 7 percent in most of the ASEAN (Association of Southeast Asian Nations) countries. Even in the Philippines, real GDP grew at 6 percent in the 1970s, which was higher than growth in most other developing countries in the world in the same period. In the 1980s, despite the turndown in the global economy, the trend has continued with real GDP in the NIEs and the ASEAN economies (again except for the Philippines) growing at about 7 and 5 percent, respectively.

As a result of their phenomenal performance, these countries have increased their shares of world output and have also raised their share of world exports. In 1970, the NIEs and ASEAN countries comprised 0.8 percent and 1.0 percent of total world output. By 1987, these shares had increased to 1.8 percent and 1.2 percent, respectively. The growing importance of these economies in terms of world exports is even more dramatic. From 2.2 percent and 1.6 percent in 1970, the share of exports from the NIEs and ASEAN countries to total world exports have grown to 8.3 percent and 2.4 percent, respectively, in 1988.

Indeed, this is the only region where some countries have graduated or are graduating from the ranks of the Third World. The successful development experiences of these Asian economies can serve as a laboratory to enrich economic theory and a large number of projects have been devoted to studying and analyzing their development strategies. In addition, the success of the NIEs and the nations of ASEAN has had a very favorable demonstration effect. As a result, countries such as China, India, and nations in Latin America have shown a great deal of interest in the development experiences of the East and Southeast Asian economies.

This volume represents a comprehensive collection of papers covering a wide range of development issues and problems the East and Southeast Asian economies have encountered, are facing, or will be confronted with in the near future. Because the topics for the papers were left at the discretion of the authors, the subject matter of the papers cover a wide range. At the same time, the papers cover timely issues. Thus, the volume is a good reflection of the many real world problems facing the economies of East and Southeast Asia.

The papers by George Hicks, Malcolm Dowling, and Chong-Yah Lim give an overview of the economic development experiences of the East and Southeast Asian countries and provide a good launching pad for the remainder of the volume. George Hicks' article surveys economic development theory since the 1960s, and contrasts the development strategies that were chosen by the NIEs with other developing economies and looks at the outcomes of the policies that were followed. The article by Malcolm Dowling analyzes economic growth and the changing economic structures of the East and Southeast Asian developing countries, and assesses the prospects for growth in the region in the 1990s. Chong-Yah Lim's paper provides a different perspective on Taiwan's phenomenal economic success and methodically examines the various factors that have been suggested as the sources of Taiwan's growth.

The importance of good macroeconomic policies in achieving rapid economic growth and development, in particular, industrialization and employment policies, is highlighted in the papers by John Wong, Ji-Hong Kim, and Nguyen Xuan Oanh. Because of differences in history, culture, and initial conditions, every country cannot follow the exact path of the NIEs, but many countries in the region (as well as in other parts of the world) have moved toward outward-looking and market-oriented policies. The paper by Nguyen Oanh showcases Vietnam as one example where a shift in industrial strategy has taken place in Asia. The essay by John Wong focusses on the industrial policies of Singapore in the 1970s and 1980s, and the impact of these policies in fostering employment and output growth. Two lessons are brought out in the analysis: (1) A short-term policy, in Singapore's case the high-wage policy of the early 1980s, is an inappropriate policy tool for economic or industrial restructuring which is essentially long-term in nature; and (2) The optimal level of government involvement in an economy is a complex question and involves choosing an appropriate mix that combines a level of institution support with the working of an effective market system.

The governments of many of the East and Southeast Asian countries have had to face or may soon have to deal with the problem of phasing out declining industries as their economies move up the ladder of comparative advantage into more capital- and technology-intensive industries. The government's response to these problems will be a significant factor and Ji-Hong Kim's analysis of the Korean government's policies toward two declining industries — the shipbuilding industry and the coal mining industry in Korea — indicates that while government intervention may be necessary to ease adjustment in certain declining industries, the government must be wary of contributing to further distortions in the market.

Trade has played an important role in the development of the East and Southeast Asian economies, and will continue to be a significant factor in the future growth of these economies. The papers by Narongchai Akrasanee and Somsak Tambunlertchai, Mari Pangestu, and W.L. Chou and Tzong-Biau Lin examine the different trade issues facing these nations and the response of the governments in addressing the various problems facing them. While adoption of an import-substitution strategy can result in the creation of inefficient industries in a developing country, Narongchai Akrasanee and Somsak Tambunlertchai argue that adoption of this strategy may be appropriate for some economies, such as Thailand, in the initial stages of development. They argue further that import substitution and export expansion are not necessarily mutually exclusive policies. At the same time, the authors note that export expansion and more outward-looking trade policies have been, and will continue to be, important factors contributing to industrial and economic growth in Thailand.

Mari Pangestu looks at another trade-related issue and examines whether Indonesia suffered from the Dutch disease effect. The analysis shows that the booming oil sector in Indonesia did in fact stifle growth in other sectors of the economy, and the government's devaluation of the Indonesian rupiah provided only temporary relief to the nonoil traded goods sector.

The effects of devaluation of a domestic currency are also explored in the paper by W.L. Chou and Tzong-Biau Lin. The impact of a devaluation of the Hong Kong dollar (as well as changes in government expenditure and investment) on macroeconomic aggregates is analyzed using an econometric model.

In an innovative paper by Manuel Montes, a rent-generating model is employed to analyze the effect of rents that are earned from access to government subsidies or protection on the economy. The theoretical model suggests that increases in rents that are not reinvested in the domestic economy but that are spent on imports or capital flight will lead to slowdowns in domestic demand and rising unemployment. Attempts to maintain full employment in the economy through stimulation of aggregate demand may then bring the economy closer to its foreign financing limit. Although the model was not empirically tested in the paper, the essay presents an original application of economic theory to practical issues facing the developing economies.

In Asia, the share of direct foreign investment (DFI) to total capital formation is generally small, except in certain sectors such as the petroleum industry. In addition, the balance-of-payments effects of DFI are not large either. Nevertheless, as noted in the paper by Eric Ramstetter, the magnitude and effect of DFI is not insignificant in the manufacturing sector of some countries, in particular Taiwan. Using a macroeconometric model that highlights the role of DFI, Ramstetter concludes that differences in the marginal product of capital between domestic and foreign firms can result in significant differences in production and that multinational corporations play an important role in the trade of developing economies.

