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Global production systems and third world development

GARY GEREFFI

Over the past several decades, the world economy has undergone a fundamental shift toward an integrated and coordinated global division of labor in production and trade. In the 1950s and 1960s, production tended to be organized within national boundaries. International trade consisted, to a large degree, of raw materials flowing from the periphery to the industrialized core of the world economy, while manufactured exports were sent by U.S., European, and Japanese firms from their home bases to all corners of the globe. Direct foreign investment in manufacturing emerged as a response to the protectionist policies implemented by core and peripheral nations alike that wished to diminish the foreign exchange drain of an excessive reliance on imports and augment the employment benefits from locally based production.

Today the most dynamic industries are transnational in scope. Modern industrialization is the result of an integrated system of global trade and production. Open international trade has encouraged nations to specialize in different branches of manufacturing and even in different stages of production within a specific industry. This process, fueled by the explosion of new products and technologies since World War II, has led to the emergence of a global manufacturing system in which production capacity is dispersed to an unprecedented number of developing as well as industrialized countries.

New patterns of specialization between countries entail the fragmentation

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and geographic relocation of manufacturing processes on a global scale in ways that slice through national boundaries. As almost every factor of production – money, technology, information, and goods – moves effortlessly across borders, the very idea of distinct U.S., German, or Japanese economies is virtually meaningless. In an era where products consisting of many components are made in a wide variety of countries, what is a “U.S.” computer, a “German” car, a “Japanese” camera, a “Korean” microwave oven, or a “Taiwanese” bicycle? Corporations are becoming increasingly disconnected from their home nations as manufacturers, traders, bankers, and buyers simultaneously scour the globe for profitable opportunities.

This chapter focuses on the main features of economic globalization, as well as its consequences for third world development. Given the emphasis on export-oriented development since the 1970s, it is especially important to understand the nature of the global production systems that shape the insertion of third world regions into the international economy. Most developing nations have been rather unsuccessful in exploiting the backward and forward linkages inherent in these export-oriented strategies of growth, which has exacerbated the uneven impact of globalization between as well as within regions. The development options for third world countries thus depend to a significant degree on the kinds of export roles they assume in the global economy and their ability to proceed to more sophisticated, high-value industrial niches. For newly industrialized countries (NICs) to continue to prosper, they will need to devise strategies that emphasize the creation of a local institutional environment conducive to technological upgrading and the integration of industrial production with modern services.

The chapter begins by describing the current era of economic globalization, with reference to the predominant institutions of modern capitalism. It then analyzes the recent production and trade trends in five third world regions, confirming that a global manufacturing system exists. To conceptualize the linkages between firms, industries, and countries, a perspective on global commodity chains is introduced. A distinction is drawn between producer-driven and buyer-driven commodity chains, which represent alternative modes of organizing international industries. Next, five export roles are identified that tie third world regions to the world economy. Developing nations have evolved through particular sequences and combinations of these roles, which vary in their preconditions for success and their consequences for national development. Finally, several strategies for “moving

up" in the global economy are identified: government policies to increase productivity, new relations with foreign and domestic capital, and linkages with regional economic blocs. These options are evaluated in terms of their implications for integrated development and improved welfare in the third world.

The contemporary era of economic globalization

The contemporary era of global capitalism has five central characteristics: intensified global competition and the emergence of new centers of production; an exceptionally innovative technological environment; the proliferation, spread, and restructuring of transnational corporations (TNCs); a diversified global financial system; and important changes in the state's role in domestic and global economic affairs.¹ A closer look at these features of globalization provides a glimpse into its dynamic and contradictory nature.

First, intensified global competition has led to the emergence of new centers of production. This is best exemplified by the NICs of East Asia and Latin America, which in the 1970s and 1980s significantly expanded their world share in the production and export of manufactured goods. The NICs, in turn, are now being challenged by the labor-intensive manufactured exports of their neighbors in China, Southeast and South Asia, Central America, and the Caribbean. Low labor costs and the improved skill levels and productivity of workers in the third world make the global sourcing of production a virtual necessity for every corporation that seeks to enhance its international competitive position. Companies are engaged in a frantic scramble to find low-wage export platforms in various parts of the world. The result has been the emergence of new regional divisions of labor that exploit the diverse resources of core, semiperipheral, and peripheral nations.

Second, modern technology has facilitated economic globalization. Innovative transportation and communication technologies have shrunk both space and time, thus permitting managers to run complex global organizations in an integrated fashion. Dramatic improvements in transport systems, including commercial jet aircraft, vastly larger ocean-going vessels, and the

¹ See Nigel Harris, *The End of the Third World* (New York: Penguin, 1987); Peter Dicken, *Global Shift: The Internationalization of Economic Activity*, 2nd ed. (New York: Guilford, 1992); and Peter Dicken, "Globalization Processes and Local Economies," paper presented at the conference Globalization and the North American Free Trade Agreement: Impact on Rural Communities, Aspen Institute, October 1993.

shift to containerization, together with global communications systems utilizing satellites, facsimile machines, and teleconferencing, radically reduce the time as well as the cost required to send goods, messages, and people from one part of the world to another. State-of-the-art information technologies based primarily on microelectronics, such as computer-aided design and computerized numerically controlled machinery, give "flexible" automation the potential to manufacture high-quality, diversified goods inexpensively and efficiently in small batches as well as large volumes.² The microelectronics-based information technologies that permit systems of flexible production and quick response to consumer demand, however, may allow high-cost countries to retain manufacturing activities that otherwise would go to lower-cost parts of the world. In other words, modern technology can strengthen the forces of localization as well as globalization in the production process.

Third, TNCs are the chief economic organizing agent in global capitalism. Previous theoretical paradigms foundered because they did not have a good way to tie the activities of TNCs into the structure of the world economy (e.g., dependency theory), or conversely because they did not embed transnational capital into the peculiarities and dynamism associated with local economies (e.g., world-systems theory).³ A new framework called the global commodity chain (GCC) perspective tries to move beyond the limitations of both types of theorizing. The GCC framework identifies several novel features of global capitalism: it distinguishes between producer-driven and buyer-driven commodity chains, and thus highlights the central roles played by industrial and commercial capital, respectively; it tries to bridge the macro-micro gap in development research by focusing on the local context of global production and showing how globalization actually reinforces localization processes in the world economy; and the framework directs our attention to the multiple export roles that link countries to the world economy, although with varied consequences for national development.

² See Kurt Hoffman (ed.), "Microelectronics, International Competition and Development Strategies: The Unavoidable Issues," special issue of *World Development* 13, 3 (1985), 263-463; and Kurt Hoffman and Raphael Kaplinsky, *Driving Force: The Global Restructuring of Technology, Labor, and Investment in the Automobile and Components Industries* (Boulder, Colo.: Westview, 1988).

³ For a review of these debates, see Gary Gereffi, "Rethinking Development Theory: Insights from East Asia and Latin America," *Sociological Forum* 4, 4 (Fall 1989), 505-33.

Fourth, international production and trade are buttressed by a global financial system. Large commercial banks followed TNC manufacturers in the 1960s and 1970s into their most significant overseas markets in Europe, Latin America, and Asia. By the late 1970s and early 1980s, however, there was great alarm over the debt crisis caused by the massive bank lending that had been fueled by a glut of petrodollars during the oil export boom, overly ambitious investment and spending programs by key third world borrowers, and sharp hikes in real interest rates when these loans were refinanced. The debt crisis was particularly severe in Latin America and helped to usher in a set of neoclassical economic reforms that spelled the demise of import-substitution industrialization (ISI) as a development strategy. International financial institutions, such as the World Bank and the IMF, were particularly influential in using their leverage to force developing nations to adopt orthodox economic stabilization policies. In the 1990s, the global financial system may once again be perceived as an opportunity rather than a constraint in many regions of the third world. International financial institutions and new private-sector investors (e.g., mutual funds and pension funds) appear to have ample money to lend, and attention in the 1990s has shifted from the debt crisis to how to deploy fresh resources to restore international competitiveness and generate nontraditional exports.

Fifth, state policies have played a major role in fostering the globalization of economic activity. A favorable international trading and investment regime was indispensable to the globalization of production in the postwar era. The relatively liberal international trading environment embodied in the provisions of the General Agreement on Tariffs and Trade (GATT) since World War II has permitted many third world exporters to have extensive, albeit regulated, access to developed-country markets, especially the United States. Throughout the history of the GATT regime, however, a variety of exceptions have been made to the nondiscrimination norm. Tariffs, import quotas, and other restrictive measures were used by the European Community, the United States, and Canada for over 30 years to regulate trade in industries such as textiles and apparel, footwear, automobiles, color televisions, and appliances. Although the clear intent of these policies was to protect developed-country firms from a flood of low-cost imports that threatened to disrupt major domestic industries, the result was exactly the opposite: protectionism led to heightened competitive capabilities of the major third world manufacturers.

Industrial upgrading in the NICs was one of the major consequences of

import quotas since it permitted successful Asian exporters to maximize the foreign exchange earnings and profitability of quantitative restrictions on trade. Japan followed a similar strategy in the automobile industry. It complied with U.S. voluntary export restraints by sending high-priced luxury cars instead of low-priced compact models to the U.S. market, which further eroded the domestic sales of U.S. auto manufacturers. Protectionism by core countries had a second consequence as well: the diversification of foreign competition. The imposition of quotas on an ever-widening circle of third world exporters led producers in Japan and the East Asian NICs (EANICs) who had to contend with escalating labor costs and U.S.-mandated currency appreciations, to open up new satellite factories in low-wage countries that offer either quota or labor advantages.

These broad determinants of economic globalization have forged a complex interdependence of nations at all levels of development. Three specific trends in the international economy serve to illustrate the nature of the contemporary global manufacturing system in greater detail: the spread of diversified industrialization to large segments of the third world; the shift toward export-oriented development strategies in peripheral nations, with an emphasis on manufactures; and high levels of product specialization in the export profiles of most third world countries, along with continual industrial upgrading by established exporters among the NICs. The impact of these processes of change in the third world is highly uneven, with some nations improving their position in the global economy and others becoming marginalized from it.

