

The economic performance of East Asia since the late 1990s has been remarkable. The region has responded by increasing regional integration. Economies are growing, and societies are being transformed. But problems are emerging in domestic integration. This book seeks to identify how East Asian governments should adapt development strategies to address these breathtaking changes.

OVERVIEW

The Unfolding of a Renaissance

A Renaissance Unfolds

Less than 10 years ago, in 1997–98, a financial crisis brought four economies in East Asia to their knees.¹ Many predicted that the structural weaknesses that the crisis laid bare—corruption, cronyism, nepotism—would condemn the region to stagnation as had happened in Latin America after a debt crisis in the mid-1980s.² Emerging East Asia was expected to lose years of growth, just as Latin America had lost a decade. Instead, the growth record of the emerging economies of the region since 1998 has been remarkable: gross domestic product (GDP) has almost doubled, rising by over 9 percent per year, to reach US\$4 trillion in current dollars by 2005.³

Other indicators of performance are equally impressive. Exports have increased to one-fifth of the world's total, or a value of more than US\$2 trillion per year, making emerging East Asia one of the most open trading regions in the world. The region is the largest destination for foreign direct investment (FDI) and has US\$1.6 trillion worth of foreign exchange reserves. Its capital markets have grown, and its domestic financial sector assets amount to US\$9.6 trillion. There are 300 million fewer people living in poverty (measured as per capita expenditures of at least US\$2 a day) now than there were in 1998. A middle class has emerged with a lively democratic voice in economic affairs. Business-friendly reforms are moving ahead throughout the region, and confidence in economic prospects is high.

An economic renaissance is unfolding in the region. Like the renaissance in Europe, a period of intellectual discovery that produced new ideas and economic development, innovation is getting similar attention in East Asia (see box 1). The pace of change in trade and finance, ideas and technology, urban development, household finances, and the demands on the public sector is breathtaking. If current growth trends prevail, East Asia will be as large in terms of the world economy (40 percent) by 2025 as it was in 1820, around the time that it began a long decline in global importance.⁴

In a world in which development seems so ephemeral, how is it that a dozen countries in East Asia have all been successful? (The Democratic People's Republic of Korea and Myanmar are the only exceptions.) Common economic characteristics cannot be the whole explanation since the diversity among these countries is enormous. Emerging East Asia includes China, with 1.3 billion people, and Mongolia with 2.5 million. Per capita incomes range from US\$400 in the Lao People's Democratic Republic to US\$24,000 in Singapore. Hong Kong (China) is perhaps the most laissez-faire economy in the world, while Vietnam is one of the few remaining socialist economies. What is going on? Is there something special about East Asia that makes these economies grow?

There is a large literature that has attempted to answer this question. Perhaps the most widely quoted recent study is *The East Asian Miracle*, a volume published by the World Bank (1993). *The East Asian Miracle* sought to explain the superior eco-

■ BOX 1 Renaissance Then and Now

The European Renaissance began in the thriving city-states of Italy in the 15th century and spread rapidly to Central and Western Europe. It was characterized by the absorption of knowledge, especially mathematics, from Arabia and India, the importance of the idea of living well in the present, and an acceleration in the exchange of ideas due to the advent of printing. The Renaissance marked the advent of broad structural forces of urbanization, globalization, and new modes of production.

In retrospect, many historians believe that undesirable social conditions associated with the pre-Renaissance Middle Ages—particularly poverty, strife, corruption, and the persecution of minorities—may have actually

worsened during the European Renaissance. While the well-off viewed the changes as a break from the Middle Ages, much of the rest of society saw it as a time of intensification of social maladies.

The East Asian renaissance now unfolding is also marked by the accelerated absorption of knowledge (from America and Europe), a focus on living well, and the more rapid dissemination of ideas due to the computer, the general-purpose technology that easily rivals the printing press. A lesson from European history is that these changes must be accompanied by greater social cohesion for the East Asian renaissance to be transformed into a golden age.

Source: Cannistraro and Reich 2003.

conomic accomplishments of eight high-performing Asian economies. It concluded that, in large measure, these economies achieved high growth by “getting the basics right.” But it went on to claim that fundamental policies were only part of the story and that “in one form or another, the government intervened—systematically and through multiple channels—to foster development” (p. 5). *The East Asian Miracle* concluded by noting that a willingness to experiment and adapt policies to changing circumstances is a key element in economic success. This insight provides the rationale for our study. How should governments in East Asia adapt their policies today to reflect the profound changes in the region and in the world since 1990?

A Changing Economic Landscape

It is clear that the economic landscape in East Asia is quite different in 2006 than it was in 1990. The region is much richer than it was. So, the size of the regional market is larger. Individuals are also richer, and the demand for consumer durables is growing. At the same time, the economic center of gravity—production, trade, and finance—has shifted toward China and Northeast Asia. *Regionalism* within East Asia has risen sharply in the guise of formal economic trade agreements between two or more countries. In the last 10 years, 24 new agreements have been concluded, and 34 more are under negotiation. In part, regionalism has its roots in the currency and financial crisis of 1997–98, a determining moment when many policy makers saw for the first time the risks that come with the benefits of globalization, or integration with the world at large. But perhaps more significant is a trend toward *regionalization*, a market-driven process that has seen trade, finance, and innovation accelerating within East Asia at the same time that globalization has taken hold.

East Asian countries that have successfully integrated into the global economy are now integrating regionally. Remarkably, this regional integration is occurring in addition to, not at the expense of global integration. And, in many aspects, this second integration is evolving at an even more rapid pace than the first. Individually, East Asian countries appear to have learned the lessons of the economic crisis and have fortified themselves for continued international integration. Collectively, these countries have sought regional integration to stay globally competitive.

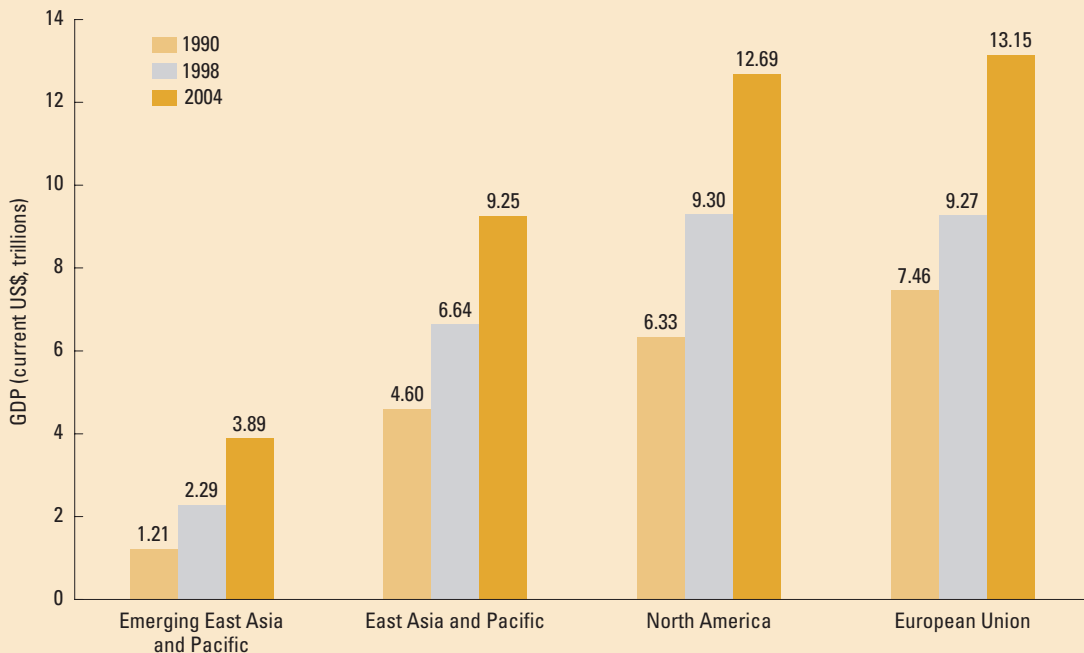
While many of the countries have reduced poverty and reached middle-income status, the rapid economic growth driven by international integration has been accompanied by growing domestic friction stemming from urban squalor and environmental strains, rising inequality, and corruption. This has meant that, as East Asian countries have kept their economies competitive by augmenting global integration with regional integration, they are being challenged to keep this growth sustained through a third integration, one at the domestic level that is aimed at keeping societies cohesive.

A Richer Region with a Growing Middle Class

In 1990, emerging East Asia had a GDP of US\$1.2 trillion (see figure 1). Today, the total is US\$4 trillion. If one adds Australia, Japan, and New Zealand, the region has a combined GDP of US\$9.5 trillion, close to one-quarter of the world's output. Because of this growth, the region has become more middle income. Once Vietnam reaches middle-income levels, which might occur as early as 2010, more than 95 percent of East Asians will reside in a middle-income country. The region's economic future depends on the prospects and performance of middle-income countries. While this book is about all of developing East Asia, it is especially aimed at the region's middle-income countries—China, Indonesia, Malaysia, the Philippines, and Thailand.

The fact that East Asia is increasingly a middle-income region with more countries looking for strategies to move to rich-country status is important because patterns of growth change as income levels change. Research suggests that two

■ FIGURE 1 East Asia Has Kept Pace Despite the 1997–98 Crisis and Japan's Stagnation



Source: Compiled by the authors.

trends are at work in driving the sectoral pattern of growth. On the one hand, as countries get richer, there is a demand for a greater variety of goods, many of which may be produced domestically; so, there is a force toward sectoral diversification. On the other hand, countries only become richer if they specialize in what they do best. Which tendency dominates is an empirical question; researchers speculate that the answer depends on the extent of scale economies in production relative to the love of variety in consumption.

One recent study shows that countries initially diversify, meaning that value added and employment are spread out more and more through the economy.⁵ At a turning point that differs across countries, but that occurs *systematically* at middle-income levels, countries begin to specialize in production and employment once more. Scale economies in production appear to win out. This suggests that new strategies that favor specialization must be adopted at some point by middle-income countries if they are to become rich.

The idea that middle-income countries have to do something different if they are to prosper is consistent with the finding that middle-income countries have grown less rapidly than either rich or poor countries, and this accounts for the lack of economic convergence in the twentieth century world. Middle-income countries, it is argued, are squeezed between the low-wage poor-country competitors that dominate in mature industries and the rich-country innovators that dominate in industries undergoing rapid technological change.⁶

This is the challenge that confronts East Asian countries today, especially those in Southeast Asia. There is reason for optimism. The newly industrializing economies in East Asia successfully made this transition from middle income to rich, showing that such a transition is possible under the proper circumstances and the correct policies. And, within Asia, experience suggests that there is not such a sharp distinction between the domination of low-income countries in manufacturing and the domination of rich countries in the knowledge economy. The newly industrializing economies remain successful manufacturers, even in quite mature industries, while China and India show that success in the knowledge economy is not reserved only for rich countries. For middle-income countries, it seems the trick is to straddle both strategies.

China Is Driving Regionalization and Regionalism

The story of China was not included in *The East Asian Miracle* because the transition experience there was considered *sui generis*.⁷ But China is the biggest development story in the world today and a major economic presence in the region, representing one-half of developing East Asia's GDP and one-third of its exports. Especially

since its accession to the World Trade Organization in November 2001, China has offered major opportunities as a rapidly growing market for Asian exports. It is also a major competitor. Policy makers throughout the region are rethinking national strategies as they adjust to China's economic growth.

China has a special place in the story of East Asia because of its absolute size, its unusual openness for a continental economy, and its orientation toward the region. China is now the world's third largest trader, and it is the largest trader in East Asia, having overtaken Japan in 2004. For East Asian countries, China has become a major trading partner. It is the second export market for Japan and that country's largest supplier, and it is the largest export market for the Republic of Korea and that country's second largest supplier. China's imports have been growing at about 18 percent per year for the past decade, and its imports-to-GDP ratio has reached 34 percent, a figure triple that of Japan (9 percent) and the United States (12 percent), two other large economies. China sources more than half of its imports from East Asia. It is because of China that more than half of East Asian trade occurs within the region, a degree of integration paralleling that in the European Union.

Most analysts have concluded that intraregional trade in East Asia has been market driven and, hence, best described not as the product of regionalism, but of regionalization, the natural by-product of the fact that the East Asian economies are among the most rapidly growing and most open economies in the world.⁸ East Asian countries have been the strongest proponents of multilateral and unilateral trade liberalization, and it is only recently that regional trade agreements have proliferated. It appears that this has been closely linked to the changing pattern of trade and investment in the region and, hence, to real economic forces, not any political considerations favoring regional approaches, nor a backlash against globalization following the Asian crisis.