The paper by Chung Lee examines the pattern and trends of DFI in Korea and evaluates the impact of the country's DFI policies. The paper's conclusion that Korea's restrictive policy on DFI until the mid-1980s may or may not have been the optimal policy reflects the complexity and difficulty of analyzing effects of DFI. Lee concludes that the question cannot be fully answered without a careful analysis of the effectiveness of Korea's industrial policy.

An important point about the extent of technology transfer arising from DFI is made in the paper by Mingsarn Santikarn Kaosa-ard. Many of the benefits of DFI come from the transfer of knowledge and technology; but technology cannot be simply bought or imported. A country must build its capacity to absorb the technology. Technology transfer is therefore not a static concept, but is a process that depends upon capacity-building by the recipient country through investments in human resource development and science and technology.

Consistent with the movement toward a more market-oriented and outward-looking development strategy, the East and Southeast Asian economies have undertaken a number of reforms in their financial markets and exchange rate systems. The paper by Christina Liu and Shirley Kuo examines the interest rate and foreign exchange liberalization that took place in Taiwan since 1980. Their analysis of the Taiwanese experience supports the widely-accepted order of liberalization — that the domestic financial markets and the trade account should be liberalized prior to liberalization of the capital account in order to prevent speculative capital flows that may lead to other financial problems.

In the essay by Yen Kyun Wang and Wan-Soon Kim, liberalization of the forward foreign exchange market is viewed as an important element of foreign exchange liberalization. A sound and active forward foreign exchange market would improve the country's export competitiveness by providing a means by which trade contracts can be protected from foreign exchange rate changes.

Debt has not been a major problem in East and Southeast Asia primarily because these countries have relied more heavily on good domestic policies to make necessary adjustments to external shocks and less on foreign debt. The Philippines is the exception, but indications are that the country is regaining strength though a large amount of foreign assistance will continue to be needed. Nevertheless, the straightforward presentation of the many options facing developing countries in terms of debt management by Virabongsa Ramangkura and Pakorn Vichyanond is instructive.

As the East and Southeast Asian countries have developed, the size of the agriculture sector has declined. However, the agricultural sector remains an important one, and increases in agricultural productivity have been and will continue to be an important element in the region's growth. Agricultural growth and the transition toward industrialization are the topics of the papers by Romeo Bautista and William James. Increases in agricultural productivity that occurred in the region and the impacts these increases will have on food imports in the future are discussed in the paper by Bautista. James evaluates the agricultural transition that has taken place in the region and notes that industrialization should not take place at the expense of the agricultural sector, but should be accompanied by a raising of productivity in both the industrial and agriculture sectors.

There has been much discussion recently in academic and political circles about economic integration among the countries of the Asia-Pacific region. While developing countries' attempts at integration have generally not been very successful, the Southeast Asian countries have been able to maintain their unity in the Association of Southeast Asian Nations (ASEAN) and in 1988 ASEAN was as strong as ever. Although ASEAN cooperation has not achieved the kind of success that was initially envisioned, the organization has contributed to political stability and harmony in the region which is now providing the foundation for economic cooperation. The paper by Florian Alburo looks at the prospects for strengthening ASEAN cooperation beyond political unity in the Indochina conflict by examining the results of the third ASEAN Summit Meeting that was held in late 1988. The commitment to expand economic cooperation with the firm goal toward a more market-oriented approach at the summit indicates that ASEAN is likely to move forward toward its goal of regional economic cooperation.

Despite the discussions surrounding economic cooperation in the region, the NIEs and ASEAN countries recognize their interdependence with the rest of the region and the world, and they have maintained their outward-looking approach. As noted in Mohammad Sadli's paper, the Asian developing countries have been taking a more active role in seeking multilateral trade liberalization through the Uruguay Round, the outcome of which is of vital importance to the region. However at this juncture, a successful round is very uncertain; and for a number of reasons, the GATT may not succeed in effectively liberalizing world trade.

The paper by Pang Eng Fong and Augustine H.H. Tan examines some of the global economic problems from the perspective of the Asian NIEs. The trend toward greater protectionism and managed trade is viewed as a threat to the world economy in the 1990s, and the shift in global economic power implies a need for the United States, the European Community, and Japan to better coordinate their policies and reduce the divergence in their national macroeconomic policies.

As the editors of the volume, we take great pleasure in presenting these papers which are not only informative, but also yield significant insights into the issues confronted by the developing economies of East and Southeast Asia. It is especially pleasing to find that economic theory remains a fundamental component of research being conducted in the field and continues to be applied to practical problems.

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STRUCTURAL CHANGE AND ECONOMIC DEVELOPMENT IN DEVELOPING ASIA IN THE 1990S

MALCOLM DOWLING

Introduction

As the year 2000 approaches, interest in the economic prospects for the world economy, and Asia in particular, has quickened. A number of studies of developing Asia have been undertaken for the 1990s both by national governments (e.g., Korea and Philippines) and by multilateral agencies (e.g., Asian and Pacific Development Centre). This paper has been developed with the primary purpose of analyzing the structural changes that are likely to take place in the Asian developing countries over the next decade and the implications this will have for public investment needs (particularly development assistance), international trade, and the balance of payments.

The level of foreign assistance required by the developing countries of the region will depend critically upon both domestic and external balance, which in turn will depend upon a number of factors, including the effectiveness with which the developing countries can mobilize savings, improve efficiency, and promote exports. By exploring a scenario for growth and structural change, it is hoped that this paper will make a small contribution to the continuing discussion on the future of developing Asia.

In order to develop some perspectives for the future, it is important to review the past performance of these countries. Following this review a set of baseline projections for the 1990s is developed. These projections are point estimates representing my view of the most likely scenario. Due to time and space constraints, no attempt is made to derive a set of high and low scenarios for each country. The paper concludes with a discussion of some of the projected growth in terms of structural change, trade patterns and development strategy.

World Economic Developments, 1970–87

The sequence of international events of the past decade and a half and the uncertainties which they have created for economic planners and forecasters are familiar. However, a short summary of these events is nevertheless useful in framing a view as to the future prospects of the world economy and of Asian developing countries in particular.