Worldwide industrialization

A new global division of labor has changed the pattern of geographic specialization between countries. The classic core-periphery relationship in which the developing nations supplied primary commodities to the industrialized countries in exchange for manufactured goods is outdated. Since the 1950s, the gap between developed and developing countries has been narrowing in terms of industrialization. By the late 1970s, the NICs as a whole not only caught up with but overtook the core countries in their degree of industrialization.⁴ As developed economies shift predominantly

⁴ Giovanni Arrighi and Jessica Drangel, "The Stratification of the World Economy: An Exploration of the Semiperipheral Zone," *Review* 10, 1 (1986), 9-74, at 54-55.

toward services, vigorous industrialization has become the hallmark of the periphery. This can be seen by taking a closer look at production and trade patterns within the third world.

Industry outstripped agriculture as a source of economic growth in all regions of the third world. From 1965 to 1990, industry's share of GDP grew by 13 percentage points in East and Southeast Asia, by 10 percent in Sub-Saharan Africa, 5 percent in South Asia, and 3 percent in Latin America. Agriculture's share of regional GDP, on the other hand, fell by 16 percent in East and Southeast Asia, 11 percent in South Asia, 8 percent in Sub-Saharan Africa, and 6 percent in Latin America.⁵

Manufacturing has been the cornerstone of development in East and Southeast Asia. In 1990, 34 percent of the GDP of East and Southeast Asia was in the manufacturing sector, compared with 26 percent for Latin America, 17 percent for South Asia, and only 11 percent for Sub-Saharan Africa. The manufacturing sector's share of GDP in some developing nations, such as China (38 percent), Taiwan (34 percent), and South Korea (31 percent), was even higher than Japan's manufacturing/GDP ratio of 29 percent. These differences in performance are corroborated over time as well.

Diversified, export-oriented industrialization

World trade expanded nearly 30-fold in the three decades since 1960. Manufactured goods as a percentage of total world exports increased from 55 percent in 1980 to 75 percent in 1990. Furthermore, the share of the NICs' manufactured exports that can be classified as "high tech" soared from 2 percent in 1964 to 25 percent in 1985, and those embodying "medium" levels of technological sophistication rose from 16 percent to 22 percent during this same period.⁶ China topped the list of individual exporters in 1992 with \$85 billion in overseas sales, followed by Taiwan (\$81 billion), South Korea (\$76 billion), and Singapore (\$63 billion). In the next tier, Brazil, Mexico, Hong Kong, and several of the Southeast Asian nations (Malaysia, Indonesia, and Thailand) all generated substantial exports, ranging from \$41 to \$27 billion. Exports accounted for 22 percent of GDP in

East and Southeast Asia, compared with an export/GDP ratio of 23 percent for Sub-Saharan Africa, 15 percent for the advanced industrial countries, 11 percent for South Asia, and 10 percent for Latin America and the Caribbean (Table 4.1).

In exports as in production, manufactures are the chief source of the third world's dynamism. In 1992, manufactured items constituted well over 90 percent of total exports in three of the four EANICs, and they were approximately three-quarters of all exports in China, Singapore, and South Asia. For Brazil and Mexico, the share of manufactures in total exports is over one-half, while in Sub-Saharan Africa the manufacturing figure is around 25 percent (Table 4.1). In every region of the world, the relative importance of primary commodities in exports as well as GDP has decreased, usually quite sharply, since 1970. Asian nations have moved fastest and furthest toward manufactured exports during this period. Sub-Saharan Africa and Latin America are still mostly primary commodity exporters, although to a lesser degree than in the past and with substantial subregional variation.

The maturity or sophistication of a country's industrial structure can be measured by the complexity of the products it exports. Here again, the EANICs are the most advanced. In Singapore and South Korea, overseas sales of machinery and transport equipment, which utilize capital- and skill-intensive technology, grew as a share of total merchandise exports by 41 and 33 percent, respectively, from 1970 to 1992. Taiwan's exports in this category increased by 23 percent and Hong Kong's by 12 percent. In Southeast Asia, Malaysia (a 36 percent increase) and Thailand (22 percent) have been strong performers in this sector, while in Latin America, Mexico (20 percent) and Brazil (17 percent) also made machinery and transport equipment a dynamic export base (Table 4.2).

Textiles and clothing, the preeminent export sector in the EANICs in the 1960s and 1970s, actually shrank as a proportion of total exports in these nations between 1970 and 1992. This fact highlights the workings of the product life cycle and industrial upgrading in the Asian region. While the EANICs were shifting into higher-value-added production in the 1980s and 1990s, clothing exports became a growth pole for countries at lower levels of development such as Bangladesh, Pakistan, Sri Lanka, Indonesia, and Thailand. Furthermore, a more detailed look at this sector indicates that Taiwan, South Korea, and Hong Kong have increased their exports of textile fibers, yarn, and fabrics to the same Asian nations that now are displacing

⁵ The percentages used in this section come from World Bank, *World Development Report, 1992* (New York: Oxford University Press, 1992), pp. 222-23.

⁶ Organisation for Economic Co-operation and Development, *The Newly Industrializing Countries: Challenge and Opportunity for OECD Industries* (Paris: OECD, 1988), p. 24.

Table 4.1. *Growth of exports in major world regions, 1980-92*

Region/country	Exports (\$ billions)		Exports/GDP (percent)		Manufactured exports/total exports (percent)	
	1980	1992	1980	1992	1980	1992
Advanced industrial countries	na	2,811.9	na	15	na	82
Germany	192.9	429.8	24	24	82	89
United States	216.7	420.8	8	7	66	80
Japan	129.2	339.5	12	9	92	98
East and Southeast Asia	na	282.4	na	22	na	74
Taiwan	19.8	81.3	48	43 ^a	91	93
South Korea	17.5	76.4	30	26	58	93
Singapore	19.4 ^b	63.4 ^b	185 ^b	138 ^b	46	78
Hong Kong	19.7 ^b	30.3	97 ^b	39	54	95
Malaysia	13.8	40.7	58	71	16	61
Indonesia	21.9	33.8	31	27	2	47
Thailand	6.5	32.5	19	29	15	66
Philippines	6.0	9.8	17	19	29	73
China	18.3	84.9	8	17	25	79
South Asia	na	31.9	na	11	na	73
India	6.7	19.8	5	9	41	71
Pakistan	2.6	7.3	12	17	16	79
Bangladesh	0.8	1.9	7	8	17	82
Latin America and the Caribbean	na	127.6	na	10 ^c	na	38
Brazil	20.1	36.0	10	9 ^c	34	58
Mexico	15.3	27.2	9	8	36	53
Argentina	8.0	12.2	6	5	21	26
Sub-Saharan Africa	na	63.2	na	23	na	24
South Africa	26.1	23.9	35	23	53	47
Nigeria	26.0	11.9	29	40	1	1
Kenya	1.3	1.3	22	19	13	29
Tanzania	0.5	0.4	12	17	9	15

^a1990.^bIncludes substantial reexports.^c1991.Sources: World Bank, *World Development Report*, 1982, 1994; Republic of China, *Taiwan Statistical Data Book*, 1991.

Table 4.2. *Structure of merchandise exports by type of industry, 1970–92 (percent share)*

	Primary commodities		Textiles and clothing		Machinery and transport equipment		Other manufactures	
	1992	Δ1970–92	1992	Δ1970–92	1992	Δ1970–92	1992	Δ1970–92
Advanced industrial countries	18	–9	5	–1	43	+8	34	+2
Germany	11	0	5	–1	50	+3	35	–2
United States	20	–10	2	0	48	+6	30	+4
Japan	2	–5	2	–9	67	+26	28	–14
East and Southeast Asia	26	–41	20	+7	25	+19	30	+16
Taiwan	7	–17	14	–15	40	+23	39	+9
South Korea	7	–17	20	–16	40	+33	33	0
Singapore	22	–48	5	0	52	+41	21	+6
Hong Kong	5	+1	40	–4	24	+12	31	–9
Malaysia	39	–54	6	+5	38	+36	17	+12
Indonesia	53	–45	18	+18	4	+4	26	+25
Thailand	34	–58	17	+16	22	+22	28	+21
Philippines	27	–66	10	+9	17	+17	46	+39
China	21	–9	30	+1	15	0	34	+8
South Asia	27	–26	41	+13	5	+2	28	+11
India	29	–19	25	0	7	+2	39	+17
Pakistan	21	–22	69	+22	0	0	10	0
Bangladesh	18	–16	72	+23	0	–1	9	–6
Latin America and the Caribbean	62	–26	3	+2	14	+12	21	+13
Brazil	42	–44	4	+3	21	+17	33	+23
Mexico	47	–21	2	–1	31	+20	19	0
Argentina	74	–12	1	0	8	+4	18	+9
Sub-Saharan Africa	76	–7	2	+1	3	+1	19	+5
South Africa	53	0	1	0	5	0	41	0
Nigeria	99	+1	0	0	0	0	1	0
Kenya	71	–16	3	+2	10	+10	16	+5
Tanzania	85	–2	7	+5	1	+1	8	–3

Note: Δ1970–92 refers to the increase or decrease in percent share of total exports between 1970 and 1992.

Source: World Bank, *World Development Report*, 1994.

the EANICs as apparel exporters.⁷ The textiles and apparel complex, despite its status as a declining sector in developed countries, represents the leading edge of economic globalization for many third world nations.

Geographic specialization and export niches

While the diversification of the NICs' exports toward nontraditional manufactured items is a clear trend, less well recognized is the tendency of the NICs to develop sharply focused export niches. In the footwear industry, for example, South Korea has specialized in athletic footwear, Taiwan in vinyl and plastic shoes, Brazil in low-priced women's leather shoes, Spain in medium-priced women's leather shoes, and Italy in high-priced fashion shoes. Mainland China traditionally was a major player in the low-priced end of the world footwear market, especially in canvas and rubber shoes. Because of its low wages and vast production capacity, however, China now has displaced Taiwan and South Korea from many of their mid-level niches, and it is challenging Brazil, Spain, and even Italy in the fashionable leather footwear market.⁸ Today China is the world's foremost volume exporter of inexpensive consumer goods, such as clothing, footwear, toys, and bicycles.

