TRADE

THE ENGINE OF GROWTH IN EAST ASIA

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In Memory of Irving B. Kravis

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Preface

The four East Asian newly industrializing countries (NICs)—Hong Kong, Korea, Singapore, and Taiwan—succeeded in defying the vicious circle of poverty in the last quarter of this century and emerged as dynamic and rapidly growing open economies. Their success was so remarkable that it has generated a series of heated debates as to whether their development experience might be replicated by other developing countries.

The aim of this book is to reveal the sources of economic growth by analyzing the underlying mechanisms and interrelationships of this export success. We begin our analysis by utilizing the concept of revealed comparative advantage. Using Japan's trade performance as a benchmark, we examine whether the four NICs have gained on or fallen further behind Japan.

The trade patterns of the four East Asian NICs are carefully examined using a unique set of consistent trade data spanning a full twenty-five years, from the early "take-off" period of the mid-1960s, to the early 1990s. The export performance of each NIC is compared with that of the other as well as with that of Japan. The major OECD markets—the United States, the EC, and Japan—are examined successively. The responsiveness of their exports to external factors (e.g., world demand, trade protection patterns) as well as internal factors is studied. Not only are detailed product groups examined but such economic factors as specific product characteristics and embodied factor contents are explored. Economic theories, both classic and modern, are utilized to place the observed developments in perspective and to provide a sensible framework for understanding the "miracle of the NICs." The important issues of intra-industry trade and NIC import–export relationships are examined, and imports and exports of specific products are forecast.

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Press. Of course, the usual caveat applies: the final form of this book is based solely on our own decisions.

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Anatomy of Success

Spectacular economic performance in East Asia has had a profound influence on economic development and the world economy in the past quarter century. Rapid economic growth and the accompanying expansion of exports in Hong Kong, South Korea (henceforth Korea), Taiwan, and Singapore in the past two and a half decades have succeeded in defying the vicious circle of poverty in the post–World War II era. This success story is of great interest not only to development economists but also to political leaders and policymakers who are concerned with economic development.

As Anne Krueger pointed out, "[They] have demonstrated that poor societies can substantially transform their economies and alter their prospects. They have also demonstrated that rapid growth can be consistent with rapidly rising living standards for the poorest segments. As such, their experience provides a basis for optimism about future prospects of developing areas where authorities are committed to raising living standards of the population."[1] In this book we offer several explanations for this success.

Following in the footsteps of Japan, the four newly industrializing countries (NICs)—Hong Kong, Korea, Taiwan, and Singapore—have been extremely successful in adopting export-oriented policies to stimulate their economic growth and industrial development. As evidenced by the statistics of the International Monetary Fund (IMF) and the Organization of Economic Cooperation and Development (OECD), the share of their exports in world trade has more than doubled between the mid-1960s and the 1980s. The momentum of their export growth weathered bad as well as good times with unexpected resilience and durability. During the prosperous 1960s, all of the East Asian NICs enjoyed high economic growth rates, typically in double digits—a record considerably higher than any other region of the world. During the oil-shocked 1970s, amid world recession and the apparent collapse of their major industrialized markets, the NICs maintained a satisfactory performance of 6% to 8% growth. Their economic performance not only exceeded the average of the mature economies in the OECD countries; it also exceeded those of the upper-middle-income countries—the country group to which they belong, according to the criteria of the World Bank.

Table 1.1 indicates the average annual growth rates of gross domestic product

Table 1.1 Selected Economic Indicators for the NICs' Average Annual Growth Rate (%)

	GDP		Export		Import	
	1965–80	1980–89	1965–80	1980–89	1965–80	1980–89
Hong Kong	8.6	7.1	9.1	6.2	8.3	11.0
Korea	9.9	9.7	27.2	13.8	15.2	10.4
Singapore	10.0	6.1	4.7	8.1	7.0	5.8
Taiwan	9.9	8.0	15.6	13.4	12.2	9.6
Japan	6.6	4.0	11.4	4.6	4.9	5.4
OECD	3.8	3.0	7.3	4.1	4.2	5.1
Upper-middle-income countries	6.8	3.2	8.5	5.7	5.8	1.6

Sources: *World Development Report, 1991* (Washington, D.C.: World Bank); *Taiwan Statistical Data Book, 1990* (Taiwan: CEPD).

(GDP), exports, and imports of the NICs. For comparison, the figures for Japan, OECD, and other upper-middle-income countries are also provided.