An increasing share of trade in the region is comprised of parts and components that are shipped from one country to the next for further assembly in regional production networks.⁹ These production networks were initiated in the mid-1980s after the Plaza Accord, and their development accelerated when China and other East Asian economies started applying more favorable policies toward foreign investment. By 1990, foreign affiliates were accounting for 30 to 90 percent of total manufactured exports from China and other middle-income countries in East Asia. Japanese multinational companies now send more than 80 percent of their exports from Asian affiliates to other Asian countries and obtain 95 percent of their imports from Asian producers.

This nexus between trade and FDI has become a powerful driver of regionalism.¹⁰ Regional agreements have ensured market access among the countries

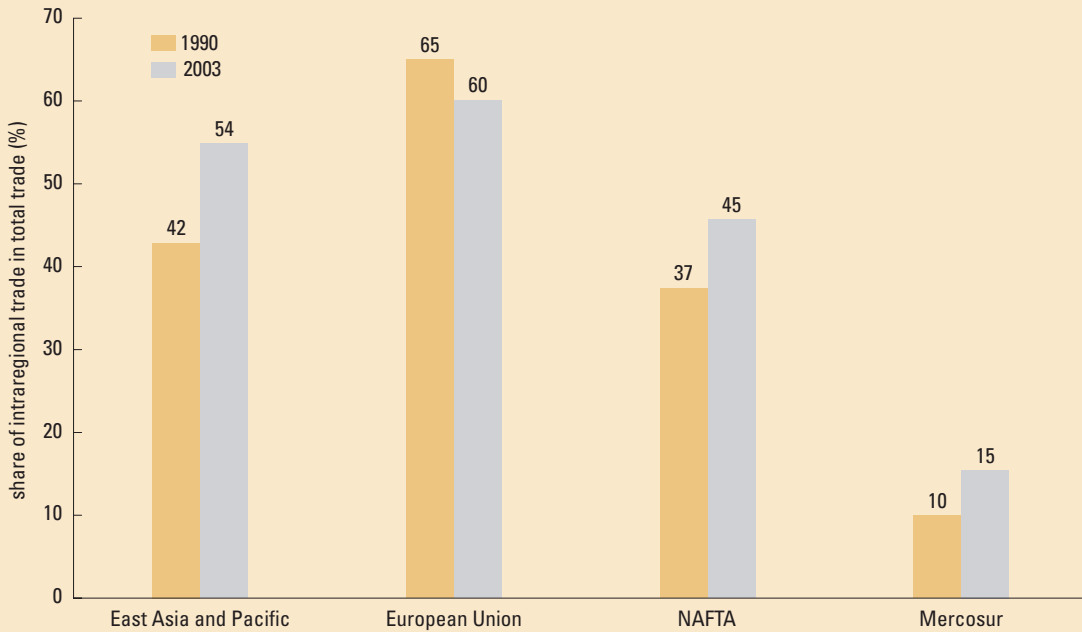
spanned by regional production networks and have permitted deeper tariff cuts—essentially free trade—on components. At the same time, regional trade agreements have sought to reduce the obstacles to foreign investment, the trade in services, and skilled labor mobility, which are critical to the establishment of regional production networks, but which have been too sensitive as issues to be tackled in multilateral trade talks. Regional trade agreements therefore have complemented multilateral trade agreements.

The economic landscape of East Asia has changed profoundly since the early 1990s. The region is large in size, and income levels have risen across the board. It is more open than ever, and intraregional trade is expanding rapidly. At the same time, East Asia's share of exports to the rest of the world has also risen, albeit not as sharply. East Asia integrated globally first and is now integrating regionally (see figure 2). China is at the center of this development, but the institutional framework for regional cooperation is relatively immature, and the ad hoc arrangements may have costly side effects. Is there something more to be learned about managing these complexities?

A Changing Intellectual Landscape

In the real world of policy making in East Asia, there is a major debate on regional integration and cooperation that revolves around trade liberalization, the overly complex “noodle bowl” rules of origin in regional trade agreements, tax subsidies for foreign investors, and a new regional financial architecture. At the same time, policy makers are concerned with what needs to be done domestically to manage the stresses associated with integration and rapid growth, including congestion, corruption, and the lack of social cohesion. For the most part, economists have had little to add to these debates and have learned more from East Asia's success than they have taught. The tried-and-true recipes for economic success that emerge from neoclassical growth models—macroeconomic stability and savings, openness and education—seem inadequate for providing relevant insights into the policy debate. For much of East Asia (the Democratic People's Republic of Korea and Myanmar are the exceptions), these principles are important, but obvious. Nevertheless, the thinking on economic development evolved in the 1990s, and a growing body of empirical evidence suggests that this new thinking does not merely consist of theoretical niceties, but has the makings of a powerful paradigm that may help guide practical policy.

It is instructive to take a short detour to understand modern economic theories that model what is traded (new international trade theory), what makes rich coun-

FIGURE 2 More Than Half of East Asia's Trade Now Occurs within the Region

Source: Compiled by the authors.

Note: NAFTA = North American Free Trade Agreement. Mercosur = Southern Cone Common Market in South America.

tries continue to grow rapidly, often more rapidly than poor or middle-income countries (new growth theory), and where growth occurs (the new economic geography). At their heart, these theories have one element in common: by relaxing the assumption of constant returns to scale and emphasizing scale economies, they are able to handle the complexities of the marketplace in a more realistic fashion. Scale economies refer to the tendency for production costs to fall as the volume of production rises or for product development costs to fall as new varieties are introduced. The ability to model scale economies, in turn, is built on new models of imperfect competition that can be solved even in the presence of increasing returns. For the middle-income countries in East Asia, the insights provided may be useful in adapting growth strategies as the countries deal with the challenges of specialization.

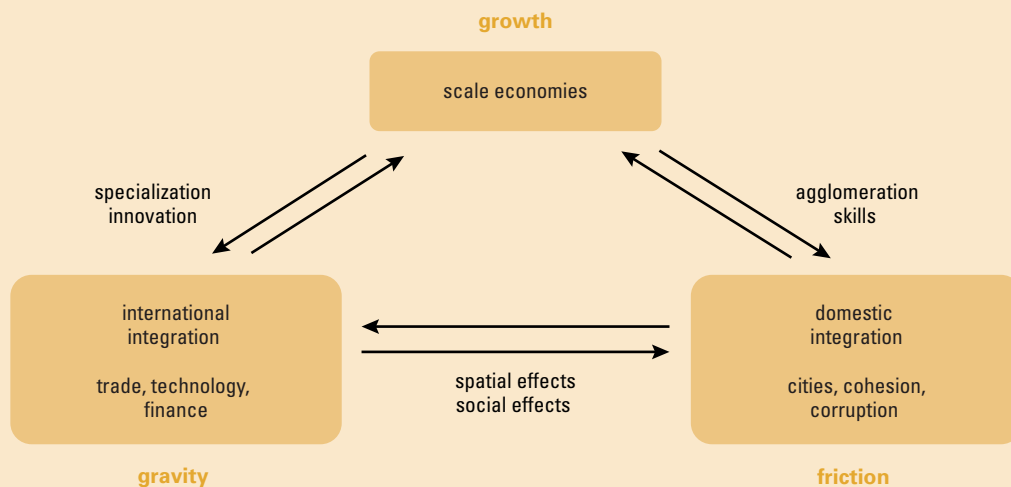
Figure 3 presents a summary of the principal forces analyzed in modern theories of industrial organization, international trade, economic growth, and economic

geography. Growth occurs as a result of the exploitation of scale economies through specialization and innovation and is reflected in international integration via the trade in goods, money, and ideas. This integration triggers spatial and social changes that have an impact on domestic integration and the process of urbanization and income distribution. If they are well managed, these social and spatial trends may, in turn, feed back into more scale economies through agglomeration of production and incentives for more rapid skill formation. If managed badly, spatial and social problems may lead to the waste of the economic benefits of scale economies through congestion, pollution, social discord, and corruption, sharply reducing the resources available for investment and growth.

Scale economies do seem to play an important role in East Asia. One source of scale economies is in product markets. There can be efficiency gains from larger production volumes (plant level scale economies). More scale economies result from the ability of large producers to reduce fixed costs of branding, marketing, and product development per unit of production (firm level scale economies). When firms locate close to each other, they can create markets for more specialized intermediate goods, and they can benefit from lower transport costs (agglomeration economies).

Another source of scale economies is in labor markets. Workers in large cities have higher productivity because they are able to move to jobs they are best

■ FIGURE 3 Economic Growth in Middle-Income Countries



Source: Compiled by the authors.

suited for, they get training in skills demanded by the marketplace, and they can get information about other similar firms more easily.

All these forces can be seen in operation in East Asia. One extraordinary example comes from the experience of Dongguan, a city in southern China. Dongguan has grown by 22 percent per year for the last 25 years. Cumulatively, the city's economy now is 144 times as big as it was in 1980, all thanks to its ability to exploit economies of scale and avoid social diseconomies through good public policy (see box 2).

■ BOX 2 Growth, Gravity, and Friction in the Pearl River Delta

In 1978, what is today the city of Dongguan, in China's Guangdong Province, was a collection of villages and small towns spread over 2,500 square kilometers along the Pearl River, midway between Guangzhou, to the north, and Shenzhen and Hong Kong (China), to the south. The area's population of 400,000 relied primarily on fishing and farming, and, while they were far from being among the poorest in China, neither were the people prosperous. Dongguan today has a population of nearly 7 million. More than 5 million of the inhabitants are migrants who work in the thousands of factories that dot the city, churning out a dizzying range of products in such huge volumes that media accounts in recent years have labeled Dongguan the world's factory.

Dongguan's economy has grown at an average annual rate of over 20 percent in the last two decades. GDP in 2004 was US\$14 billion. If one only includes registered urban residents (as is done in official statistics), Dongguan's per-capita GDP of US\$9,000 in 2004 made it the wealthiest city in China. Even if the city's fluid population of migrant workers is included, per capita GDP in 2004 was still over US\$2,000. The development of Dongguan since the 1970s and, in particular, the last decade, exemplifies, perhaps in exaggerated fashion, the economic forces that have been shaping East Asia's middle-income economies.

Growth: scale economies and agglomeration effects. Favorable location and factor prices undoubtedly played

a role in the early growth of Dongguan. For the first decade and a half after China's reforms began, small and medium enterprises from Hong Kong (China) and Taiwan (China) set up manufacturing operations in Dongguan. They were attracted by Dongguan's proximity, the availability of cheap land, and the plentiful supply of low-cost labor. Dongguan's sustained, rapid growth through the 1990s may best be understood in terms of the economies of scale in the production of intermediate goods and differentiated products and the agglomeration effects within industries, spanning upstream and downstream firms, and across industries that, because of advances in technology, reductions in transport costs, and improvements in logistics, have come to characterize global production processes.

There are many internal scale economies. A single plant in Dongguan manufactures over 30 percent of the magnetic recording heads used in hard drives worldwide. Another produces 60 percent of the electronic learning devices sold in the U.S. market. Yet another produces nearly 30 million mobile phones.

Agglomeration or external scale effects are equally visible. The benefits in the form of knowledge spillovers and the lower logistics costs that result from locating close to input providers and export traders have resulted in the development of globally important industry clusters in knitted woolens, footwear, furniture, and toys. But the cluster that has dominated the industrial landscape of

BOX 2 (Continued)

Dongguan since the mid-1990s is the telecommunications, electronics, and computer components cluster: 95 percent of the parts and components needed for the manufacture and processing of personal computers may be sourced within the Dongguan city limits, and, for several specific products, Dongguan's factories account for over 40 percent of global production.

Gravity: foreign investment and trade. Dongguan's growth has been generated through its links with the regional and global economy. The development of electronics and furniture clusters would not have occurred without the involvement of and investment by Taiwanese firms. Similarly, firms in Hong Kong (China) have been instrumental in the growth of the apparel and toy clusters. More important than the financial investment made by foreign firms—a total of over US\$15 billion in the last two decades—has been the technical know-how, knowledge of the market, and relations with customers that these firms have provided. The result is that, in 2004, Dongguan's exports totaled over US\$35 billion. Imports, mostly parts and components from other countries in East Asia, were nearly US\$30 billion.

