

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Trade and Structural Change in Pacific Asia

Volume Author/Editor: Colin I. Bradford, Jr. and William H. Branson, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-07025-5

Volume URL: <http://www.nber.org/books/brad87-1>

Publication Date: 1987

Chapter Title: NICs and the Next-Tier NICs as Transitional Economies

Chapter Author: Colin I. Bradford, Jr

Chapter URL: <http://www.nber.org/chapters/c6922>

Chapter pages in book: (p. 173 - 204)

---

# NICs and the Next-Tier NICs as Transitional Economies

Colin I. Bradford, Jr.

## 7.1 Introduction

A focus of this volume is the degree of linkage between the performance of the domestic economies of the industrializing developing countries of East and Southeast Asia and their external performance as exporters of manufactures. Some of the economic literature in recent years dealing with the newly industrializing countries (NICs) and outward-oriented growth strategies has emphasized the degree to which trade has driven development through demand. The country studies in this volume have included a focus on the evolution of the internal structure of production in its supply dimension as facilitating if not indeed determining the volume and composition of manufactured exports of specific countries. This chapter examines various aspects of this focus in a comparative context that includes European and Latin American NICs and next-tier NICs.

There is a continuing debate in economics about the relative efficacy of policies and markets in influencing economic outcomes. This debate has particular poignancy today in relation to the role of developing-country economic policies and price systems in causing and resolving world debt and international trade problems. The NICs and next-tier NICs are of particular interest because of their emergence (or potential emergence) as exporters of manufactured goods on a global scale and because of their generally high level of debt financing. These new roles

Colin I. Bradford, Jr., teaches international economics at Yale University, where he directs a two-year masters program in international relations and is associate director of the Yale Center for International and Area Studies.

The author is particularly grateful to Ronald Findlay for written comments on an earlier draft and to William H. Branson for stimulating discussions of these issues. The author remains responsible for whatever rough edges still remain.

of the NICs in world trade and finance raise a number of broad issues which will be examined in this chapter.

One issue is the degree to which the NICs are part of a general process of economic development which yields relatively predictable patterns of internal structural change (in the Hollis Chenery tradition) and of changes in the product composition of exports according to Heckscher-Ohlin trade based on factor proportions. The next section examines data on the structure and changes in composition of fifteen leading exports in sixteen transitional economies according to changing factor proportions over time and as incomes increase. The evidence from these data has a bearing on the degree to which trade pressures are alleviated by countries moving along a spectrum of factor intensities of export composition or are exacerbated by competition from new exporters in existing, relatively static markets. To the extent that the cross-sectional and inter-temporal data are consistent with the factor proportions explanation of structural change in trade, they provide some evidence that the development process contains within it its own source of relief from transitional trade pressures. These sources of relief tend to be supported by market forces affecting factors of production and final goods, though government policies can enhance or impede them.

If changes in the composition of trade are linked to changes in the internal structure of production, the expectation would be that the NICs, with above-average rates of export growth and economic growth, would be countries with accelerated rates of structural change facilitated by high rates of capital formation. Section 7.3 examines comparative data on investment at international prices among the transitional economies to ascertain the importance of domestic policies affecting interest rates and credit allocations in distinguishing the NICs from other developing economies. Data supporting these notions reveal the importance of policies in determining export performance and add domestic monetary and fiscal policies to the emphasis given in earlier literature (Krueger 1978; Balassa 1978; Bhagwati and Srinivasan 1979; and Bradford 1982b) to trade and exchange rate policies as important variables explaining the NIC phenomenon.

The above inquiry leads to an examination of price distortions and the relationship between price distortions and the implementation of successful outward-oriented growth strategies. There is some literature which attempts to equate outward-oriented growth strategies with reliance on market forces and price signals. There is a tendency in these analyses to stereotype the market liberalization and outward-oriented approaches supposedly adopted by the Asian NICs and the more interventionist and inward-oriented approaches identified with Latin America. In section 7.4 price distortion data are compared for inward-

and outward-looking developing countries from Asia and Latin America to ascertain how clear-cut the stylized dichotomy is in reality.

## 7.2 Factor Intensities and Structural Change in Exports

The rise of NIC exports of manufactures can be seen as Heckscher-Ohlin trade based on changing factor proportions over time which results in shifts in the structure of trade. In the tradition of Colin Clark, economies are seen to move from primary product production to manufacturing to services in domestic output and from natural-resource-intensive to unskilled-labor-intensive to physical- and human-capital-intensive in the product composition of exports.

This view of the development process yields a concomitant view of trade adjustment in which countries move through different “stages” of comparative advantage (Balassa 1977) as the product composition of exports shifts along a spectrum of factor intensities. Since all countries are moving along the same spectrum, movement by countries further along the scale makes room for countries down the scale.<sup>1</sup> The source of the problems of trade tensions, in this view, is simultaneously the source of trade adjustment (see Balassa 1977, 26–27).<sup>2</sup> The only caveat—and it is an important one in the current circumstances—is that world trade adjustment depends heavily on continued economic growth in the major blocs of countries. Slow growth in one tier of countries slows growth in the next tier, dampening structural change in both tiers and worsening trade adjustment.

The analysis in this section will examine the NICs as countries experiencing transitional growth, that is, transformation from low-income, low-growth economies to more advanced industrial countries. The nature of the dynamic underlying NIC export growth can be most effectively understood in a perspective which compares them with the next-tier NICs and with industrial countries. We are interested less in the NICs than in the NIC phenomenon as a transition process which is best understood in comparative perspective. This analysis will be in the “half-way house” mode between general theories of patterns of development à la Chenery and the more historical approaches emphasizing countries’ unique experiences (Ranis 1983, 5; Ohkawa, Fei, and Ranis, 1983, 2). “What clearly seems to be evolving is the recognition that we all are looking for some sort of half-way house between an ever-elusive general theory of development and the unacceptable notion that every country differs so fundamentally from every other at every point in time that nothing can be said which is of generalized value” (Ranis 1983, 5).

The NIC phenomenon is essentially one of a surge in manufactured exports (Bradford 1982b). The trade adjustment problems posed by the

NICs arise from high-volume exports in particular kinds of goods. Hence, we limit the analysis of the changes in the composition of exports of the high-exporting transitional economies to the fifteen leading exports at the three-digit SITC level. This focus on the fifteen leading exports is due to the fact that from a global economy perspective, we are interested in those exports which by virtue of volume make a difference in world markets. It is not Korean exports in general, for example, which are pressuring Organization for Economic Cooperation and Development (OECD) import markets but specific high-volume, high-growth exports from Korea. The advantage of using the United Nations Conference on Trade and Development (UNCTAD) data on the top fifteen exports is that it not only identifies these high-volume, high-growth exports but also shows the degree to which changes in factor proportions manifest themselves in shifts in the composition of the important exports in terms of volume.

The countries designated as NICs are drawn from classifications of earlier studies. In particular, the NICs are those identified as such in the Chatham House study based on manufactured exports of \$1 billion or more in 1976 (Turner and McMullen 1982, 12–13). These NICs are South Korea, Taiwan, Hong Kong, and Singapore in East Asia; Brazil, Mexico, and Argentina in Latin America; and India. The OECD in an earlier study of the NICs (1979) included the southern European NICs (Spain, Portugal, Greece, and Yugoslavia), which are also incorporated here. The next-tier NICs are the other developing countries of East and Southeast Asia (Thailand, the Philippines, Malaysia, and Indonesia) and Colombia in Latin America.

To gain an understanding of the influence of factor proportions on the structure of exports of transitional economies in recent years, I have classified each of the top fifteen exports (SITC three-digit level) as natural-resource-intensive (NR), unskilled-labor-intensive (USL), and physical- and human-capital-intensive (P/HK), using the commodity classifications of Blejer (1978), which are based on Lary (1968) value added per man.

