Globalization and Development
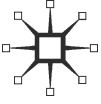
Why East Asia Surged Ahead and Latin America Fell Behind

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Contents

CHAPTER 2

The Economic Development of East Asia and Latin America in Comparative Perspective

This chapter outlines the key aspects of the economic development of East Asia and Latin America that can account for the "Big Reversal" in the economic fortunes of these two regions. The chapter also expands on the four factors that were identified in the previous chapter, which provide a framework for understanding how this Big Reversal came about. These four factors are examined in more detail in chapters 4 through 7.

The Economic Development of East Asia and Latin America in Historical Perspective

The long-term historical data developed by Angus Maddison provide a useful perspective on the post–World War II economic development of the two regions. The surge in the economic growth of East Asia since the 1950s can be understood as a process of restoring the economic importance that that region had prior to the Industrial Revolution, as noted earlier. By contrast, the recent stagnation of Latin America represents a change in a long trajectory of economic growth, which accelerated during the second half of the nineteenth century and was maintained during the first half of the twentieth century.

The "golden age" of economic growth in Latin America occurred during the so-called first era of globalization, at the height of the international gold standard (1870–1913), when large flows of foreign direct investment (FDI) from Europe (especially Great Britain), European

Table 2.1 Comparative regional growth, 1870–2008 (in percent)

	1870–1913	1913–1950	1950–1973	1973–2001	2001–2008
Global	1.3	0.9	2.9	1.4	4.1
W. Europe	1.3	0.8	4.1	1.9	1.6
USA	1.8	1.6	2.5	1.9	1.8
FSU	1.1	1.8	3.3	−1.0	6.2
LAC	1.8	1.4	2.6	0.9	3.1
Japan	1.5	0.9	8.1	2.1	1.1
Asia	0.4	−0.1	2.9	3.6	5.4
o/w China	(0.1)	(0.6)	(2.9)	(5.3)	(8.0)
o/w India	(0.5)	(0.2)	(1.4)	(3.0)	(6.5)
Africa	0.6	0.9	2.0	0.2	4.3

Note: FSU refers to countries of the former Soviet Union; LAC refers to countries of Latin America and the Caribbean.

Source: Maddison (2010).

migration, and demand in Europe for its large natural resource exports (grains and metals) supported high rates of economic expansion, similar to that of the United States and above that of the global economy (Table 2.1). By comparison, Asia was a relatively backward area economically, with the lowest growth rate of any region in the world.

Argentina was a major beneficiary of this pattern of global trade, migration, and investment and sustained the highest rate of growth in real income per capita of around 2½ percent per year among all countries of the world. By contrast, the "golden age" of economic growth for East Asia has coincided with the current (or second) globalization era since 1973, during which its exports of manufactured goods surged in response to a dramatic expansion in world trade, while the economic growth (and exports) of Latin America has stagnated.

While trade and investment flows expanded sharply during both Globalization Eras I and II, the nature of these flows has changed dramatically from one era to the other. During the first era of globalization and indeed up until the current era, most trade took the form of inter-industry trade, as noted earlier, reflecting the exchange of one form of commodity for another (e.g., raw materials for manufactures). FDI flowed mainly from developed to developing countries as new lands and natural resources in these countries were exploited, largely in conformity with the expectations of the neoclassical growth model.

During the current era of globalization, an increasing share of trade flows has taken the form of intra-industry trade reflecting a growing fragmentation of production processes across countries, managed by

multinational corporations, and the specialization of countries within global production networks/global value chains (GPNs/GVCs). Most FDI flows have been increasingly concentrated among developed countries and those developing countries, in particular, which have been most successful in being integrated within international production networks. During 1990–2010, for example, only 10 countries (including 4 in East Asia) accounted for around 70 percent of the increase in the stock of FDI in developing countries.[1]

As will be further explored in later chapters, East Asia's recent success as an exporting region reflects an important advantage it has gained with respect to Latin America in terms of the development of its technological capabilities and its capacity to adapt to rapid changes in the pattern of globalized production and trade that have been key drivers of recent economic and financial globalization. In this connection, a key question to be answered by this study is why East Asia has been able to take greater advantage of these changes in the global trading and investment system than Latin America.