Friction: income disparities, urban congestion, and corruption. The growth and structural transformation of the magnitude and at the pace experienced by Dongguan has created frictions that need to be managed. Growth in manufacturing is intensive in infrastructure and resources. Dongguan's annual consumption of electricity and water in 2004, 35.2 billion kilowatt hours and 1.5 billion cubic meters, respectively, has exceeded that of many countries. The conversion of land to industrial use is putting stresses on the environment. In 2004, Dongguan discharged 225 million tons of industrial waste water, nearly 200,000 tons of sulfur dioxide emissions, and nearly 30,000 tons of solid industrial wastes. Agglomeration may lead eventually to congestion. Land is no longer as cheap in Dongguan as it once was, and labor is no longer as compliant nor as easily available. Shortages of labor, especially skilled labor, are being reported with increasing frequency.

It is not only the physical landscape that is transformed. Growth may also fundamentally alter the social fabric and institutional foundations of governance. The drive to capture the profits and economic rents associated with scale economies, while central in attracting investment, ideas, and contacts, may also engender corruption and crime. Dongguan in the 1990s was often described as having the atmosphere of a frontier gold-rush city. No direct statistics are available, but media accounts and case-based research suggest that corruption was common, whether in acquiring land for the construction of factories or in facilitating the evasion of taxes and labor and environmental standards. Crime rates were higher than in other parts of China. And the uneven distribution of the economic surpluses generated by the growth—attributable partly to market-based incentives that reward individual effort, but also partly to uneven influence—has led to large disparities in income, itself a possible source of social tension. Household surveys indicate that the mean per capita income among Dongguan's 1.6 million registered urban residents was 20,564 Yuan in 2004. Successful local entrepreneurs, whose incomes were unlikely to have been captured in the households surveys, undoubtedly earned much more. A typical migrant worker in Dongguan's factories, on the other hand, earned less than 10,000 Yuan, working much longer hours with fewer protections and much less access to public services.

What makes the Dongguan story particularly compelling, however, is the extent to which the city has been striving to address these challenges. Environmental and labor standards are increasingly being enforced: in 2004, 90 percent of the industrial waste water in Dongguan met discharge standards, as did 86 percent of the solid wastes; 93 percent of sulfur dioxide emissions met emissions standards (see table 1). Through its Labor Bureau, the city is trying to ensure the protection of worker rights and facilitate worker-firm matches. And the city is investing its sizable revenues from land rents and local taxes—over US\$1 billion in 2004—in relieving congestion and improving infrastructure such as roads, port facilities, and industrial parks.

(Continued)

BOX 2 Growth, Gravity, and Friction in the Pearl River Delta (*Continued*)

TABLE 1 The Story of Dongguan in Numbers

Indicator	Value	Indicator	Value
Average annual GDP growth, 1980–2005 (%)	22	GDP (US\$ billions)	14.4
Population, registered residents (millions)	1.6	Population, estimated (millions)	7.0
GDP per-registered resident (US\$)	8,999	GDP per-capita (US\$)	2,070
Exports (US\$ billions)	35.2	Imports (US\$ billions)	29.3
Government revenues (US\$ billions)	1.0	Government expenditures (US\$ billions)	1.2
Magnetic heads, computer cases (% of world output)	40	Scanners and minimotors (% of world output)	20
Copper-clad boards and disk drives (% of world output)	30	Keyboards (% of world output)	16
AC capacitors and flyback transformers (% of world output)	25	Motherboards (% of world output)	15
Electricity consumption (billion kWh)	35.2	Water consumption (m ³ billions)	1.5
Sulfur dioxide emissions ('000 tons)	199.4	Industrial waste water (million tons)	225.0
Industrial solid wastes ('000 tons)	28.6	Industrial waste water meeting discharge standards (%)	90.1
Days with good air quality (%)	97.8	Industrial solid wastes meeting discharge standards (%)	86.5
Sulfur dioxide emissions meeting emissions standards (%)	92.9		

Sources: China, National Bureau of Statistics 2005; data from the government of Dongguan.

The result is that, in a 2005 World Bank survey of over 12,000 firms in 120 Chinese cities, Dongguan ranked among the top 10 in terms of a broad measure of the investment climate.²⁵ Even more telling is the fact that

Dongguan ranked second in terms of a narrower measure of government efficiency based on estimates of the effective tax burden and the costs of corruption and bureaucratic delays faced by firms.

Sources: Shubham Chaudhuri, personal contribution.

New International Trade

New international trade theory was developed originally to explain the observation that more trade takes place between countries at similar income levels than between countries with different income levels and factor endowments. This is of growing relevance in East Asia because most trade occurs between middle-income countries. The main idea is the recognition that scale economies in more special-

ized products represent an additional factor in determining what is exported and what is imported. Economists would say that trade is increasingly being based on differences both in factor endowments (classical comparative advantage) and in economies of scale in production (modern competitive advantage).

The notion that trade is closely linked with new technology and with product variety is an important departure from the traditional assumption that trade reflects factor endowments. It provides an explanation for intraindustry trade because products with small differences still fall under the same broad industrial classification, yet may be made in different countries and traded for each other. It also supplies an explanation for the trade in intermediate goods because there are many more intermediate goods than final goods, and, so, it is in intermediates that a lot of product diversification occurs.

With economies of scale, trade allows the exploitation of technological advantages by increasing the size of the potential market. More trading opportunities therefore encourage specialization in production. At the same time, specialized producers innovate more, and the greater the degree of innovation, the greater the extent of trade. One key insight is that trade often involves the exchange of new or different product varieties and therefore depends on the speed of the introduction of new products. If the ability to develop new products depends on the variety of products already in existence, then technology spillovers may emerge that drive trade and growth.

New Economic Growth

The new growth theory starts with the recognition that, in standard neoclassical economics, there is little room for the entrepreneur. Entrepreneurs develop new ideas, technologies, markets, and business processes. In doing so, they expect to be rewarded. But rewards to entrepreneurs are ruled out in a context of perfect competition with constant returns to scale, so there are no incentives for entrepreneurial activity. To escape this awkward result, neoclassical models have to assume an exogenous growth rate of technology. This means that such models have nothing to say about the long-run growth of frontier economies and emphasize new capital accumulation exclusively so that developing countries may reach high-income status. In such formulations of the economy, schooling and investment are all that count for growth.¹¹

New growth theory tries to model how innovations actually happen in a real economy by allowing for some economic rewards that go to entrepreneurs. It attempts to explain the observation that around 60 percent of export growth seems to take place through new product varieties, rather than through the expor-

tation of greater volumes of the same goods.¹² The models link the quantity of resources applied to innovation with the output in terms of new ideas and processes and then link the impact of these new ideas to growth. Different models emphasize different aspects of these key relationships. The main concepts are that innovation requires effort and that ideas are different from goods and factors in that they may be used simultaneously by many people. And, even when ideas may not be used freely to produce goods (say, because of patent or copyright reasons), they may still be used freely and widely to produce other new ideas. In any case, as societies accumulate knowledge (the stock of useful ideas), they may grow seemingly without limit. In contrast, there are strict limits to a pattern of growth that is based only on the accumulation of people and capital.

The concept of ideas as drivers of economic growth is closely tied to the notion of learning and skills, and, so, the first versions of endogenous growth theory emphasized education as the precondition for absorbing new ideas.¹³ If the rate of growth of new ideas depends on the stock of human capital, then countries may avoid diminishing returns to investment and continue to grow through capital accumulation. Later versions take this further and disaggregate between primary, secondary, and university education. They break down new ideas into innovations and imitations and associate the latter with technological catching up and basic education, while the former requires higher-level university education and research institutions.

What makes firms innovate and decide to invest in acquiring new technologies? Again, the difference between frontier firms and catch-up firms is important. Frontier firms enjoy economic rents accruing from the fact that they are the best in the business. They have little incentive to innovate unless they become concerned about potential competitors encroaching on their markets. Competition, openness to trade, and deregulation so as to facilitate new entrants may spur innovation in such firms, thereby ensuring that they remain on the frontier.

Catch-up firms, on the other hand, face a different set of incentives. If they are able to come close to frontier technology by innovating, then the extra profits that accrue to them make it worth their while to put a lot of resources into the endeavor. But, if they are so far behind that the likelihood of earning extra profits is slim, while their existing position is threatened by new entrants, they may react to intense competition by simply giving up innovation completely. The growth effect of new entry is still positive, however, because the new entrants themselves raise productivity.

Importantly, evidence from developed and developing countries seems to support some of the predictions of these models.¹⁴ This evidence suggests that, indeed, structural reforms such as new competition policy, delicensing, trade liberalization, entry and exit strategies, and education attainment may have a direct impact on

economic growth by influencing the degree to which firms make an effort to innovate or imitate. Moreover, the theory suggests that this impact is conditional on the situation of the firms and the nature of the industry. More advanced firms need competition to encourage frontier innovation. But intense competition seems to be less important for imitation. In that case, a set of institutions is required that facilitates the implementation and adoption of existing technology.

New Economic Geography

The new economic geography concerns itself with the choices firms make about location.¹⁵ In geography models, firms tend to concentrate production in one location so as to enjoy plant-level economies of scale, and they like to be near their customers and suppliers in order to reduce transport costs.¹⁶ But, once a market has reached a certain scale, this encourages other firms to locate there to take advantage of market size, thereby giving rise to “agglomeration economies,” or advantages of coalescing geographically. Agglomeration is also associated with more intense competition and the easier entry of new firms. However, agglomeration may also create problems—what we call the costs of grime, crime, and time. The formation or growth of secondary cities may be made stronger by rising pollution, breakdowns in law and order, and congestion in a major city. In general, the number of cities and their locations depend heavily on specific characteristics that are difficult to model. What is clear is that ports and other transport nodes have served as the foundation for cities, and, once established, these cities have tended to grow. Transport costs continue to be important in determining the size and nature of cities.

The new economic geography emphasizes the agglomeration economies that arise from the colocation of firms and the role of cities in the spread of new ideas and processes.¹⁷ There is particular interest in economies of scale in the production of intermediate goods, which renders it desirable to locate final goods production in the same place, enhancing the size of the market and thereby encouraging more firms to locate in the same city.

The new economic geography suggests that history matters. The existence of a large manufacturing sector represents an incentive to suppliers to locate in a country to take advantage of the larger market and greater potential access, and these would reinforce the original advantage. But modelers have recognized that factors of production, especially labor, are not mobile between countries in the same way they are mobile within countries; thus, cost structures may drive firms

from larger, higher-wage centers or countries to smaller, lower-wage centers or countries.¹⁸ The lower the transport costs firms face, the less likely firms will all congregate in a rich country or city.

This is the core of the first attempt to model the shifting location of production in East Asia that was put forward in the now famous flying geese analogy.¹⁹ According to this model, a lead economy (Japan) develops new technologies and production capabilities, but, as it develops, it shifts these techniques to economies with cheaper labor. In this way, mature industries migrate from more to less well developed economies, while the lead economy specializes in more sophisticated, complex industries. This model was used to explain the evolution of the four Asian tigers, Hong Kong (China), the Republic of Korea, Singapore, and Taiwan (China), which did, indeed, gradually take over many of the industries that Japan had specialized in through 1960.

One drawback of the flying geese model is that it focuses on interindustry relocation and trade, but does not explain intraindustry trade. Nor does it explain why some industries, such as garments and textiles, have moved quickly to low-wage countries, while other industries, such as automobiles, have not. The emphasis on savings of labor costs implies economic determinism, whereby economies would naturally follow a predetermined homogeneous trajectory. But this allows for catching up, not overtaking, and offers a minimal role for policy.

In the new economic geography, by contrast, there is less determinism. One feature of these models is multiple equilibria, and small changes in initial conditions may have large effects. History and luck matter a lot in terms of which cities and countries are selected as the location for firms. And, given the presence of unexhausted economies of scale, the selected areas will have a persistent advantage into the future and an ability to reward workers with higher wages. Small wonder, then, that policy makers are so concerned about national competitiveness.

Distributional Consequences

The new theories built around economies of scale do not address questions of income distribution directly. The formulations tend to be formally centered on a representative agent and usually do not recognize the heterogeneity of firms and workers within economies. This is the aspect that recent research has been emphasizing. In any case, there is no doubt that income distribution is affected profoundly by the existence or lack of scale economies and the manner in which they are exploited.

At the heart of the analysis of distributional impact is the notion that economies of scale allow for economic rents, which are the surpluses above and beyond the income needed to pay owners of labor and capital. Economic surpluses allow

entrepreneurs to be rewarded for innovation and perhaps represent a source of surplus that may be taxed, without distortion, for public funding of public goods. Similarly, the taxes may be used to finance the investments in urban infrastructure that are needed to exploit agglomeration economies. In each of these cases, the presence of economic rents is a desirable, indeed, necessary ingredient allowing for sustained rapid growth through the exploitation of economies of scale.