Tables 7.1 and 7.2 show the trade shares by factor intensity of the fifteen leading exports for the sixteen transitional economies as well as the United States as a benchmark advanced industrial country. The cross-sectional results for 1978 are arrayed in table 7.1, and the changes over time for 1967–78 are given in table 7.2. The countries with high natural resource endowments (Brazil, Mexico, Argentina, Indonesia) are at the beginning of the ladder. High natural resource endowments remove some of the impetus for an export-oriented growth strategy based on manufactured goods because foreign exchange requirements are more easily satisfied by natural-resource-intensive exports. In addition to the reduced foreign exchange incentive, there is the “Dutch

**Table 7.1** Factor Intensities of Fifteen Leading Export Sectors of Sixteen Industrializing Countries (cross section, 1978; percentage of total exports)

	Intensities		
	Natural Resource	Unskilled Labor	Physical or Human Capital
<i>Benchmark</i>			
United States	11.08	8.08	36.38
<i>European NICs</i>			
Spain	16.44	15.01	18.96
Yugoslavia	4.50	24.82	19.65
Portugal	8.98	41.29	10.54
Greece	36.55	22.08	7.96
<i>Asian NICs</i>			
India	31.32	30.27	0.0
Korea	8.61	43.75	18.72
Taiwan	—	—	—
Hong Kong	0.0	72.05	13.44
Singapore	42.30	12.50	16.31
<i>Next-Tier NICs</i>			
Philippines	54.83	26.66	0.0
Thailand	66.01	13.68	0.0
Malaysia	72.46	9.12	7.52
Colombia	79.51	5.77	1.88
<i>Natural Resource NICs</i>			
Brazil	53.82	5.05	8.59
Mexico	63.20	1.95	8.36
Argentina	64.65	0.0	4.19
Indonesia (next-tier)	96.25	0.74	0.0

Sources: Commodity classification is based on Lary (1968) in Blejer (1978). Data are from UNCTAD 1982, table 4.4, SITC (three digits).

disease'' condition, where successful natural-resource-intensive exports drive up the real wage in manufacturing, reducing the competitiveness of labor-intensive manufactured exports. Hong Kong represents the opposite case, where the complete absence of natural resource endowments compels a manufactured-export thrust.

Another pattern noticeable in these figures that has been attributed by Ranis (1983, 25–26) to natural resource abundance is the skipping of what Ranis and others call "the primary export substitution sub-phase" in which labor-intensive nondurable consumer goods are exported. The figures show almost no exports of unskilled-labor-intensive goods for Brazil, Mexico, and Argentina and a larger proportion of physical- or human-capital-intensive exports. This indicates that import substitution has taken place in labor-intensive goods, but exports have not been forthcoming to any significant extent. The export stage for

**Table 7.2** Changes in Factor Intensities of Fifteen Leading Export Sectors of Sixteen Industrializing Countries (percentage of total exports)

	1967	1978
<i>Benchmark</i>		
United States		
NR	8.52	11.08 +
USL	7.10	8.09 0
H/PK	28.74	36.38 +
<i>European NICs</i>		
Spain		
NR	39.82	16.44 --
USL	8.61	15.01 +
H/PK	5.30	18.96 +
Yugoslavia		
NR	8.25	4.50 -
USL	20.49	24.82 +
H/PK	10.15	19.65 +
Portugal		
NR	22.21	8.98 -
USL	37.31	41.29 -
H/PK	5.04	10.54 +
Greece		
NR	57.61	36.55 --
USL	4.16	22.08 ++
H/PK	6.21	7.96 +
<i>Asian NICs</i>		
India		
NR	37.94	31.42 slight --
USL	30.44	30.27 0
H/PK	0.0	0.0
Korea		
NR	31.95	8.61 -
USL	40.03	43.75 0
H/PK	2.00	18.72 +
Taiwan	—	—
Hong Kong		
NR	0	0 0
USL	73.85	72.05 0
H/PK	8.36	13.44 +
Singapore		
NR	52.96	42.30 -
USL	6.28	12.50 +
H/PK	3.78	16.31 +
<i>Next-Tier NICs</i>		
Philippines		
NR	84.04	54.83 -
USL	6.65	26.66 +
H/PK	0	0 0

**Table 7.2** (continued)

	1967	1978
<b>Thailand</b>		
NR	75.45	66.01 -
USL	2.11	13.68 +
H/PK	0	0 0
<b>Malaysia</b>		
NR	81.71	72.46 -
USL	5.82	9.12 +
H/PK	0	7.52 +
<b>Colombia</b>		
NR	90.90	79.51 -
USL	1.39	5.77 +
H/PK	0.0	1.88 +
<i>Natural Resource NICs</i>		
<b>Brazil</b>		
NR	66.43	53.82 -
USL	0.22	5.05 +
H/PK	0.08	8.59 +
<b>Mexico</b>		
NR	43.78	63.20 +
USL	2.36	1.95 0
H/PK	1.16	8.36 +
<b>Argentina</b>		
NR	79.03	64.65 -
USL	0.0	0.0
H/PK	1.41	4.19 +
<b>Indonesia (next-tier)</b>		
NR	89.04	96.25
USL	0	0.74 +
H/PK	0	0 +

*Sources:* Commodity classification is based on Blejer 1978. Data are from UNCTAD 1976, table 4.4; and UNCTAD 1982, table 4.4, SITC (three digits)

*Note:* NR = natural-resource-intensive, USL = unskilled-labor-intensive, H/PK = human- and/or physical-capital-intensive; +, 0, - = change from 1967 to 1978.

these goods has been skipped, and the countries have moved on to exports of goods higher on the factor intensity scale.

This contrasts with the countries further up the country ladder (the next-tier NICs), which seem to be moving from natural-resource-intensive to labor-intensive exports; and in the case of Malaysia and Colombia, on to P/HK-intensive exports without skipping labor-intensive consumer goods exports. Nevertheless, the abundance of natural resource endowments appears to continue to be a constraint on more substantial shifts in the structure of exports for these countries, as it is for the natural resource NICs.

The Asian NICs, on the other hand, less endowed with or constrained by, as the case may be, natural resource endowments, show substantial

concentration in labor-intensive exports and increasingly in P/HK-intensive exports. The Asian NICs are closest in static structure to the European NICs. India and Greece have somewhat similar export structures, which, compared to the East Asian and other European NICs, show some constraints on movement into P/HK-intensive exports. Spain and Yugoslavia, among the sixteen transitional economies, manifest the furthest movement along the factor intensity spectrum. The United States serves as a benchmark advanced industrial country with a more diversified export structure (only 56% of U.S. exports are accounted for by the leading fifteen exports) and the largest concentration in P/HK-intensive exports (36%).

Table 7.2 presents the same kind of data on the structure of exports by factor intensity but, in this instance, over time for the period 1967–78. World export growth was quite high during this period compared with the 1980s. The European NICs show the most accelerated shifts in export structure, with very substantial reductions in the share of natural-resource-intensive exports and equally large increases in both labor-intensive and P/HK-intensive exports. Greece, in this perspective, manifests a very different pattern from India, which is relatively stagnant in terms of structural change. A still more interesting result of this intertemporal perspective is that Korea and Hong Kong had achieved high labor-intensive shares of exports by 1967. Singapore, with a very much lower labor share in 1967, doubled its labor share while quadrupling its P/HK share by 1978.

One wonders whether the Philippines, Thailand, and India are simply further down the scale with less physical and human capital formation or whether they are “stuck” in a high labor-intensive stage and having difficulty diversifying upscale to P/HK-intensive exports.

The next-tier NICs exhibit the expected patterns further down the scale, with declining natural resource shares and increasing labor shares, but except for Malaysia, they have not reached the point where P/HK-intensive exports have been forthcoming. The natural resource NICs of Mexico and Indonesia actually show *increasing* natural resource shares over time as oil exports become more important.

The data in tables 7.1 and 7.2 manifest patterns which are broadly consistent with a factor proportions explanation of structural change in trade. As one observes countries along the ladder of countries, or individual or sets of countries over time, the compositional shifts in exports confirm one’s expectations that, as economies develop, their factor endowments will change to an emphasis on physical and human capital, which in turn will change not only the basket of commodities produced but also shift the comparative advantage of the country’s leading exports. This general conclusion is also drawn by Lawrence Krause in chapter 8 of this volume, based on data for total exports.

Some of these countries are noteworthy because of their unusually rapid industrialization and highly dynamic export growth, especially of manufactures. The question is, can we identify causal variables that explain the reason(s) for the unusual growth and high export performance of the NICs as compared with other transitional economies and nontransitional economies. The NICs have been distinguished by the relatively accelerated rates of structural change, both internally and in their export shares. As Ranis puts it, the purpose of this sort of analysis is to discover "reasons for inter-country divergence of performance" (1983, 3).

### **7.3 Capital Formation and Structural Change**

Up until now most of the literature dealing with the NICs has found that trade and exchange rate policies have been the principal policy regimes that seem to have played a key role in promoting the surge in manufactured exports from the NICs in the 1960s and 1970s (Balassa 1978; Krueger 1978; Bradford 1982b). Indeed, the term *NIC* is meant to designate that set of developing countries that has been sufficiently successful in implementing an export-oriented growth strategy to have become significant exporters of manufactures on a global scale.

