
APEC's Economic Performance

Many APEC countries have experienced extraordinary economic growth in recent years. In fact, the emergence of the four Asian “tigers”—Hong Kong, Singapore, South Korea, and Taiwan—together with the group of newly industrializing economies (NIEs)—including Indonesia, Malaysia, and Thailand—has been one of the defining features of international economic affairs in the last three decades. Although less heralded, APEC’s Latin American members have also been growing briskly and its developed members in North America and Australasia have been the most vibrant of all the world’s developed economies. Understanding the dimensions and character of this economic “miracle” is essential to any effort to discern how the environment can be appropriately protected in the context of rapid growth and deepening economic integration.¹

While the accomplishments of the APEC economies are undisputed, the source of the region’s success remains hotly contested. Many commentators argue that East Asia’s rapid economic growth is based primarily on the accumulation of factors of production: the expansion of employment, increases in education levels, and, most important, massive investment in physical capital (Krugman 1994; Kim and Lau 1994; A. Young 1994, 1995). Others argue that East Asia achieved superior growth because of improvements in technology and efficiency, measured as an increase in total factor productivity (TFP) (Swee and Low 1996; UBS 1996). The sources of the increase in TFP are the subject of a further dispute. Research-

1. While many other studies have focused on East Asia, Southeast Asia, or some other grouping of Asian economies, this chapter presents an APEC-aggregated analysis.

ers variously attribute the increase in TFP to superior government policies (World Bank 1993), cultural differences, or “convergence” with more industrialized economies (Barro 1991; Barro and Sala-i-Martin 1992). A number of other studies argue that East Asia’s growth was trade led (Helliwell 1995; Page 1994; Pack and Page 1994). Others, not surprisingly, argue that East Asia’s growth is attributable to a combination of these factors (ADB 1997; Frankel, Romer, and Cyrus 1996).²

Despite disagreement over the reasons for the region’s recent stellar performances, commentators broadly agree that many of APEC’s economies will continue to show high rates of growth and movement up the development ladder for some time to come. In fact, the dynamism of the Asia Pacific region—China, Southeast Asia, East Asia, Latin America, Australasia, and North America alike—has led journalists, academics, business leaders, and politicians to suggest that we are at the dawn of the “Pacific Century” (*Forbes*, 15 July 1996, 108; Rowher 1995, 98; Tay 1996, 190).³

Economic Trends

Five dimensions of APEC’s economic performance over the last three decades deserve particular attention. First, and most prominently, a number of APEC economies have grown at unprecedented rates, with the result that the region is now the world’s largest economic area. Second, this dramatic growth has been accompanied by the fastest rise of incomes for the greatest number of people ever seen in the world’s history. Third, as APEC’s economies have grown, their industrial composition has typically changed from resource- and agriculture-based industries to basic manufacturing and heavy industry, and then to high-tech manufacturing, finance, and service industries. Fourth, the volume of international flows—both trade and investment—has expanded at rates exceeding even the impressive rates of economic growth. Finally, and perhaps most important, the economic success of the region has been marked by increasing economic integration, evident not only in the high proportions of intraregional trade and investment but also in the evolution of border-spanning economic regions and APEC itself. This integration has been

2. The controversy over the sources of East Asia’s growth plays out in the context of a broader debate over the causes of long-term growth. Growth theory has attracted renewed academic interest partly as a result of Romer’s (1986) hypothesis that innovation is the key to sustained growth.

3. There are, however, a growing number of “Asia skeptics” who argue that we should not expect a Pacific century. See, for example, the *Independent* (14 April 1996) and the *Journal of Commerce* (24 July 1996).

primarily market driven and, to date, has been a fundamentally economic phenomenon with limited political dimensions (Bergsten 1997).⁴

APEC Economic Growth

In 1995, APEC's aggregate GDP was \$15.6 trillion,⁵ with national economies ranging in size from \$5 billion for Papua New Guinea to \$7.1 trillion for the United States. APEC's share of the world economy is not only large, it is growing. Between 1977 and 1995, the GDP of the APEC countries increased from \$3.4 trillion to \$15.6 trillion in constant 1995 dollars, a staggering increase of 360 percent in less than 20 years. Over the same period, global GDP rose from \$7.5 trillion to \$29.2 trillion, an increase of 290 percent. As a result of the relatively faster pace of Asia Pacific growth, APEC's share of global GDP increased from 45.7 percent to 53.2 percent over this time. In brief, APEC's slice of the global economic pie is big and has been getting ever bigger.

These figures, based on market rather than purchasing power parity (PPP) exchange rates, mask the true distribution of global income (figure 2.1). When the data are adjusted to reflect PPP, the global income shares of the United States, Japan, and Europe drop. APEC's economies, excluding the United States and Japan, account for 23.4 percent of global PPP-adjusted GDP, compared to just 11.6 percent of nominal GDP.⁶ Viewed this way, the APEC economies loom even larger and eclipse the European Union (EU) in terms of their share of GDP, even without the United States and Japan factored in.

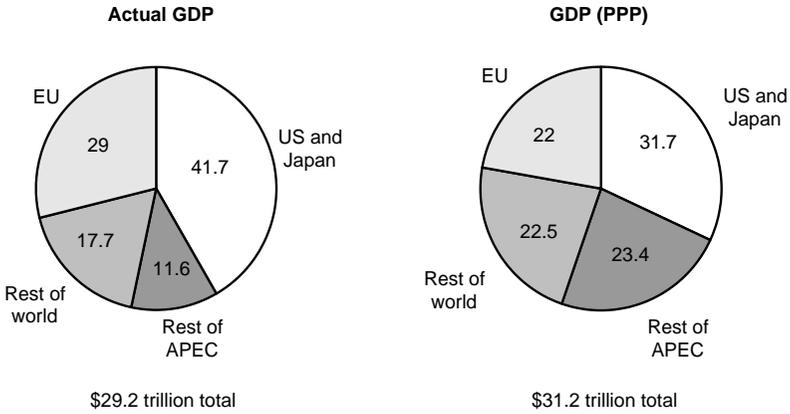
An examination of recent country-by-country economic growth rates highlights the growing global significance of APEC's economies. Between 1991 and 1995, 9 of the 10 fastest-growing economies in the world were APEC economies, and all of the APEC countries, apart from Japan, were among the world's 25 fastest-growing economies. A comparison of APEC and EU growth rates starkly illustrates the comparative economic vibrancy of the Asia Pacific region. Figure 2.2 shows that with just two exceptions—Ireland in the case of the European Union, and Japan in the case of APEC—every APEC economy outperformed every EU economy between 1991 and 1995, highlighting the dynamism not only of APEC's Asian members but of its Latin American, North American, and Australasian