Similar trends are apparent for many consumer items and even intermediate goods, such as semiconductors. South Korea, for instance, has focused on the mass production of powerful memory chips; Taiwan, by contrast, makes high-value designer chips that carry out special functions in toys, video games, and electronic equipment. Singapore has upgraded its activities from the assembly and testing of semiconductors to the design and fabrication of silicon wafers, while Singapore and Malaysia produce the majority of hard disk drives for the world's booming personal computer market. Although the location of hard disk drive production in Singapore and Malaysia reflects efforts by TNCs to reduce manufacturing costs, these nations were chosen as export sites primarily because of their skilled labor forces, well-developed transportation and communication infrastructures, and appropriate supporting industries (such as precision tooling).

⁷ For a vivid illustration of this transition in Taiwan, see Gary Gereffi and Mei-Lin Pan, "The Globalization of Taiwan's Garment Industry," in Edna Bonacich et al. (eds.), *Global Production: The Apparel Industry in the Pacific Rim* (Philadelphia, Pa.: Temple University Press, 1994), pp. 126–46.

⁸ See Gary Gereffi and Miguel Korzeniewicz, "Commodity Chains and Footwear Exports in the Semiperiphery," in William Martin (ed.), *Semiperipheral States in the World-Economy* (Westport, Conn.: Greenwood, 1990), pp. 45–68.

The global production systems discussed in this chapter raise a host of questions for third world development. How can countries ensure that they enter the most attractive export niches in which they have the greatest relative advantages? To what extent is a country's position in the global manufacturing system structurally determined by the availability of local capital, domestic infrastructure, and a skilled work force? What is the range of development options available to third world countries? While these queries cannot be answered fully here, several implications of current global changes for third world development will be suggested.

Global commodity chains

GCCs are rooted in transnational production systems, which link the economic activities of firms to technological, organizational, and institutional networks that are utilized to develop, manufacture, and market specific commodities.⁹ In global capitalism, economic activity is not only international in scope, but also global in organization. Although "internationalization" refers simply to the geographic spread of economic activities across national boundaries, "globalization" implies a degree of functional integration among these internationally dispersed activities. What is novel about GCCs is not the spread of economic activities across national boundaries per se, but rather the fact that international production and trade are increasingly organized by industrial and commercial firms involved in strategic decision making and economic networks at the global level.

GCCs have four main dimensions: a value-added chain of products, services, and resources linked together across a range of relevant industries; a geographic dispersion of production and marketing networks at the national, regional, and global levels, comprised of enterprises of different sizes and types; a governance structure of authority and power relationships between firms that determines how financial, material, and human resources are allocated and flow within a chain; and an institutional framework that identifies how local, national, and international conditions and policies shape the globalization process at each stage in the chain. The

⁹ This section adapts and extends an earlier discussion of this topic in Gary Gereffi, "The Organization of Buyer-Driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks," in Gary Gereffi and Miguel Korzeniewicz (eds.), *Commodity Chains and Global Capitalism* (Westport, Conn.: Praeger, 1994), pp. 95–122.

Producer-driven commodity chains

Buyer-driven commodity chains

Figure 4.1. The organization of producer-driven and buyer-driven global commodity chains. Solid arrows are primary relationships; dashed arrows are secondary relationships.

governance structure of GCCs is essential to the coordination of transnational production systems. Two distinct types of governance structures have emerged in the past two decades, which for the sake of simplicity can be called "producer-driven" and "buyer-driven" commodity chains (Figure 4.1).

Producer-driven commodity chains refer to those industries in which TNCs or other large integrated industrial enterprises play the central role in controlling the production system (including its backward and forward linkages). This is most characteristic of capital- and technology-intensive industries like automobiles, computers, aircraft, and heavy machinery. The geographic spread of these industries is transnational, but the number of countries in the commodity chain and their levels of development are varied. International subcontracting of components is common, especially for the most labor-intensive production processes, as are strategic alliances between international rivals. What distinguishes producer-driven systems is the control exercised by the administrative headquarters of TNC manufacturers.

The automobile industry offers a classic illustration of a producer-driven commodity chain. In his comparative study of Japanese and U.S. car companies, Hill shows how both sets of enterprises organize manufacturing in multilayered production systems that involve thousands of firms (including parents, subsidiaries, and subcontractors). The average Japanese automaker's production system, for example, comprises 171 first-tier, 4,700 second-tier, and 31,600 third-tier subcontractors.¹⁰ Florida and Kenney have found that Japanese automobile manufacturers actually reconstituted many aspects of their home-country supplier networks in North America.¹¹ Doner extends this framework to highlight the complex forces that drive Japanese automakers to create regional production schemes for the supply of auto parts in a half-dozen nations in East and Southeast Asia.¹² Henderson also supports the notion that producer-driven commodity chains have

¹⁰ Richard Child Hill, "Comparing Transnational Production Systems: The Automobile Industry in the USA and Japan," *International Journal of Urban and Regional Research* 13, 3 (September 1989), 462–80, at 466.

¹¹ Richard Florida and Martin Kenney, "Transplanted Organizations: The Transfer of Japanese Industrial Organization to the United States," *American Sociological Review* 56, 3 (June 1991), 381–98.

¹² Richard F. Doner, *Driving a Bargain: Automobile Industrialization and Japanese Firms in Southeast Asia* (Berkeley: University of California Press, 1991).

established an East Asian division of labor in his study of the internationalization of the U.S. semiconductor industry.¹³

Buyer-driven commodity chains are found in those industries where large retailers, branded marketers, and trading companies play the pivotal role in setting up decentralized production networks in a variety of exporting countries, typically located in the third world. This pattern of trade-led industrialization has become common in labor-intensive consumer goods industries such as garments, footwear, toys, housewares, consumer electronics, and a variety of hand-crafted items (e.g., furniture, ornaments). Production is generally carried out by locally owned third world factories that make finished goods (rather than components or parts) for foreign buyers. The specifications are supplied by the branded companies or large retailers that design and order the goods.

One of the main characteristics of the branded firms that fit the buyer-driven model, such as athletic footwear companies like Nike, Reebok, and L.A. Gear, and branded apparel companies like The Limited, The Gap, and Liz Claiborne, is that they usually do not own any production facilities. These companies are marketers that design, but do not make, the branded products they order. They rely on complex tiered networks of overseas production contractors to perform most of their specialized tasks. Branded marketers farm out part or all of their product development activities, manufacturing, packaging, shipping, and even accounts receivable to different agents around the world.

The crucial job of the core company in buyer-driven commodity chains is to manage these production and trade networks and to make sure all the pieces of the business come together as an integrated whole. Profits in buyer-driven chains derive not from scale, volume, and technological advances as in producer-driven chains, but rather from unique combinations of high-value research, design, sales, marketing, and financial services that allow the retailers and branded marketers to act as strategic brokers in linking overseas factories and traders with evolving product niches in their main consumer markets.¹⁴

¹³ Jeffrey Henderson, *The Globalisation of High Technology Production: Society, Space and Semiconductors in the Restructuring of the Modern World* (New York: Routledge, 1989).

¹⁴ The complex role of strategic brokers and other contemporary symbolic analysts is explored in Robert B. Reich, *The Work of Nations: Preparing Ourselves for 21st-Century Capitalism* (New York: Knopf, 1991).

Producer-driven and buyer-driven commodity chains arise from the barriers to entry that allow core industrial and commercial firms, respectively, to control the backward and forward linkages in the production process. Industrial organization economics argues that profitability is greatest in the relatively concentrated segments of an industry characterized by high barriers to the entry of new firms. Producer-driven commodity chains are capital- and technology-intensive. Thus, manufacturers making advanced products like aircraft, automobiles, and computers are the key economic agents in these producer-driven chains not only in terms of their earnings, but also in their ability to exert control over backward linkages with raw material and component suppliers, as well as forward linkages into distribution and retailing. Buyer-driven commodity chains, by contrast, tend to be labor-intensive at the manufacturing stage. This leads to very competitive and globally decentralized factory systems. These same industries are also design- and marketing-intensive, however, which means that there are high barriers to entry in product development, advertising, and electronic data interchange linkages between stores and their suppliers for inventory control and automatic reorders. Therefore, whereas producer-driven commodity chains are controlled by industrial firms at the point of production, the main leverage in buyer-driven industries is exercised by retailers and branded merchandisers at the marketing and retail end of the chain.

The distinction between producer-driven and buyer-driven commodity chains overlaps with the difference between mass production and flexible specialization forms of industrial organization.¹⁵ Mass production is a producer-driven model in which vertically integrated manufacturers lower the costs of making standardized goods by using dedicated (special-purpose) machinery, interchangeable parts, and narrowly trained workers in factories organized around continuous assembly lines. Flexible production, by contrast, is based on flexible (multitask) equipment, customized parts, and relatively skilled workers in factories or workshops frequently located in industrial districts where cooperative networks form to facilitate innovation and adaptation. It has been spawned in large part by the growing importance of segmented demand and more discriminating buyers in developed-country markets.

¹⁵ Michael J. Piore and Charles F. Sabel, *The Second Industrial Divide* (New York: Basic, 1984).

While the flexible specialization perspective deals primarily with the organization of production in domestic economies and local industrial districts, the notion of producer-driven and buyer-driven commodity chains focuses on the organizational properties of global industries. Furthermore, the emergence of flexible production in a buyer-driven commodity chain is explained at least partially by changes in the structure of consumption and retailing in major export markets, which in turn reflect demographic shifts and new organizational imperatives. Finally, while some discussions of flexible specialization imply that it is a superior manufacturing system that could eventually displace or subordinate mass production, buyer-driven and producer-driven commodity chains are viewed as divergent (but not mutually exclusive) poles in a spectrum of industrial organization possibilities.