As we have seen, countries identified in earlier studies as NICs because of the surge in the volume of their manufactured exports also manifest dynamic change (with the exception of India) in the composition of their exports. This implies that the unusual export performance of the NICs is based upon an internal process of economic transformation and structural change. Chapter 1 and the country studies in this volume provide further insight into the dimensions of this internal process and its connection with export performance. If the NICs are countries which have achieved exceptional rates of change in the structure of their exports and in their internal productive structure, then it seems likely that they may be distinctive in their domestic macroeconomic policies as well as in their trade and exchange rate policies. Indeed, if it is true that the single most important explanation of NIC export expansion is a historic national commitment to an outward-oriented growth strategy which forces an unusually high degree of consistency in trade and exchange rate policies (Bradford 1982b), then it seems reasonable to suppose that macroeconomic policies would also be brought into line with the basic national strategy. Furthermore, given the relationship between dynamic internal structural change and external export performance shown in chapter 1, it would be expected that investment would be the key macroeconomic variable facilitating structural change in both its internal and its external manifestations.

This section will examine the relationship between capital formation and structural change among transitional economies and in other economies in an effort to ascertain the degree to which the NICs are characterized by distinctive performance. The nature of the analysis is such that it is intended to be suggestive of general patterns that seem to prevail rather than to be highly conclusive.

The data used here have been generated by the United Nations International Price Comparison Project (ICP) led by Irving Kravis, Alan Heston, and Robert Summers (Kravis, Heston, and Summers 1982). The purpose of this work was to obtain real GDP comparisons based on international prices rather than real exchange rates. This was done by constructing a matrix of national expenditures on 151 commodities for thirty-four countries. "Real" quantities were derived by dividing expenditures by national prices at purchasing-power parity. The "real" quantities, in turn, were multiplied by international prices which were generated separately. Sets of commodities at international prices were aggregated into GDP components so that ratios of investment in international prices to national prices could be calculated. Each country's ratio of prices for GDP as a whole to international prices was taken as unity so that an index, or ratio, of national to international prices for investment higher than one indicates relatively higher national prices for investment goods and an index of less than one indicates lower national prices for investment goods vis-à-vis international prices.

The Kravis et al. work includes data on ten of the sixteen countries designated here as transitional economies. Table 7.3 shows the index of national to international prices for different types of countries (top panel) and for the transitional economies (bottom panel) for the consumption, investment, and government components of GDP. The pattern that Kravis et al. observe is that investment goods are more expensive in lower-income countries than in higher-income countries. The index for investment goods declines steadily as one moves up the country ladder from group I (lower-income countries) to group VI (the United States). The exception is group II, which shows a substantially lower index (0.96) for investment goods than is consistent with the overall trend. Group II consists of six countries, four of which are transitional economies (Korea, Malaysia, Colombia, and Brazil) with very low investment indices and two of which are nontransitional economies (Jamaica and Syria) with indices for investment goods well above 1.00. This suggests that one of the key characteristics accounting for the above-trend-line pattern of structural change in transitional economies is lower costs associated with capital formation.

Table 7.4 examines the relationship between this index of investment prices and various measures of structural change for the ten transitional economies for which the Kravis et al. study has figures. Since invest-

**Table 7.3** Relation of National Price Structure to International Price Structure: 1975

	Consumption Goods	Investment Goods	Government	GDP
<i>Types of countries (averages)</i>				
Group VI	1.03	0.81	1.11	1.00
Group V	1.00	0.91	1.31	1.00
Group IV	0.97	1.05	1.04	1.00
Group III	0.96	1.13	0.93	1.00
Group II	1.01	0.96	0.86	1.00
Group I	1.04	1.19	0.66	1.00
Jamaica (group II)	0.96	1.12	1.08	1.00
Syria (group II)	0.93	1.08	1.28	1.00
<i>Transitional economies</i>				
Spain	0.98	1.03	1.48	1.00
Yugoslavia	0.91	1.25	1.01	1.00
India	1.00	1.29	0.61	1.00
Korea (group II)	1.05	0.92	0.86	1.00
Philippines	0.94	1.64	0.55	1.00
Thailand	0.98	1.16	0.86	1.00
Malaysia (group II)	1.04	0.87	1.05	1.00
Colombia (group II)	1.00	1.01	0.85	1.00
Brazil (group II)	1.06	0.93	0.73	1.00
Mexico	1.02	0.94	1.00	1.00
<i>Advanced economies</i>				
United States	1.03	0.81	1.11	1.00
Germany	1.03	0.83	1.38	1.00
Japan	1.04	0.90	1.31	1.00

Source: Kravis, Heston, and Summers 1982, table 1-8.

Note: "A value of more than 1 for a given country in a given category indicates that relative to the relationship of the country's prices to international prices for its GDP as a whole, its prices for that particular category are high" (Kravis, Heston, and Summers 1982, 193).

Group VI = United States; group V = United Kingdom, Japan, Austria, Netherlands, Belgium, France, Luxembourg, Denmark, and Germany; group IV = Hungary, Poland, Italy, and Spain; group III = Romania, Mexico, Yugoslavia, Iran, Uruguay, and Ireland; group II = Korea, Malaysia, Columbia, Brazil, Jamaica, and Syria; group I = Malawi, Kenya, India, Pakistan, Sri Lanka, Zambia, Thailand, and the Philippines.

ment is the key variable, the table is organized in terms of gross domestic investment (GDI) as a share of GDP. In nominal terms, eight of the ten countries have nominal GDI/GDP shares between 20.0% and 24.0%. Exceptions are Yugoslavia (29.4%) and Colombia (18.4%). Investment as a share of GDP based on international prices generates a different set of numbers. The table is set up in descending order based on the real GDI/GDP shares, from Malaysia (27%) to the Philippines (15%). There is a break in the rank ordering between those with shares of 22% or higher and those with shares of 18% or less.

**Table 7.4 Capital Formation and Structural Change in Ten Transitional Economies**

	Nominal GDI/ GDP, 1975 <sup>a</sup> (%) (1)	GDI/GDP, International Prices, 1975 <sup>a</sup> (%) (2)	Investment Goods Ratio: National/ International Prices, 1975 <sup>a</sup> (3)	Per Capita Index based on International Prices, 1975 <sup>a</sup> (U.S. = 1.00)		Share of Manu- facturing in GDP <sup>b</sup> (%)		% Change in Structure of Total Exports 1967-78 <sup>c</sup> (7)	P/HK as % of Total Exports, 1978 <sup>d</sup> (8)	Debt Outstanding in 1981 (in millions of U.S. \$) <sup>e</sup> (9)
				Total Invest. (4)	Producer Goods (5)	1960 (6)	1980 (6)			
Rapid structural change (average)	23.1	23.3	0.99	36.8	28.4	20.8	29.7	29.7	13.63	
Malaysia	23.8	27	0.87	28.8	15.1	9	23	20	7.52	4,627 (23)
Yugoslavia	29.4	24	1.25	41.8	36.3	36	30	18	19.65	5,266 (18)
Brazil	21.4	23	0.93	28.4	32.1	26	34	26	8.59	43,999 (1)
Korea	20.2	22	0.92	22.3	18.4	14	28	44	18.72	19,964 (3)
Mexico	20.9	22	0.94	37.9	18.7	19	26	27	8.36	42,642 (2)
Spain	22.6	22	1.03	61.8	48.9	—	37	43	18.96	—
Slower structural change (average)	20.7	16.5	1.28	11.5	6.1	16	21.5	23.0		
Colombia	18.4	18	1.01	20.0	6.5	17	22	16	1.88	5,026 (20)
Thailand	20.0	17	1.16	11.0	8.1	13	20	20	0.0	5,169 (19)
India	20.3	16	1.29	5.0	1.9	14	18	6	0.0	17,903 (4)
Philippines	24.1	15	1.64	9.5	7.8	20	26	50	0.0	7,388 (14)

<sup>a</sup>Kravis, Heston, and Summers 1982, tables 1-6, 1-7, 1-8, and 6-4.

<sup>b</sup>World Bank 1982; World Bank 1983, table 3.

<sup>c</sup>Rounded from table 7.2.

<sup>d</sup>From table 7.1.

<sup>e</sup>Lee 1983. World rank is shown in parentheses.