But the distributional impacts are not always positive. Economies of scale may exist in one part of an economy, but not in other parts; economists have argued that they are more likely to be present in manufacturing and in urban areas, but are largely absent in agriculture and the rural sector.²⁰ If this is true, then it provides one explanation for the persistence of urban-rural wage differences.²¹ Economies of scale may also result in a premium for skilled workers relative to unskilled workers, especially if the skilled workers are key personnel in innovation or imitation that generates temporary excess profits for firms facing imperfect competition. If this is true, then it provides an explanation for widening income gaps in relatively open and rapidly growing economies. The spatial and social aspects of growth, driven by the exploitation of economies of scale, figure prominently in this report.

As we argue above, the licensing of new entrants, exit policies, trade liberalization, and competition among incumbents may affect the degree to which firms are able to extract economic surpluses from their innovation efforts. If firms are able to extract surpluses, then they will try to influence government policy to favor their own interests. Economic rents attract rent-seeking behavior.

It is noteworthy that the distributional implications outlined above have little overlap with the distributional outcomes in neoclassical models. In those models, international trade is based on factor endowments. Poorer countries export labor-intensive goods, and the returns to unskilled labor would be bid up. This model has successfully explained East Asia's growth-with-equity experience and is still the best explanation for developments in poor countries in the region. But neoclassical models do not seem to provide adequate insight into what is happening to distribution in the middle-income economies of East Asia today.

Avoiding the Middle-Income Trap

Modern growth theory predicts that middle-income countries in East Asia should witness three transformations: first, diversification will slow and then reverse, as countries become more specialized in production and employment; second, investment will become less important, and innovation should accelerate; third, education systems will shift from equipping workers with skills that allow them to adjust to new technologies to preparing them to shape new products and

processes. These would be the observable outcomes associated with a successful shift in strategy as countries progress through middle-income status.

In the absence of economies of scale, East Asian middle-income countries would face an uphill struggle to maintain their historically impressive growth. Strategies based on factor accumulation are likely to deliver steadily worse results, which is a natural occurrence as the marginal productivity of capital declines. Latin America and the Middle East are examples of middle-income regions that, for decades, have been unable to escape this trap.

Exploiting economies of scale offers a way out. But do such economies exist for middle-income countries on a scale that is sufficiently sizable to make a difference in aggregate economic growth? This section describes key economic developments in the region through the lens of theories based on economies of scale. We argue that the pattern of trade, the flow of ideas and innovations, the new financial architecture, and the performance of cities are all consistent with East Asian economies displaying a shift toward growth that is founded on economies of scale. Equally, the distributional consequences—the change from growth with equity to rising income inequality within countries—and the concerns about corruption are also symptomatic of economies of scale.

Economies of scale are not easily measured, but, when measures exist, it is clear that economies of scale are playing a central role in East Asia's success. Electronics, computers, and communications are all sectors that exhibit sizable scale economies. Economic historians have argued that most technological progress takes the form of small, incremental improvements.²² These could hardly give East Asian economies the impetus they need. But certain technological improvements are radical: the steam engine, electricity, and now computers.²³ East Asia is at the center of recent radical changes. In the short run, as major producers, they stand to gain from economies of scale in production. In the medium term, as users close to the innovators, they stand to gain by quickly learning how to use the new technologies. It is not surprising that, in addition to being one of the world's largest producers of high-technology goods, an East Asian country, Korea, is also the world's most connected economy. It is also not surprising that some East Asian economies have focused on technologies that have enabled them successfully to grow through middle-income status to become high-income economies over the past generation.

Trade and Technology

Dramatic changes are taking place in the composition of East Asian trade, and, at the same time, the value of trade is expanding. Low-skill, labor-intensive products,

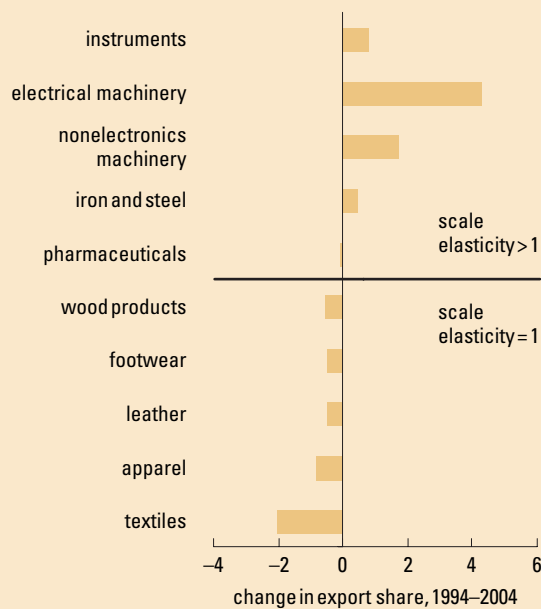
such as garments and textiles, toys and sports equipment, and wood and paper products, are becoming less important, even for China, and now account for only 15 percent of total exports. Instead, exports of higher-skill and higher-technology products, such as computers, office equipment, and communications equipment, are growing the most rapidly. Falling under the broad category of machinery in international trade statistics, these goods account for over half of East Asian exports.

This trade pattern in machinery may best be explained by two related technological developments that have profoundly affected the way in which goods are produced and sold worldwide: scale economies and vertical specialization. Scale economies in machinery exist at the plant level (determined by engineering), the firm level (for example, the availability of internal research and development [R&D] facilities), and the economy-wide level (agglomeration economies in cities). Industrial engineers have concluded that scale economies exist in products such as scientific instruments, electrical machinery, nonelectrical machinery, iron and steel, and pharmaceuticals (see figure 4).²⁴ These are precisely the products in which the share of East Asian exports has increased. On the other hand, products such as wood, footwear, leather, apparel, and textiles show no tendency toward scale economies; these industries have seen their export shares fall.

Vertical specialization describes the potential for breaking down production into different components that may later be combined into final goods. If each component is produced in a specialized plant located where the cost is the lowest and the variety and innovation are the highest, then the final good may be produced at a lower cost and higher quality. If vertical specialization leads to the production of components outside the firm, this is called outsourcing. If the production takes place in another country, it is called offshoring. To be cost effective, offshoring requires low transport costs in terms of logistics and trade tariffs. In addition, a buyer must be assured that the selected component manufacturer is, indeed, the producer at the lowest cost and, so, must incur information and search costs that need to be efficiently covered.

Offshoring has also been fostered by changes in business models. To ensure a constant inventory of supplies, vertically integrating firms used to take over factory production lines. Now, lean production techniques, pioneered by Toyota, emphasize instead innovation and high quality among parts suppliers and combine this with sophisticated logistics so as to reduce inventory costs to a minimum. These developments lend themselves to the exploitation of scale economies at the plant level, and to industry- and economy-wide agglomeration economies. Similar manufacturers congregate in one location, each helping the

■ FIGURE 4 East Asian Exports Are Growing in Sectors with Increasing Returns to Scale



Sources: Antweiler and Trefler 2002; calculations of the authors.

other to develop a local talent pool of skilled labor, and each innovating and building on the innovations of the others.

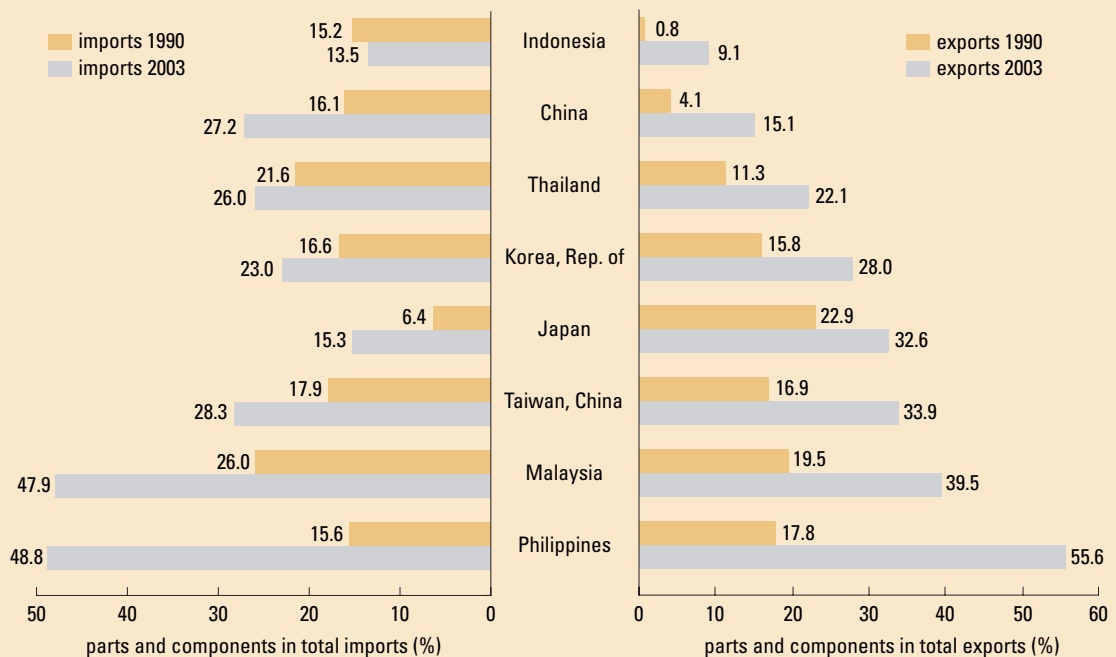
In East Asia, countries are competing vigorously to become part of the offshoring trend. Cost advantages, such as low wages, continue to play a role. Other factors are also critical, however, including a friendly environment for affiliates created through foreign investment, excellent logistics, predictable economic policies that permit low tariffs and good duty-drawback schemes in cases where local inputs are taxed, and a well-developed service sector to link component deliveries. Because such a wide range of factors is at play, no single country within East Asia dominates entire production chains. Each country has found a niche and is participating and sharing in regional growth opportunities.

In the presence of significant offshoring, the trade in intermediate goods rises more rapidly than does total output. Trade is measured in terms of the gross value of output. If a product is shipped to another country, worked into the next stage

of production, and then shipped to yet a third country for final assembly, it might be counted several times in international trade statistics. This is, indeed, what is happening globally. The world trade in parts and components increased in value from US\$400 billion in 1992 to over US\$1 trillion in 2003. Taking a somewhat broader definition, Yeats (2001) concludes that intermediate goods account for 30 percent of the world trade in manufactures. In East Asia, the same phenomenon is at work (see figure 5). The trade in parts and components has grown more rapidly than has the trade in final goods. In industries with the highest scale economies, such as electrical machinery, the trade in parts and components now accounts for 80 percent of the total exports of the sector. Firm-level surveys in a sample of five low- and middle-income countries in East Asia suggest that outsourcing is almost 40 percent more prevalent in East Asia than it is in the rest of the world.²⁶

■ FIGURE 5 Intraindustry Trade Has Boomed in East Asia

Share of parts and components in total exports and imports, 1990 and 2003



Source: Okamoto 2005.

If trade is driven by economies of scale, one major implication is that relatively small changes in trade costs may lead to significant changes in the volume of trade flows. Some studies of multinationals put the elasticity at between 2 and 4, that is, a 1 percent decrease in trade costs may increase trade volumes by up to 4 percent. This puts a premium on efforts to reduce trade costs. East Asian countries have done this. Since the 1997–98 crisis, trade costs have been systematically brought down. In fact, tariffs in East Asia have fallen, on average, by more than 50 percent since 1994 and now account for a little over 5 percent of import value. By contrast, in Latin America, tariffs actually increased slightly over this period in a backlash against globalization.

Because most of East Asia has efficient ports and infrastructure, freight costs as a percent of import value are lower there, on average, than they are in any other region. But freight costs do increase with distance, and this is why production networks tend to be regionally concentrated and not involve countries that are more remote. Thus, Venables (2006) points out that the elasticity of trade with respect to distance means that a distance of 8,000 kilometers will choke off more than 90 percent of the trade that would be observed over a 1,000 kilometer distance. Similar distance elasticities hold for other economic interactions such as equity holdings, FDI, and technology transfers. An exception occurs if a service component is involved, such as design or research. Services may be transported through a global telecommunications network that no longer prices according to distance. But, for the flow of goods, proximity remains a benefit.