Triangle manufacturing

How do countries in buyer-driven commodity chains deal with the competition from lower-cost suppliers? What tactics are utilized to ensure a smooth transition from declining sectors to higher-value-added activities? One of the most important adjustment mechanisms for maturing export industries in East Asia has been the process of "triangle manufacturing." The essence of triangle manufacturing, which emerged in the 1970s and 1980s, is that U.S. (or other overseas) buyers place their orders with the NIC manufacturers from whom they have sourced in the past (e.g., Hong Kong, Taiwanese, or Korean apparel firms), who in turn shift some or all of the requested production to affiliated offshore factories in low-wage countries (e.g., China, Indonesia, or Guatemala). These offshore factories may or may not have equity investments by the EANIC manufacturers; they can be wholly owned subsidiaries, joint-venture partners, or independent overseas contractors. The triangle is completed when the finished goods are shipped directly to the overseas buyer under the U.S. import quotas issued to the exporting nation.

Triangle manufacturing thus changes the status of NIC manufacturers from suppliers for U.S. retailers and branded marketers to "middlemen" in buyer-driven commodity chains. The key asset possessed by the EANIC manufacturers is their close relationship with foreign clients, which is based on the trust developed through numerous successful export transactions. Since the buyers have no direct production experience, they prefer to rely on the EANIC manufacturers they have done business with in the past to

ensure that the buyers' standards in terms of price, quality, and delivery schedules will be met by untested contractors in other third world locales. As the volume of orders expands in new production sites, however, the pressure grows for the large U.S. buyers to bypass their EANIC intermediaries and deal directly with the factories that fill their orders.

The process of third party production began in the late 1960s when Japan relocated numerous plants and foreign orders to the EANICs (often through Japanese trading companies, or *sogo shosha*) for both economic and environmental reasons. When U.S. import quotas were imposed on Hong Kong, Taiwan, South Korea, and Singapore in the 1970s, this led to the search for new quota-free production sites elsewhere in Asia.¹⁶ European and U.S. import quotas were calculated in terms of the quantity of goods shipped, rather than their value. This arrangement, chosen in part because it was easier to enforce by the importing countries, had an unforeseen effect. In the words of Kenneth Fang, one of Hong Kong's leading apparel exporters, "It encouraged the Hong Kong manufacturers to move from textiles to clothing and then from simple to fancy clothing, in order to generate more income and employment per square yard."¹⁷ This process of quota-induced industrial upgrading was repeated throughout East Asia. At the same time, NIC manufacturers were busily locating cheap overseas production sites for their lower-priced orders from foreign buyers. In the 1980s, the shift toward triangle manufacturing accelerated because of a series of changes in the EANICs: escalating wages, labor shortages, and currency appreciations. Today the EANICs are extending their factory networks to far-flung production frontiers in Asia, Latin America, and Africa.

Triangle manufacturing has important implications for third world development. As industries have become globalized and producers in different parts of the world are more tightly linked, the pace of change has quickened and exporters have shorter periods in which to exploit their competitive advantages. In footwear, for example, while an export industry took more than 20 years to develop in Japan and about 15 years in Taiwan and South Korea, experts estimate that China's footwear sector will peak in

¹⁶ In 1992, nearly 50 countries had bilateral agreements with the United States for textile and apparel import quotas, as permitted under the provisions of the 1973 Multifiber Arrangement (MFA). But the new GATT treaty, which took effect on January 1, 1995, will phase out the MFA and its system of import quotas over a 10-year period.

¹⁷ James Lardner, "Annals of Business: The Sweater Trade," Part 1, *New Yorker*, January 11, 1988, pp. 39-73, at 46.

world markets in 8 to 10 years. When export windows for third world manufacturers narrow this fast, countries face the problems of "boom-and-bust" phases of economic growth tied to fluctuating external demand and intense regional competition. The shortening of product life cycles for countries pursuing export-oriented industrialization (EOI) has multiple causes: rapid technological innovation; the growing number of buying seasons for fashion goods; the proliferation of new models of popular consumer products; the spread of third world manufacturing capabilities; and the speed with which the United States and other developed countries have imposed tariffs, quotas, and other import restrictions on successful exporting countries.

Triangle manufacturing is socially and culturally embedded, which helps to explain the evolution of transnational production and trade networks. Each of the EANICs, for example, has a different set of preferred countries where it sets up its new factories. Hong Kong and Taiwan have been the main investors in China (Hong Kong has taken a leading role in Chinese production of quota items such as cotton and synthetic apparel, while Taiwan is a leader for nonquota goods like footwear, as well as leather and silk apparel). South Korea has been especially prominent in Indonesia, Guatemala, the Dominican Republic, and North Korea; and Singapore is a major player in Southeast Asian sites, such as Malaysia and Indonesia. These production networks are explained in part by social and cultural factors (e.g., ethnic or familial ties, common language), as well as unique features of a country's historical legacy (e.g., Hong Kong's British colonial ties gave it an inside track on investments in Jamaica and Mauritius).

Export roles and national development

Economic globalization has heightened the role of trade, especially of manufactures, in the world economy. In absolute terms, most countries now are significant exporters. In 1992, two-thirds of the nations for which data were available (78 out of 117) had exports of \$1 billion or more.¹⁸ Furthermore, there has been a tendency for dynamic world regions to upgrade their exports with higher levels of local value added, thereby amplifying the domestic multiplier effects of trade. In relative terms, exports in 1992 accounted for two-fifths of GDP in East Asia (excluding China), nearly one-

¹⁸ World Bank, *World Development Report, 1994* (New York: Oxford University Press, 1994), pp. 186–87.

fourth in Southeast Asia and Sub-Saharan Africa, one-sixth in the advanced industrial countries, and one-tenth in Latin America and South Asia (see Table 4.1).

Countries are connected to GCCs through the goods and services they supply in the world economy. These trade linkages can be conceptualized as a set of five major export roles: (1) primary commodity exports, (2) export processing (or in-bond) assembly operations, (3) component-supply subcontracting, (4) original equipment manufacturing (OEM); and (5) original brand-name manufacturing (OBM). Each type of manufactured exporting (roles 2–5) is progressively more difficult to establish because it implies a higher degree of domestic integration and local entrepreneurship. Therefore, industrial development is enhanced as countries move from the second to the fifth options.

These export roles are not mutually exclusive. In fact, most nations are tied to the world economy in multiple ways. The EANICs employed all five export roles from the 1960s to the mid-1990s, although they currently are focusing almost exclusively on component-supply subcontracting, OEM, and OBM. Most of the countries in Southeast Asia and Latin America are involved in the first three roles. The bulk of exports in South Asia and Sub-Saharan Africa fit the first two roles, with many African nations limited only to primary commodity exports (Table 4.3). An overview of the principal export roles in the third world is provided next, emphasizing their institutional foundations and development tradeoffs.

Primary commodity exports

Primary commodity exports have been an important feature in the economic growth of every third world region, but all substantially reduced their reliance on this type of export between 1970 and 1992 (see Table 4.2). In general, this reduction has been a conscious decision because raw materials have well-known disadvantages as an export base. The disadvantages multiply when, as is frequently the case, a country relies heavily on a single primary commodity.

Commodity exporters confront several problems. First, the prices of primary goods are highly volatile. This volatility arises in part from the concentrated pattern of production, where a few countries control a relatively high percentage of world output. A fall in production in a single location—because of labor problems, weather, or natural disaster—can cause sharp

Table 4.3. *Export roles in the global economy occupied by major third world regions, 1965-95*

	Primary commodity exports	Export- processing assembly	Component- supply subcontracting	Original equipment manufacturing	Original brand- name manufacturing
East Asia	X	X	X	X	X
Southeast Asia	X	X	X		
Latin America and the Caribbean	X	X	X		
South Asia	X	X			
Sub-Saharan Africa	X	X			

price changes around the world. Oversupply or international recession may have similar effects. A second problem is the alleged tendency for the terms of trade for primary products to deteriorate. Despite evidence against the claim of a long-term decline, such problems can wreak havoc on primary product exporters over shorter periods. Thus, nonfuel primary producers' terms of trade have fallen substantially over the past 20 years.¹⁹ Other problems relate to particular products. For example, agricultural productivity in most parts of the third world is very low, while mineral extraction has high productivity but often little spillover to the rest of the economy.

Various solutions to these problems have been tried. In the 1970s, following the success of the OPEC cartel in raising oil prices, attempts were made to form other producer groups to regulate output and thus control prices. These have not proved successful and, in any case, go against the market-oriented policies that many third world governments have adopted in the past decade. The use of futures and options has gained some adherents, but the requirements for participating in these markets are so stringent that most third world countries have shied away from them. Perhaps the most successful strategy has been to upgrade primary production, either by shifting to "nontraditional" products (e.g., the exports of exotic fruits and vegetables to developed-country markets) or processing raw materials more before selling them. Indeed, the most dynamic Latin American exports in the 1990s have been "industrial commodities," such as paper, petrochemicals, and steel. Nonetheless, most third world regions continue to rely heavily on traditional primary exports. Sub-Saharan Africa still earns three-quarters of its export revenues this way, while Latin America and Southeast Asia mix primary commodity and industrial exports.

Export-processing assembly

The export-processing role emphasizes the labor-intensive assembly of simple manufactured goods from imported components, typically in foreign-owned plants. Often special zones are created with incentives for foreign capital to locate in a designated set of industries, such as apparel, electronics, and other light manufacturing sectors. The main advantages of

¹⁹ An improvement in prices is expected for the rest of the decade, with a resumption of the downward trend thereafter. For the latest quantitative data and analysis of primary commodity exports, see World Bank, *Global Economic Prospects and the Developing Countries*, 1994 (Washington, D.C.: World Bank, 1994).

export-processing zones (EPZs) for the host country are jobs and foreign exchange earnings. Since they rely on cheap labor with minimal skills, EPZs represent the first stage of EOI for most third world countries. Although every region of the third world has some experience with EPZs, these zones tend to migrate from the more advanced to the least developed nations.