EXPORT EXPANSION AND INDUSTRIALIZATION

Economic growth in these countries was associated with and "driven" by the twin processes of industrialization and export expansion.[2] In the early 1950s agricultural commodities accounted for more than 90% of Taiwanese exports. By 1990 the share of agricultural commodities from Taiwan had dropped to less than 10% while that of manufactured products accounted for more than 90% of total Taiwanese exports. At the end of the Korean conflict in the mid-1950s, when the expansion of Korean exports began, wigs made from human hair became the first major successful export item. Today, Korean automobiles and computers flood the United States and other OECD markets. The same phenomenon typified the experience of Singapore and Hong Kong. The two city-states, possessing virtually no natural resources, overcame this disability by first developing labor-intensive manufactured products in the 1960s, then gradually promoting more technology-intensive products in the 1970s after the first oil shock. Their success stories established a new conventional wisdom in the area of trade and development, highlighting the possibility for developing countries to simultaneously promote export growth and industrial development. Table 1.2 indicates the structural transformation of the economies in the NICs; Table 1.3 illustrates the shift of the commodity composition of their exports.

From Table 1.2 it is clear that the economic structures in Korea and Taiwan were substantially transformed from an agrarian base to economies concentrated in secondary and tertiary industries. The city-state of Hong Kong also shifted toward a predominance of services as its exports surged in the world market. From Table 1.3 it is clear that during that same period the commodity composition of exports in the NICs, except for Hong Kong, continually shifted from a predominance of primary commodities to more technology-intensive products such as machinery and transport equipment along with other manufactured products. Peter Chow has demonstrated, through the use of rigorous econometric techniques, that the unique pattern

Table 1.2 Distribution of NICs' Gross Domestic Products (%)

	Agriculture		Industry		Manufacturing		Services	
	1965	1989	1965	1989	1965	1989	1965	1989
Hong Kong	2	0	40	28	24	21	58	72
Korea	38	10	25	44	18	26	37	46
Singapore	3	0	24	37	15	26	74	63
Taiwan	27	6	29	44	20	36	44	51

Sources: *World Development Report, 1991* (Washington, D.C.: World Bank); *Taiwan Statistical Data Book, 1990* (Taiwan: CEDP).

Table 1.3 Product Structure of NIC Merchandise Exports

	Fuels, Minerals, Metals		Other Primary Commodities		Machinery Transport Equipment		Other Manufacturing		Textile Clothing	
	1965	1989	1965	1989	1965	1989	1965	1989	1965	1989
Hong Kong	1	1	5	2	7	23	87	73	52	39
Korea	15	2	34	15	3	19	58	59	24	29
Singapore	21	18	44	9	10	47	24	26	6	5
Taiwan	1	0	54	5	4	38	15	35	26	22

Sources: *World Development Report, 1991* (Washington, D.C.: World Bank); *Taiwan Statistical Data Book, 1990* (Taiwan: CEPD).

Note: Product classification for Taiwan may not be totally consistent with other countries.

of simultaneous development of industrialization and compositional shift of exports in the Asian NICs represents a reciprocal, bidirectional causality.[3]

TRADE AS AN ENGINE OF SUCCESS IN THE NICS

The success of the NICs, individually or collectively, is documented in a voluminous literature.[4] Some scholars explain the success by focusing on historical and external political factors such as the role of Japan's colonial policies in Korea and Taiwan,[5] or the contributions of U.S. aid and foreign capital in promoting economic development in these countries.[6] Others tend to focus on institutional aspects of the respective economic systems; the laissez-faire economy of Hong Kong versus authoritarian rule in Singapore; loose, indicative planning in Taiwan versus active government control or credit rationing in Korea.[7] Some identify the major source of the NICs' success in various sociological factors, such as the cultural heritage of Confucian ethics. Others cite structural factors, such as equitable land distribution, as crucial explanations for the region's remarkable economic success.[8] Still other writers focus on the international diffusion and borrowing of technologies.[9]

Although many of these explanations are not mutually exclusive, practically all recognize the important contributions of export expansion to the observed development success.

As argued by I.M.D. Little,

> the major reasons [for their success] is their labor-intensive export-oriented policies. . . . Nothing else can account for it. Taiwan and Korea do not have very good capital markets. Their tax systems are not very good. . . . Planning . . . has not played a key role. Moreover, the nonhuman resources of Taiwan and Korea are not notably favorable to high income or growth. . . . Luck has played little part in their development. Aid was . . . not important during the high growth period. Borrowing has remained very important for Korea but not for the others. Private foreign investment has played a major role in Singapore; though elsewhere it has played a useful but only minor role.[10]

Therefore, one might conclude that exports matter for growth, though not only exports. While much of the economic literature attempts to identify and evaluate the underlying contributive forces fueling the economic performance of the NICs,[11] very little work has focused on the critical issue of the sources and concomitants of their export growth. Thus in this book we hope to make a significant contribution to the understanding of the miracle of the NICs by rigorously examining their rapid export expansion in the past quarter century.