One result of all these forces is that, within East Asia, there is far more trade than may reasonably be explained by conventional economic theories. Statistically, China, Hong Kong (China), Korea, and Japan import 8 to 10 times more from within the region than one might predict on the basis of many economic models. The tendency to import more from neighboring countries is more pronounced in the trade for parts and components relative to total trade, but the key tendencies remain the same: there is a regional dimension to trade that one is unable to explain using traditional economic models, and, in the case of China, this regional dimension has increased radically in the decade 1994 to 2004, the period when the level of China's imports began surging.²⁷

Ideas and Innovation

Firms in East Asia rely extensively on knowledge from abroad, especially from the developed world, where 80 percent of the money on global R&D is spent. Countries (and firms) have used different mechanisms to acquire technology, depending on

the sector and the stage of development. One important mechanism in East Asia has been exports and imports. It is well known that export firms tend to be more efficient than their nonexporting domestic counterparts, sometimes by substantial margins. But the causality of this relationship is difficult to gauge. It may be that more efficient firms naturally become exporters to exploit economies of scale. In this case, the technological innovation precedes and, indeed, causes exports. Or it may be that exporting firms must constantly innovate to meet the intense competition that arises from operating in the global marketplace. Both tendencies appear to be at work in East Asia.

Many exporting firms, especially in Korea and Taiwan (China), operate under contracts to foreign buyers who specify precise designs. This sort of original equipment manufacturing may have accounted for 70–80 percent of Korea's electronics exports around 1990 and for 40 percent of the computer hardware exports of Taiwan (China). By undertaking original equipment manufacturing production, firms achieved economies of scale and built up their technological capabilities with the assistance of foreign buyers. Once established, they developed the ability to do their own designing (original design manufacturing) and, increasingly, brand their own products (original brand manufacturing), thereby moving up the value chain. This path through manufacturing, design, and branding has been labeled supplier-oriented industrial upgrading.

The mechanism of vertical technology transfers operates domestically, as well as internationally. When there is an efficient domestic producer, such as a foreign multinational, there is strong evidence that vertical technology transfers to domestic suppliers take place.²⁸ Higher standards for product quality, precision, and on-time delivery, coupled with constant pressures for cost efficiencies, provide strong incentives for local suppliers to upgrade production management and technology.

According to the replies of 43 percent of a broad sample of firms in the region, East Asian firms themselves believe that the key source of new technology is the importation of new machinery.²⁹ Some of this occurs through parent companies when firms are bought by foreign partners using FDI. The evidence in case studies indicates that such acquisitions lead to higher output, employment, wages, and productivity, along with higher investment levels; in one study on Indonesia, the gains in productivity from foreign acquisition were estimated at an average of 46 percent.³⁰ The total benefits to an economy may be even higher if a foreign acquisition has a positive effect on higher productivity for domestic competitors via imitation or the hiring away of workers with experience in the new technologies. But these gains may also be offset if foreign investment reduces the market avail-

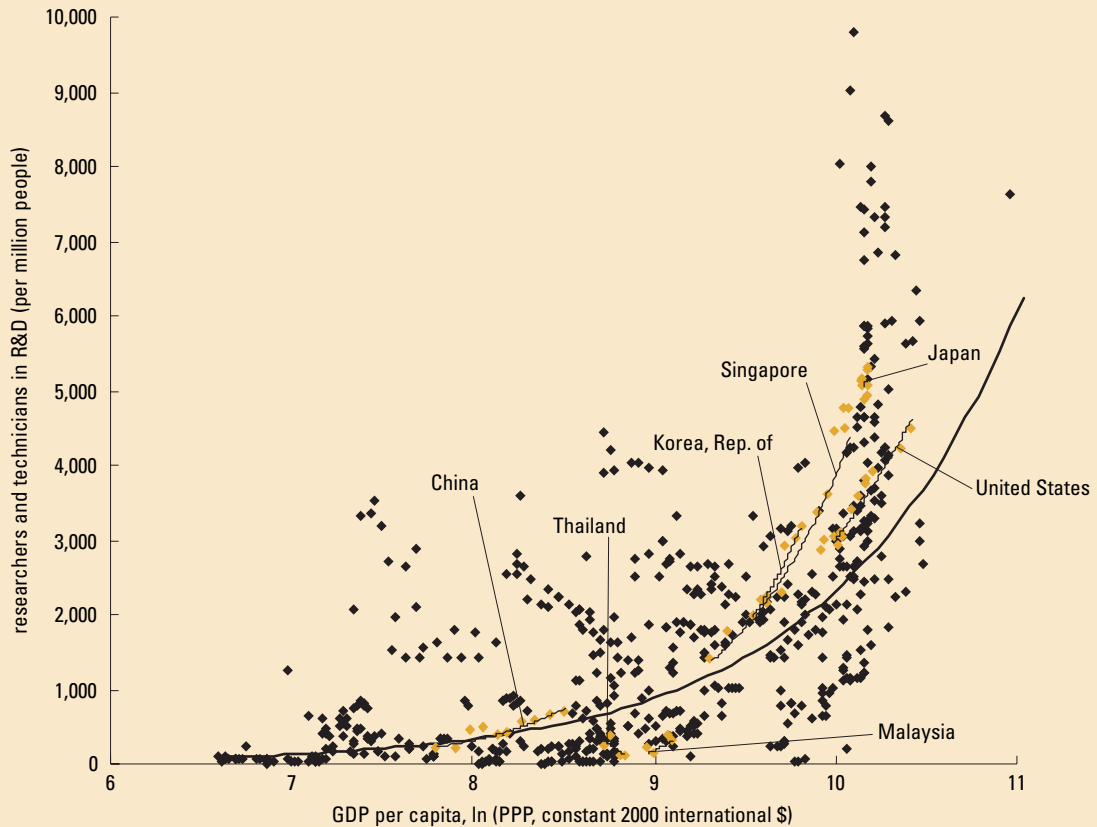
able to local firms and causes them to forego economies of scale. On balance, the evidence for so-called horizontal technology transfers is mixed.

Finally, R&D within the region provides an important source of innovation. Spending on R&D has almost doubled in East Asia over the last decade and now averages 1.2 percent of GDP (see figure 6). But this conceals large differences between countries. As one might expect, richer economies such as the newly industrializing economies spend a significantly higher share of GDP on R&D (2.2 percent), and, in an encouraging sign, the rate of growth in this R&D spending has been quite rapid by international comparison. However, among the middle-income countries, only China (1.4 percent of GDP) and Malaysia (0.7 percent) show substantial R&D spending. Southeast Asian countries generally spend much less. This is a concern since a rising number of studies suggest that R&D may yield great benefits (some studies show social returns at upwards of 78 percent) even among middle-income countries, especially when the spending facilitates the absorption of knowledge from abroad.

In determining effectiveness, the pattern of R&D is as important as the volume. Many East Asian economies follow the same pattern as developed countries in that over 60 percent of R&D is carried out within the business sector, while only 20 percent is performed by government, and another 20 percent in institutions of higher education.³¹ Business, rather than government, also bears the brunt of the R&D costs. Interestingly, the East Asian economies have developed this pattern at a lower income level than is typically the case. Economies in other middle-income regions, such as Eastern Europe and Latin America, show only one-half to two-thirds as much participation in R&D by business. The presumption is that the commercial returns to R&D are likely to be higher if the share of business in the spending is higher. This augurs well for East Asia.

Innovation is more rapid when domestic capacity for knowledge absorption is high. This requires an educated labor force and quality academic institutions, the protection of intellectual property rights, and effective collaboration between research institutions and the private sector. Under these conditions, R&D spending translates into more patents. Indeed, the number of patents has skyrocketed recently in East Asia. Moreover, the number is generally higher in East Asian economies, relative to population size and per capita income, than global norms. In East Asia, the patents are concentrated in electronics, computers, and communications, although, in some countries, such as China, drugs and medical goods are also important. These patents are not merely window dressing, but have real economic value. According to one measure of patent quality, which involves an analysis of patent citations in other countries, patents in Japan, Korea, and Taiwan (China) are 70–90 percent as

■ FIGURE 6 East Asia's Efforts in R&D Have Outpaced Those of the Rest of the World



Source: Compiled by the authors.

Note: The figure illustrates the situation from the early 1980s to the early to mid-2000s.

productive globally as U.S. patents, the recognized leader. Nonetheless, this may underestimate the impact of East Asian patents because, in common with patents elsewhere, patents in East Asia tend to be used or cited more often if they are registered in adjacent locations rather than in far-off countries. This geographical localization of patent knowledge spillovers means that East Asian economies stand to gain much more from the fact that the number of original patents has been rising rapidly in Northeast Asia. The regional transmission of knowledge is accelerating.

Finance and Risk

When economies are linked by trade in final goods, a problem in one country does not necessarily have a big impact on that country's trading partners. It is easy to find an alternative supplier in the global marketplace. The cost is simply slightly higher prices or slightly lower quality. However, when economies are linked by trade in intermediate goods, the spillovers among countries are more serious. Intermediate parts and components in a regional production network have to meet precise, tailored technical specifications. They are key elements in a supply chain depending on coordination and timeliness in delivery. Any breakdown in the production chain may cause the whole production network to slow or stop. The economic contagion passes from one country to the next along the supply chain.

This is the vulnerability to which East Asian economies are exposed today. The financial system, if well structured, may help apportion these risks and reduce the likelihood of contagion. At the same time, financial structures need to support growth in regional production networks and the related trade flows, and they need to fund innovation.

In the early stages of the evolution of these production networks, finance followed trade. Crossborder lending, denominated in U.S. dollars, was made available to local banks and directly to multinational affiliates. The credit risk experienced by these large entities seemed minor. Soon, however, these funding channels started to expand. More credit was allocated to nontradables, such as real estate, as asset prices rose, along with broader economic growth. The financial system in the region was masking two emerging concentrations of risk. There was currency risk because of the rising foreign exchange denominated debt being incurred by the private sector, often through short-term interbank credit lines, and there was the credit risk associated with the buildup of debt and equity in corporate balance sheets as companies became more leveraged in their efforts to take advantage of opportunities. The credit risk was aggravated if companies also faced the exchange risk involved in receiving revenues denominated in local currencies and carrying liabilities denominated in foreign exchange.

When the currency and financial crisis of 1997–98 hit the region, the economic damage spread quickly across countries. The regional financial system was unable to isolate or disperse the shocks. As Alan Greenspan famously remarked, "East Asia had no spare tire."³² Since then, policy makers have become determined to erect defenses against economic volatility. The currency risk has been reduced by a movement toward more flexible exchange rates and by building massive international reserves to permit monetary authorities to manage exchange rates and

avoid excessive volatility. In this way, Asian currencies have gradually changed in value and avoided sharp swings over short periods, giving companies plenty of room to adjust to market forces. The foreign exchange reserves in emerging East Asia now total US\$1.6 trillion, and most of the middle-income economies in the region have more than enough reserves to cover all their debt liabilities for at least one year.

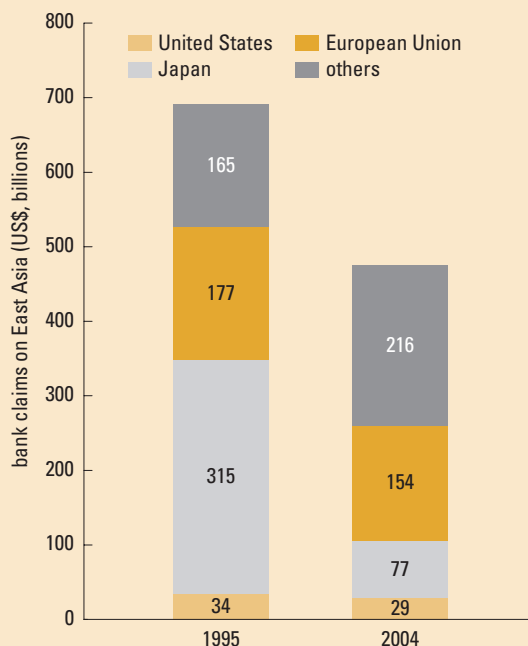
The credit risk has not been addressed as successfully. Banks are healthier and have plenty of liquidity. Across the region, indicators of financial sector performance have vastly improved, such as measures of asset quality, capital adequacy, and bank profitability. Average capital-loan ratios in banks in five East Asian crisis countries rose to 15 percent in 2005. Interest margins, a key determinant of profitability, increased to almost 4 percent. Nonperforming loans have fallen to moderate levels. Corporations, too, have improved their balance sheets through reduced leverage and higher operating margins. Debt-equity ratios in East Asia, which had reached 90 percent in the years before the financial crisis, had fallen to about 50 percent by 2005. But banks have been reluctant to lend to many borrowers, and almost 20 percent of firms (even more among exporting firms) report that the limited access to and high cost of finance have become major obstacles to business expansion.

Today, financial structures in Asian economies are more up to the task of addressing the key vulnerabilities associated with integration. Because of the greater reserves and diversified sources of finance among countries, the region is much less susceptible to capital flow reversals and less affected by fluctuations in the dollar-yen exchange rate (see figure 7). However, lacking the availability of a well-developed corporate bond market, the majority of firms that are not investment grade now face problems in gaining access to finance for expansion and innovation. East Asia finally has a spare tire, but it is still not a full-sized spare.