The first EPZs were set up in the 1960s in Asia and Mexico, where they were part of a border industrialization program based on export-oriented *maquiladora* factories.²⁰ In the EANICs, however, EPZs have been declining since the mid-1970s in response to spiraling labor costs and the systematic efforts of these nations to upgrade their mix of export activities by moving toward skill- and technology-intensive products. As the EANICs abandoned the export-processing role, it was occupied by neighboring low-wage areas such as China, Southeast Asia, and South Asia. Many countries, including Mexico, which has the world's largest export-processing sector with 550,000 employees, have extended the benefits of EPZs to all export-oriented firms without requiring them to be located in special zones.

The steep hierarchy among world regions in terms of their labor costs has influenced the location of export-processing activities. The EANICs are by far the most expensive production sites in the third world. Labor costs decrease sharply as one moves from East Asia to Latin America, Southeast Asia, South Asia, and China. In 1991, India, China, Pakistan, the Philippines, Indonesia, and Honduras had apparel labor costs of under \$0.50 per hour. Indonesia's labor cost of \$0.18 per hour was less than one-twentieth Taiwan's cost (\$3.74) and nearly one-fortieth that of the United States (\$6.77).²¹ This explains the appeal of particular third world export sites in global sourcing arrangements. From the vantage point of developing nations, however, low wages provide only a transient competitive edge because they can fluctuate rapidly and are relatively easy to duplicate elsewhere.

Most third world export industries are characterized by a pronounced gender division of labor. The majority of workers in low-wage industries like apparel, electronics, toys, and footwear are young unmarried women, who constitute a "part-time proletariat" that frequently combines home-

²⁰ See Leslie Sklair, *Assembling for Development: The Maquila Industry in Mexico and the United States* (Boston: Unwin Hyman, 1989).

²¹ Mary T. O'Rourke, "Labor Costs - From Pakistan to Portugal," *Bobbin* 34, 1 (September 1992), 116-22, at 116-18.

based work with jobs in formal and informal factories. The prevailing patriarchal order in these societies reinforces the traditional roles of wives and mothers, and militates against organized resistance by women to improve their working conditions.²² As industrial labor in the NICs has become costly and relatively scarce, however, male and older female factory workers have become more prevalent. Today at least 25 percent of the labor force in Hong Kong's apparel industry are men, and nearly one-third of the managers and one-quarter of the assembly workers are over 40 years of age.²³ This changing composition of the workforce is likely to alter the social dynamics in some export-oriented industries, especially if male workers galvanize the sporadic efforts to unionize export sectors. So far, the unionization of export-oriented factories has progressed the furthest in South Korea, where the class consciousness of workers has been sharpened by harsh employer practices and low wages in large-scale factories in the auto, steel, and textile industries.²⁴

Sub-Saharan Africa lags behind the other third world regions in terms of its limited number of EPZs, largely because of the inadequate transportation and communication infrastructure in many parts of the African region, its shortage of concentrated pools of low-wage labor, and a difficult political and cultural environment for foreign investors. Nonetheless, there are a few successful EPZs in Africa that have flourished due to special external conditions. One such case is Mauritius, an island of 1.1 million people located off the southern coast of Africa. The EPZ sector in Mauritius, which is dominated by textiles and clothing, has been the focal point of the country's development strategy in the 1980s and 1990s. Between 1982 and 1990, the number of EPZ firms increased nearly fivefold from 120 to 570, and employment in these companies quadrupled from 20,000 to 80,000. About 70 percent of the island's EPZ exports, which totaled over \$770 million in 1990, went to the European Community where Mauritius has privileged access. The disadvantages of the Mauritius location in cost terms have been

²² See June Nash and Maria Patricia Fernández-Kelly (eds.), *Women, Men, and the International Division of Labor* (Albany: State University of New York Press, 1983), and Kathryn Ward (ed.), *Women Workers and Global Restructuring* (Ithaca, N.Y.: ILR Press, School of Industrial Relations, Cornell University, 1990).

²³ Hong Kong Government Industry Department, *Techno-Economic and Market Research Study of Hong Kong's Textile and Clothing Industries, 1991-1992* (Hong Kong: Government Printing Office, 1992), p. A17.

²⁴ See Frederic C. Deyo, *Beneath the Miracle: Labor Subordination in the New Asian Industrialism* (Berkeley: University of California Press, 1989).

offset by a concentration on high-unit-value products, such as "Scottish" knitwear (mainly jerseys and pullovers). Labor productivity in Mauritius, where most workers are immigrants from India, is regarded as significantly higher than in the Caribbean. The largest source of foreign capital in the EPZs is Hong Kong entrepreneurs, who came to the island in response to political uncertainties about the future of Hong Kong, but the political stability and favorable tax treatment offered by Mauritius also make it an attractive site for Indian and now South African investors.²⁵

Component-supply subcontracting

Component-supply subcontracting refers to the manufacture and export of component parts in technologically advanced industries in the NICs, with final assembly usually carried out in the developed countries. The primary advantage of this export role is that it can facilitate industrial upgrading and technology transfer in the NICs, and it may generate significant backward linkages to local suppliers. A potential liability is that these economic networks often are controlled by TNCs, which subordinate national development criteria to their own objectives of global profitability and flexibility.

The component-supplier role has been a major niche for the Latin American NICs' manufactured exports during the past two decades. Brazil and Mexico have been important production sites since the late 1960s for vertically integrated exports by TNCs to developed-country markets, especially the United States. This is most notable in the motor vehicle, computer, and pharmaceutical industries.²⁶ U.S. and Japanese automotive TNCs, for example, have advanced manufacturing plants in Mexico and Brazil for the production of engines, auto parts, and completed vehicles destined for the U.S., European, and Latin American markets. By the 1970s, component-supply exporting had become an integral part of the regional division of labor in East Asia's electronics industry. In the 1980s, Japanese automotive

firms took the lead in creating an elaborate parts supply arrangement with foreign and local capital in Southeast Asia.²⁷ The regional integration scheme for autos, which stretches from Japan across East and Southeast Asia, entails strategic export-oriented investments similar to those in the North American auto complex that link component suppliers in Canada and Mexico with a variety of car assemblers in the U.S. market.

An interesting variation on the component-supplier arrangement are the subregional cooperation zones in East and Southeast Asia, known as "growth triangles."²⁸ These subregional divisions of labor typically involve neighboring countries at different levels of development that cooperate in the outsourcing and assembly of various kinds of products, ranging from cars to computers to clothes. The participants each have specific roles. In the Greater South China Economic Region, for example, Hong Kong is the service and finance center, Taiwan typically provides investment capital and technological expertise, and Fujian and Guangdong Provinces in South China offer land and labor. There are several such triangles operating or planned in Southeast Asia, the best known of which links Singapore, Johor State in Malaysia, and Riau Province in Indonesia. What these subregional integration pacts have in common is a well-defined division of labor in which TNCs farm out the production and assembly of parts to individual nations, eventually to be sent to an overseas destination. While the private sector decides where its investments should go, this arrangement often is facilitated by trade incentives offered by national governments.

Original equipment manufacturing

OEM refers to the production of finished consumer goods by contract manufacturers, which frequently are locally owned factories in the third world. The sourcing of inputs and the making of the final product are responsibilities assumed by the contractor, and the output is distributed and marketed abroad by large trading companies, foreign retail chains, or branded marketers. Also known as specification contracting, OEM has been the major export niche filled by the EANICs in the world economy since the

²⁵ See Narud Powdar, "Textiles and Clothing in Mauritius," *Textile Outlook International* (November 1991), 68-86, and A. Werberloff, *Textiles in Africa: A Trade and Investment Guide* (London: Alain Charles, 1987).

²⁶ See Richard Newfarmer (ed.), *Profits, Progress and Poverty: Case Studies of International Industries in Latin America* (Notre Dame, Ind.: University of Notre Dame Press, 1985), and Harley Shaiken, *Mexico in the Global Economy: High Technology and Work Organization in Export Industries* (La Jolla: Center for U.S.-Mexican Studies, University of California, San Diego, 1990).

²⁷ See Henderson, *The Globalisation of High Technology Production*, and Doner, *Driving a Bargain*.

²⁸ For various illustrations of how these subregional growth triangles work in Asia, see Xiangming Chen, "The New Spatial Division of Labor and Commodity Chains in the Greater South China Economic Region," in Gereffi and Korzeniewicz (eds.), *Commodity Chains and Global Capitalism*, pp. 165-86. See also Chapters 7 and 8 (this volume).

1960s. In 1980, for example, Hong Kong, Taiwan, and South Korea accounted for 72 percent of all finished consumer goods exported by the third world to the advanced industrial countries, other Asian nations supplied another 19 percent, while just 7 percent came from Latin America and the Caribbean. The United States was the leading market for these consumer products, absorbing 46 percent of the export total.²⁹ Recently third world exporters have begun to decrease their reliance on their traditional overseas markets, however, especially the United States. By 1989, the four EANICs had cut their dependence on the U.S. market to the point where it represented only 25 to 40 percent of their total exports.³⁰

The OEM role is a potentially profitable, but demanding and unstable, export niche. Unlike the prior two export roles, which are both forms of "subcontracting" because they involve a linkage with foreign firms that take full responsibility for supplying (in export-processing assembly) or buying (in component-supply subcontracting) all component parts for their factory affiliates, OEM producers make finished products that will be sold under another company's brand name. The contract manufacturer must have the capability to interpret designs, source the needed inputs, monitor product quality, meet the buyer's price, and guarantee on-time delivery. The fee charged by the contractor covers all material and production costs, plus a usually modest profit. Buyers reap the biggest gains in the chain.