From 1970 to 1987, the world economy recorded an annual average growth rate of 2.8 percent. Industrial countries expanded by 2.6 percent annually, while developing countries grew by 3.3 percent annually. Among the developing countries, Asia recorded the best performance, growing by more than 6 percent a year. In terms of improvements in per capita income, the Asian developing countries performed remarkably well compared with other regions; they also registered low rates of inflation and a rapid rate of increase in the volume of international trade. Inflation rates in developing Asia averaged 8.6 percent per year versus 30.7 percent per year for all developing countries during the period 1970–87 and were nearly as low as those of the developed countries (5.8 percent). The region also posted an annual average increase of 10.3 percent in export volume, almost double that of Europe's 5.4 percent export growth, and recorded the highest annual percentage change in import volume at 7.2 percent (International Monetary Fund 1988).

However, between 1972 and 1982, world economic growth was more volatile, primarily as a result of the commodity boom and the two oil shocks. Output growth in the industrial countries was subject to rather wide fluctuations, and, when combined with the severe inflation that followed the first oil shock and commodity boom, this created uncertainty among developing countries and resulted in greater fluctuation in demand for their exports. Recycling of oil surpluses following the first oil crisis resulted in a rapid buildup of debt and of debt servicing burden in many Asian developing countries. The debt crisis was exacerbated for oil-producing Asian developing countries when oil prices fell dramatically following the second oil shock. Other primary commodities-producing Asian developing countries were also adversely affected by the fall in nearly all commodity prices during the mid-1980s.

A modicum of stability has returned to the world economy since 1982. There has been uninterrupted growth in income in the developed countries for nearly six years, living standards have improved in many developing countries, and, in contrast to the 1970s, there has been very little price inflation. International debt remains a problem in Latin America, but the debt crisis in Asia has abated.

This return to stability is partly due to the continued strength of the U.S. economy and the relative stabilization of oil prices. But fundamental imbalances between the United States and its trading partners have developed which adjustments in exchange rates have not yet solved and which may yet create another crisis for the world economy.

The Asia-Pacific region

In Asia, economic performance has been quite impressive. Rapid growth was achieved primarily through structural changes, whereby the industrial sector grew rapidly while the slower growing agricultural sectors diminished in importance. The industrial sector in many Asian countries achieved higher productivity gains than could have been realized in agriculture. Rapid industrial growth has increased the number of jobs while higher incomes have facilitated higher rates of saving. Combined with outward-looking trade policies, this has led to rapid gains in output and exports. The latter is reflected in a near doubling of the region's share of world trade volume to over 10 percent between 1970 and 1987.

East Asia is clearly the most rapidly growing subregion. Hong Kong, Korea, and Taiwan all posted average annual real growth of gross domestic product (GDP) in excess of 8 percent between 1970 and 1987. This represents more than a four-fold increase in living standards and a rate of economic growth that is unmatched anywhere in the world. Singapore is not far behind with an average annual growth rate of 6.7 percent. These newly industrializing economies (NIEs) were able to grow rapidly through exploitation of foreign markets for manufactured exports, and this was complemented by a sharp increase in the share of the industrial sector in GDP (Asian Development Bank 1988b). As dependence upon trade increased, so did the subregion's sensitivity to disruptions in the international economy. GDP growth in the NIEs fell dramatically in both the 1974/75 and 1982/83 world recessions. However, the NIEs were quick to adjust to these disruptions and economic performance improved by the mid-1980s. This was aided by the fall of the dollar, which increased export competitiveness of these economies.

During the 1970s, price increases for oil and other primary commodities boosted export earnings and contributed to impressive economic growth for the Southeast Asia subregion. However, the second oil shock, followed by weak commodity prices in the mid-1980s, slowed the performance of this subregion considerably and exacerbated the buildup of foreign debt as several countries borrowed heavily to maintain incomes at satisfactory levels. Nevertheless, Southeast Asia performed remarkably well over the period 1970–87, with annual GDP growth averaging 5.9 percent. Indonesia and Thailand expanded at impressive annual rates of 6.7 percent and 6.1 percent, respectively, while the Philippines, which experienced constrained growth and even some absolute declines in GDP during the 1980s, managed to sustain GDP growth at an average annual rate of 3.9 percent.

China posted a hefty annual growth rate of 8.3 percent as its economic performance benefitted from improved efficiency flowing from economic reforms. These reforms emphasized greater decentralization of production and investment, stronger economic incentives, and greater use of market mechanisms to allocate resources.

Not only have the economies of the Asian developing countries grown, but they have also undergone structural transformation as described by Hollis Chenery (1986). Many countries that were primarily agrarian 20 years ago now qualify as industrialized economies. In these countries, the industrial and service sectors flourished as agricultural productivity increased, making a surplus available for industrial investment and releasing labor to new industrial enterprises.

The pace of industrialization and structural transformation has depended to a significant extent upon the regulatory environment and economic policies within the country. Those countries which adopted a relatively open international trading environment were able to promote exports and became efficient enough to compete in foreign markets. Consequently, they were able to grow and industrialize rapidly. Taking advantage of international markets to achieve economies of scale which their small domestic markets could not provide, the NIEs moved from production of labor-intensive goods to capital-intensive goods. As a result, value added from industry increased from about one-third of GDP in the early 1970s to nearly 50 percent in the late 1980s (ADB 1988b).

In Southeast Asia, industrial growth has also been impressive but considerably more cautious. During the 1970s, new industrial enterprises were, for the most part, confined to the processing of primary goods. Only in recent years have these countries shifted into higher value added manufacturing activities. Correspondingly, the industrial sector's share of GDP increased from 24 percent to 35 percent between 1970 and 1987, although the sector's share has fallen marginally since 1980 in some countries.

With structural change and industrial growth came a decline in agriculture's share of GDP. The sector's share in value added fell from 36 percent to 24 percent in Southeast Asia and from 13 percent to 4 percent in East Asia. Nevertheless, agriculture remains a major source of employment and income in the region. Furthermore, it is only by increasing productivity and building up agricultural surpluses that developing countries can afford to pursue rapid industrialization. This has been achieved through better price incentives for producers, extension of irrigation systems, more productive varieties (e.g. the Green Revolution) of crops, land reform and more effective use of auxiliary inputs, such as fertilizers and pesticides.