There is a reasonably scalar inverse relationship between prices of investment goods and real GDI/GDP shares (columns 2 and 3). The lower the price of investment goods, the higher the real GDI/GDP share and the higher the investment goods price, the lower the real GDI/GDP share. Yugoslavia is the only serious exception to the pattern. To be sure, the national to international price ratio has been used to generate the GDI/GDP ratios in real terms, but the correspondence is more than arithmetic. Lower real investment prices would be expected to induce high rates of capital formation. In turn, the countries with the lower-cost investment goods and the higher GDI/GDP ratios would be expected to be the countries with more rapid rates of structural change.

By and large this is the case; the countries above the break in investment shares are the Asian, Latin American, and European NICs, except for Malaysia, which appears to be the most promising next-tier NIC. The countries below the break are the next-tier NICs and India, which, as was pointed out above, has had a static export structure over time.

Further measures are consistent with these findings. The per capita indexes of total investment based on international prices (with the index for the United States being 1.00) and of producer goods prices are both decidedly larger in the countries with low investment goods prices, as would be expected (columns 4 and 5). The share of GDP accounted for by manufacturing in 1980 is generally higher for the countries with the lower-cost capital goods and higher GDI/GDP ratios than for Colombia, Thailand, India, and the Philippines (column 6) and is well above the average for the middle-income countries as well (19% in 1980). The Philippines had a surprisingly high manufacturing GDP share in 1980 (26%).

The absolute percentage point changes (positive and negative) in the shares of exports from 1967 to 1978 shifting from natural-resource to unskilled-labor and from unskilled-labor to physical- and human-capital-intensive categories (table 7.2) is taken as a measure of structural change in column 7. Brazil, Korea, Mexico, Spain, and again, curiously, the Philippines are more advanced according to these measures than Malaysia, Yugoslavia, Colombia, and Thailand. India, as we know, scores very low in these measures. While these data seem less markedly consistent with anticipated patterns, recall that the countries have been scaled on the ladder of countries (tables 7.1 and 7.2) according to the *size* of export shares in more advanced factor intensities, whereas these measures show *rates* of change in export shares. Column 8 shows quite clearly that India and the next-tier NICs have not yet reached physical and human capital intensity in their top fifteen exports, whereas the NICs and Malaysia have quite substantial percentages of their top fifteen exports in the P/HK-intensive category.

The evidence found here suggests that one of the significant factors explaining the high performance of the NICs is the relatively lower cost of investment goods in the domestic price structure of these economies. Whereas the general trend found by Kravis, Heston, and Summers is for investment goods to be more expensive relative to consumption and government GDP components the poorer the country, the transitional economies stand out as having lower-cost investment goods than would be expected relative to their place on the ladder of countries based on per capita income. Furthermore, there seems to be a reasonably consistent relationship between lower-cost investment goods and higher ratios of gross domestic investment to gross domestic product, higher per capita indexes of investment goods and producer goods, and higher shares of manufacturing in GDP among the ten transitional economies for which data were available. These patterns are more loosely associated with but still broadly consistent with the degree of structural change in the composition of exports by factor intensity and are highly consistent with the share of exports in the P/HK-intensive category. There is a clear difference in the average outcomes between the NICs and Malaysia, on the one hand, and India and the next-tier NICs, on the other.

These patterns would seem to indicate that NIC growth and export performance in manufactures have been accelerated by public policies that have lowered the cost of investment goods. These policies could have been in the form of domestic monetary policy affecting interest rates and credit allocations to industrial investors and borrowers or in the form of direct subsidies affecting the price of domestically produced investment goods. These monetary and fiscal policies have the effect of stimulating both the demand and the supply of investment goods, which in turn spurs capital accumulation, industrialization, and structural change.

These policies favoring domestic investment have been complemented by extraordinarily high levels of foreign borrowing by the NICs during the 1970s (table 7.4, column 9) at low if not negative real rates of interest. Hence, domestic monetary and fiscal policies affecting interest rates, credit allocations, and subsidies, together with foreign borrowing at low international interest rates to supplement domestic savings, appear to have been integral and consistent parts of an overall strategy of export-oriented growth based on trade in manufactures that help explain the unusually high performance characteristic of the NICs. It would appear that the focus of earlier studies of the NICs on trade and exchange rate policies should be broadened to include domestic economic policies and foreign borrowing.

These general conclusions can be highlighted by comparing the ten transitional economies with other economies in the Kravis, Heston, and

Summers study. Leaving out the United States (group VI), the eight Western European countries and Japan (group V), and Italy and Ireland, the other twenty-two countries in the Kravis study can be arranged in four groups. (See table 7.5.) Two of the groups are from table 7.4, except that Yugoslavia has been removed from the group of transitional economies experiencing rapid structural change and put with Poland, Hungary, Romania, and Iran, countries which probably experienced "forced" structural change. They are characterized by high real GDI/GDP shares despite high ratios of national prices to international prices for investment. This suggests investment allocation through direct government intervention and planning and state enterprises rather than indirectly through interest rates or price subsidies or through the market. In addition, there are eight nonindustrial, nontransitional economies in the Kravis et al. study (see Appendix), which constitute the fourth group.

There are two broad patterns that can be seen in this table. The first is the basic difference between the rapid and forced structural change countries, on the one hand, and the slower structural change and nontransitional developing economies, on the other. It appears that the first two groups have been successful in either inducing or forcing high rates of capital formation and industrialization through lower relative prices for investment or through direct government action. The second pattern is the similarity between the slower structural change countries (India and the next-tier NICs) and the eight nontransitional developing economies included in the Kravis et al. study (Uruguay, Syria, Jamaica, Zambia, Sri Lanka, Pakistan, Kenya, and Malawi). While one would like a larger sample in both categories, the similarity in the variables for these two groups of countries and their large differences from the NICs and the planned economies cast doubt on the degree to which there is a real difference between India and the next-tier NICs and the nontransitional economies. That is, it can be questioned whether Colombia, Thailand, India, and the Philippines are in fact in the process of becoming NICs. The evidence here is not conclusive, but it suggests they are not. From the figures in this section, Malaysia appears to be the only next-tier NIC that is on the NIC path rather than on the general development path, and the other next-tier NICs seem to have more in common with the nontransitional economies than with the NICs.

An examination of average annual growth rates in the 1970s and changes between 1970 and 1981 in GDP shares of investment, manufacturing, and exports and in "other" manufactured exports as a share of total exports of twenty potential NICs and the eight nontransitional economies in the Kravis et al. study sheds some further light on the issue. The figures for these twenty-eight countries are compared with the average growth rates and shares for the 100 countries in the World Bank's middle-income country category (MIC) in tables 7.6 and 7.7.

**Table 7.5**      **Summary Table**

Country Groups (averages)	Investment Goods Ratio: National/International Prices, 1975	GDI/ GDP (real) (%)	Per Capita Index Based on International Prices, 1975 (U.S. = 1.00)		
			Total Investment	Producer Goods	Share of Manufacturing in GDP, 1980 (%)
Rapid structural change <sup>a</sup>	93.8	23.2	35.8	26.8	28
Forced structural change <sup>b</sup>	1.25	30.0	60.5	45.0	—
Slower structural change <sup>c</sup>	1.28	16.5	11.4	6.1	21.5
Nontransitional LDCs <sup>d</sup>	1.15	11.5	8.5	10.2	18.0

*Source:* Kravis, Heston, and Summers 1982.

<sup>a</sup>Malaysia, Brazil, Korea, Mexico, and Spain.

<sup>b</sup>Yugoslavia, Poland, Hungary, Romania, and Iran.

<sup>c</sup>Colombia, Thailand, India, and the Philippines.

<sup>d</sup>Uruguay, Syria, Jamaica, Zambia, Sri Lanka, Pakistan, Kenya, and Malawi.