SIGNIFICANCE OF THE EAST ASIAN DEVELOPMENT MODEL

By the end of the 1980s the four Asian NICs accounted for more than 50% of total manufactured exports from all developing countries while their population totaled less than 3% of the population of developing countries.[12] Indeed, very few developing countries have succeeded in expanding their exports to the industrialized countries as the Asian NICs have; other less-developed countries (LDCs), such as the members of the Organization of Petroleum Exporting Countries (OPEC), have also "succeeded" in this way, but their experience clearly cannot be duplicated by the world's developing countries. On the other hand, the success story of the Asian NICs has generated much enthusiasm in many developing countries seeking operational benchmarks to map out their development strategies.

In fact, the achievement of the East Asian NICs has aroused much theoretical debate over whether their development experience—that is, the export-led growth strategy—can be generalized and adopted as a model for development by other developing countries.[13] Whether a global universal solution to the world's poverty problem can be achieved by replicating the East Asian model of development remains moot, but as the debates and controversies rage, a large group of poor countries—many members of the Association of South East Asian Nations (ASEAN)—are today consciously following in the footsteps of the NICs.

After more than two decades of steady growth exceeding 5% a year, the ASEAN countries of Malaysia, Thailand, the Philippines, and Indonesia have increasingly become recognized as the "next-tier," "near," or "new" NICs. A somewhat less scholastic yet generally more popular label for the East Asia NICs is the four "little tigers," "little dragons," or the "Gang of Four," whereas the ASEAN four are often designated as the "baby tigers." Implicitly or explicitly, the big tiger is Japan with its dominant position in world trade and the dominant role model it presents as the East Asian success story of the post–World War II era.

Given this phenomenal development in East and Southeast Asia, an unmistakable momentum of Pacific dynamism has already altered the international division of labor and the structure of world trade. Since the mid-1980s, two-way trade between the United States and Pacific Basin countries has exceeded the traditional trans-Atlantic trade flows. The U.S. economy has become increasingly integrated with those in the Pacific Basin countries. S. B. Linder argued that if the current trend of relatively faster growth continues for another decade, then the twenty-first century would become a Pacific century. In addition to placing the growth momentum of the East Asian NICs into a global context, Linder further reiterated the role of foreign trade in East Asian development. He concluded that no observer of the NICs could possibly doubt the critical role played by the rapid growth of exports, that is, the adoption of export-oriented strategies to sustain the steady state of growth between 1965 and 1985.[14]

ANATOMY OF SUCCESS

The study of the NICs' export success is crucial for a clear understanding of the mechanisms and strategies that proved so useful and successful in generating the "miracle" of the NICs. In fact, the opening up of economies to international trade and investment is one of four top priorities for action in developing countries set by the World Bank (the other three are investment in human capital, improvement in the climate for enterprise, and institution of appropriate macroeconomic policy).[15] By analyzing the NICs' success in export, we hope to offer important transferable lessons for many other LDCs in their struggle for development. In this regard, this book does not merely report case studies of the unique successes of the four little tigers. The studies undertaken carry important lessons in the general area of trade and development. We of course recognize that nurturance of human capital, governmental support for infrastructures, liberalization of financial institutions, and basic macroeconomic stability are of great importance to economic development. However, in our judgment, the export drive of the NICs constitutes the major feature and causal factor explaining why the NICs succeeded in breaking their particular vicious circles of poverty in such a short time.[16] Therefore, this book focuses on the sources of trade growth in the NICs and the relationship between the growth of trade and their concurrent and subsequent economic growth.

In devoting this book to an investigation of the export success of the NICs, we analyze the export growth of the NICs in a global context. This context is introduced by a comparison of their export structures with Japan's in an intertemporal, dynamic context. A set of statistical analyses based on the revealed comparative advantages (RCA) and export similarity indices is conducted to evaluate whether they were chasing after Japan and if so, how. To identify the source of their export success—the choice of the right industries (i.e., those enjoying rapidly growing world demand) or the right market destination (focusing on nonstagnant world markets)—we apply constant market share (CMS) analysis.

We go on to analyze whether the next tier of NICs—the ASEAN—are following the ladder of dynamic comparative advantage in the world economy. The likelihood