Cities and Livability

Most economic activity takes place in cities. It has been estimated that cities in East Asia generate about three-quarters of annual output and between one-half and two-thirds of exports. Often, much of this is concentrated in single primate cities: Bangkok accounts for 40 percent of Thailand's GDP; Manila, for 30 percent in the Philippines; Ho Chi Minh City, for 20 percent in Vietnam; and Shanghai, for 11 percent in China. Four East Asian cities have one-quarter or more of the total national population: Seoul, Taipei, Tokyo, and Ulaanbaatar. Seven of the world's 21 megacities (those with populations in excess of 10 million) are in East Asia. Per

■ FIGURE 7 East Asia Shows Less Exposure to Bank Credit and a More Diversified Supply



Source: Compiled by the authors.

capita incomes in cities are a multiple of economy-wide averages, and the average city dweller consumes almost twice as much as the average rural inhabitant.

East Asian cities have been able to deliver the agglomeration economies that are required for rapid growth, and have done well as connectors to the outside world. A study of 120 cities in China that, together, account for three-quarters of economy-wide output shows that the productivity of firms rises significantly when they are located in large cities.³³ Another study shows that distance to a port is a powerful determinant of income levels in Chinese cities: on average, cities that are more than 400 miles from the coast have half the per capita GDP of otherwise similar coastal port cities.³⁴ These more remote cities also attract less foreign investment: 80 percent of China's FDI has gone into coastal provinces, and 60 percent of Vietnam's FDI has gone to only three cities: Dong Nai, Hanoi, and Ho Chi Minh City. The function of providing a gateway for commerce is critical for a region

dependent on exports to drive growth.³⁵ East Asia, excluding Japan, is home to 16 of the largest 25 seaports in the world, 14 of the largest 25 container ports, and 7 of the largest 25 cargo airports.

More generally, there is a strong empirical relationship globally between indexes of city livability and a country's GDP per capita, suggesting that long-term growth is only feasible if city attributes in terms of congestion, pollution, and safety are improved alongside urban economic management. East Asian cities tend to register around the global average adjusted for current income level and so need to progress substantially to sustain higher living standards. Cities such as Bangkok and Manila have only half the average rapid-transit road network relative to wealthier, more efficient cities such as Hong Kong (China) and Singapore. The problems are worse in smaller cities. Even within countries, cities vary in their management effectiveness and livability. It is becoming clearer that what is good for people is good for business: Shanghai, a popular destination for businesses, has recently been voted the most livable city in China.

Thus, cities have been able to accommodate or even lead in the rapid growth trend in East Asia. Will they continue to do so? The challenge is immense. Because of rapid economic growth, East Asian countries have reached levels of industrialization and per capita income that are generally associated with greater urbanization. East Asian cities are witnessing an urbanization "catch-up" that will be the largest rural-to-urban shift in population in human history. In the next two decades, cities in East Asia will swell by 2 million people *every month*. The strains are already apparent in terms of slums, poor services, and large informal labor markets. This extraordinary urbanization will require an extraordinary response from policy makers in municipal, provincial, and national governments.

Most urban growth is not occurring in major metropolitan areas, which have been relatively well managed. These areas are reaching natural limits. Instead, according to forecasters, about half of new urbanites will settle in cities of less than 500,000 inhabitants. While this will give better spatial balance to East Asian growth, it poses questions about how well these smaller cities will deliver scale economies or, conversely, whether they will waste gains in agglomeration by tolerating congestion, crime, and poor city management. It appears that there is great diversity in the performance of smaller cities in their provision of basic services and overall governance. Unless these smaller cities are able to raise their game and connect up with existing trade networks, it will be difficult for East Asia to maintain its strong growth performance over the next quarter century.

Cohesion and Inequality

For many years, East Asian growth was associated with rapid poverty reduction and equity. In 2005, some 150 million East Asians (8 percent of the regional population) were living in absolute poverty (below US\$1 per day), while 585 million were living on less than US\$2 per day. If present trends continue, East Asia may be able to come close to eliminating absolute poverty within a decade and the broader problem of poverty within a generation.

Yet, the concerns about social cohesion within the region are becoming more serious, not less. Inequality is rising in the region in terms not only of incomes, but also of education attainment and access to basic services. Poorer regions and rural areas are falling further behind their urban counterparts. Ethnic minorities are not participating in the generalized growth. Despite the huge differences in income per capita among East Asian countries, more than three-quarters of the inequality in living standards among East Asian citizens is accounted for by within-country inequality (see figure 8). In China, inequality has risen both within rural and urban regions and between them. In short, despite successful global integration and increasing regional integration, many East Asian countries are failing in the achievement of domestic integration. Why is this so?

The rise of inequality in the region can be explained in terms of the growth processes driven by economies of scale. With increasing returns to scale activities located in cities, income growth in urban areas has generally outpaced that in rural areas. There are other geographic disparities however. We have already referred to the strong links between trade opportunities, as measured by distance to a seaport, and income levels within countries. A growing share of this trade in East Asia is in the form of trade in intermediate inputs, which can have a much greater impact on wages and employment than trade in final goods. There is compelling evidence that trade in inputs shifts demand away from less skilled labor and toward skilled workers.³⁶ In a study of five East Asian economies—Hong Kong (China), Korea, the Philippines, Singapore, and Thailand—during 1985–98, Te Velde and Morrissey (2004) find that trade boosted wage inequality.³⁷ For Indonesia, Bourguignon and Goh (2004) find that wages are higher and earnings stability is greater among people employed in the more traded sectors.

It is clear that a sizeable fraction of the within-country inequality is arising from the growing inequality in urban incomes. Part of this is caused by the higher wage premiums for skilled workers. In China and Vietnam, the returns to university education have climbed steeply over the last decade. However, this may be a transitory phenomenon created by rigidities in the supply of college education.

FIGURE 8 Inequality Is Rising in East Asia Despite Regional Convergence

Source: Compiled by the authors.

Neither Indonesia nor Thailand, where the number of graduates has soared, display any trend toward greater skill premiums.

Another source of inequality in urban areas is labor market restructuring. Countries that are more successful in trade and integration also show more turnover and labor force restructuring. This is typical of highly innovative systems. What happens to workers in this case? In a study of five cities in China where enormous labor market restructuring has occurred during the reform of state-owned enterprises, Giles, Park, and Cai (2006) have found that workers younger than 40 years of age who were reemployed were able to raise their average earnings, while those over 40 got lower wages. Two-thirds of workers were not able to find new jobs within a 12-month period, suffering considerable income losses. The pattern is quite different in Vietnam, where workers laid off from state enterprises have been able to improve their incomes, and workers remaining with their enterprises have achieved wage and productivity gains.

A major source of urban inequality is the extensive informal labor market. One study has put the size of this market in China at almost 40 percent of the total.³⁸ Women, migrants, the less well educated, the very young, and older workers seem to work disproportionately in the informal market. If this is indicative of fragmentation in urban labor markets, then the size of the informal labor market is one indication of the poor performance of cities.

In more advanced economies, inequalities may be partly offset by fiscal transfers directed especially toward poor areas. However, although they are quite large, transfers have not been designed to achieve redistribution in East Asia. Richer localities spend more on their citizens and on basic services and other amenities, thereby reinforcing their positions as choice locations and perpetuating inequalities. Choice locations thus attract more capital investment from within the country and from abroad. The concentration of production leads to inequality between rural and urban areas and between cities in different parts of the country. And differential access to social services generally exacerbates these production-induced differences. These developments may represent a threat to growth.

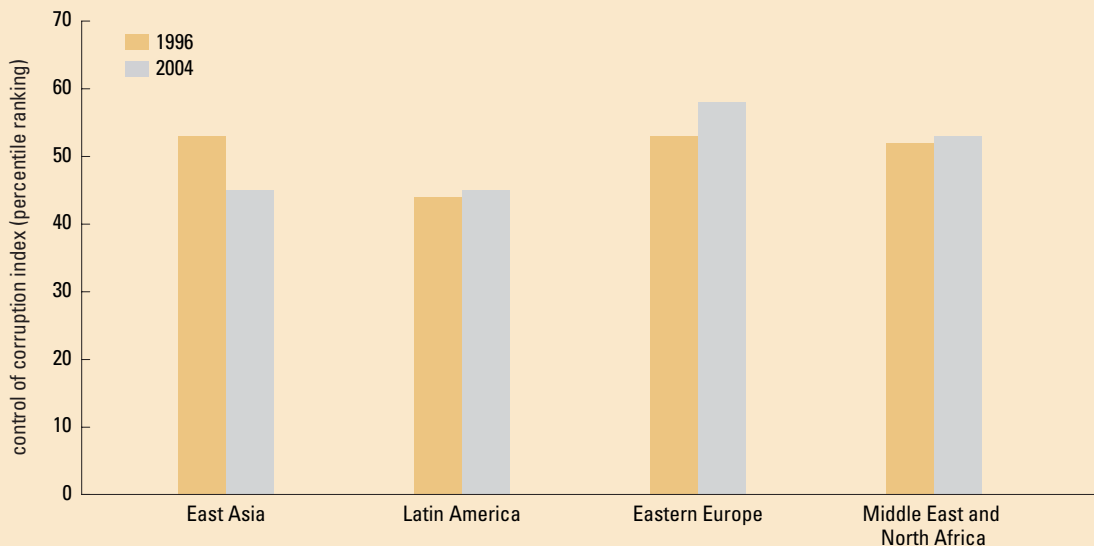
Corruption

Except in Hong Kong (China) and Singapore, corruption is a significant problem in emerging East Asia. The level is comparable to that in Latin America and may be increasing (see figure 9). Measures of corruption are, of course, fraught with difficulties, but a growing body of evidence appears to indicate that corruption is a serious issue in the region.³⁹ Can East Asian growth prevail under these circumstances?

Some have argued that there is an Asian paradox: how is it possible for high levels of corruption to coexist alongside rapid economic growth? Part of the answer seems to lie with the organized nature of corruption. Political scientists hypothesize that, if corruption is organized and centralized, then economic rents may be extracted from firms, while also ensuring that the corruption does not become so corrosive that firms move elsewhere or otherwise become unviable. In essence, a centralized corrupt organization has an incentive to promote economic growth, even as it extorts benefits from firms.

This model appears to fit East Asia quite well. Surveys show that a high proportion of firms in Cambodia (56 percent), Indonesia (41 percent), the Philippines (35 percent), and China (27 percent) report that corruption is a major or severe constraint to doing business.⁴⁰ But these same firms report that government effectiveness and regulatory quality are better than one might expect given the degree of corruption. The impression is one of widespread, but orderly corruption.

FIGURE 9 East Asia Is Falling Behind in the Control of Corruption



Source: Worldwide Governance Indicators Database, World Bank, <http://www.worldbank.org/wbi/governance/govdata/>.

Note: The percentile indicates the regions of the world that rate below the selected region in terms of corruption. Thus, a higher percentile shows better performance in the control of corruption.

Such a picture has been associated with strong central governments in the region. Presidents Marcos and Suharto are estimated to have embezzled billions of dollars through an organized system of corruption whereby all bribes flowed to the top and were then divided among government bureaucrats. The demise of industrial planning in 1993 weakened the information linking bureaucrats and businesses in Korea.⁴¹ In the new democratic political system of Korea, corruption became more disorganized. Some pin the dramatic collapse of Hanbo Steel in early 1997 on the demise of government protection. In China, too, there are reports that large-scale corruption rings account for 30–60 percent of all the cases of graft uncovered by authorities.⁴²

The notion that organized, predictable corruption is less damaging than disorganized corruption to economic growth presents challenges to middle-income East Asian countries. Centralized corruption is a more exposed target for public attack. By some measures, East Asians are even less tolerant of corruption than citizens of Western democracies. They have demanded and obtained broad improvements in political rights and the recognition of civil liberties over the past 20 years.

They have also pushed aggressively to reduce the power of the center through decentralized government.

Decentralization brings its own challenges to the control of corruption, at least in the short term. Subnational authorities in most East Asian countries are now responsible for a large share of total public spending and have significant rights to tax, regulate, and otherwise affect the business climate. World Bank investment climate surveys among firms show that the dispersion in productivity among localities in China and Indonesia is significant. In Indonesia and the Philippines, two countries that have implemented the most extensive decentralization programs in the region, the surveys among firms suggest that decentralization may be associated with worse corruption.