4. This stands in contrast to the creation of the European Union, where significant political integration has accompanied closer economic ties.

5. All monetary figures in this study are US dollars.

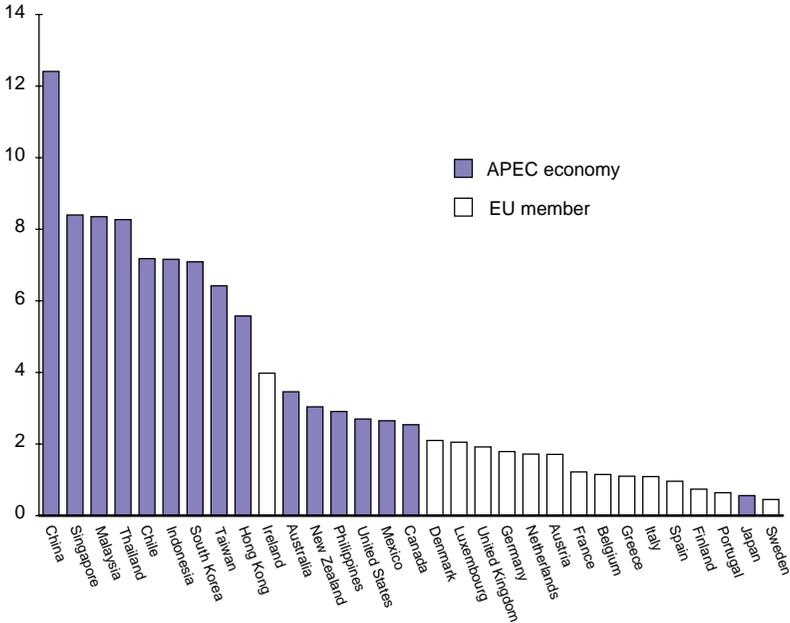
6. Much of this difference in GDP shares is attributable to the undervaluation of China's and Indonesia's GDP's under traditional analysis. China's and Indonesia's PPP-adjusted GDPs account for 9.8 percent and 2.4 percent respectively of the global total, compared to 2.4 percent and 0.6 percent of nominal GDP.

Figure 2.1 Share of global GDP: actual and purchasing power parity (PPP), 1995 (percentages)



Note: GDP (PPP) statistics are 1994 figures but have been converted to constant 1995 dollars.
 Sources: Authors' calculations at the Yale Center for Environmental Law and Policy; IMF, *International Financial Statistics Yearbook* 1996; Euromonitor, *International Marketing Data and Statistics* 1997; International Institute for Management Development (IMD), *The World Competitiveness Yearbook* 1996.

Figure 2.2 Economic growth: APEC vs. EU, 1991-95 (compound annual growth rate, percentages)



Note: Growth rate is computed on a local currency basis at constant prices.
 Sources: IMF, *International Financial Statistics Yearbook*; IMD, *The World Competitiveness Yearbook* 1996.

Table 2.1 Real per capita annual GDP growth, 1965-95 (percent)

Country	Real per capita annual growth
South Korea	7.2
Singapore	7.2
Taiwan	6.2
China	5.6
Hong Kong	5.6
Malaysia	4.8
Thailand	4.8
Indonesia	4.7

Sources: Authors' calculations at the Yale Center for Environmental Law and Policy; IMF, *International Financial Statistics Yearbooks*.

members as well. Can there be any wonder why the United States (and Europe)⁷ has turned its attention to the region to seek out new economic opportunities? APEC must now be reckoned with in every global economic calculus simply by virtue of its size. The European Union learned this lesson in 1993 when pressure from APEC helped to bring them to the table to conclude negotiations of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) (Bergsten 1995).

Rising Incomes across APEC

Behind the dazzling economic growth of many of the APEC nations lies a significant human story. While all of the APEC economies have experienced increases in real per capita incomes over the last three decades, several countries have seen particularly dramatic increases. In South Korea and Singapore, for example, real per capita income grew more than 700 percent between 1965 and 1995. Over the same period Taiwan, China, and Hong Kong logged more than a fourfold increase in real per capita income. And Malaysia, Thailand, and Indonesia each experienced real per capita income growth on the order of 300 percent.⁸ This means, as table 2.1 shows, that each of these eight countries managed

7. Fearing that their limited economic engagement with Asia meant that lucrative business opportunities were being missed, European nations began a dialogue with Asian countries in 1996 through the Asia-Europe Meeting (ASEM) talks (*Daily Yomiuri*, 14 April 1996; *The Economist*, 9 March 1996).

8. Of course, if the baseline is the end of World War II, Japan's per capita income growth surpasses that of all these countries.

to sustain annual per capita GDP growth rates of between 4.7 percent and 7.2 percent for the last 30 years.

While achieving tremendous real per capita growth, the Asian tigers and NIEs have also successfully narrowed the gap between rich and poor. According to the World Bank (1993), not only did Asia's economies have the world's fastest growth rates between 1965 and 1990, but at the same time a number of them—including Hong Kong, Indonesia, Malaysia, the Philippines, and Singapore—achieved greater equalization of income distribution than any other developing country in the world. South Korea and Taiwan experienced more modest improvements in income equality simply because they had relatively equal income distributions to begin with.⁹ In fact, these APEC economies are the only ones in the world that achieved both high growth and declining inequality in recent years.