**Table 7.6** Average Annual Growth Rates, 1970–81 (percentages)

	GDP	GDI	Manufacturing	Exports
MICs (average)	5.5	7.5	7.4	6.6
<i>NICs</i>				
Korea	9.0	12.1	20.9	20.5
Taiwan	9.0	12.1	20.9	20.5
Hong Kong	10.0	14.2	10.4	10.3
Singapore	8.6	8.0	10.6	11.9
Brazil	7.7	8.0 <sup>a</sup>	7.4	7.3 <sup>a</sup>
Mexico	6.5	9.0	6.0	8.2
Argentina	1.9	2.5	0.3	6.8
Spain	3.4	1.2	4.8	6.6
Portugal	4.2	2.2	3.2	2.5
Greece	4.3	1.3	6.1	10.0
Yugoslavia	5.8	5.9	7.4	4.0
Poland	5.8	5.9	10.7	4.0
Hungary	5.0	4.9	5.2	7.9
Romania	5.0	4.9	5.2	7.9
Iran	7.4 <sup>b</sup>	22.0 <sup>b</sup>	16.0	2.3 <sup>b</sup>
<i>Potential NICs</i>				
Malaysia	7.8	10.4	11.0	8.2
Colombia	5.6	6.6	5.7	5.3
Thailand	7.2	7.6	10.4	9.4
India	3.6	5.2	4.3	8.4
Philippines	6.2	10.0	4.2	7.2
<i>Nontransitional LDCs</i>				
Uruguay	3.1	10.6	3.4	9.2
Syria	9.4	15.1	4.3	0.0 <sup>a</sup>
Jamaica	-1.1	-9.6	-2.7	-1.0
Zambia	0.4	-2.6 <sup>c</sup>	0.3	-0.9
Sri Lanka	4.7	10.3	2.1	-1.7
Pakistan	5.0	3.2	3.8	2.2
Kenya	6.2	1.9	10.4 <sup>d</sup>	0.7
Malawi	5.6	2.8 <sup>a</sup>	8.3	5.8 <sup>a</sup>

Source: World Bank, *World Tables*, vol. 1, *Economic Data*, 3d ed. (Baltimore and London: Johns Hopkins University Press, 1984).

<sup>a</sup>1970–80.

<sup>b</sup>1970–77.

<sup>c</sup>1970–79.

<sup>d</sup>1970–78.

Both in terms of growth rates and shares the East Asian NICs clearly exceed the averages for the middle-income countries as a whole, and the nontransitional economies generally fall well below these averages. Argentina consistently manifests below-average growth rates and shares. Brazil and Mexico, on the other hand, are above average in GDP, GDI, and export growth rates for the 1970s. Whereas the real spurt in in-

**Table 7.7** GDP Shares, 1970–81 (percentages)

	GDI		Manufacturing		Exports		Other Manufacturing Exports/Total Exports <sup>a</sup>	
	1970	1981	1970	1981	1970	1981	1970	1980
MICs (average)	22.7	27.0	21.3	20.7	17.7	28.4	18.5	24.9
<i>NICs</i>								
Korea <sup>b</sup>	26.9	27.4	20.9	28.5	14.3	39.9	69.3	70.2
Taiwan	26.9	27.4	20.9	28.5	14.3	39.9	69.3	70.2
Hong Kong	18.6	29.6	32.6	28.5	101.1	109.2	84.1	79.0
Singapore <sup>b</sup>	38.7	44.9	20.4	30.0	113.2	207.6	19.5	27.6
Brazil	22.7	19.5	26.7	30.0	6.5	8.7	10.6	21.7
Mexico <sup>b</sup>	22.7	28.9	23.7	22.3	7.7	11.9	21.9	20.5
Argentina <sup>b</sup>	21.1	28.9	30.0	22.3	9.2	11.9	10.2	16.7
Spain	24.4	20.1	25.4	27.3 <sup>c</sup>	13.5	17.4	34.0	45.5
Portugal	23.5	26.7	33.3	34.7	23.4	26.7	55.5	58.4
Greece	28.1	24.5	19.1	19.5	10.0	19.6	33.1	44.4
Yugoslavia	32.3	31.7	25.7 <sup>d</sup>	30.4 <sup>d</sup>	18.4	22.6	37.0	44.8
Poland	24.5	31.7	54.6	30.4 <sup>d</sup>	18.4	22.6	37.0	44.8
Hungary	33.6	30.2	38.7 <sup>c,d</sup>	38.1 <sup>c,d</sup>	30.1	39.2	35.3	33.7
Romania	33.6	30.2	38.7 <sup>c,d</sup>	38.1 <sup>c,d</sup>	30.1	39.2	35.3	33.7
Iran	18.9	33.4 <sup>f</sup>	13.8 <sup>e</sup>	12.0 <sup>e,f</sup>	23.9	33.9 <sup>f</sup>	3.9	33.7

*Potential NICs*

Malaysia <sup>b</sup>	20.7	32.3	13.4	21.3	43.8	52.9	5.8	7.6
Colombia	22.0	27.7	17.5	21.4	14.1	12.1	7.3	18.0
Thailand <sup>b</sup>	26.2	26.7	16.0	19.9	16.7	24.4	7.9	22.2
India	17.3	25.1	14.2	17.2	4.4	6.8	47.3	51.7
Philippines <sup>b</sup>	21.2	29.7	22.6	24.7	19.1	19.0	7.5	34.7

*Nontransitional LDCs*

Uruguay	11.3	14.7	24.3 <sup>d</sup>	26.3 <sup>d</sup>	11.9	14.6	19.7	34.1
Syria <sup>b</sup>	13.7	22.4	22.8 <sup>c,d</sup>	25.6 <sup>c,d</sup>	17.4	14.6	10.8	6.2
Jamaica <sup>b</sup>	31.5	21.1	15.7	14.8	33.2	48.0	45.9	62.0
Zambia <sup>b</sup>	28.4	23.2	10.2	18.1	54.0	35.6	0.2	62.0
Sri Lanka	18.9	27.8	16.7	16.2	25.5	30.5	1.4	18.2
Pakistan	15.8	16.5	16.1	16.9	7.8	12.9	56.8	47.2
Kenya	24.4	24.9	12.0	13.3	29.8	24.8	12.4	11.6
Malawi	26.1	24.9	12.7	13.3	22.7	24.8	3.5	6.6

Source: World Bank, *World Tables*, vol. 1, *Economic Data*, 3d ed. (Baltimore and London: Johns Hopkins University Press, 1984).

<sup>a</sup>“Other” is manufactured goods exports other than machinery and equipment (i.e., Other = SITC sections 5, 6 (excluding group 68), 8, and 9.

<sup>b</sup>GDP at market prices for manufacturing shares; all other GDP at factor cost.

<sup>c</sup>Includes gas, electricity, and water.

<sup>d</sup>Includes mining and quarrying.

<sup>e</sup>Includes mining other than oil.

<sup>f</sup>1977.

dustrialization in the East Asian NICs occurred in the 1960s and 1970s, the manufacturing sector of the three large Latin American countries had achieved manufacturing shares of 25% of GDP by 1955 and then leveled off until the 1970s. The European NICs (Spain, Portugal, and Greece) also reached a leveling off of manufacturing as a share of GDP prior to the 1970s, because of a jump in the GDI/GDP ratio in the 1960s. These industrialization trends in the 1950s and 1960s facilitated high-volume, high-growth manufactured exports from the Latin American and southern European NICs in the 1970s. By 1980, machinery and equipment exports as a percentage of total exports from Brazil, Mexico, Spain, and Portugal were almost double the middle-income country average, matching the export shares for these goods of the East Asian NICs.

Data for the group in the forced structural change category (four Eastern European countries and Iran) are spotty and in some cases not strictly comparable with the other countries. Yugoslavia and Hungary have registered shares in the 1970s well above the MIC averages, but growth rates were less than spectacular.

Colombia and India seem to fall below the MIC averages for both growth rates and shares more often than they exceed them. Malaysia, on the other hand, emerges as well above average both in growth rates in the 1970s and in shares by 1980–81. These trends for Malaysia coincide with the earlier conclusion that Malaysia is a strong candidate as a potential NIC. Thailand and the Philippines experienced consistently higher than average growth rates in the 1970s. By 1980–81 the Philippines had achieved above average GDP shares for investment and manufacturing and a higher than average share of total exports for “other” manufactured exports, while Thailand was consistently below average in GDP and export shares.

Apart from the Philippines and Argentina, then, the data on economic performance during the 1970s for these twenty-eight countries are broadly consistent with the patterns and conclusions derived from the analyses in the previous two sections. The East Asian, Latin American, and southern European NICs seem to be a select group of high-performance economies that have experienced accelerated investment, rapid industrialization, high export growth, especially in manufactures, and changes in the composition of their exports based on changing factor proportions. Policies encouraging investment appear to have played an important role in facilitating the dynamic structural change demonstrated by these newly industrializing countries, since high investment shares seem to be associated with the rapid industrialization and surges in manufactured exports of the NICs. Other aspects of NIC development strategies and performance are examined in the next section.