The contribution of the service sector has also increased since 1970, accounting for 54 percent of value added in East Asia and 42 percent in Southeast Asia. Although much of the sector provides marginal employment in low-paying jobs in both the formal and informal sectors, a growing component is involved in efficient and sophisticated financial services (especially in the NIEs) and in foreign exchange earning activities like tourism. Expansion of the service sector has been facilitated by the development of transport and communication services.

Despite the structural transformation of most of the Asian developing economies, the bulk of the population in these countries still derives its income from agriculture, although there has been a visible declining trend since 1970. In Southeast Asia, the share of agriculture in total employment has dropped from 60 percent in 1970 to about 50 percent in 1987. In East Asia the drop has been more precipitous, from 30 percent to 10 percent over the same period. Among the NIEs, the service sector rather than the industrial sector has absorbed the bulk of labor released from agriculture.

Rapid growth and industrialization has ameliorated the employment problem in the NIEs, where unemployment rates are negligible. Industrial growth has also contributed to rapid migration from rural to urban areas in these countries. In Southeast Asia, slower growth in recent years has resulted in high unemployment and underemployment rates in the Philippines and Indonesia. In both countries this has been exacerbated by rapid growth in the labor force as a result of rapid population growth in the 1960s and 1970s.

The domestic saving rate is both an important determinant of the level of development expenditure and a gauge of the need for foreign finance. The rapid growth of real per capita income combined with relatively low inflation rates over the past two decades have provided a favorable background for improved saving mobilization in many developing countries in Asia. On average, domestic saving rates were higher in Asia than in other developing regions, with performance being particularly noteworthy in the NIEs and Southeast Asia. Generally, countries with high rates of saving achieved higher rates of economic growth, while countries with low saving rates were associated with slower rates of economic growth. Nevertheless, there remain significant variations in saving rates, even among countries with comparable levels of per capita income, as well as intertemporal shifts in saving performance within countries.

Saving rates in Southeast Asia averaged over 20 percent, a significant improvement over the performance recorded in most of South Asia. Indonesia's saving performance showed an upward trend during the 1970s as a result of higher oil prices and subsequently higher government savings. However, saving performance declined following the second oil shock. In the Philippines, the gross domestic saving rate was relatively steady at over 20 percent during the 1970s, but slow economic growth and political uncertainty hampered saving performance during the 1980s. By 1987, the saving rate had fallen to 14 percent. In Thailand, the saving rate declined between 1978 and 1983 but has since recovered. In Malaysia, the saving rate has been quite steady at about 30 percent since 1973.

On the other hand, saving performance among the NIEs has been quite remarkable. During the period 1970–87, Singapore and Taiwan posted average annual saving rates in excess of 30 percent, while Hong Kong and Korea averaged over 25 percent in the same period.

Gross domestic investment ratios as a percentage of GDP have risen for many Asian developing countries between the 1970s and the 1980s. The NIEs, in particular, have had high and rising rates of investment. Singapore recorded the highest average investment ratio during the period 1970–87 at 42 percent, followed by Hong Kong and Korea at 30 percent each, and Taiwan at 27 percent. In Southeast Asia, average investment ratios ranged from 22 percent in the Philippines to 28 percent in Malaysia.

For many of the countries that maintained investment rates in excess of saving rates, the saving-investment gap was financed with external capital flows in the form of foreign borrowing. This led to accumulation of current account deficits and the buildup of external debt.

The external debt of the Asian developing countries rose rapidly from less than \$50 billion in the early 1970s to over \$250 billion in 1987. Much of this occurred in Southeast Asia following the two oil shocks and during the period of low primary commodity prices and weak world recovery in the mid-1980s. As a result, the current account position of these countries deteriorated during the 1980s vis-à-vis the 1970s. On the other hand, the current account position of the NIEs improved dramatically; by 1987, the combined current surplus of the NIEs was nearly as large as West Germany's.

In Southeast Asia, reliance on foreign saving was minimal until the commodity boom faltered and oil prices began to escalate rapidly after the first oil shock. Thailand's dependence on foreign saving increased from 1.2 percent in the 1970s to over 30 percent in the mid-1980s. In the Philippines, foreign saving accelerated rapidly following the first oil crisis, reaching 25 percent of gross domestic capital formation (GDCF) in 1983. Since then, reliance on foreign saving has declined sharply as a result of the debt crisis and lower levels of investment. In Indonesia, reliance on foreign saving fluctuated with oil prices, falling sharply during the two oil shocks but increasing between these periods as development expenditure increased. However, in recent years, tight budgets adopted as a result of the oil price slump have reduced Indonesia's dependency on foreign saving. Likewise, the positive effect of the two oil shocks in Malaysia has enabled the government to reduce its reliance on foreign saving. However, in 1981, Malaysia embarked on an ambitious development program which boosted its reliance on foreign saving to over 30 percent in 1982 and 1983. The rapid increase in foreign borrowing in the succeeding years coupled with slumping oil and commodity prices created significant financial problems for the government during the mid-1980s and resulted in a reduction in investment spending.

In East Asia, Korea and Singapore relied extensively on foreign saving to finance its investment program. In Korea, reliance on foreign saving mushroomed during the periods in 1974–75 and 1979–82 primarily as a result of higher oil prices which increased import costs considerably. This was compounded by a severe drought in 1982. Since then, reliance on foreign saving has been significantly reduced as export and domestic saving performance have dramatically improved and by 1986, Korea had begun to accumulate current account surpluses. In Singapore, reliance on foreign saving was most prominent during the early 1970s and slowly declined in the 1980s after peaking in 1980 and 1981. In Hong Kong and Taiwan, dependence on foreign saving for investment financing has been minimal due to their high national saving rates. By the mid-1980s, all the NIEs had current account surpluses, and, in the case of Taiwan, the surplus had reached $16 billion in 1987.

Because the Asian developing countries have relied primarily on foreign borrowing to finance their expenditures, direct foreign investment (DFI) accounted for less than 15 percent of total capital inflows. With the exception of China, lower-income countries have relied almost exclusively on official sources, while in Southeast Asia and the NIEs, private sources have become an increasingly important source of external finance.