Rapid economic growth, together with rising per capita incomes and declining income inequality, has meant that over the last three decades, hundreds of millions of Asians have been lifted from poverty (World Bank, *World Development Report 1996*). In China, for example, over 170 million of the 270 million living in absolute poverty in 1978 had been raised above the minimum poverty threshold by 1995. In Indonesia, the incidence of poverty declined from around 60 percent, or 70 million people, at the beginning of the 1970s to roughly 14 percent, or 26 million, in 1995. In Malaysia and Thailand, absolute poverty decreased from 49 percent and 57 percent, respectively, in 1970 to 10 percent and 20 percent, respectively, by 1995. Progress in reducing poverty has been accompanied by substantial increases in life expectancy and reductions in infant mortality, as shown in table 2.2.

Changing Industrial Composition

As APEC's members have grown they have also seen their industrial structures change dramatically. These changes, which have important environmental implications, have been most dramatic in APEC's Asian economies. The economic evolution of APEC's members can best be illustrated by examining three countries at different stages of development: Indonesia, South Korea, and Japan.

Indonesia represents a country in the early stages of industrialization (figure 2.3). In 1965, nearly 60 percent of Indonesia's GDP was accounted for by primary products. The last quarter century, however, has seen the steady relative decline of agricultural and forestry activities as manufac-

9. Comparatively little data are available on changes in income distribution in China, but recent figures indicate that the income share of the top 20 percent of the Chinese population increased from 37 percent in the early 1980s to 44 percent in 1995 (World Bank 1996a).

Table 2.2 Life expectancy and infant mortality in selected APEC countries

Country	Life expectancy at birth (years)		Infant mortality rate (deaths per 1,000 live births)	
	1960	1993	1965	1993
China	47	69	90	30
Hong Kong	66	63	27	7
Indonesia	41	63	128	56
Malaysia	54	71	55	13
Philippines	53	67	72	42
Singapore	65	74	26	6
South Korea	53	72	62	11
Thailand	52	68	88	36
Industrial economies	70	77	nc	nc

nc = not compiled.

Note: Industrial economics refers to nations of the world with a GNP per capita of \$8956 or more in 1994.

Sources: UNDP, *Human Development Report* 1996; World Bank, *World Development Report*.

turing, wholesale and retail trade, mining, and finance have risen to take their place. Nevertheless, as figure 2.3 makes clear, even though agriculture has declined in importance, it has still grown in real terms.

South Korea has achieved a greater level of industrialization than Indonesia, and it is likely to cement its position among the ranks of the most-developed, highly industrialized countries within the next 10 to 20 years.¹⁰ In 1960, agriculture was South Korea's largest industry, though manufacturing and wholesale and retail trade were already economically important (figure 2.4). By 1990, the South Korean economy centered on manufacturing, followed by the finance and insurance industry, a sign of significant modernization. Note that, as was the case for Indonesia, even industries in comparative decline, like agriculture, grew in real terms.

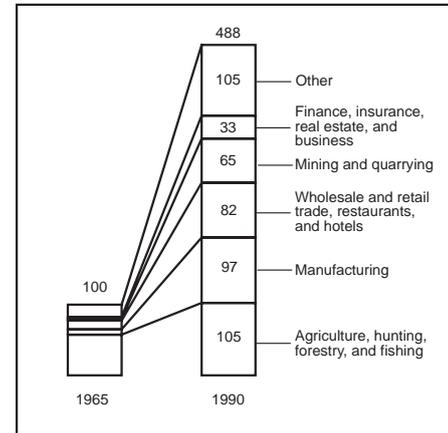
Japan serves as an example of one of the world's wealthiest and most highly industrialized economies (figure 2.5). In 1960, the Japanese economy, already comparatively highly industrialized, was dominated by manufacturing, wholesale and retail trade, and agriculture. By 1990, manufacturing was still the dominant industry, but less so than before. As a mark of its shift toward a postindustrial services economy, Japan's second-largest sector was finance, and its third-largest sector was community, social, and personal services.

The change in the relative importance of various industries reveals only part of the story. Just as important is how the composition of each industry

10. South Korea was admitted in 1997 to the Organization for Economic Cooperation and Development (OECD), the Paris-based "club" of the world's developed countries.

Figure 2.3 Industrial structure: Indonesia, 1965 and 1990

Contributions of each industry to GDP (percentages)		
Industry	1965	1990
Agriculture, hunting, forestry, and fishing	58.9	21.5
Mining and quarrying	2.5	13.4
Manufacturing	7.6	19.9
Electricity, gas, and water	0.1	0.6
Construction	1.7	5.5
Wholesale and retail trade, restaurants, and hotels	12.3	16.9
Transport, storage, and communication	2.1	5.6
Finance, insurance, real estate, and business services	3.0	6.7
Community, social, and personal services	8.5	3.3
Production of government services	3.4	6.5
Total	100	100

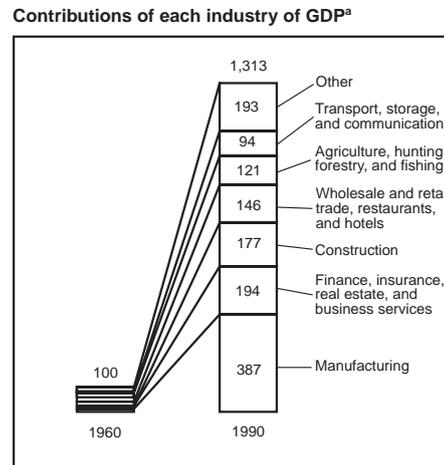
Contributions of each industry of GDP^a

a. This figure indexes 1965 GDP to 100 and shows 1990 GDP calculated relative to that base year.