#### 7.4 Outward-oriented Growth Strategies and Price Distortions

The success of the NICs in the 1970s in achieving dynamic export expansion, accelerated investment and industrialization, and higher than average rates of economic growth elevated their adoption of outward-oriented growth strategies to the category of a “new orthodoxy” (Williamson 1983, 269). The policies which seemed to be successful in implementing such a strategy were unification and devaluation of the exchange rate, liberalization of imports, and export promotion measures (Balassa 1978). There was at the time a mistaken identification of export-oriented growth strategies with free market policies and fears of the “Hong Kong-ization” of the Third World with the diffusion of the new orthodoxy, based on the perceived preeminence of the Asian NICs. More detailed case studies of the Asian NICs (Hong and Krause 1981) and more thoughtful reflection revealed the heterogeneity of the policy mix in the successful exporters of manufactures (Fajnzylber 1981). Indeed, there was considerable government intervention in the successful NICs. Public policy is now understood by most observers to play a fundamental role in achieving an outward-oriented economic thrust quite apart from the degree of reliance on the market involved in each instance. “In no case has government assumed a *laissez faire* posture” (Marsden 1982).

Nevertheless, the debate over the degree of bias involved in export and import substitution promotion continues (Streeten 1982; Balassa 1983b). Furthermore, as the debt adjustment problem of the NICs in the 1980s came to overshadow the trade adjustment problem posed by the NICs in the 1970s, there has been a resurgence of the view that government intervention is inimical to achieving adequate adjustment. In addition, the stereotypical contrast has been reasserted between Latin American interventionist import substitution biases and the Asian free market and export orientation biases (*Economist*, 24 September 1983, based on World Bank 1983, chap. 6). *The Economist* stated it crisply: “Increasingly, the two institutions [the IMF and the World Bank] have found themselves embroiled in the same set of policy issues: how can economies grow even when the international climate is unfavorable? The answer that the Fund and Bank give can be summed up in four words: get the prices right” (p. 39).

Morgan Guaranty has drawn the same basic picture: “a profound reordering of priorities” is necessary, especially in Latin America, requiring “a basic reassessment of the role of the state” (*World Financial Markets*, September 1983). The widely read newsletter goes on: “Strategies based on import substitution alone, which entail an anti-export bias, do not deliver enduring economic dynamism—as can be seen in the contrasting records of Asia and Latin America” (p. 11).

It also asserts a divergence in economic adjustment performance: "These trends [in Latin America toward protectionism] contrast with the adjustment strategies of most Asian economies, where liberalization (as in Korea, the Philippines and Thailand) has continued even in the face of balance of payments pressures" (p. 7).

There is a tendency in the literature to overdraw the contrasts not only regionally but in terms of the kinds of policy regimes which lead to success. There is an effort to link strategies, policies, and politics to each other so that pure forms tend to merge from the analysis, while reality is indeed more mixed. Export-oriented growth strategies are seen to be linked to realistic policies on exchange rates and interest rates and a reduced role for the state, thereby getting prices right and letting markets work. Import substitution strategies are seen to lead to a larger role for the state and more intervention in markets, thereby distorting prices and generating more severe external imbalances. In reality, the coherence of the different elements of a policy regime are rarely so clear-cut. The connections between strategy, policies, and politics are hardly pure or perfectly consistent. Reality is, alas, more mixed.

Nevertheless, consistency among the different elements is found in some of the literature on inward versus outward development strategies and on adjustment in developing countries. Bela Balassa concludes a summary work on the subject based on the 1974–78 period by writing: "Outward oriented economies provided, on average, similar incentives to exports and import substitution and to primary production and manufacturing, which inward oriented economies discriminated against exports and favored manufacturing over primary activities. Outward oriented economies also placed less reliance on price controls and on interest rate ceilings than inward oriented economies. More generally, they gave greater scope to the market mechanism. . . . Apart from affecting the efficiency of resource allocation, interest rates also influenced the amount saved. . . . By and large, outward oriented regimes were willing to accept lower rates of economic growth in the wake of the quadrupling of oil prices and the world recession in order to stabilize their economies and to avoid large foreign indebtedness. In turn, in inward oriented economies, except for those experiencing internal shocks, foreign borrowing was used to accelerate economic growth" (Balassa 1983a, 172–73).

If one goes back to the research work on price distortions mentioned in chapter 1 that underlie the *World Development Report* (Agarwala 1983) and the Balassa article (1981), it is possible to examine the degree of linkage among these elements and the assertions made about them. Tables 7.8 and 7.9 take the NICs and the less-developed countries (LDCs) identified as outward and inward oriented in the Balassa work

**Table 7.8** Outward versus Inward Orientation and Price Distortions in the 1970s

	Exchange Rate	Interest Rate (%)	Distortion Index
Outward Oriented			
NICs			
Korea	95	-5.0	1.57
Chile	n.a.	-38.6	2.43
Uruguay	106	-20.6	2.29
LDCs			
Kenya	101	-4.1	1.71
Thailand	92	0.5	1.43
Tunisia	88	-2.7	1.57
Average	96.4	-11.8	1.83
Inward Oriented			
NICs			
Brazil	89	-8.0	1.86
Yugoslavia	122	-8.5	1.71
Argentina ( $I > E$ )	128	-31.2	2.43
Mexico ( $I > E$ )	101	-10.7	1.86
Turkey	104	-14.5	2.14
LDCs			
Egypt	89	-4.4	2.14
India	81	-0.3	1.86
Philippines	99	-4.9	1.57
Average	101.6	-10.3	1.94
$I > E$			
Jamaica	108	-7.5	2.29
Peru	84	-11.1	2.29
Tanzania	103	-7.7	2.57

Source: Agarwala 1983, 20, 23, and 40.

Notes: The exchange rate is the annual average appreciation of the real exchange rate during 1974-80 from the base exchange rate in 1972-73 (= 100). The interest rate is the average real interest rate for the 1970-80 period. The distortion index is a composite index including seven measures of distortion: protection of manufacturing, underpricing of agriculture, the exchange rate, the cost of credit, the cost of labor, the pricing of infrastructural services, and inflation.  $I > E$  means internal shocks are greater than external shocks. Country classifications according to Balassa 1981.

and array the data for these countries from the research work on price distortions. Whereas the basic conclusion of the price distortion research is that countries with high price distortions are found to have low growth rates and vice versa, table 7.8 shows that on the average there is no fundamental difference between the six outward-oriented developing economies and the eight inward-oriented countries in the

**Table 7.9** Outward versus Inward Orientation and Country Savings, Growth, and Export Experience in the 1970s

	Domestic Savings	GDP Growth	Export Growth
Outward Oriented			
NICs			
Korea	22	9.5	23.0
Chile	14	2.4	10.9
Uruguay	14	3.5	4.8
LDCs			
Kenya	19	6.5	-1.0
Thailand	21	7.2	11.8
Tunisia	27	7.5	4.8
Average	19.5	6.1	9.1
Inward Oriented			
NICs			
Brazil	22	8.4	7.5
Yugoslavia	27	5.8	3.9
Argentina ( $I > E$ )	22	2.2	9.3
Mexico ( $I > E$ )	22	5.2	13.4
Turkey	17	5.9	1.7
LDCs			
Egypt	12	7.4	-0.7
India	20	3.6	3.7
Philippines	24	6.3	7.0
Average	20.8	5.6	5.7
$I > E$			
Jamaica	16	-1.1	-6.8
Peru	21	3.0	3.9
Tanzania	12	4.9	-7.3

Source: Agarwala 1983, 40.

Notes: Domestic savings is the average domestic saving income ratio for the 1970s; GDP and export growth are average annual rates for the 1970s.  $I > E$  means internal shocks are greater than external shocks.

degree of price distortion (1.83 versus 1.94). The degree of price distortion is small compared with the average price distortion index of 2.44 for the twelve developing countries in the high-distortion category in the World Bank study by Agarwala (1983).

Secondly, whereas there is a strong correlation between exchange rates and economic growth performance—stronger than any other price distortion examined in the study—there is not a strong association between the annual average appreciation of the real exchange rate and

inward versus outward orientation (96.4% versus 101.6%). These averages stand in contrast to the averages for the twenty-seven countries in the study clearly designated as having low, medium, and high exchange rate appreciation of 94.3, 110, and 142 respectively.