The EANICs have excelled at OEM production, which has been the key to their export growth during the past several decades. There are various reasons for this success. In part, it has to do with East Asia's classic "pull" rather than "push" approach to exporting. In the push approach, typical among raw material or standardized product exporters, the manufacturer's philosophy is, "I will sell what I make." In the pull approach, the manufacturer's attitude is more market-oriented: "I will make what you need." This consumer-driven export mentality has allowed East Asian entrepreneurs to become full-range "package suppliers" for foreign buyers. Learning how to piece together all the material and service inputs required to make a wide range of finished consumer goods has given OEM producers a unique organizational capability for creating and managing elaborate, horizontal

²⁹ Donald B. Keesing, "Linking Up to Distant Markets: South to North Exports of Manufactured Consumer Goods," *American Economic Review* 73 (1983), 338-42, at 338-39.
³⁰ The U.S. market was most important for Taiwan (39 percent of total exports), followed by South Korea (35 percent), Singapore (30 percent), and Hong Kong (27 percent) (Dickens, *Global Shift*, p. 37).

networks of suppliers and buyers. Expertise in OEM production increases over time and it can lead to important forms of organizational innovation.

In addition, the pressures exerted by foreign buyers for new products have made industrial upgrading and backward linkages an intrinsic part of the OEM process. The EANICs are the only third world nations that have been able to create the diverse array of efficient supporting industries required by a dynamic model of specification contracting. While their governments have been supportive of this process, the key factor probably lies with an abundant supply of local entrepreneurs. East Asian factories tend to be locally owned and vary greatly in size. Large vertically integrated companies, such as South Korea's *chaebol*, have significant advantages in supplying world markets because of their scale economies and substantial financial support from the state. Established exporters in small-firm-dominated economies like Taiwan and Hong Kong also have been successful in their efforts to develop the technology and manufacturing expertise needed for high-quality global production, and to adjust their output flexibly to more sophisticated export items.³¹

The main advantage of the OEM export role is that it enhances the scope for local entrepreneurs not only to learn how to make internationally competitive finished consumer goods, but also to generate substantial backward linkages to the domestic economy. East Asian producers confront intense competition from lower-cost production sites in various parts of the third world. Furthermore, they have discovered that it is very difficult to establish forward linkages to their developed-country markets, where the biggest profits are made in buyer-driven commodity chains. East Asian manufacturers have tried to maintain close ties with foreign buyers, which has permitted the former to become middlemen in the triangle manufacturing networks that shift production of consumer goods to cheaper export sites. But foreign buyers frequently are driven by cost considerations to set up direct contacts with their main third world suppliers. Thus, a number of the firms in the EANICs that pioneered OEM are now pushing beyond it to

³¹ Two excellent detailed monographs that deal with the role of local firms in South Korea and Taiwan, respectively, are Alice H. Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989), and Robert Wade, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (Princeton, N.J.: Princeton University Press, 1990). For comparisons with Hong Kong and Singapore, see Lu-Lin Chang and Gary Gereffi, "The Informal Economy in East Asian Development," *International Journal of Urban and Regional Research* 18, 2 (June 1994), 194-219.

OBM by integrating their manufacturing expertise with the design and sale of their own brands of merchandise.

Original brand-name manufacturing

A final stage in the development of an export economy is to move beyond production for foreign buyers to the establishment of proprietary brand names that give third world exporters a more visible presence in both local and developed-country retail networks. South Korea is the most advanced of the East Asian countries in this regard, with Korean brands of automobiles (Hyundai), computers (Leading Edge), and household appliances (Samsung and Goldstar), among other items, being sold in North America, Europe, and Japan. Taiwan also sells its own brands of Acer and Mitac computers, Giant bicycles, Pro-Kennex tennis rackets, and Travel Fox shoes in overseas markets. Mexican beer has been one of the only branded products in Latin America that has developed a solid retail niche in the U.S. market.

Hyundai is the most prominent example of a third world manufacturer that decided to integrate forward to the marketing end of a producer-driven commodity chain. Hyundai entered the North American market for cars in the late 1980s by building an independent marketing network. By contrast, Daewoo and Kia, South Korea's other two major auto companies, relied on their OEM networks with General Motors (GM) and Ford, respectively, to market and sell GM and Ford car models that were made in Korea. Hyundai's strategy was risky because it only had 183 dealers in the U.S. market in 1987, compared with 3,000 dealers in GM's Pontiac Division and 5,700 dealers for Ford. But the strategy was also profitable. Hyundai obtained a 3.7 percent profit margin from production and a 7 percent margin from its marketing subsidiary, Hyundai Motor America. Daewoo earned a 3.6 percent profit margin, while GM appropriated an 8–9 percent yield from the marketing process. In response to competitive pressures, however, Hyundai changed its marketing system from single-point (or exclusive) dealerships to dual-point dealerships (i.e., dealers could sell other brands), and it launched an export diversification strategy by entering European markets.³²

³² For a more complete discussion of Hyundai's efforts to build its own retail network to sell cars in the United States, see Hyung Kook Kim and Su-Hoon Lee, "Commodity Chains and the Korean Automobile Industry," pp. 281–96, and Naeyoung Lee and Jeffrey Cason, "Automobile Commodity Chains in the NICs: A Comparison of South Korea, Mexico, and

Many Hong Kong apparel manufacturers have embarked on ambitious programs of forward integration into retailing, using their own brand names and retail chains for the clothing they make. These retail outlets started out selling in the Hong Kong market, but now there are Hong Kong-owned stores throughout East Asia (including China), North America, and Europe. A good example is the Fang Brothers, one of the principal Hong Kong suppliers for Liz Claiborne, who have several private-label retail chains (Episode, Excursion, Jessica, and Jean Pierre) in a variety of countries, including the United States.³³

In the personal computer industry, Taiwanese companies were more inclined to export their own brands of computers than their South Korean counterparts. In 1986, exports of personal computers by each country totaled about \$400 million. "Own-brand" computers comprised 28 percent of Taiwan's overseas sales, but only 16 percent of the Korean total. Conversely, OEM sales of personal computers accounted for 44 percent of the Korean exports, but only 22 percent for the Taiwanese. The remainder were personal computer exports by subsidiaries of TNCs. This contrast in OBM versus OEM orientation reflects the two countries' distinct industrial capabilities: whereas Korea's much larger companies have sought a competitive edge based on price and standardized, mature products, Taiwan's smaller firms have emphasized flexibility, innovation, and market niches for nonstandardized products.³⁴

The difficulties of OBM should not be underestimated, however, and some East Asian companies are shifting back to OEM work. In 1990 Mitac Corporation, the main competitor to Acer in Taiwan's personal computer market, made 70 percent of its computers under its own brand name and 30 percent for OEM clients. By 1993 the OEM ratio was back up to 60 percent. The reason, according to Mitac's president C. S. Ho, is that the firm was more profitable when it concentrated on its core competencies. "We asked ourselves: What functions are we best at? Our strengths are in R&D, design and manufacturing," says Ho. "We are now focusing on designing and supplying products and key components for major OEM customers, whose

Brazil," pp. 223–43, in Gereffi and Korzeniewicz (eds.), *Commodity Chains and Global Capitalism*.

³³ See Lardner, "The Sweater Trade," p. 46; Dianne M. Pogoda, "Two Foreign Retailers Find Niche in U.S.," *Women's Wear Daily*, July 7, 1992, and Zeida Cawthorne, "Paris Chapter for Episode," *South China Morning Post*, July 24, 1993.

³⁴ Brian Levy, "Korean and Taiwanese Firms as International Competitors: The Challenges Ahead," *Columbia Journal of World Business* (Spring 1988), 43–51.

brands are better-known but which have withdrawn from fully integrated manufacture."³⁵ The OBM option, while still remote for relatively advanced third world regions like Latin America and Southeast Asia, establishes a benchmark against which the most ambitious export firms will be measured.

Sequences of export roles

There are typical sequences of export roles. Virtually all countries begin exporting primary commodities (or raw materials), and then turn to staple consumer items such as garments and footwear. At this juncture, countries can go in either of two directions: they can increase the sophistication and local content of their finished-goods production by filling the OEM orders of foreign buyers, or they can make components or parts that will be exported for more complex finished goods assembled abroad (component-supply subcontracting). Either of these two intermediate export roles can lead to the export of local brands of finished goods (OBM production), such as Hong Kong clothes, Taiwanese tennis rackets, or Korean cars.³⁶

The prominence and sequencing of these export roles varies markedly across third world regions. This reflects differences in the timing and impact of outward- and inward-oriented development strategies.³⁷ The East Asian approach was to combine EOI with selective forms of state intervention (export subsidies, import licenses, nontariff trade barriers, preferential credit, privileged access to quotas, and the like), and then to roll back these policies under internal and external pressure after successful export industries had been established. In Latin America and other third world regions, however, state intervention was used to promote ISI, not EOI. When the liberalizing reforms of the 1980s took hold, many nations opened their economies before the majority of their firms were internationally competitive. As discussed in Chapter 9, the resulting import surge has led to widespread plant closures (especially among small and medium-sized firms), job loss, and a worsening of income distribution. At the same time, some of the largest firms have raised their productivity and are increasing exports.

³⁵ Michael Selwyn, "Radical Departures," *Asian Business* (August 1993), 22-5, at 24.

³⁶ Another phase in the industrial development cycle is original design manufacturing, a key ingredient in product innovation. A number of firms in the EANICs already are at this stage.

³⁷ For a historical and comparative analysis of ISI and EOI development strategies, see Gary Gereffi and Donald L. Wyman (eds.), *Manufacturing Miracles: Paths of Industrialization in Latin America and East Asia* (Princeton, N.J.: Princeton University Press, 1990).

In contrast to those who would argue that EOI by itself can lead to sustained economic growth, the experience of the EANICs actually shows that a diversified array of backward linkages is essential in moving toward the more complex component-supply, OEM, and OBM export roles. The EANICs have been successful in upgrading their export industries in large measure because of their highly efficient networks of suppliers for intermediate goods (e.g., plastics, textiles) and components (e.g., semiconductors, computer chips, auto parts). These supporting industries allow East Asia's exporters to receive high-quality inputs at world-market prices. In addition, the EANICs have developed a full range of local design, financial, transportation, and communication services that give them major advantages over other third world production sites. The directions the East Asian economies can move in terms of industrial upgrading, however, are constrained by the availability of the natural resources on which these suppliers depend. The importance of raw material supply networks for successful export industries creates opportunities for resource-rich regions of the third world. East Asian nations have been forced to adjust to their escalating production costs and labor shortages by gravitating to higher-order forms of competitive advantage that are durable, add more value, and lead to constant improvement and industrial upgrading.³⁸

Third world strategies for "moving up" in the global economy.