Sources: Authors; calculations at the Yale Center for Environmental Law and Policy; UN *Yearbook of National Accounts Statistics*; IMF, *International Financial Statistics Yearbook*.

Figure 2.4 Industrial structure: South Korea, 1960 and 1990

Contributions of each industry to GDP (percentages)		
Industry	1960	1990
Agriculture, hunting, forestry, and fishing	38.0	9.2
Mining and quarrying	2.2	0.5
Manufacturing	14.0	29.5
Electricity, gas, and water	0.8	2.1
Construction	3.4	13.5
Wholesale and retail trade, restaurants, and hotels	12.9	11.2
Transport, storage, and communication	4.7	7.2
Finance, insurance, real estate, and business services	8.7	14.8
Community, social, and personal services	7.9	4.2
Production of government services	7.3	7.9
Total	100	100

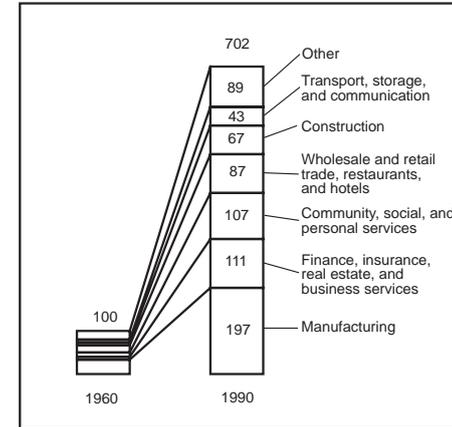


a. This figure indexes 1960 GDP to 100 and shows 1990 GDP calculated relative to that base year.

Sources: Authors' calculations at the Yale Center for Environmental Law and Policy; UN *Yearbook of National Accounts Statistics*; IMF, *International Financial Statistics Yearbook*.

Figure 2.5 Industrial structure: Japan, 1960 and 1990

Contributions of each industry to GDP (percentages)		
Industry	1960	1990
Agriculture, hunting, forestry, and fishing	12.5	2.4
Mining and quarrying	1.7	0.3
Manufacturing	31.7	28.1
Electricity, gas, and water	2.3	2.6
Construction	5.3	9.6
Wholesale and retail trade, restaurants, and hotels	16.2	12.4
Transport, storage, and communication	8.3	6.2
Finance, insurance, real estate, and business services	8.9	15.8
Community, social, and personal services	10.1	15.3
Production of government services	3.0	7.4
Total	100	100

Contributions of each industry of GDP^a

a. This figure indexes 1960 GDP to 100 and shows 1990 GDP calculated relative to that base year.

Sources: Authors' calculations at the Yale Center for Environmental Law and Policy; UN *Yearbook of National Accounts Statistics*; IMF, *International Financial Statistics Yearbook*.

Table 2.3 Structural changes in the Japanese manufacturing sector, 1955-90 (contribution of each subsector to total manufacturing output in percentages)

	1955	1960	1965	1970	1975	1980	1985	1990
Food	37.8	25.5	20.2	15.5	17.0	14.4	11.8	9.1
Textile	9.9	8.4	7.1	5.4	5.3	3.8	2.7	1.7
Chemical	1.6	2.3	2.9	4.1	5.0	5.9	7.4	9.1
General machinery	3.0	6.0	6.6	8.8	7.8	10.7	12.5	12.8
Electric equipment	0.5	1.3	1.8	3.2	4.4	8.5	14.8	21.6
Transport equipment	3.8	6.5	9.0	10.8	11.7	11.9	10.6	11.4
Oil and coal products	2.8	4.9	6.5	6.2	6.6	4.2	4.1	0.7
Glass/cement/ceramics	3.6	4.7	5.3	5.5	5.0	3.8	3.6	3.3
Primary metal	8.0	7.8	7.4	10.2	10.8	11.6	8.3	7.6
Metal products	2.7	3.8	5.6	6.4	5.0	4.7	4.9	4.8
Paper/pulp	1.4	2.9	3.2	3.0	3.0	2.7	2.5	2.6
Precision instrument	0.5	0.6	0.8	0.9	1.0	1.8	2.0	1.6
Other manufacturing	24.3	25.3	23.6	20.0	17.5	16.1	14.8	13.8
Total manufacturing	100	100	100	100	100	100	100	100

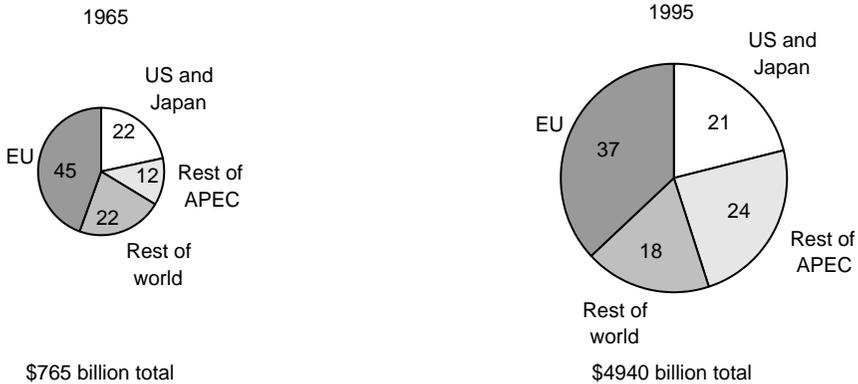
Source: O'Connor 1994.

has changed, a phenomenon best illustrated by examining the structural changes in the Japanese manufacturing sector over time. Figure 2.5—which shows that between 1960 and 1990 the manufacturing sector's contribution to total output changed little—hides the dramatic changes within the manufacturing sector itself (table 2.3). For example, between 1955 and 1990 the contribution of food fell from 37.8 percent to just 9.1 percent of total manufacturing output. Other industries, including chemicals, general machinery, electric equipment, and transport equipment, significantly increased their contribution to manufacturing output. These changes in industrial structure have important implications for the environment, since they determine the type and range of environmental problems that a country can expect to face.