Following the two oil shocks and the commodity price slowdown of the 1980s, external debt and debt servicing requirements accelerated sharply for some countries in Southeast Asia. In 1986, external debt reached $28 billion and $42 billion, respectively, in the Philippines and Indonesia, and debt servicing, measured as a percentage of the export of goods and services, was 45 percent and 35 percent, respectively. In Thailand and Malaysia, both the level of external debt and debt servicing costs increased dramatically. However, the situation has recently improved in both of these countries as exports have picked up and government budgets for development expenditure have been tightened. China has increased its level of foreign borrowing in recent years to over $20 billion. However, debt servicing requirements remain low when compared with export proceeds.

Asia has played an increasingly important role in world trade. Between 1970 and 1987, Asia's share of world trade nearly doubled to over 10 percent, and the growth rate for both exports and imports was significantly higher than in other regions. In the 1970s, export volumes from Asian developing countries grew at nearly twice the rate of developed countries and nearly three times as fast as export volumes of developing countries as a whole. In the 1980s, despite the slowdown in world export growth, the Asian developing countries still maintained relatively rapid rates of export growth. It is also noteworthy that the countries in the region with the high rates of economic growth also recorded rapid growth in foreign trade, particularly exports.

The commodity composition of exports of Asian developing countries has changed significantly in the past two decades. In 1965, nonfuel primary commodities comprised the bulk of the region's exports (88 percent and 50 percent in Southeast Asia and East Asia, respectively), although labor-intensive manufactured goods were of significant importance in Korea. By 1984, the share of nonfuel primary commodities had fallen to 46 percent and 7 percent, respectively, in the two subregions, while the share of labor-intensive and other manufactured goods respectively increased. In Thailand and the Philippines, labor-intensive manufactured goods accounted for 22 percent and 40 percent of exports by 1984. In Korea, capital- and skill-intensive goods accounted for over half of total exports in 1984, up from 13 percent in 1965. By 1987, the share was significantly higher as Korea has become a major exporter of automobiles, computers, and other electronic products.

Import volume growth for the Asian developing countries exceeded that of exports and contributed to the increase in current account deficits. The rate of growth in import volumes for the region was nearly double that of developing countries as a whole but fell from almost 10 percent in the 1970s to 7 percent in the 1980s. While exports became more sophisticated with higher value added, imports have generally followed the reverse pattern. This was partly due to the two oil shocks and the corresponding increase in the cost of fuel imports, but it is also reflective of the increasing sophistication of the industrial sectors of the Asian developing countries.

The growing importance of Asia in total world trade reflects both the increasing economic interaction between the region and the rest of the world as well as greater economic integration within the region. Trade is most important for East Asia and to a lesser extent for Southeast Asia. The tendency for intra-Asian trade to increase relative to trade with the rest of the world has been particularly noteworthy in the years following the first oil shock. Between 1973 and 1984, the share of South-North exports in total trade in the Asian region fell by about 5 percent to comprise less than two-thirds of total trade, whereas the share of South-South exports increased by about 7 percent to make up almost one-third of total trade. Furthermore, exports to developing countries within the region increased more rapidly than exports to developing countries outside the region. Similar trends in South-South and North-South trade are observed for imports.

Several factors account for the increase in South-South trade since 1973. In response to the general economic slowdown following the first oil shock, many industrialized countries resorted to protectionism, and the developing countries were forced to find alternative markets for their exports. In general, since trade and income growth are closely correlated, trade will grow faster when income growth is rapid. Since the developing countries of Asia are growing much more rapidly than the industrialized countries, foreign trade has been stimulated.

Structural Change and Economic Prospects in the 1990s

A series of projections for the developing economies in Asia were developed using two methodologies: econometric modeling and national income account balancing. The former relies on short- and medium-term econometric forecasts made by the ADB, ESCAP, and the LINK modeling group at the University of Pennsylvania (ADB 1988a; Dowling and Verbiest 1988; Klein, Pauly and Lee 1988). The second methodology is based on the revised minimum standard model accounting framework developed at the World Bank and adopted in simplified form at the ADB under the title Basic Consistency Framework (BCF). The BCF was used in some countries to augment the econometric models and to extend the projections for a longer time period. In other cases where econometric models were not available, the BCF was used to derive the forecasts. In these countries, growth rates and other parameters of economic performance were determined a priori based on past experience and judgment.

The baseline projections are derived within the context of a set of assumptions regarding the behavior of the world economy. It is assumed that real output in industrial countries will grow at an annual average rate of 3 percent throughout the 1990s and that oil prices will rise to $20 per barrel by the early 1990s and remain constant thereafter. It is further assumed that prices in industrial countries will rise on average by 3 percent per annum, that real interest rates will remain at around 4 percent (about the same as their current levels), there will be no dramatic change in protectionist sentiment in industrial countries, that the external imbalances which currently exist (particularly between the United States and Japan) will eventually be resolved without seriously affecting the pace of world economic growth, that the current flexible exchange rate system will remain intact, and that purchasing power parity will determine exchange rates. The latter is tempered by the assumption that there will be some additional appreciation of the currencies of the NIEs in light of their large and growing current account surpluses, and that the currencies of the rest of the developing countries in the region will tend to remain tied to the U.S. dollar. Finally, it is assumed that continued efforts will be made to promote inter- and intra-regional trade and that this will help to facilitate the continued rapid rate of growth in trade for the countries of the region.

Economic growth and standards of living

Within the context of the model framework, projections for selected Asian developing countries were made based on a review of past experience and trends, expected future prospects, and anticipated structural changes (detailed yearly forecasts are available from the author). The projections assume that the region as a whole will be able to maintain the momentum of dynamic economic expansion and transformation achieved in the 1970s and 1980s, and are worked out against a background of a changing world economic environment. The region as a whole is projected to post an average annual growth rate of 6 percent until the year 2000.