In the longer term, democracy and greater freedom of the press may have a significant impact on controlling corruption. Greater press freedom brings public corruption to light, while democracy allows the public to punish corrupt politicians by removing them from office. When institutions such as the judiciary are also strengthened, civil servants are no longer able to act with impunity. Hong Kong (China) and Singapore have long histories of the prosecution of public servants, and, more recently, Indonesia and Korea have shown a willingness to prosecute even the highest officials. China and Vietnam have also moved aggressively against corrupt officials.

But democracy and the institutions needed to find and root out corruption require time to mature. In the shorter term, the risk facing East Asia is that the “rule of man” has been largely swept away, while the “rule of law” has yet to become firmly established. The transition from centralized, corrupt governments to decentralized, uncorrupt governments may not be symmetric, and countries in the region risk becoming mired in this state of inefficiency, whereby governments are decentralized, but corrupt. Especially strong anticorruption efforts may be needed to ensure that this transition is short. Otherwise, the price in terms of growth may be high.

Growth, Gravity, and Friction in Action

Advancing steadily beyond middle-income status requires harnessing economies of scale. For most countries, this implies reliance on the “force of gravity” to connect countries globally and regionally (see table 2). Such strong regional forces are found in East Asia in trade, innovation, and financial links. However, countries must also reinvest economic rents efficiently to overcome the domestic friction associated with the social and spatial effects of rapid growth. In the region, frictional constraints are manifested in clogged cities, fraying social cohesion, and growing corruption.

■ TABLE 2 Gravity and Friction: Facts and Implications

	Facts	Implications
Gravity		
Trade	East Asia is the most open developing region for trade in goods	Liberalize trade in business services
	The trade in parts and components and intra-industry trade have grown rapidly	Make logistics more efficient
	China and Japan are the region's twin engines	Enhance market access through regional integration; keep rules of origin simple
Innovation	Internationally competitive firms (exporters) are driving industrial growth	Knowledge is now more easily accessible for all East Asians
	FDI and skills are driving innovation	Keep outward orientation and competitiveness
	Northeast Asia is producing more patents	Upgrade tertiary education
Finance	Bank claims on the corporate sector have fallen since the 1997–98 financial crisis	Local credit risks need to become better identified and managed
	Foreign exchange reserves have soared since the financial crisis	Regional cooperation may be a more efficient way to address the fear of floating exchange rates
	Bank-dominated financial systems do not support innovative enterprises	Develop more effective securities markets, including corporate bond markets
Friction		
Cities	Cities have three times the productivity of rural areas, reflecting agglomeration economies	Urban growth will drive regional differences
	Large cities are coming under stress	Make large cities more livable
	Secondary cities are growing more rapidly	Improve domestic connectedness and the economic management of small cities
Cohesion	Within-country inequality is significant because of urban-rural and coastal-interior gaps	Access to services, especially education, should not depend on location as much as it does
	Within-country inequality is rising because of rising within-urban and within-rural inequality	Labor market segmentation by space and social groups must be reduced
	Poverty rates have been falling rapidly in cities	Rapid skill formation may be able to offset the high postsecondary wage premium
Corruption	The tolerance for corruption is falling in East Asia	Corruption is seen as a threat to growth, and the perceptions of corruption are worsening
	East Asia's decentralization is progressing more rapidly than the institutionalization of checks and balances	Corruption may become a more serious obstacle to growth unless transparency and accountability develop at the local level
	The contestability of political power has grown in East Asia	Speed up the transition from the rule of man to the rule of law

Source: Compiled by the authors.

Toward a Third Integration

The notion that economies of scale are an important driver of economic growth in East Asia has major implications for public policy. This is so because there are winners and losers in the industrialization process.⁴³ Economies of scale may persist and provide the basis for future growth; so, the possible gains from public policy that attracts more capital and investment to a country are accentuated. Where economies of scale are important, small shifts in policy may have large payoffs. The temptation among policy makers to act so as to gain an advantage is huge. But the converse is also true. Bad policies may have large negative consequences that persist. Policy choices need to be grounded in a thorough understanding of what works and what does not.

For East Asia's low-income economies, the basic principles of openness, macroeconomic stability, and high savings and investment in physical and human capital continue to offer a promising path to progress. These economies will benefit for some time from the cost advantages they offer in global and regional trade. As regional production networks permit more fragmentation in production across countries, giving rise to an ever finer division of labor globally, low-income countries will find more opportunities. Their prospects in a rapidly growing region are bright. But the current benevolent integration into production networks should not be taken for granted by these countries. Suppliers may start relocating to be closer to final producers, such as China, if low-income countries do not buttress their cost advantages in low wages by instituting efficient logistics and more attractive business climates.

For the region's middle-income economies, there must be an evolution in the application of these strategies. Table 3 lists the implications involved in moving from a phase of exploiting comparative advantage to one in which countries also exploit economies of scale. This means recognizing the sensitivity of intraindustry trade to transport costs, the growing importance of investments in R&D and of an emphasis on proper education in science and technology, and the need to diversify capital markets to ensure appropriately priced finance.

Specialization. Low tariffs and efficient infrastructure to reduce transport costs have been the pillars of integration and regional production networks in the region. In fact, given the emphasis on the trade in intermediate goods and the benefits of agglomeration, openness takes on added importance for middle-income countries. However, scale economies put more emphasis on the significance of market size. Access to foreign markets becomes more essential than the static efficiency gains that unilateral liberalization may bring. In the absence of any likeli-

■ TABLE 3 **The Growing Complexity of Development: Economies of Scale**

Force	Growing complexity			Strategic imperatives	
	From: Exploiting comparative advantage	+	To: Also exploiting scale economies	New opportunities	Policy priorities
Specialization	Labor-intensive exports	+	Parts and components trade	Regional production networks	Logistics
Ideas and human capital	Basic and secondary education	+	Postsecondary education	Regional knowledge spillovers	Scientists and engineers
Managing economies	High savings and low deficits	+	Risk management	Regional financial stability	Corporate bond markets

Source: Compiled by the authors.

hood of global free trade, it is therefore not surprising that countries in the region are turning to regional agreements to enlarge markets. This also explains why the Association of Southeast Asian Nations is committed to a single free trade area so as to offset the advantages that China, with its large domestic market, appears to offer investors. Regional agreements may provide strategic advantages.

Ideas and human capital. Human capital accumulation is always desirable, no matter what form it takes. In economies where new ideas and innovations are key, higher education takes on a special dimension. Greater quantity and higher quality in knowledge workers—principally, but not only, scientists and engineers—will help countries absorb new ideas more rapidly and grow more quickly. Given the likely externalities and the benefits of early entry into growth industries, countries facing scarce supplies of skilled labor are also well advised to open their doors to immigration. Singapore has already taken this decision with its commitment to attracting global talent.

Economic management. The ideal macroeconomic environment for supporting regional production networks has three features: stable exchange rates to eliminate currency risk and build the foundations for a single market, capital convertibility to allow savings to be efficiently allocated across the region, and an independent monetary policy to minimize recessions and give firms the confidence that investments in innovative activities will pay off. However, it is a well-known axiom of economics that this trinity is impossible to achieve. The region seems to be moving in a sensible direction toward greater long-term flexibility in exchange rates, while minimizing short-term volatility through the accumulation

of foreign exchange reserves, managed interventions, and broader regional surveillance and financial cooperation.

In many ways, these suggestions are not new, and the middle-income countries in East Asia have already started to implement them. There are areas where less progress has been made and some warning flags are being waved. In Southeast Asia, there are indications that spending on R&D is inadequate. Countries such as Indonesia are not participating vigorously in regional production networks and are weak in exports of intermediate goods, perhaps because customs processes and logistics are still cumbersome. In Northeast Asia, there are many opportunities for extending regional networks. In China, for example, there is efficient trade in the coastal cities, but not in the interior cities. Regional agreements are under discussion, but there is a concern that progress is slowing and that regional approaches have not yielded the expected gains in regulatory harmonization. The regional institutional framework is weak.

Despite these caveats and notwithstanding the considerable efforts that must still be made to create structures for trade, innovation, and finance that will support regional production networks, there is reason to be optimistic. The East Asian economies are moving toward appropriate solutions in these areas. There is less reason to be optimistic about the remaining domestic challenges. It is fashionable these days to equate the growth challenge with the problem of the development of institutions. But institutional development is an abstract notion. Table 4 lists the three specific areas of friction in the middle-income countries that are aggressively pursuing economic growth: congestion, inequality, and corruption. Modern growth theory makes a good case for expecting these areas to be problems even if governments are taking appropriate steps, but governments would be wrong to assume that the friction is best ignored.

Agglomeration. Large cities in the region must improve their livability, and smaller cities must be well managed and well connected so as to absorb productively the large numbers of people expected to relocate there. Small cities show a wide dispersion in performance, which presents an unexploited opportunity for more rapid growth. Cities need to deliver basic services and provide the infrastructure and regulations necessary so that firms are able to do business unmolested and without paying high costs due to inefficiencies of grime, crime, and time. While crime is not a pressing problem, pollution and congestion must not be left unaddressed if major East Asian cities are to support higher living standards. China appears to have recognized the importance of livable, well-connected cities.

■ TABLE 4 **The Growing Complexity of Development: The Distribution of Economic Rents**

Force	Growing complexity			Strategic imperatives	
	From: Letting markets work	+	To: Also addressing coordination failures	Pressing challenges	Policy priorities
Agglomeration	Megacities	+	Midsized and small cities	Congestion	Connected small and midsized cities
Social and spatial effects	Unskilled wage growth	+	Urban skilled wage growth	Inequality	Access to social services
Managing societies	Small centralized governments	+	Decentralized governments	Corruption	Transparency and accountability

Source: Compiled by the authors.

Social and spatial effects. A second institutional priority is the improvement of social cohesion. Rising within-country inequality is producing a concentration of production and regional inequalities that may become long-lasting and detrimental to overall growth. Existing patterns of fiscal decentralization do not effectively address these imbalances and should be improved. More broadly, the institutional environment for delivering basic social services in an equitable way is important to ensuring equality in opportunity, an outcome that would enhance growth prospects. Thailand has instituted relevant national programs that merit the attention of others.⁴⁴

Better government. The third institutional priority is the control of corruption. The economic rents that are generated by economies of scale will not lead to sustained growth if they are dissipated in inefficient cities, unstable societies, or corrupt governments. The need for progress is greater in middle-income countries in Southeast Asia, where the process of decentralization may create short-term reversals unless new institutional mechanisms are found to increase public accountability and reduce impunity. There is little doubt that the appropriate solutions will take time and that progress in a number of areas is required. Countries will need to find their own paths forward. There are encouraging examples of success in Hong Kong (China), Korea, and Singapore.

East Asia has done well with global integration and has grown. The region is doing well with regional integration and is being transformed. But countries in the region have to do better with domestic integration and ensure that the growth and transformation is inclusive. East Asia needs a third integration, this one at home.

Notes

1. The crisis countries were Indonesia, the Republic of Korea, Malaysia, and Thailand.
2. See Stiglitz and Yusuf (2001).
3. East Asia refers to the member countries of the Association of Southeast Asian Nations (Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam), plus China, Hong Kong (China), Japan, the Republic of Korea, Mongolia, and Taiwan (China). Emerging East Asia refers to East Asia, minus Japan. Developing East Asia refers to emerging East Asia, minus Hong Kong (China), Korea, Singapore, and Taiwan (China).
4. See Maddison (2003).
5. See Imbs and Wacziarg (2003).
6. See Garrett (2004).
7. Throughout this book, data on China refer to mainland China and Hong Kong (China). Because these two economies are so closely linked, a bias in favor of integration would result if they were treated as separate entities.
8. See Kawai (2005), Kharas, Aldaz-Carroll, and Rahardja (2007).
9. See Urata (2006).
10. See Gaulier, Lemoine, and Ünal-Kesenci (2005).
11. See Romer (1994); Warsh (2006) provides a highly readable and accurate account of the intellectual advances associated with these insights.
12. See Hummels and Klenow (2005).
13. See Lucas (1988).
14. See Aghion and Howitt (2006).
15. Krugman (1998) gives an excellent summary. See also Fujita, Krugman, and Venables (1999).
16. The median landlocked country has transport costs that are 55 percent higher than the transport costs in the median coastal economy. See Gallup and Sachs (1999).
17. As Venables (2006) puts it, a world characterized by diminishing returns to activity would not have cities.
18. See Venables (2006). Dispersion forces are usually not sector specific, though some agglomeration forces are. This gives rise to cities that are specialized by entire sectors. London is an example. So, perhaps, is New York.
19. See Akamatsu (1961).
20. Hayami (2006) provides some counterexamples to this proposition, showing how economies of scale may also be prevalent in rural development. But this is an exception, not the rule.
21. Krugman (1998) shows simulations for regional wage disparities in a model of locational choice. Venables (2006) points out that immobile factors, especially labor, bear the responsibility for much of the costs of poor geography. If labor is 10 percent of gross costs, then a 50 percent difference in overall productivity will translate into a 500 percent difference in wages.
22. See Helpman (2004).
23. These have been called general-purpose technologies by Bresnahan and Trajtenberg (1995).
24. Antweiler and Trefler (2002) offer a description of sectors with scale economies.
25. See World Bank investment climate surveys, <http://iresearch.worldbank.org/ics/jsp/index.jsp>; see also World Bank (2006).
26. See Hallward-Driemeier, Dwor-Frécaut, and Colaço (2003).
27. See Kharas, Aldaz-Carroll, and Rahardja (2007).
28. Blalock and Gertler (2004) find strong evidence for vertical technology transfers from multinational corporations to local suppliers in Indonesia.
29. World Bank investment climate surveys for Cambodia, China, Indonesia, Malaysia, Mongolia, the Philippines, and Thailand. See <http://iresearch.worldbank.org/ics/jsp/index.jsp>.
30. See Arnold and Javorcik (2005).