Volume of Trade and Investment

The post-Bretton Woods international economic order has been characterized by increased openness to both trade and capital flows (Bergsten 1992; Jackson 1969, 1992), which can be attributed not just to progress made through multilateral institutions such as the GATT, the International Monetary Fund (IMF), and the World Bank, but also to domestic commitments in many countries to the liberalization of trade and investment regimes.

Figure 2.6 Share of global exports, 1965 and 1995 (percentages)



Note: Figures are constant 1995 dollars.

Sources: Authors' calculations at the Yale Center for Environmental Law and Policy; IMF, *Direction of Trade Statistics*.

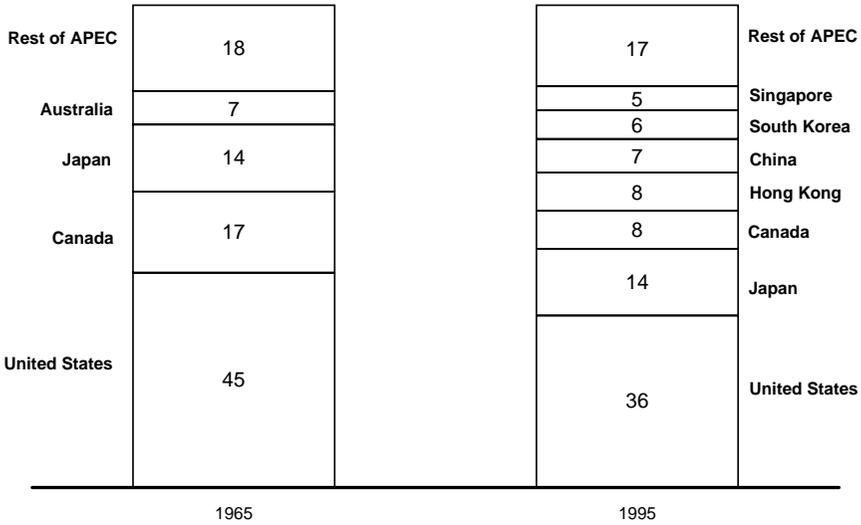
Together with increased factor mobility arising from improved technology and communications, openness has provided the conditions for the expansion of both trade and investment volumes. APEC's economies have taken particular advantage of these conditions. They have expanded their export markets, on the one hand—often generating large trade surpluses—and attracted significant amounts of foreign direct investment (FDI) into their economies, on the other. While commentators disagree on how trade, investment, and economic growth are causally related,¹¹ there is no doubt that among many of APEC's members, expanding trade and rising investment flows have been accompanied by economic growth. Indeed, creating an export push and encouraging high rates of investment have been hallmarks of the Asian development model pursued by the tigers and the NIEs (World Bank 1993; Haggard 1995).

Trade

Between 1965 and 1995, a period during which global exports increased sixfold, APEC's economies significantly increased their share of world trade. During those decades, APEC exports grew from \$262 billion to \$2.2 trillion in constant 1995 dollars, an increase of 740 percent. If the United States and Japan are not included, exports jumped from \$93 billion to \$1.2 trillion, an increase of 1160 percent, equivalent to a compound annual growth rate of 8.8 percent. Over the same period, the European Union's exports expanded at an average annual rate of 5.7 percent. Thus, while

11. For discussions of the causal relationship between trade, investment, and growth see, for example, Rodrik (1994) and Harrison (1995).

Figure 2.7 Share of APEC's exports, 1965 and 1995 (percentages)



Note: Figures do not include Taiwanese exports.

Sources: Authors' calculations at the Yale Center for Environmental Law and Policy; IMF, *Direction of Trade Statistics*.

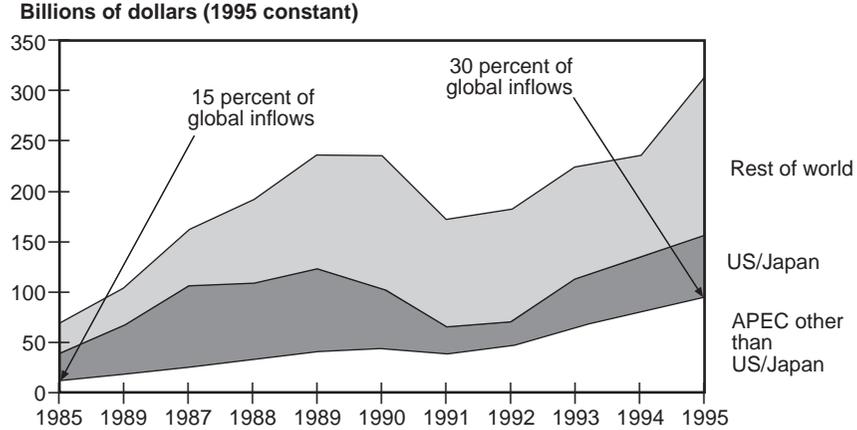
the APEC economies accounted for only 34 percent of exports in 1965, by 1995 they claimed nearly half the world's exports (figure 2.6). The story is much the same on the import side of the trade equation.

Not only have APEC exports grown at a breakneck pace for the last 30 years, but the breadth of countries that contribute most significantly to APEC's exports has widened (figure 2.7). In 1965, four countries—the United States, Canada, Japan, and Australia—accounted for 82 percent of APEC's exports; each contributed at least 5 percent of APEC's total exports. By 1995, however, seven countries—the United States, Japan, Canada, Hong Kong, China, South Korea, and Singapore—were able to make that claim; if present trends continue, they are likely to be joined by Malaysia within the next decade.