Thirdly, the outward-oriented countries on average have a slightly more negative real interest rate than the inward-oriented countries ( $-11.8\%$  versus  $-10.3\%$ ). This pales in comparison to the difference in the averages for the countries in the Agarwala study that have medium and high interest rate distortions of  $-3.4\%$  and  $-14.8\%$  respectively. While there is only a small difference in the averages between the outward- and the inward-oriented countries, the difference in the average is in the opposite direction of that anticipated by Balassa (1983a).

Hence, on the average, there is no association between outward versus inward orientation and general price distortion or distortion in the two key variables, the exchange rate and the real interest rate. There are individual countries for which there is an association; Korea, Tunisia, and Thailand in the outward-oriented group show relatively low indices for all three price distortion variables. However, India, the Philippines, and Brazil, in the inward-oriented group, show roughly the same order of magnitude for these three measures. It is regrettable that the price distortion research did not include Hong Kong, Singapore, and Taiwan, because their inclusion in the outward-oriented group would have undoubtedly helped substantiate the new-orthodoxy view. Nevertheless, even if the addition of these three countries did change the overall averages substantially, their addition would only further prove the unusual character of the three NICs and not enhance the generality of the claim. The general point drawn from tables 7.8 and 7.9 would still stand: there is a great deal of heterogeneity and complexity in the real world; we do ourselves ill by trying to simplify for the sake of providing a coherent policy framework. *Ex ante* advocacy of consistency does not mean that consistency can be found in country experience *ex post*.

Contrary to the expectations of the new orthodoxy, there is almost no difference between either the average GDP growth rates or the savings ratios of the outward-oriented versus the inward-oriented developing countries. The savings ratios are actually slightly higher for the inward-oriented than for the outward-oriented economies, and the growth rates were higher in the outward-oriented countries despite their greater presumed internal adjustment. But these differences in the opposite direction are not significant. The important conclusion is that there is no systematic difference when groups of countries are taken together; therefore, general policy conclusions should be drawn cautiously.

This cautionary note is confirmed when the average price distortion index is calculated for the four groups of countries in the previous section. (See table 7.10.) Compared with the averages calculated by the World Bank for the countries with low, medium, and high distortions (1.56, 1.95, and 2.44 respectively), the differences between the four groups of countries in this study are within a narrower range (1.64, 1.71, 1.71, and 1.93). This, again, opposes any sweeping conclusions regarding the relationship of the degree of price distortion and the pace of structural change. It should be noted that the average real interest rate figures for the 1970–80 period given in the World Bank study roughly correspond to those implied by the analysis of real prices of investment in the previous section. Uruguay and Jamaica are the only exceptions. Countries with rapid and forced structural change have relatively lower real interest rates than India, the next-tier NICs, and the nontransitional economies with slower structural change. (Uruguay is the exception.)

**Table 7.10 Price Distortions, Real Interest Rates, and Structural Change**

	Price Distortion Index	Real Interest Rate (%)	
I. Rapid structural change (average)	1.71	-7.9	
Malaysia	1.57		
Brazil	1.86	-8.0	
Korea	1.57	-5.0	
Mexico	1.86	-10.7	
Spain			
II. Forced structural change <sup>a</sup>			
Yugoslavia	1.71	-8.5	
III. Slower structural change (average)	1.64	-1.7	
Colombia	1.71	-2.0	
Thailand	1.43	+0.5	
India	1.86	-0.3	
Philippines	1.57	-4.9	
IV. Nontransitional LDCs (average)	1.93	-7.3	
Uruguay	2.29	-20.6	
Syria			
Jamaica	2.29	-7.5	
Zambia			
Sri Lanka	1.86	-4.0	= 4.7 average
Pakistan	2.29	-4.3	
Kenya	1.71	-4.1	
Malawi	1.14	-3.4	

Source: Agarwala 1983.

<sup>a</sup>No data for Poland, Hungary, Romania, and Iran.

## 7.5 Conclusion

This chapter has dealt with a number of issues relating to the NICs as high-performance economies distinguished from other developing economies by their accelerated pace of internal structural change, high export growth, especially in manufactures, and high economic growth in the 1970s. The chapter explored various aspects of the salience of markets and prices, on the one hand, and economic policies and government actions, on the other, in affecting economic performance. The nature of the evidence and the analysis are suggestive rather than conclusive.

The thrust of the evidence, the analysis, and the argument in this chapter is of the same order as the World Bank research on price distortions but is in the opposite direction. The World Bank research concluded that “prices matter for growth, though not only prices.” This research leads in the direction of concluding that policies matter for growth, though not only policies. It is difficult to see how the NICs could have achieved the unusual economic and export performance that distinguishes and defines them as NICs without the crucial input of government policies.

Public policy commitment to export-oriented growth is the key element in achieving global status as an exporter of manufactures. Earlier research of mine and others has emphasized NIC trade and exchange rate policies as determinants of their success. The inquiry and evidence here suggest that monetary and fiscal policies affecting the real price of investment should be added to the set of policies considered as elements of export-oriented growth strategies. The Korea case study in this volume illustrates the point (chap. 10). The inclusion of these domestic policies further substantiates the importance of national commitment in NIC strategies for integrating diverse policy instruments into a coherent thrust.

However, in the same spirit of the World Bank research, it cannot be concluded that only public policies matter. The World Bank research states: “The findings reported here are a case for ‘getting the prices right’ and should not necessarily be interpreted as an argument for a *laissez faire* approach” (Agarwala 1983, 46). Similarly, the findings reported in this chapter are a case for getting policies right and should not be interpreted as an argument for price distortions or, indeed, against getting prices right. The argument here does assert that getting prices right is not the *sine qua non* of economic growth and that the identification of correct prices with outward-oriented growth strategies is misleading. Part of the business of getting policies right is to provide ample scope for prices and markets to work as well. But it is surely not the only business of public policy. Indeed, some of the evidence

here suggests that underpricing investment goods for a time through deliberate policies may be an important means of accelerating structural change and a key instrument in the strategy for becoming a NIC. It is also true, however, that subsidization of investment, while effective in facilitating structural change for a phase in the development process, can be overdone, leading to excessively capital-intensive industries, underutilization of labor, and overinvestment, if not judiciously managed (chap. 10, this volume).

From the analysis presented here and in chapter 1, it seems clear that rapid structural change internally and in the composition of exports is central to successful development. There is a danger that, in circumstances in which the world economy is experiencing trade and financial pressures (some of which have their origin in the new role of the NICs), the power of changing factor endowments to alleviate pressure through structural change will be underestimated. There is also a danger, however, that the capacity of outward-oriented strategies to resolve the problems of slow growth, inflation, export stagnation, and debt may be overstated when these strategies are wrongly seen as the embodiment of free market pricing. Curiously, it seems more likely in trade policy that interventionist protection measures will be resorted to in order to shield industries from imports, when more rapid structural change would alleviate the fundamental problem. It also seems likely that market-oriented policies will be adopted when government-led export promotion policies might be more effective precisely because they accelerate structural change. The international economic policy debate is preoccupied with protectionism and orthodoxy when the more positive focus would be structural change and export promotion.

**Table 7.A.1 Capital Formation and Structural Change in Nontransitional and Nonindustrial Economies**

	Investment Goods Ratio: National/International Prices, 1975	GDI/GDP, International Prices, 1975 (%)	Per Capita Index Based on International Prices, 1975 <sup>a</sup>		Share of Manufacturing in GDP (%)	
			Total Investment	Producer Goods	1960	1980
<b>Group IV</b>						
Italy	0.89	21	56.5	45.8	31	29
Poland	1.11	32	78.5	67.2	—	—
Hungary	1.16	27	65.7	58.1	—	—
<b>Group III</b>						
Ireland	1.01	15	31.9	41.8	—	—
Uruguay	1.55	6	12.1	7.2	21	26
Iran	1.55	33	61.0	31.3	11	—
Romania	1.19	34	55.6	32.1	—	—
<b>Group II</b>						
Syria	1.08	13	16.0	25.3	—	26
Jamaica	1.12	14	15.9	27.3	15	15
<b>Group I</b>						
Zambia	1.08	19	9.7	12.2	4	18
Sri Lanka	0.67	11	5.0	1.7	15	16
Pakistan	1.08	9	3.7	2.2	12	17
Kenya	1.31	10	3.3	2.6	9	13
Malawi	1.28	10	2.4	2.8	6	13

Sources: See table 7.5. (Groupings according to Kravis, Heston, and Summers 1982.)

<sup>a</sup>U.S. = 1.00.

## Notes

1. A similar concept of transitional growth for technology-based trade where economies move up a "ladder of countries" and a "scale of goods" is contained in Krugman 1982.