National development implies technological advance and organizational learning, which are needed to climb a ladder of industrial complexity. Progress requires a dynamic enterprise base, supportive state policies, and improving skills and higher wages in the workforce. For most nations in the third world, joining the ranks of developed countries is an ever-receding frontier, complicated by a growing technology gap and a constantly changing international environment. Third world nations have utilized several strategies in recent decades to try to improve their global positions. These include government policies and organizational initiatives to increase productivity, new relations with foreign and local capital, and participation in regional economic blocs.

³⁸ See Michael Porter, *The Competitive Advantage of Nations* (New York: Free Press, 1990).

Narrowing the productivity gap

Third world regions confront a significant productivity gap with regard to the developed nations. The productivity gap, which is a rough indicator of the effect of disembodied technological progress on long-term economic growth, is about 2.5 to 1 between Latin America and the OECD countries, and it has grown wider over time. East Asia, by contrast, appears to have made major strides in closing this gap, while less advanced regions like Sub-Saharan Africa and South Asia presumably lag the furthest behind the global pacesetters. In the period 1950–89, Latin America's increase in total factor productivity was one-seventh that of the EANICs and one-fifth that of the developed nations.³⁹ A major problem is that most third world countries fail to use internationally available "hard" and "soft" technologies. This is apparent in outdated equipment, obsolete production methods, a deficient organization of labor, rigidly vertical industrial relations, inadequate quality, and poor after-sales service.

In their efforts to narrow the productivity gap, third world governments have pursued a variety of policy and institutional reforms. A coherent, stable macroeconomic policy that focuses on issues like exchange rates, inflation, and interest rates is widely assumed to be the necessary starting point for improved economic performance. This frequently is coupled with related mesoeconomic changes that affect the institutional environment within which firms operate (e.g., infrastructure, linkages with the scientific and technological system, training, finance, and the promotion of exports or new overseas markets). There is much less agreement, however, on the role to be played by microeconomic policies that directly affect the operations of firms in specific industrial sectors. In addition, serious questions have been raised about the contributions made by low-wage export industries to broader development objectives in the third world, such as upgraded skills, technology transfer, backward linkages to local suppliers, and improved living conditions. The experience of Mexico typifies these dilemmas.

Until the past decade, Mexico's *maquiladora* plants were relegated to a low-wage, export-processing role in the world economy. A major concern for Mexico was how to push beyond the enclave model of EOI represented by its traditional, labor-intensive *maquiladora* plants in order to adopt a

³⁹ UNECLAAC, *Latin America and the Caribbean: Policies to Improve Linkages with the Global Economy* (Santiago: UNECLAAC, 1994), p. 141.

more dynamic, industrially upgraded development strategy. This would generate higher incomes and better skills for Mexico's workers, and at the same time allow Mexican exports to be internationally competitive in technologically advanced sectors. In the 1980s, a new wave of *maquiladora* plants began to push toward a more sophisticated type of component-supplier production, making parts for capital- and technology-intensive consumer durable items like automobiles and computers.⁴⁰

To successfully carry out this shift from the "old" to the "new" *maquiladoras*, however, Mexico must move from its wage-depressing export strategy to more productivity-enhancing strategies. So far, it has taken the "easy road" to export expansion, since the sharp devaluations of the Mexican peso in the 1980s and most recently in 1994–95 have significantly eroded real wages in the manufacturing sector. The EANICs, meanwhile, are moving in the opposite direction. They have diversified their exports in the face of a substantial appreciation (rather than devaluation) of their currencies, rising (not declining) real wages, and labor scarcity (rather than labor surpluses).

Although policy reforms have been central concerns of the political economy literature on third world development, scant attention has been given to the role of local innovations in stimulating economic growth and productivity increases in developing nations. There are several kinds of innovation that should be distinguished in the process of economic development. First, there are breakthrough innovations: the discovery of new products and processes that allow leading firms to fundamentally redefine the cost structure of modern industries so that old products and technologies become obsolete. Examples include the restructuring of the telecommunications industry around fiber optics and satellite systems (instead of copper cables), and the informatics revolution that replaced the mechanical and electrical business machines of several decades ago with a dazzling array of handheld and desktop computers that can be plugged into global information networks. Path-breaking innovations of this sort tend to be introduced in the most advanced nations, which helps them to retain their competitive edge in the world economy by ushering in new product cycles.

A second form of progress stems from less dramatic adaptive innovations, which are increasingly found in the NICs, especially in East Asia.

⁴⁰ See Gary Gereffi, "Mexico's Maquiladora Industries and North American Integration," in Stephen J. Randall (ed.), *North America without Borders?* (Calgary: University of Calgary Press, 1992), pp. 135–51.

These innovations involve the use of modern technologies by small and medium-sized firms in traditional as well as advanced industries. In the export-oriented garment sectors of South Korea, Taiwan, and Hong Kong, for example, new synthetic materials, laser cutting machines, and computer-aided designs are routinely employed to enhance the upgrading of garment exports destined for developed-country markets. Adaptive innovations are commonplace in the NICs' other major export industries as well, such as footwear, toys, semiconductors, and computers.

A third form of productivity-enhancing innovation that is often overlooked in developing nations is organizational in nature. There are numerous organizational innovations that have been critical to East Asia's economic superiority in recent decades. Japan is widely attributed with pioneering "lean production" as an alternative to "mass production" in the automobile industry,⁴¹ a form of manufacturing organization that is now being widely emulated in other industries and by TNCs of all nationalities. East Asian production and export networks in producer-driven and buyer-driven commodity chains also rely on a wide range of regionally based vertical and horizontal organizational forms (e.g., trading companies, dense subcontracting networks, specification contracting, and triangle manufacturing), sustained by social ties involving ethnicity, kinship, and local communities. Finally, the evolution of the OEM and OBM export roles contains many innovative elements that constitute dynamic sources of competitive advantage in the world economy. Improvement in the organization of production is one of the social foundations of East Asia's export success, and it is an area where there is considerable scope for local innovations.

New relations with foreign and local capital

Economic liberalization has forced third world states to renegotiate their relationships with private capital, both foreign and local. In the past decade, direct foreign investment (DFI) has grown dramatically in most of the third world regions. By 1992, the global stock of DFI had reached approximately \$2 trillion, with worldwide outflows of DFI recording steady gains from 1982 until 1991, when there was a decline. Whereas developing countries account for only 5 percent of the global stock of DFI, they received about 25

⁴¹ See James P. Womack, Daniel T. Jones, and Daniel Roos, *The Machine That Changed the World* (New York: Macmillan, 1991).

percent of all inflows in 1991.⁴² This leap can be traced to various factors, including privatization programs, debt-for-equity swaps, the growth of developing-country markets, and the rise of DFI by East Asian and other third world investors.

Liberalization trends alone are not sufficient to attract increased DFI. Foreign investment policy is just one element in a coherent and well-balanced development strategy that typically includes both macroeconomic and political stability, as well as a clear sense of the ground rules by which enterprises must operate. Frequently, countries such as those in Latin America and South Asia, which had adopted highly regulated environments and policies of assertive industrialization in the 1970s, have reopened sectors like mining and agriculture that previously were off limits to foreign capital, and lowered joint-venture requirements and other entry barriers in many manufacturing and service sectors. Among the most important lessons learned during the 1970s and 1980s, however, is that DFI policy should involve explicit commitments with respect to key national priorities such as export promotion and technological innovation, and that successful local firms are an important element in national development strategies.

The process of integrated international production is carried furthest by TNCs. This is promoted by a variety of new conditions, such as advances in information technology, a convergence in national patterns of consumer demand, intense global competition, and a less restrictive environment for trade and investment. Regional and global strategies by TNCs are replacing those geared to maximizing profits in individual countries; the latter were reinforced by the third world's ISI development strategies in the 1960s and 1970s. The challenge is for third world governments to harness the productive potential of TNCs, while at the same time learning how to capitalize on the multiple ways of linking up with the global economy. Buyer-driven commodity chains, in particular, involve non-DFI relations with foreign capital (i.e., buyers rather than manufacturers), and they also create more opportunities for learning by local firms.

In most of the EANICs, the state has induced local private capital to take a mercantilistic approach to global markets, where overseas sales are equated with enhanced national security and prestige. Exporting is viewed as a matter of long-term necessity, rather than short-term convenience. East

⁴² UNCTAD, *World Investment Report, 1993: Transnational Corporations and Integrated International Production* (New York: United Nations, 1993).

Asian governments have used financial controls, export and import licenses, and other bureaucratic devices to exercise leverage over local exporters. Domestic firms in East Asia and other third world regions have a far greater incentive than do foreign companies not only to export, but also to establish more extensive backward linkages to local suppliers.

Shifting patterns of regional integration

A great deal of attention has been given to the growth of regional economic blocs in the past decade. As discussed in Chapter 3, these blocs take two quite different forms. On the one hand, the United States has joined the European countries in promoting formal regional agreements. Both the European Union and the North American Free Trade Agreement (NAFTA) are trade-based regional blocs, created and sustained by government policies. The Asia-Pacific Economic Cooperation forum (APEC), by contrast, is a fledgling agreement that advocates free trade by the year 2020 within a framework of "open regionalism." One of the issues at stake here is whether regional economic blocs are a stepping stone to a strengthening of multilateral institutions like GATT, or whether regional integration is merely a defensive maneuver that is used to exclude certain groups of countries from global markets.⁴³

The Asian region is of interest in this regard for another reason as well. De facto regional integration in East Asia has been occurring through the strategies of Japanese, U.S., and European TNCs, largely in the absence of intergovernmental agreements. These regional divisions of labor in East Asia have been fostered by the lowering of trade barriers in the region, the shift of Japanese TNCs toward more offshore sourcing in low-cost production sites after the appreciation of the yen, and the emergence of new manufacturing centers in East and Southeast Asia.⁴⁴ Thus, we may refer to East Asia as a market-induced, rather than policy-induced, form of economic integration.