Investment

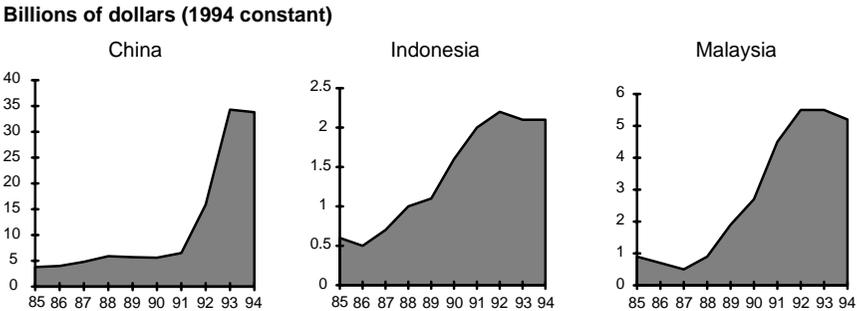
While export growth stands as one of the most visible manifestations of the economic success of the APEC countries, the growth in foreign direct investment (FDI) also deserves attention. Investment flows are a crucial

Figure 2.8 APEC's share of global FDI inflows, 1985-95



Sources: Authors' calculations at the Yale Center for Environmental Law and Policy; IMF, *Balance of Payments Statistics Yearbook*.

Figure 2.9 FDI inflows to selected APEC countries, 1985-94



Sources: Authors' calculations at the Yale Center for Environmental Law and Policy; IMF, *Balance of Payments Statistics Yearbook*.

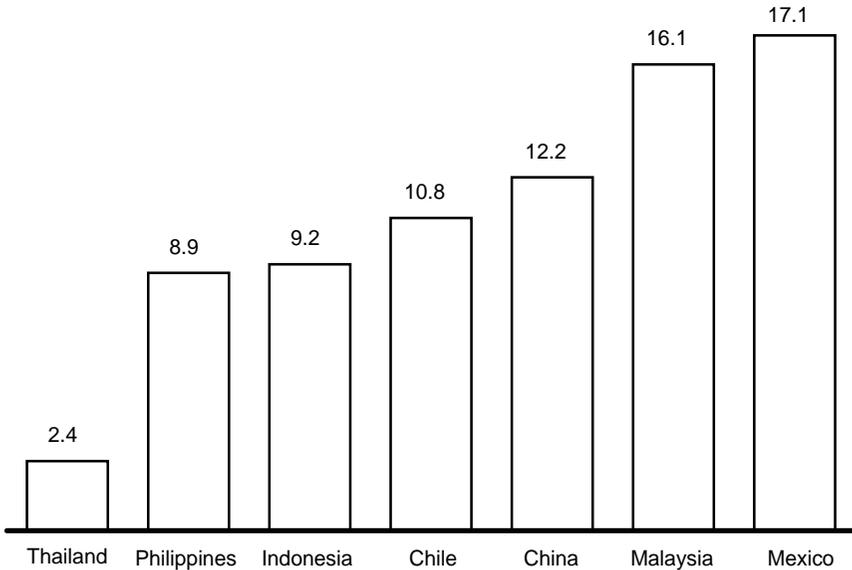
determinant of economic structure and performance.¹² FDI is also an important vehicle for the dispersion of environmental technologies.¹³

While global FDI flows have more than quadrupled in real terms since 1995, APEC's share of those flows has increased, showing that in the investment sphere APEC is also outpacing the rest of the world (figure 2.8). In 1995 the APEC economies, excluding the United States and Japan,

12. Ramstetter (1991), for example, has shown that there is a strong correlation between FDI and structural change in Asia.

13. Chapter 9, in discussing the contribution of FDI to the financing of sustainable development, explains the positive impacts that FDI has on the dissemination of environmental technologies and best practices.

Figure 2.10 FDI to APEC developing countries as a proportion of gross fixed capital formation, 1995 (percentages)



Note: Figures for Malaysia and Thailand are for 1994, and for China the figures are for 1993.

Sources: Authors' calculations at the Yale Center for Environmental Law and Policy; IMF, *Balance of Payments to Statistics Yearbook*.

received \$95 billion in FDI. This represents 30 percent of global FDI flows, up from just 15 percent in 1985. The United States and Japan attracted a further \$60 billion, bringing APEC's share of global FDI inflows to 51 percent.

A number of countries have been particularly successful in attracting FDI. As figure 2.9 shows, FDI to China increased from under \$4 billion to over \$33 billion (1994 dollars) between 1985 and 1994. In 1996, foreign investment in China topped \$40 billion. Over the same period, Indonesia registered a threefold increase in FDI inflow, while Malaysia's FDI inflows increased from under \$1 billion to over \$5 billion annually.

Despite impressive growth, \$95 billion worth of FDI may not seem significant, particularly when compared to the worldwide total invested capital of \$18 trillion (Jaspersen, Aylward, and Sumlinski 1995). Nevertheless, FDI as a proportion of total gross fixed capital formation in fact looms large in a number of APEC's developing economies (figure 2.10). In Mexico and Malaysia, for example, one in every six dollars of gross fixed capital formation comes from overseas. In China, Chile, Indonesia, and the Philippines, FDI also contributes significantly to capital formation.

Foreign investment thus stands alongside expanded trade as a key factor in the ongoing growth of the Asia Pacific region.

Increasing Economic Integration

In addition to fueling APEC's growth, expanded trade and investment flows in the Asia Pacific region have reinforced the interdependence of APEC's economies (Watabe and Yamaguchi 1996). This interdependence can be seen both qualitatively and quantitatively by looking at the extent of intraregional economic activity.