31. Indonesia is a notable exception to this trend. There, 80 percent of R&D is undertaken by the government.

32. The then chairman of the Board of Governors of the Federal Reserve of the United States made the remark during a speech entitled "Lessons from the Global Crises" and given at the annual meeting of the International Monetary Fund that was held in September 1999.

33. See World Bank (2006) and Rosenthal and Strange (2004). A doubling in city size is associated with a productivity increase of between 3 and 8 percent. So, for example, a person or a firm that moves from a city of 100,000 to a city of 10 million might expect a 40 percent increase in productivity. These effects seem to be larger in technology sectors.

34. See Leman (2005).

35. For example, see Redding and Venables (2004). A 1 percent improvement in a country's market access (which increases its exports by 1 percent) raises per capita income by about 0.25 percent.

36. Feenstra and Hanson (2001).

37. The positive effect of the trade ratio was significant in the pooled regression of the authors. The effect of FDI was insignificant in the pooled regression, but significant for Thailand. See Te Velde and Morrissey (2004).

38. See Park, Cai, and Zhao (2006).

39. See, for example, Transparency International (2005) on the corruption perceptions index and Kaufmann, Kraay, and Mastruzzi (2005) on the control of corruption index.

40. See the Investment Climate (Enterprise) Survey Database, World Bank, and International Finance Corporation, <http://www.enterprisesurveys.org/>.

41. See Kang (2002) and Chang (2001).

42. See Pei (2006).

43. See Rodrik (2004).

44. See World Bank (2005).

References

- Aghion, Philippe, and Peter Howitt. 2006. "Appropriate Growth Policy: A Unifying Framework." *Journal of the European Economic Association* 4 (2–3): 269–314.
- Akamatsu, Kaname. 1961. "A Theory of Unbalanced Growth in the World Economy." *Weltwirtschaftliches Archiv* 86 (2): 196–217.
- _____. 1962. "A Historical Pattern of Economic Growth in Developing Countries." *Journal of Developing Economies* 1(1): 3–25.
- Antweiler, Werner, and Daniel Trefler. 2002. "Increasing Returns and All That: A View from Trade." *American Economic Review* 92 (1): 93–119.
- Arnold, Jens Matthias, and Beata Smarzynska Javorcik. 2005. "Gifted Kids or Pushy Parents?: Foreign Acquisitions and Plant Performance in Indonesia." CEPR Discussion Paper 5065, Center for Economic Policy Research, London.
- Blalock, Garrick, and Paul J. Gertler. 2004. "Learning from Exporting Revisited in a Less Developed Setting." *Journal of Development Economics* 75 (2): 397–416.
- Bourguignon, Francois, and Chorching Goh. 2004. "Trade and Labor Market Vulnerability in Indonesia, Republic of Korea, and Thailand." In *East Asia Integrates: A Trade Policy Agenda for Shared Growth*, ed. Kathie Krumm and Homi Kharas, 171–88. Washington, DC: World Bank.
- Bresnahan, Timothy F., and Manuel Trajtenberg. 1995. "General Purpose Technologies: 'Engines of Growth?'" NBER Working Paper 4148, National Bureau of Economic Research, Cambridge, MA.
- Cannistraro, Philip V., and John J. Reich. 2003. *The Western Perspective: A History of Civilization in the West*. 2nd ed. Belmont, CA: Wadsworth Publishing.
- Chang, Ha-Joon. 2001. "State, Capital, and Investments in Korea." In *Corruption: The Boom and Bust of East Asia*, ed. José Edgardo Campos, 45–68. Manila: Ateneo de Manila University Press.

- China, National Bureau of Statistics. 2005. *Guangdong Statistical Yearbook 2005*. Beijing: China Statistics Publishing House.
- Feenstra, Robert C. and Gordon H. Hanson. 2001. "Global Production Sharing and Rising Inequality: A Survey of Trade and Wages." NBER Working Paper 8372. National Bureau of Economic Research.
- Fujita, Masahisa, Paul R. Krugman, and Anthony J. Venables. 1999. *The Spatial Economy: Cities, Regions and International Trade*. Cambridge, MA: MIT Press.
- Gallup, John Luke, and Jeffrey D. Sachs. 1999. "Geography and Economic Development." With Andrew D. Mellinger. In *Annual World Bank Conference on Development Economics 1998*, ed. Boris Pleskovic and Joseph E. Stiglitz, 127–78. Washington, DC: World Bank.
- Garrett, Geoffrey. 2004. "Globalization's Missing Middle." *Foreign Affairs* 83 (6): 84–96.
- Gaulier, Guillaume, Françoise Lemoine, and Deniz Ünal-Kesenci. 2005. "China's Integration in East Asia: Production Sharing, FDI, and High-Tech Trade." CEPII Working Paper 2005–09, Centre d'Etudes Prospectives et d'Informations Internationales, Paris.
- Giles, John T., Albert Park, and Fang Cai. 2006. "How Has Economic Restructuring Affected China's Urban Workers?" *China Quarterly* 185 (March): 61–95.
- Hallward-Driemeier, Mary, Dominique Dwor-Frécaut, and Francis X. Colaço. 2003. "Asian Manufacturing Recovery: A Firm-Level Analysis." Conference edition, March 26, World Bank, Washington, DC.
- Hayami, Yujiro. 2006. "A Rural-Based Development in East Asia under Globalization." In *East Asian Visions: Perspectives on Economic Development*, ed. Indermit S. Gill, Yukon Huang, and Homi Kharas, chap. 5. Washington, DC: World Bank.
- Helpman, Elhanan. 2004. *The Mystery of Economic Growth*. Cambridge, MA: Harvard University Press.
- Hummels, David, and Peter Klenow. 2005. "The Variety and Quality of a Nation's Exports." *American Economic Review* 95 (3): 704–23.
- Imbs, Jean, and Romain Wacziarg. 2003. "Stages of Diversification." *American Economic Review* 93 (1): 63–86.
- Kang, David C. 2002. *Crony Capitalism: Corruption and Development in South Korea and the Philippines*. Cambridge: Cambridge University Press.
- Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi. 2005. "Governance Matters IV: Governance Indicators for 1996–2004." Policy Research Working Paper 3630, World Bank, Washington, DC.
- Kawai, Masahiro. 2005. "East Asian Economic Regionalism: Progress and Challenges." *Journal of Asian Economics* 16 (1): 29–55.
- Kharas, Homi, Enrique Aldaz-Carroll, and Sjamsu Rahardja. 2007. "East Asia: Regional Integration among Open Economies." In *Economic Integration in Asia and India*, ed. Masahisa Fujita. Basingstoke, United Kingdom: Palgrave Macmillan.
- Krugman, Paul R. 1998. "What's New about the New Economic Geography?" *Oxford Review of Economic Policy* 14 (2): 7–17.
- Leman, Edward. 2005. "Metropolitan Regions: New Challenges for an Urbanizing China." Paper presented at the World Bank and Institute of Applied Economic Research "Urban Research Symposium," Brasilia, April 4.
- Lucas Jr., Robert E. 1988. "On the Mechanics of Economic Development." *Journal of Monetary Economics* 22 (1): 3–42.
- Maddison, Angus. 2003. *The World Economy: Historical Statistics*. Paris: Organisation for Economic Co-operation and Development.
- Okamoto, Yumiko. 2005. "Emergence of the 'Intra-Mediate Trade': Implications for the Asia-Pacific Region." Paper presented at the East-West Center and the Rosenberg Institute of Global Finance, Brandeis University, "PAFTAD 30" conference, Honolulu, February 19–21. http://www.eastwestcenter.org/stored/misc/paftad_30_okamoto.pdf.
- Park, Albert, Fang Cai, and Yaohui Zhao. 2006. "The Informalization of the Chinese Labor Market." Background paper for the China Poverty Assessment, World Bank, Washington, DC.
- Pei, Minxin. 2006. *China's Trapped Transition: The Limits of Developmental Autocracy*. Cambridge, MA: Harvard University Press.

- Redding, Stephen, and Anthony J. Venables. 2004. "Economic Geography and International Inequality." *Journal of International Economics* 62 (1): 53–82.
- Rodrik, Dani. 2004. "Industrial Policy for the 21st Century." Unpublished working paper, September, John F. Kennedy School of Government, Harvard University, Cambridge, MA.
- Romer, Paul M. 1994. "The Origins of Endogenous Growth." *Journal of Economic Perspectives* 8 (1): 3–22.
- Rosenthal, Stuart S., and William C. Strange. 2004. "Evidence on the Nature and Sources of Agglomeration Economies." In *Cities and Geography*. Vol. 4 of *Handbook of Regional and Urban Economics*, ed. J. Vernon Henderson and Jacques-François Thisse, 2119–71. Amsterdam: Elsevier B. V.
- Stiglitz, Joseph E., and Shahid Yusuf, eds. 2001. *Rethinking the East Asian Miracle*. Washington, DC: World Bank; New York: Oxford University Press.
- Te Velde, Dirk Willem, and Dirk Bezemer. 2004. "Regional Integration and Foreign Direct Investment in Developing Countries." Unpublished working paper, Department for International Development, London. http://www.odi.org.uk/iedg/Projects/ec_prep2.pdf.
- Te Velde, Dirk Willem, and Oliver Morrissey. 2004. "Foreign Direct Investment, Skills, and Wage Inequality in East Asia." *Journal of the Asia Pacific Economy* 9 (3): 348–69.
- Transparency International. 2005. *Corruption Perceptions Index 2005*. Berlin: Transparency International. http://www.transparency.org/policy_research/surveys_indices/cpi.
- Urata, Shujiro. 2006. "The Changing Patterns of International Trade in East Asia." Background paper, World Bank, Washington, DC.
- Venables, Anthony J. 2006. "Shifts in Economic Geography and Their Causes." Paper presented at the Federal Reserve Bank of Kansas City Symposium, "The New Economic Geography: Effects and Policy Implications," Jackson Hole, WY, August 24–26.
- Warsh, David. 2006. *Knowledge and the Wealth of Nations: A Story of Economic Discovery*. New York: WW Norton and Company.
- World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. World Bank Policy Research Reports. New York: Oxford University Press.
- _____. 2005. *World Development Report 2006: Equity and Development*. Washington, DC: World Bank; New York: Oxford University Press.
- _____. 2006. *Governance, Investment Climate, and Harmonious Society: Competitiveness Enhancements for 120 Cities in China*. Report Series 37759-CN. Washington, DC: Poverty Reduction and Economic Management Unit, Financial and Private Sector Development Unit, East Asia and Pacific Region, World Bank.
- Yeats, Alexander J. 2001. "Just How Big Is Global Production Sharing?" In *Fragmentation: New Production Patterns in the World Economy*, ed. Sven W. Arndt and Henryk Kierzkowski, 108–43. New York: Oxford University Press.

MAP 1.1 East Asia Will Soon Be a Middle-Income Region



- Low-income economies, in which 2004 GNI per capita was \$825 or less
- Lower-middle-income economies, in which 2004 GNI per capita was between \$825 and \$3,255
- Upper-middle-income economies, in which 2004 GNI per capita was between \$3,256 and \$10,065
- High-income economies, in which 2004 GNI per capita was \$10,066 or more

Sources: World Development Indicators Database, World Bank, <http://www.worldbank.org/data/datapubs/datapubs.html>; Global Development Finance Database, World Bank, <http://www.worldbank.org/data/datapubs/datapubs.html>.