2. "The stages approach to comparative advantage also permits one to dispel certain misapprehensions as regards the foreign demand constraint under which developing countries are said to operate. With countries progressing on the comparative advantage scale, their exports can supplant the exports of countries that graduate to a higher level. Now, to the extent that one developing country replaces another in the imports of particular commodities by the developed countries, the problem of adjustment in the latter group of countries does not arise. . . .

"A case in point is Japan whose comparative advantage has shifted towards highly capital-intensive exports. In turn, developing countries with a relatively high human capital endowment, such as Korea and Taiwan, can take Japan's place in exporting relatively human capital-intensive products, and countries with a relatively high physical capital endowment, such as Brazil and Mexico, can take Japan's place in exporting relatively physical capital-intensive products. Finally, countries at lower levels of development can supplant the middle-level countries in exporting unskilled labor intensive commodities" (Balassa 1977, 26–27).

## References

- Agarwala, Ramgopal. 1983. Price distortions and growth in developing countries. World Bank Staff Working Paper, no. 575.
- Asian Development Review* 1983. Manila: Asian Development Bank, Vol. 1, No. 1.
- Balassa, Bela 1977. A "stages" approach to comparative advantage. World Bank Staff Working Paper, no. 256.
- . 1978. Export incentives and export performance in developing countries: A comparative analysis. *Weltwirtschaftliches Archiv* 114: 24ff.
- . 1981. Structural adjustment policies in developing economies. World Bank Staff Working Paper, no. 464.
- . 1983a. The adjustment experience of developing economies after 1973. In *IMF conditionality*, ed. John Williamson. Washington, D.C.: Institute for International Economics.
- . 1983b. Outward versus inward orientation once again. *World Economy* 6, no. 2: 215–18.
- Bhagwati, Jagdish N., and T. N. Srinivasan. 1979. Trade policy and development. In *International economic policy*, ed. Rudiger Dornbusch and Jacob A. Frenkel. Baltimore and London: Johns Hopkins University Press.
- Bitar, Sergio. 1983. Commercial relations between the United States and Latin America: Changes in the decade of the seventies. The Wilson Center, The Smithsonian Institution, Washington, D.C. April. Manuscript.
- Blejer, Mario I. 1978. "Income per capita and the structure of industrial exports: An empirical study." *Review of Economics and Statistics*, November, 555–61.

- Bradford, Colin I., Jr. 1982a. The NICs and world economic adjustment. In Turner and McMullen 1982.
- . 1982b. Rise of the NICs as exporters on a global scale. In Turner and McMullen 1982.
- . 1983. International debt and the world economy: Global integration on trial. In *Hearings before the Subcommittee on International Trade, Investment and Monetary Policy to increase the U.S. quota in the International Monetary Fund and related matters*, Committee on Banking, Finance and Urban Affairs, U.S. House of Representatives, pp. 666–98. 3 May 1983. Serial no. 98-17.
- Branson, William H. 1981. The OPEC surplus and U.S.-LDC trade. National Bureau of Economic Research Working Paper, no. 791.
- Deardorff, Alan V. 1983. Trade policy and factor prices in Krueger's model of developing country trade. Paper presented at a research seminar in international economics, University of Michigan, 29 April.
- Fajnzylber, Fernando. 1981. Reflexiones sobre la industrialización exportadora de Sudeste Asiática. *Revista de la CEPAL* (Naciones Unidas, Comisión Económica para América Latina, Santiago, Chile), December, 117–38.
- Havrylyshyn, Oli. 1983. The increasing integration of newly industrialized countries in world trade: A quantitative analysis of intra-industry trade. Paper presented at Symposium on Intra-Industry Trade, European Institute for Advanced Studies in Management, Brussels, Belgium, April.
- Havrylyshyn, O., and E. Civan. Intra-industry trade and the stage of development. Discussion Paper 8301, Centre d'Economie Mathématique et d'Econometrie, Université Libre de Bruxelles.
- Hiemenz, Ulrich, and Seiji Naya. 1983. Changing trade patterns and policy issues: The prospects for East and Southeast Asian developing countries. Paper presented at East-West Center Conference on Patterns of Growth and Structural Change in Asia's NICs and near NICs in the Context of Economic Interdependence, Hawaii, April.
- Hong, Wontack, and Lawrence B. Krause, eds. 1981. *Trade and growth of the advanced developing countries in the Pacific Basin*. Seoul: Korean Development Institute Press.
- Hufbauer, Gary C. 1970. The impact of national characteristics and technology on the commodity composition of trade in manufactured goods. In *The technology factor in international trade*. ed. Raymond Vernon. Universities National Bureau Conference Series, no. 22. New York: Columbia University Press.
- Institute of Developing Economies, Economic Growth Department, ed. 1980. *New directions of Asia's development strategies*. Tokyo: East-West Publications.
- Kotlikoff, Laurence J., Edward E. Leamer, and Jeffrey Sachs. 1982. The international economics of transitional growth—The case of the United States. National Bureau of Economic Research Working Paper, no. 773.
- Krause, Lawrence B. 1982. *U.S. economic policy toward the Association of Southeast Asian Nations: Meeting the Japanese challenge*. Washington, D.C.: Brookings Institution.
- Kravis, Irving B., Alan Heston, and Robert Summers. 1982. *World product and income: International comparisons of real gross product*. Baltimore: Johns Hopkins University Press.
- Krueger, Anne O. 1977. *Growth, distortions and patterns of trade among many countries*. Princeton Studies in International Finance, no. 40. Princeton: International Finance Section, Dept. of Economics, Princeton University.

- . 1978. *Foreign trade regimes and economic development: Liberalization attempts and consequences*. Cambridge, Mass.: Ballinger, for National Bureau of Economic Research.
- . 1983. The developing countries' role in the world economy. Lecture given at ITT Key Issues Lecture Series: "The World Economic System: Performance and Prospects," University of Chicago, March.
- Krugman, Paul. 1982. Technology gaps, technology transfers, and the changing character of U.S. trade. Paper presented at the NBER Conference on U.S. Trade Policy, February.
- Lary, H. B. 1968. *Imports of manufactures from less developed countries*. New York: National Bureau of Economic Research and Columbia University Press.
- Lee, Jungsoo. 1983a. Long-run debt servicing capacity of Asian developing countries: An application of critical interest rate approach. Asian Development Bank Economic Staff Paper, no. 16. Manila, Philippines.
- . 1983b. Relative external debt situation of Asian developing countries—An application of ranking method. Asian Development Bank, Economics Office Report Series, no. 19. Manila, Philippines.
- Marsden, Keith. 1982. Trade and employment policies for industrial development. World Bank. Typescript.
- Morgan Guaranty Trust Company of New York. 1983. International debt: Progress report and the task ahead. *World Financial Markets*, September.
- Ohkawa, Kazuski, John C. H. Fei, and Gustav Ranis. 1983. Economic development of Korea, Taiwan and Japan in historical perspective. Manuscript.
- OECD. 1979. *The impact of the newly industrializing countries on production and trade in manufactures*. Paris: OECD.
- . 1982. Developing countries' exports of manufactured products: Experience of the "second tier" countries. In *1982 review: Development cooperation*. Paris: OECD.
- Rahman, A. H. M. Mahfuzer. 1973. *Exports of manufactures from developing countries: A study in comparative advantage*. Rotterdam: Rotterdam University Press.
- Ranis, Gustav. 1983. Typology in development theory: Retrospective and prospects. Yale Economic Growth Center Paper, no. 435, February.
- Sherk, Donald R. 1969. The new international trade models and their relevance for developing Asia. *Malaysian Economic Review* 24, no. 2.
- Streeten, Paul. 1982. A cool look at "outward-looking" strategies for development. *World Economy* 5, no. 2.
- Strout, Alan M. 1983. Estimating energy consumption from cross-country relationships. Study prepared for the World Bank. February.
- Turner, Louis, and Neil McMullen, eds. 1982. *The newly industrializing countries: Trade and adjustment*. London: George Allen and Unwin.
- UNCTAD (United Nations Conference on Trade and Development). 1976. *Handbook of international trade and development statistics 1976*. New York: UN.
- . 1982. *Handbook of international trade and development statistics, supplement 1981*. New York: UN.
- Williamson, John. 1983. *The open economy and the world economy*. New York: Basic Books.
- World Bank. 1982. *World development report, 1982*. London: Oxford University Press.
- . 1983. *World development report, 1983*. London: Oxford University Press.