Qualitatively, economic integration within APEC is evident in the rise of "region states" (Ohmae 1995) or "subregional economic zones" (SREZs) (Chia and Lee 1993). These are geographically contiguous areas separated by political boundaries that, by virtue of economic complementarity, geographic proximity, suitable infrastructure, and favorable economic policy, have become deeply economically integrated (Chia and Lee 1993). Such areas are generally characterized by a congregation of manufacturers, not by producers who have located there to take advantage of a ready supply of natural resources. While crossing national boundaries, these areas do not generally involve entire national economies (Pomfret 1996).¹⁴

Examples of such natural economic zones in the Asia Pacific are the region spanning the southern Chinese province of Guangdong, Hong Kong, and Taiwan; the SIJORI "growth triangle" covering Singapore, Johor in southern Malaysia, and Riau in northern Indonesia; and the northern "growth triangle" covering Medan in west Indonesia, Penang in northern Malaysia, and Phuket in southern Thailand. Although region states and SREZs are frequently characterized by official cooperation, government activities are usually a response to market forces and already growing private-sector linkages and activities.

Quantitatively, APEC's interdependence is demonstrated by the scope of intraregional trade flows. While intra-APEC trade has always been high, it has increased steadily over the last 30 years. In 1962, intraregional trade accounted for approximately 53 percent of the total trade in the APEC region. By 1994, this figure had reached 74 percent (J. Frankel 1997). Bora (1995), comparing intraindustry trade indices between 1980 and 1993, also found that the degree of intra-APEC trade had increased.

14. Ohmae's "region state" is more broadly defined than the SREZ concept. He includes economic areas that are wholly contained within, but not coterminous with, national boundaries, including the Silicon Valley/Bay Area in California; Japan's Kansai region, which includes Osaka, Kobe, and Kyoto; and the area comprising the cities of Fukuoka and Kitakyushu on the Japanese island of Kyushu.

High levels of intraregional trade have been accompanied by significant intraregional investment. Bora (1995) found that of all outward FDI emanating from the APEC region in 1992, 51.4 percent made its way to other APEC countries, up from 41.4 percent in 1980. These aggregate figures for APEC hide a more nuanced story (Bora 1996; Rowher 1995). In particular, Canadian and American investment in Mexico is very high. Japan invests heavily in the United States and the NIEs. Investment among the tigers is also high, as is FDI from the tigers to the NIEs, and vice versa. More recently, countries have been diverting a significant share of their investment away from the tigers and the NIEs to China.

Perhaps the most important feature of APEC's deepening economic integration is that it has been market driven (Lawrence 1996).¹⁵ In the investment context, for example, the explosion of FDI in the 1980s occurred before the liberalization of investment regimes in the region. And in the trade context, absolute and intraregional levels of trade have been rising for several decades, long before intergovernmental cooperation began under the auspices of APEC. The private-sector-driven creation of SREZs is further evidence of the importance of the market and private enterprise in explaining Asia's economic integration. Acknowledging the central role of the private sector in the economic integration of the Asia Pacific—and in the creation of APEC itself¹⁶—APEC established the APEC Business Advisory Council (ABAC) in 1995 to advise the leaders and APEC forums about business-related issues and the business perspective on specific areas of cooperation.¹⁷ In fact, APEC hopes that the private sector will continue to drive the process of regional growth and integration evidenced by the keenness of members to ground future APEC initiatives, where possible, on private-sector involvement and input.¹⁸

15. This is not to say that Asian governments have not intervened in the functioning of their economies. Japan, Korea, Singapore, and Taiwan have been particularly active in managing their economies. See World Bank (1993) for a discussion of the domestic policy interventions of East Asian governments between 1960 and 1990.

16. Business groups such as the Pacific Basin Economic Council (PBEC) were instrumental in advancing the policy process in the region that led to the creation of the APEC forum (Funabashi 1995).

17. The ABAC replaced the Pacific Business Forum (PBF), established by the leaders of APEC countries at Blake Island in 1993.

18. The commitment to engage the private sector in APEC's activities runs deep. It is best illustrated by the convening of a parallel summit for CEOs—the APEC Business Forum—by President Fidel Ramos in Manila in 1996.

What the Future Holds for APEC

Is the Asian miracle over? This question, which was recently posed by the *Economist* (1 March 1997, 23), has come to occupy the minds of many students of the region. While the prognosis for the long term is somewhat uncertain, and depends largely on the political and economic stability of China—as well as whether Hong Kong, South Korea, Singapore, and Taiwan can continue their growth, and whether Indonesia, Malaysia, and the Philippines, and Thailand can emulate the success of the tigers—most APEC countries face bright economic prospects in the short term.¹⁹ Trade liberalization will fuel much of the growth in the Asia Pacific. Gains are expected not just from the Uruguay Round agreements but from APEC's own commitment to achieve free trade in the region.

Prospects for Future Growth

Marcus Noland's (1996) study of APEC's economic prospects to the year 2003 concludes that Asia is likely to grow faster than the rest of the world, as it has in the past three decades. In even his worst-case scenario, Noland predicts that the APEC economies, excluding the United States and Japan, will account for 25.1 percent of PPP-adjusted global income in 2003, compared to 21.7 percent in 1993. In his more optimistic scenario, Asia's share of global income rises to around 30 percent. Noland also concludes that China will cement its place as the world's second-largest economy, behind the United States, at least in PPP terms.

Our analysis of the APEC economy backs Noland's conclusions. Using composite economic growth estimates from various sources, including the OECD and the Pacific Economic Cooperation Council (an APEC advisory body), we project that APEC's economic output in 1995 of \$15.6 trillion will grow to \$18.7 trillion by 2001, in constant 1995 dollars. This increase of \$3.1 trillion is greater than the entire 1995 GDP of Germany, the world's fourth-largest economy (in PPP terms).

Predictions beyond the early years of the next century are fraught with uncertainty. The greatest variable is China. It remains unclear whether China will manage a successful transition to a market economy in which political and macroeconomic stability is secured, financial discipline and competition are increased (particularly vis-à-vis state-owned enterprises), the role of state-owned industry continues to decline, and property rights are appropriately created and allocated (Noland 1996; Goldstone 1996).²⁰ Additional uncertainty surrounds the role of China's central government

19. Recent projections by the World Trade Organization (*Bangkok Post*, 28 March 1997) and the Asian Development Bank (*Dow Jones Business News*, 17 April 1997) support the view that APEC's Asian economies will resume rapid growth despite a recent slowdown.