East Asia and Latin America during the Current Era of Globalization

Notwithstanding certain differences in the level of income per capita and industrial development of the two regions at mid-century, other dimensions of macroeconomic performance for the two regions were not that different during the decade of the 1960s. As noted in Table 2.2, while the extent of trade openness (as measured by the ratio of exports and imports of goods and services to GDP) was higher in East Asia, the two regions were fairly similar in terms of the growth in real GDP per capita, savings and investment ratios, and the size of financial intermediation in the early years of the postwar period. Over the following three decades, however, significant differences in these aspects of macroeconomic performance emerged, which widened over time. In particular, gross domestic investment as a ratio to GDP has expanded much more sharply in East Asia than in Latin America, with a higher share of it being financed by domestic savings. In fact, during only one of the past four decades of the twentieth century was domestic savings in East Asia, on average, less than domestic investment. By contrast, the ratio of domestic investment to GDP for Latin America during this same period was consistently higher than that for domestic savings. As a result, the trade balance for East Asia has tended to be in surplus during the period under review, even though the shares of total trade (both exports and imports) to GDP for East Asia

Table 2.2 Comparative macroeconomic data for East Asia (EA) and Latin America and the Caribbean (LAC)

	1961–1970		1971–1980		1981–1990		1991–2000		2001–2008	
	EA	*LAC*	*EA*	*LAC*	*EA*	*LAC*	*EA*	*LAC*	*EA*	*LAC*
(percentage change)										
Real GDP per capita	2.7	2.5	4.8	3.6	6.1	−0.6	7.0	1.8	7.4	2.4
Consumer prices	35.4	3.4	10.3	30.9	6.3	337.7	5.9	45.4	3.2	8.5
Terms of trade (std. dev.)	...	...	4.3	6.6	6.7	4.9	1.3	4.4	4.2	9.7
(in percent of GDP)										
Gross Domestic Investment	19.5	21.0	28.8	23.4	31.4	21.3	34.2	21.1	32.7	20.0
Gross National Savings	20.3	20.0	30.1	20.0	30.9	19.5	35.6	18.2	39.9	20.4
Broad money	22.0	18.4	29.5	17.7	58.6	27.6	100.0	36.1	125.3	35.3
Overall government deficit	...	...	−0.3	−2.2	−1.5	−3.7	−1.5	−1.6	−0.9	−2.2
Exports and imports (G&S)	30.6	20.0	41.2	21.2	57.4	27.3	62.4	35.8	89.4	45.6
Trade balance	...	...	1.0	−2.2	1.1	2.2	1.8	−1.5	5.5	2.0
Foreign Direct Investment	...	...	0.8	0.2	1.9	0.7	3.3	3.2	5.2	3.9
Priv. cap. flows (std. dev.)	...	...	...	...	4.3	5.2	4.9	5.8	4.1	2.3

Note: Data are averages for each region based on PPP country weights, except those for consumer prices, terms of trade, private capital flows, and foreign direct investment, which are based on equal country weights. For 1961–1970, only selected EA countries included for inflation, broad money, and foreign trade data; also gross domestic savings is calculated instead of gross national savings.

Source: World Bank World Development Indicators Database for 1961–1970 and IMF WEO Database for later years.

have expanded much more sharply than for Latin America. The converse is true for Latin America, as that region has tended to exhibit a chronic trade (and current account) deficit during the latter part of the past century. Historically, the persistence of a relatively low level of domestic savings for Latin America, together with a negative trade balance, has made that region much more dependent on foreign borrowing than East Asia, and thus more vulnerable to external shocks.

One can also detect in Table 2.2 a relatively low and unsteady trajectory of real GDP per capita in Latin America since the 1960s, whereas real GDP growth rates have been significantly higher and more persistent in the case of East Asia. Studies by the Economic Commission

for Latin America (ECLA) have shown that the growth of real GDP per capita in Latin America has been more volatile than in most other regions of the globe and that this cyclical component has been the major determinant of the region's weak growth trend.[2] In addition, the rate of inflation in Latin America has been significantly higher than in East Asia and far more volatile.[3] These conditions of macroeconomic instability in Latin America, involving high and variable inflation and an uneven pace of economic growth, coupled with the external instability noted earlier, have created a weak environment for sustained investment and technological innovation. The factors that can account for these conditions in Latin America, and their relative absence in East Asia, are explored in subsequent chapters of this book.