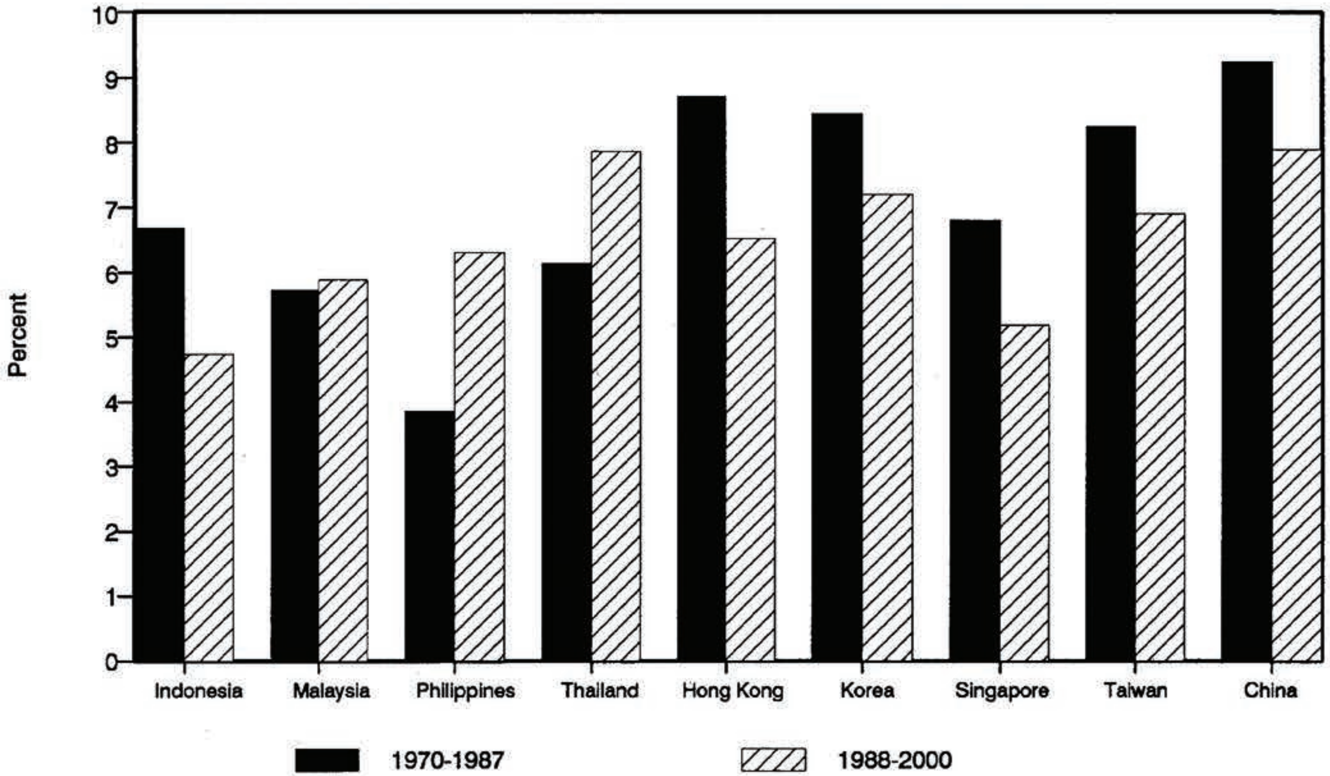
Strong growth prospects in Southeast Asia are predicated upon the success of structural adjustment policies adopted to promote industrialization and export growth. Combined with currency realignments, this will improve the competitiveness of the countries in this subregion. Predicted real GDP growth range from 4.7 percent in Indonesia to 6.9 percent in Thailand (figure 1). Indonesia is expected to grow at a slower pace than in the past two decades, largely because of dim prospects for the oil sector (recall that oil prices are assumed to remain constant). Indonesia has, however, achieved significant progress in a number of areas, including reform of the policy environment, promotion of nonoil exports, and achievement of self-sufficiency in rice. These, along with continued prudence in fiscal policy, will help the country attain satisfactory growth. In the Philippines, the economy is anticipated to recover some growth momentum in the 1990s after its sluggish performance in the early 1980s. Economic performance in Thailand and Malaysia will be boosted by strong industrial growth led by the export of manufactured goods, although in the latter case continued sluggish investment and a weak oil market will likely be dampening factors.

It will be difficult for the NIEs to sustain the extremely rapid rates of economic growth achieved over the past two decades. There will be pressures, not unlike those in Japan, to revalue their currencies and to increase the rate of domestic consumption. Consequently, our forecasts are for somewhat more modest performance in the 1990s. To achieve these growth rates, the NIEs will need to make continual adjustments to the changing pattern of international competitiveness while transforming their economies in line with the changes in their comparative advantages. They will also need to maintain flexibility in order to respond to changes in technology and the tastes of foreign consumers. Over the decade, the NIEs will become less dependent on developed countries as trade within the Asian region increases and as their own domestic markets expand. Hong Kong and Singapore are anticipated to become full-fledged industrial countries in the early 1990s, while Korea and Taiwan are expected to achieve this status towards the beginning of the next century.

Volatility in the domestic policy environment combined with rapid structural changes in the economy make it difficult to make accurate intermediate-term projections for China. However, it is unlikely that the rapid rates of economic growth achieved during the first half of the 1980s will be sustained throughout the 1990s. Nevertheless, there is significant scope for improvements in economic efficiency, growth in industry, and expansion of trade. Even with some downward adjustments in estimates of growth, China is still projected to achieve an average annual GDP growth rate of 7.9 percent from 1988 to the year 2000.

Disparities between slow and rapidly growing countries are accentuated by comparisons in per capita income. The rapidly growing NIEs and China also have low rates of population growth, whereas in some of the slower growing countries population growth is rapid. Thus, Thailand's per capita income is expected to increase by around 6 percent per annum and will reach

Figure 1
Average Annual Growth in GDP
1970–1987 and 1988–2000



Sources: Asian Development Bank, Key Indicators of Developing Member Countries of ADB, various issues.
Asian Development Bank, unpublished memo, 1988.

nearly $2,000 by the end of the 1990s. Malaysia's per capita income will total more than $3,000, the Philippines' slightly more than $1,000, and Indonesia's about $670. Korea and China are expected to experience annual increases in their per capita incomes averaging 5.6 percent and 6.7 percent, respectively. This will bring Korea's per capita income level to over $5,000 by the year 2000 and China's to almost $600. Hong Kong and Singapore will qualify as affluent economies, with per capita incomes of $16,000 and $13,000, respectively, while Taiwan will not be far behind at $8,000. Thus by the year 2000, the standards of living as proxied by per capita income in the NIEs (and perhaps in Malaysia) will qualify these countries for developed country status.