While trade alone tends to promote regional integration, DFI appears to be better at spanning different regional blocs and moving toward global economic integration. Trade-based forms of cross-border linkage, including EPZs, outsourcing, and free-trade areas, are "shallow" forms of economic

integration. "Deep" integration, on the other hand, involves the production of goods and services as a result of complex corporate strategies and network structures. The world economy seems to be evolving toward this more complex form of integrated international production, in which TNCs are key actors.⁴⁵ Strategic alliances have expanded, particularly in those industries with short product cycles and high research and development costs, while competitive pressures are forcing firms to seek cost savings from all segments of global commodity chains. In this light, it is interesting to examine the cross-regional impact of DFI from East Asia in Mexico and the Caribbean.

Burgeoning investments from Japan and the EANICs in North America are leading to a deepening of multilateral ties between the two regions. In anticipation of NAFTA, which took effect on January 1, 1994, Asian investors were anxious to set up transplant factories in Mexico and the Caribbean Basin in order to gain preferential access to the U.S. market.

Likewise, many of Mexico's traditional *maquiladora* exports are shifting to Caribbean venues, which are likely to become the favored locale for these low-wage activities. By the early 1990s, EPZs had become a leading source of exports and manufacturing employment in various Caribbean nations. In the Dominican Republic, for example, EPZs employed 142,300 Dominicans in 1992 (primarily in garment assembly) and generated \$1 billion in trade, netting \$300 million toward the balance of payments. In terms of employment, the Dominican Republic was the fourth largest EPZ economy in the world (the fifth if China's Special Economic Zones are included), and 11 percent of the more than 300 EPZ firms in the Dominican Republic were Asian.⁴⁶ Furthermore, East Asian projects were found to contribute more jobs, bigger investments, higher levels of local value added, and a greater utilization of skilled labor than the assembly-oriented sewing operations by other foreign firms.⁴⁷

⁴⁵ Ibid.

⁴⁶ See EU, *Dominican Republic, Haiti, Puerto Rico: Country Profile* (London: EU, 1993-94), p. 20; Raphael Kaplinsky, "Export Processing Zones in the Dominican Republic: Transforming Manufactures into Commodities," *World Development* 21, 11 (1993), 1851-65; and Alejandro Portes, José Izquierdo, and Carlos Dore-Gabriel, "Urbanization in the Caribbean Basin: Social Change during the Years of the Crisis," *Latin American Research Review* 29, 2 (1994), 3-37.

⁴⁷ United States International Trade Commission (USITC), *Production Sharing: U.S. Imports under Harmonized Tariff Schedule Subheadings 9802.00.60 and 9802.00.80, 1985-1988*, USITC Publication No. 2243 (Washington, D.C.: USITC, 1989), ch. 6, p. 5.

⁴³ UNECLAC, *Open Regionalism in Latin America and the Caribbean* (Santiago: UNECLAC, 1994).

⁴⁴ UNCTAD, *World Investment Report*, 1993, p. 129.

Despite these gains, one should be skeptical of the longer-term role that labor-intensive EOI can play in the development of Caribbean nations. Although export-processing activities such as those that have grown so rapidly in Mexico and the Caribbean Basin in recent years have undeniable benefits in job creation, foreign exchange earnings, and the fostering of industrial experience, they do not by themselves constitute a sufficient basis for a long-term development strategy. Export-processing industries are best seen as a transitional phenomenon: the first stage in a process of moving to a higher level of industrial development, in which domestic inputs and diverse services also are required.

While many Caribbean nations are just now making the basic transition from farm to factory, Mexico is moving further up the industrial export ladder from clothes to complex components to computers. But they both have a long way to go before matching the success of the EANICs. The latter nations are shifting from their role as the principal suppliers of merchandise sold under the foreign buyers' labels in U.S. and European department stores, to making goods for export under their own brand names with a growing emphasis on booming Asian markets. Hong Kong, Taiwanese, and Korean manufacturers thus are closing the commodity chains for consumer items like apparel by moving all the way from raw material supply through retailing within the Asian region, while the North American consumer goods commodity chains still are stymied by their weakest link — production. It is an open question whether Mexican or Caribbean manufacturers, or their U.S. or Asian counterparts, will step forward to fill this regional gap.

Conclusions

Globalization is not inevitable, nor is it an unmixed blessing in terms of development. Its foundations are political as well as economic, and therefore far from stable. Globalization also generates substantial social and cultural resistance because of its uneven and in some cases marginalizing consequences within as well as between countries and regions. The tumultuous changes wrought by economic globalization affect all regions of the world. The East Asian nations, which have consolidated their position as economic front-runners during the past 25 years, are in the midst of a radical transformation in their industrial and export profiles, as low-wage industries are being shed for a technologically sophisticated and more service-oriented

image. For other regions of the world, however, problems remain as countries try to escape wage-depressing export strategies, low productivity, and marginal forms of integration into the world economy.

From a neoclassical economics perspective, a global economy in which nations compete according to their resource endowments and factor costs is applauded because it promotes greater efficiency in the world as a whole. It is to be expected that labor-intensive industries will chase cheap labor all over the globe, while countries that invest in technology and capital will reap the benefits of innovation and industrial upgrading. A statist perspective, on the other hand, claims that efficiency needs to be counterbalanced by a regulatory framework that emphasizes national development for the entire society, not just for a few segments. Rampant globalization is criticized because it leaves too many groups in society unprotected. The dilemma facing state actors today is that they want to exercise more control in defending national economic interests, but they are not willing to risk being delinked from the world economy.

Although export performance can be a meaningful measure of international competitiveness for nations and regions alike, it should not be confused with full-fledged national development. Economic globalization has spurred EOI as a development strategy, but EOI investments tend to target specific sectors and geographic areas within a country. In a globalized environment, EOI can generate intense activity in circumscribed locales but leave vast portions of a country untouched. Furthermore, since the basic sources of competitive advantage in export-processing assembly or first-stage EOI (i.e., low wages and political stability) are transitory, many export industries are footloose and highly mobile. This means that the jobs, infrastructure, and other resources attracted to an export site may be left with few or no economic alternatives if foreign buyers or investors suddenly decide to go elsewhere.

Countries can pursue several related goals in an effort to make EOI part of an integrated development strategy: they can diversify into multiple export roles in order to spread the benefits of EOI to various sectors and regions of the country; they can move toward higher-value-added export activities, establishing backward and forward domestic linkages wherever possible; and they can combine EOI with appropriate phases of ISI since the complementarity of these two development paths helps to avoid the inherent limitations of an exclusive reliance on either external or domestic markets. Notwithstanding these caveats, third world nations have much to gain by

expanding their participation in global export networks. Autarchy is not a viable option in an interdependent world where for most countries delinking means marginalization. This fate is often considered worse than incorporation under conditions of exploitation or dependency. At least in the latter situation, nations have strong incentives to improve their position in the world economy, mechanisms for technology transfer and organizational learning are available, and absolute improvements in living conditions frequently occur.

The main challenge for third world states in the contemporary era of global restructuring is the need to deal simultaneously with three fundamental issues: productivity, dependency, and equity. Productivity requires significant entrepreneurship to generate nontraditional exports, to increase the efficiency of firms, and to help provide workers with new skills relevant to a modern economy. Productivity-enhancing entrepreneurship has been in short supply in many third world settings, and where it does flourish, as in East Asia, it often relies on social networks and cultural orientations that are beyond the reach of state policies.

Dependency is entailed by the third world's open approach to foreign capital, and by the emphasis on free trade policies that leave national industrial sectors largely unprotected from the cyclical swings of the global economy. Local capital has begun to strengthen its relationship with third world states in the past decade, and it could become an effective counterweight to the influence of TNCs in national development strategies. The most successful countries in industrial upgrading and diversified exporting, such as the EANICs, have given a very prominent role to locally owned firms in their export sectors.

Equity involves fundamental concerns about jobs, workers, and the quality of life. In most third world regions, income distribution seems to have become more inequitable, even when national and sectoral indicators show that economies are growing. Programs aimed at strengthening small and medium enterprises generally lack the financing and training components required to improve the situation. Low levels of agricultural productivity are leading to an exodus of migrants to overcrowded urban centers, and modern export industries do not seem capable of providing enough stable jobs to substantially reduce high levels of unemployment in the least developed areas of the third world. More integrated and innovative national development strategies are needed to cope with these competing development objectives.

CHAPTER 5

New global financial trends: implications for development

STEPHANY GRIFFITH-JONES AND
BARBARA STALLINGS

One of the most dramatic political-economic changes over the past 15 years has been the shift in patterns of international finance. At the beginning of the 1980s, a select group of prosperous third world nations had privileged access to an enormous volume of commercial bank credit. They could also attract fairly important levels of direct investment. For all practical purposes, finance was no longer a binding constraint on the development strategies of this group of countries. Although poorer developing nations could not rely on private credit or investment, many of them had access to substantial amounts of funds via bilateral donors and the international financial institutions (IFIs). The industrial world, to a much greater extent, relied on its own domestic capital markets to meet its financial requirements.

By the latter half of the 1980s, in contrast, third world countries from Latin America and Africa had become largely marginalized from global capital flows, which were increasingly circulating among industrial nations. Insofar as they were still available to developing countries, capital inflows were swamped by amortization and especially by burgeoning interest payments. Indeed, a significant number of developing countries had become capital exporters. The result was a reversal of what development theorists had traditionally argued were the appropriate roles for developed and developing economies. The former were supposed to save more than they spent and export more than they imported, while the latter were supposed to consume more than they were able to save and import more than they exported. As a result, capital flows would go from developed to developing countries.

In the 1990s, a third pattern emerged. Although developed countries

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