20. For a general discussion of some of the measures that countries in transition from plan to market should take, see Woo, Parker, and Sachs (1997) and World Bank (1996b).

(Noland 1996). Will its position be weakened by the increasing autonomy of regions such as Fujian, Guangdong, and Shenzhen (van Kamenade 1997)? Will it lose macroeconomic control because of difficulties in collecting taxes and other government revenues? Will continued patronage to loss-making state enterprises deplete its coffers? The economic and political permutations concerning China are endless. This uncertainty regarding APEC's fastest-growing and third-largest economy makes it difficult to make credible long-term economic predictions about the region as a whole.²¹

Another question is whether the growth of Hong Kong, South Korea, Singapore, and Taiwan will slow as they industrialize further, in the same fashion as Japan's growth rate has dropped. Taiwan's growth already appears to have begun to slow over the last decade—its average growth rate in the 1990s to date has been around 6 percent, compared to 10 percent in the 1970s. Whether Malaysia, Indonesia, the Philippines, and Thailand will be able to build on their growth and continue their fast-paced development is also uncertain. The recent currency crisis, which sent Thailand and the Philippines to the IMF to ask for help, heightens concerns that growth in the NIEs may not be assured (*New York Times*, 1 August 1997).

Notwithstanding the difficulties associated with long-range forecasting, the Asian Development Bank (ADB) (1997, 118-27) has examined growth prospects for Asia up to 2025. Based on the assumption that countries maintain the natural and policy conditions recorded in 1995, the ADB foresees an annual per capita GDP growth from 1995 to 2025 of 4.5 percent in Southeast Asia and 6 percent in China. While the ADB forecasts for East Asia are more modest, it still estimates that per capita GDP in South Korea, Singapore, and Taiwan will grow by about 3 percent per year, providing East Asians with incomes on par with US citizens in the year 2025.

The Expected Benefits of Trade and Investment Liberalization

Why are APEC nations so enthusiastic about “free and open trade and investment” (APEC 1994a)? The answer is that—with their openness to trade and high trade to output ratios—they expect to profit handsomely from liberalization efforts.²² One of APEC's primary goals, of course, has been to encourage deeper trade liberalization at the multilateral level (APEC 1993a, 1994a, 1995a, 1996). Using computable general equilibrium models, a number of studies have estimated the economic welfare gains that are expected to accrue from the Uruguay Round commitments. A

21. China is third-largest in nominal terms and second-largest on a PPP-adjusted basis.

22. As Bergsten (1995) suggests, APEC is “potentially the biggest trade agreement in history.”

GATT (1993) study estimated, for example, that by 2005 global GDP would be \$230 billion higher (in 1992 dollars) following Uruguay Round reforms than in their absence. A similar study by the OECD (1993) forecast an increase in global GDP of \$274 billion (1992 dollars) by 2002.²³ And as global incomes rise, trade is expected to expand by more than 12 percent annually (GATT 1993). Given the openness and trade focus of APEC's members, they can be expected to be the beneficiaries of a significant portion of these welfare gains.²⁴

In addition to encouraging multilateral trade liberalization—and perhaps as an alternative, if multilateral efforts falter—APEC has also focused on liberalizing trade and investment within the region.²⁵ These efforts are also expected to deliver significant benefits. Studies have shown that fully liberalized trade in the region could improve regional GDP by between \$300 billion (Dee, Geisler, and Watts 1996) and \$500 billion annually (Martin, Petri, and Yanagashima 1994), over and above the gains expected from the Uruguay Round reforms. Petri (1997) has also estimated that if barriers to foreign investment were reduced by half, regional welfare gains would be \$60 billion annually. And if trade facilitation measures covering standards, competition policy, procurement, and regulation were also agreed upon, further gains of up to \$440 billion could accrue (Dee, Geisler, and Watts 1996). With projected gains in the vicinity of \$1 trillion per annum, it is easy to see why APEC's economies have focused on trade and investment liberalization, despite some disagreement over its pace.²⁶

23. For further estimates of the economic welfare gains expected from the Uruguay Round see Francois, McDonald, and Nordstrom (1994) (\$100 to \$512 billion); Goldin, Knudson, and van der Mensbrugge (1993) (\$213 billion); Nguyen, Perroni, and Wigle (1993) (\$212 billion); and Yang (1994) (\$60 to \$116 billion).

24. Schott (1994) believes the Uruguay Round models underestimate the potential welfare gains because they (1) omit certain key points of the negotiations, including commitments on government procurement and advances in relation to services and intellectual property rights; (2) fail to take into account the long-run dynamic effects of trade reform; and (3) incorrectly assume that in the absence of the successful conclusion of the Uruguay Round there would be no reversal of trade reforms already achieved.

25. There has been a spirited debate within APEC about how APEC liberalization will be applied to nonmembers. It appears that APEC's goal is "free trade in the area" (APEC 1994b, 54), not a "free trade area," reflecting resistance within APEC to the creation of a new preferential trading agreement (Bergsten 1997).

26. The most vocal critic of the pace of liberalization within APEC has been Malaysian Prime Minister Mahathir, who has said that it is "unrealistic and grossly unfair to coerce . . . the less advanced member economies to undertake liberalization measures at a pace and manner beyond their capacity" (*Straits Times*, 24 November 1996, 21). Even Mahathir, however, concedes, "I have no problem with trade liberalization per se."

Conclusion

The picture in APEC is one of rapid growth and market-driven economic integration, not just in East and Southeast Asia but across the region. This trade- and investment-led growth has generated tremendous benefits—in particular, rising incomes and increasing income equality. There is, without a doubt, much to celebrate in the Asia Pacific region. As the next chapter shows, however, the favorable economic trends in the region have been accompanied by negative environmental ones. As APEC's members continue down the path of liberalization and integration, they must take steps to ensure that poor environmental performance does not ruin the party.