Structural change and shifts in the pattern of production

Structural transformation will result in greater diversity in the Asian developing economies by the 1990s. There will be greater emphasis on trade and outward-looking policies in Southeast Asia following continued reform of the policy environments. The countries of East and Southeast Asia will become even more oriented toward industry and services with increased reliance on trade. As Japan and the NIEs open their domestic economies and as China pursues industrialization, regional markets will expand rapidly. The industrial sector will provide the major momentum to growth, with the service sector increasing in importance towards the year 2000. The agriculture sector will continue to expand at a modest pace of 3 percent, although its share in total GDP will decline.

In general, the industrial sectors in Southeast Asia will continue to grow more rapidly than the economies as a whole, with Thailand and the Philippines experiencing the most rapid growth in industrial output. Structural transformation in these countries is expected to pick up in the 1990s as they adopt policies designed to encourage the production of manufactured exports and begin to compete for markets with the NIEs. In Thailand, the industrial sector's share of GDP will be more than one-third of GDP by the year 2000, not far short of Korea's industrial sector share in the early 1980s. Despite continued strength in small- and medium-scale industry in Indonesia, the oil subsector will continue to grow slowly, and the industrial sector will be barely able to maintain its share in GDP.

In East Asia, growth in the industrial sector is expected to keep pace with growth in income but will be slightly slower than historical trends. As these economies reach developed nation status, services will become increasingly important. In Korea, the share of the industrial sector will be nearly 50 percent in the next decade compared to 39 percent during the 1970s and 1980s, while the share in Taiwan will exceed 50 percent. Hong Kong and Singapore will experience a gradual shift to services as they develop into more sophisticated financial centers.

The structure of industry will undergo significant changes as well. There will be a shift away from labor-intensive production with unskilled labor toward production of skill- and capital-intensive manufactured goods. These trends will be more pronounced in the higher income East and Southeast Asian countries.

Growth in the agricultural sector will, by and large, reflect historical rates, while the sector's share in GDP will continue to decline. In China, agricultural sector growth will decline to 4.2 percent in the 1990s from 7.4 percent during the period 1970–87. In Southeast Asia, agricultural growth will be maintained at around 3 percent, which is slower than the projected growth in GDP; in East Asia, agricultural production will decline by about one percent during the forecast period. Among the Southeast Asian countries, the decline in the share of agriculture in total GDP is most pronounced in Thailand, where the value added share of agriculture in GDP will fall to 13 percent in the 1990s from an average of 26 percent in the period 1970–87.

The structure of agricultural production will also change. While population and employment in the rural sector will continue to increase, the pace will be much slower compared to other sectors. With no significant increase in cultivated area, average farm size will shrink, population density will increase, and fragmentation of landholdings will continue. Higher yields from new varieties and benefits from irrigation systems are reaching diminishing returns, and future increases in agricultural productivity will largely depend on better cropping systems, extension services, and research and development.

In the past, the service sector has served to absorb members of the labor force that were either displaced by structural change in industry and agriculture or that were without sufficient skills to work productively in the other two sectors. Consequently, wages and productivity have tended to be low in most parts of the service sector, and little systematic effort has been adopted to improve sectoral performance. It is anticipated that these trends will continue into the future in most parts of the service sector. However, some countries may be able to take advantage of recent technological developments by adopting highly-skilled, labor-intensive techniques in computers, communications, and finance to increase productivity and to compete in international markets.

The share of services in GDP will increase in the 1990s for most economies. In Southeast Asia, it will be somewhat higher, ranging from 40 percent in Malaysia to over 52 percent in Thailand. In East Asia, both Korea and Taiwan will maintain a service sector share of around 40 percent, while Hong Kong and Singapore will continue to expand services to two-thirds or more of total output as international financial and other services begin to dominate these small economies.

Saving and investment

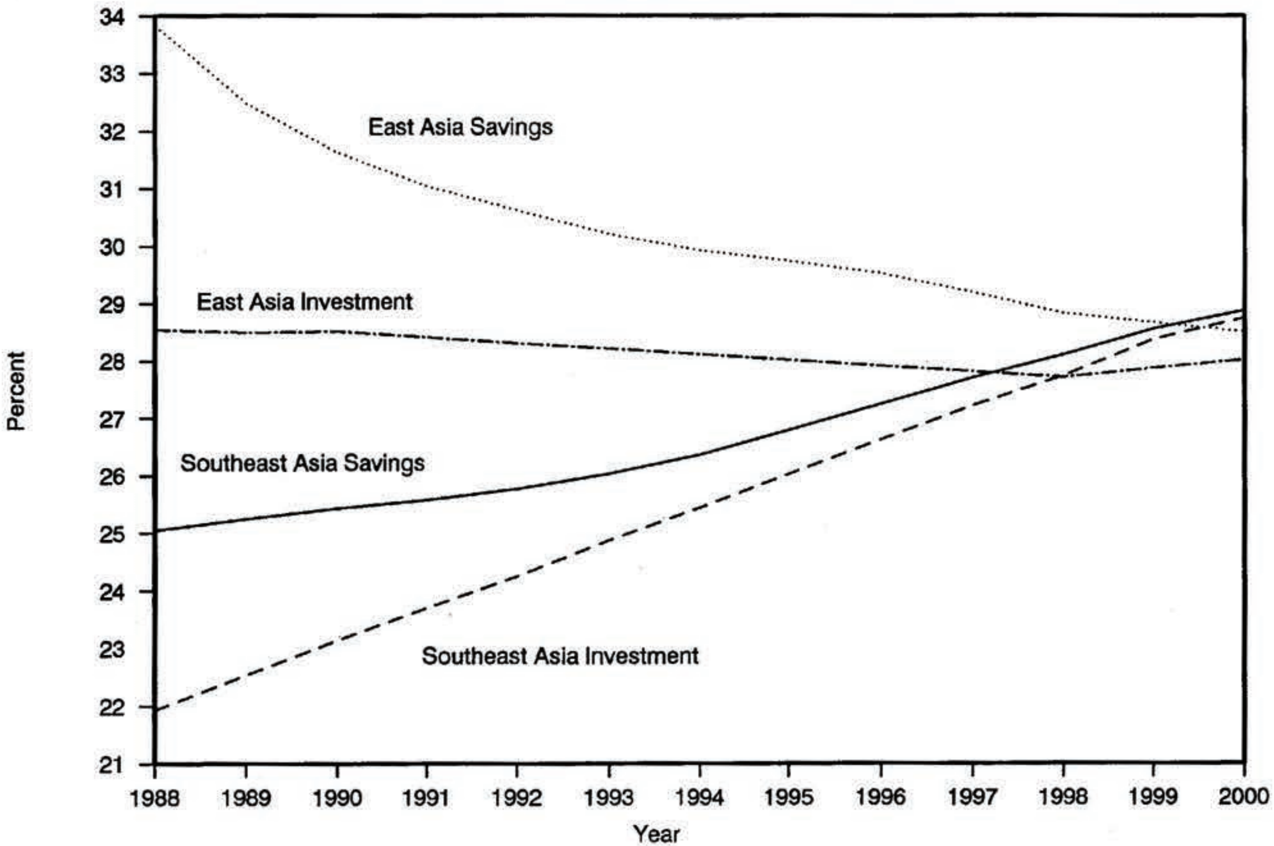
Domestic saving will continue to play a critical role in financing development expenditure in the Asian developing countries. These resources will be augmented by capital flows from abroad, either by borrowing or by direct investment. External financing requirements are determined by comparing the desired level of investment needed to finance growth and the anticipated rate of domestic savings. The saving-investment gap determines the level of foreign saving required to meet the planned levels of investment and achieve the desired or targeted rates of economic growth.