East Asia's macroeconomic performance during the second half of the twentieth century was superior to that of Latin America not only in terms of the growth in income per capita, but also in terms of income distribution and poverty reduction. Throughout the post–World War II period, median Gini coefficients for East Asian countries have been significantly lower than those for Latin America, and in six out of the nine cases for which fairly reliable, historical measures of income distribution are available, income distribution improved during the region's period of high growth.[4] One country where this is not observed is China, as rapid economic growth in certain urban areas and coastal provinces has worsened income inequality, especially in the period since 1990. For Latin America during most of the postwar period, no discernible trend is observed among the 15 countries for which historical Gini coefficients are available: In seven cases a worsening was observed, while in seven others an improvement was recorded; in two others, income distribution remained roughly unchanged. However, what is clear is that at the end of the twentieth-century Latin America remained the region with the largest inequality of incomes in the world, with a difference of more around 15 percentage points in the average regional Gini coefficient with respect to that of East Asia (55 vs. 40).[5]

It is significant to note, however, that since the early years of the past decade, a number of countries in Latin America, in particular, Argentina, Brazil, Mexico, and Uruguay, have begun to reverse the historical pattern of income inequality, in part through effective programs of government intervention.[6] These programs have focused on improving the accessibility of tertiary education in public universities among those below the privileged upper class and on tying income support for the poor to participation in education and basic health maintenance. These policy initiatives can be seen as having more enduring effects on

income distribution than the large redistribution schemes of countries such as Bolivia, Ecuador, and Venezuela, which are not sustainable from a fiscal perspective and do not equip the poor with the tools they need to become more productive members of society.

Conversely, since the final decade of the past century, one can identify a worsening of income inequality in a number of countries in East Asia. This has been particularly pronounced in the case of China, which may be displaying the classic pattern of income redistribution associated with the inverse-U curve that was identified by Simon Kuznets. With the massive shift of workers from rural areas to new urban industrialized zones and limitations on the rate of labor transfers under the "hukou" system, there has been a sharp redistribution of income to urban workers and certain regions of the country.[7] However, another likely cause of the rise in income inequality in China is the pervasive effect of corruption within the upper ranks of the Communist Party, which has enriched certain families and groups associated with key party officials.[8]

Headcount measures of poverty in East Asia were reduced sharply during the second half of the twentieth century, especially as regards the incidence of extreme poverty (i.e., those living on an income basket of less than $1.25 a day). This progress was particularly pronounced in the case of China, but it applies generally in the region, as well. As a result, East Asia is well on its way to meeting the Millennium Development Goals in this area. Latin America, by contrast, has shown no significant change until recently in its poverty indicators. During the first half of the period under review, there was some reduction in the poverty headcount, but this trend was reversed during the second half. As in the case of income inequality, however, macroeconomic stabilization and higher economic growth during the past decade (2001–2010) have been accompanied by an improvement in Latin America's poverty indicators (Table 2.3).

On a broader measure of development, as measured by the UNDP's human development index, East Asia has also been more successful than Latin America. East Asian countries have performed better than those of Latin America, not only in the component of the index related to income per capita, but also in terms of educational attainment and life expectancy.

Other key differences between the two regions can be seen in the degree of their structural economic change since the middle of the past century. In East Asia, one can see a classic example of sectoral shifts within the overall structure of the regional economies consistent with

Table 2.3 Poverty headcount table

A. Share of Population living below US $1 a day

(1981–2008 per day in 2005 PPP)

	1981	1990	2002	2008
East Asia (EA)	66.1	40.6	17.8	7.8
o/w China	(73.5)	(44.0)	(19.1)	(7.4)
Latin America & Caribbean (LAC)	7.9	8.8	8.9	5.0

B. Human Development Index

	1975	1985	2000	2005	2008
East Asia	0.63	0.70	0.80	0.72	0.74
Latin America & Caribbean	0.65	0.69	0.74	0.70	0.72
EA/ LAC	0.98	1.03	1.08	1.03	1.03

Sources: Part A: Chen and Ravallion (2012); Part B: UNDP.

a pattern of strong economic growth and development, as discussed in the previous chapter. On the basis of average shares of production for the nine economies that comprise East Asia for purposes of this study, the share of agriculture was reduced from around 34 percent in 1960 to 20 percent in 1980, and then to a little under 8 percent in 2005. By contrast, the share of manufacturing nearly doubled over the same time period, along with a significant growth in the share of the service sector (Table 2.4). The sectoral shifts in employment over the same time period show a similar, but even more pronounced pattern of structural change in East Asia.

By contrast, there have been much more modest changes in the structure of the Latin America economies, as reflected in average shares of the primary, secondary, and tertiary sectors for the region. Agriculture has undergone a relatively small reduction in its share of the Latin America economy, while that of industry has tended to stay unchanged, with a slight increase during the period from 1960 to 1980 being reversed during the next 20-year period. More dramatically, the share of manufacturing in Latin America has shown a steady, relative decline throughout the period under review, suggesting a pattern of deindustrialization.