Saving and investment rates. As many countries pursue financial liberalization, and as greater incentives are provided for savers, it is anticipated that domestic saving rates will gradually improve. However, public saving performance will remain weak, particularly in low-income countries. The increased costs of financing recurrent expenditures for a growing population will need to be met, and many of the countries will continue to have extensive domestic and external debts to service in the years ahead.

Projections of saving and investment rates for 1988 to the year 2000 are shown in figure 2. In Southeast and East Asia the gross saving rate projections average more than 25 percent of GDP. The Philippines' saving rate is projected to be lowest at 21 percent, as a result of domestic financial constraints and declining government savings. Because the investment ratio is estimated to reach an average of 22 percent in the 1990s despite continued structural adjustment, the Philippines will post the highest saving-investment gap of about 1 percent of GDP. Indonesia is also expected to have a negative saving-investment gap with soft oil prices and declining government saving being the major sources of the shortfall. No significant saving-investment gap is anticipated in Thailand, and Malaysia will post surplus saving relative to required investment levels during the 1990s. Savings will be more than ample to finance investment plans in the NIEs. There will be a surplus of savings in Korea and Taiwan, while Hong Kong and Singapore will be able to balance savings with investment without resorting to foreign borrowing.

External financing requirements. For the deficit economies of the region, external financing requirements are projected to more than double between 1988 and the year 2000. In Southeast Asia, the overall flow of official development assistance (ODA) to finance development expenditures will diminish as an increasing proportion of foreign financing needs will be met from private sources. Furthermore, the growth trend in DFI in Southeast Asia, especially from Japan and the NIEs, is expected to strengthen in the 1990s. Exchange rate adjustments have made investment in these countries more attractive; at the same time, they have begun to develop the skills and technology necessary to efficiently produce capital- and skill-intensive goods for export. However, for the more heavily indebted countries (Philippines and Indonesia), the availability of financing from private sources at attractive rates will be limited, and these countries will continue to require a significant flow of resources from official sources, both bilateral and multilateral.

Figure 2
Savings and Investment Ratios
1988–2000



Source: Asian Development Bank, unpublished memo, 1988.

Trade and economic interdependence

The pattern of structural change in international trade will continue into the 1990s. Using past trade patterns and projected income levels and population trends, the composition of merchandise exports and imports were derived for eight countries for the years 1990, 1995, and 2000.

In Southeast Asia, the share of manufactured exports in total merchandise exports is projected to increase substantially, reaching 67 percent in the Philippines, 52 percent in Thailand, 47 percent in Malaysia, and 21 percent in Indonesia by the year 2000. Although the share of capital- and skill-intensive goods will increase, labor-intensive goods will, with the exception of Malaysia, comprise the bulk of manufactured exports in the subregion. Despite continued structural adjustment, the share of fuel exports may fall from around 50 percent in 1987 to less than 40 percent of total merchandise exports by the year 2000 (despite continued growth in natural gas production). Indonesia may continue to depend heavily upon primary products as a source of foreign exchange in the next century. The volume of oil production is anticipated to start declining by the year 1995, primarily because exploration has been limited and existing fields have only limited capacity. In the Philippines and Thailand, the projected levels of manufactured exports imply a rapidly declining dependence upon primary exports, although they are still short of the level attained by the NIEs.

For East Asia, projections were made only for Korea. It is assumed that the drive to produce more sophisticated manufactured exports in the country will go unabated throughout the next decade. By the year 2000, nearly all of Korea's exports will consist of manufactured goods, with a ratio of almost four to one favoring capital-intensive over labor-intensive goods.

Projections suggest that the changes in the pattern of imports will be less significant than the changes in the pattern of exports. It is notable that the relative importance of fuel imports among the nonfuel-exporting countries is expected to stabilize or decline slightly during the 1990s. This reflects the assumption that oil prices will remain low in real terms and the fact that there will be some successes in oil exploration and in diversifying into alternative sources of energy. Although in several cases the share of moderately capital- and skill-intensive goods is expected to decline by the year 2000, this category will still account for the bulk of manufactured exports from these countries.

Forecasts of trade balances expressed as ratios to GDP suggest that in Southeast Asia, particularly the Philippines and Thailand, trade deficits will be slightly lower than those recorded in the past (3.2 percent and 3.8 percent, respectively). The expected softness in oil prices will contribute to some deterioration of the trade surplus in Indonesia, but Malaysia will increase its trade surplus significantly as a result of continued strong performance by manufactured exports. China is expected to experience some deterioration in its trade balance in the 1990s, with the trade deficit rising from 0.8 percent