Another feature of the economic structure of the Latin American economy that sharply distinguishes it from that of East Asia is the size of the informal sector, that is, the share of economic and labor

Table 2.4 Structural economic change: East Asia and Latin America and the Caribbean (as a percent of GDP)

	1960	1970	1980	1990	2000	2005	2010
East Asia							
Agriculture	34.3	32.4	20.4	15.1	8.4	7.5	7.9
Industry	25.8	28.3	38.7	38.3	37.6	37.5	35.7
o/w Manufacturing	13.6	19.2	24.8	26.0	25.9	25.6	23.8
Services	39.9	39.3	40.9	46.7	54.0	55.0	56.4
Latin America & Caribbean							
Agriculture	20.0	17.3	14.0	12.0	9.1	8.9	10.1
Industry	31.3	33.6	33.8	33.3	30.9	33.1	32.3
o/w Manufacturing	20.0	20.9	19.7	18.6	17.0	16.4	15.2
Services	48.7	49.1	52.2	54.7	60.0	58.0	57.6

Source: World Bank, World Development Indicators.

force activity that takes place outside the framework of the regulated and legal scope of taxation, social protection, and labor market codes. Estimates of the size of the informal economy in Latin America vary greatly by indicator and by country, but according to one World Bank study, a typical country in Latin America at the turn of the past century was producing 40 percent of GDP and employing 70 percent of the labor force in the informal sector.[9] These estimates are truly dramatic in terms of the scope of the dual economy structure they suggest for Latin America and their implications for the ineffectiveness of state institutions and the low level of social trust, which are examined in chapter 7. To a significant extent, the phenomenon of informality in Latin America is rooted in problems of persistent poverty and inequality, which have been a problem especially for large segments of the population working in rural areas or those engaged in self-employment or household enterprises in large urban areas.[10]

The patterns in the evolution of the domestic economic structure of the two regional economies described above are broadly reflected, as well, in the structure of their exports. In the case of Latin America, from the first half of the 1960s to the second half of the 1990s, primary products represented the largest component of its trade, and as a share of total exports increased slightly from 34 percent to 36 percent.[11] Over the same period, there was a marked shift in the structure of manufactured exports out of medium- and high-tech goods toward low- and medium-

tech goods. By contrast, in the case of East Asia, there was a significant shift downward in the share of primary product exports in total exports from 15 percent to 10 percent, while the share of medium- and high-tech manufactured export goods rose from 36 percent to 51 percent. Among developing regions, East Asia accounted for around 85 percent of total exports of high-tech manufactures, reflecting the region's growing specialization in the manufacture of electronic and telecommunication hardware, consistent with its designation as "factory Asia."[12] Since the late 1990s, all 9 of the East Asian countries included in this study have been among the top 15 exporters of manufactured goods among developing countries, whereas only Brazil and Mexico can be included in this grouping from the Latin American region.[13]

The transformation of East Asia's export structure is also consistent with a greater degree of export diversification than in the case of Latin America. As noted in chapter 1, such diversification has been identified as a hallmark of successful economic development during the second half of the twentieth century. For example, in comparing the composition of exports of the two regions for the year 2000, one can detect that the top 10 categories of export products accounted for 40 percent of total exports, on average, for East Asia, whereas a similar grouping for Latin America accounted for 57 percent of that region's exports, on average.[14]

It is also interesting to note that the growth of manufactured exports from East Asia has been accompanied by a sharp expansion in its intra-industry trade, as reflected in the exchange of parts and components for manufacturing production. This phenomenon is consistent with the growing participation of East Asian economies in GPNs, as noted earlier, which is largely absent in Latin America, except for the case of Mexico and its participation in GPNs within NAFTA, and certain parts of Central America. East Asia (including Japan) has become the largest source of this kind of intra-industry trade in the global economy, with its share of global trade in parts and components rising from 27 percent in 1992–1993 to nearly 40 percent in 2005–2007.[15] By contrast, the comparable share for such trade within NAFTA in the latter time period was only 19 percent.

As a result of East Asia's large degree of participation in GVCs, 7 of the 9 East Asian economies (all except Indonesia and the Philippines) have taken their place among the top 25 largest global exporters as of 2010, whereas only Mexico and Brazil were among that group (UNCTAD 2013). Another interesting perspective on this regional difference in trade patterns is provided by the recent UNCTAD

study just cited on the impact of GVCs in global trade. According to UNCTAD estimates, the share of foreign value added in total exports, which is one measure of a country's participation in GVCs, had risen to close to 40 percent, on average, for all nine countries of the East Asian region, compared with less than 20 percent for the six largest exporters of Latin America (Mexico, Brazil, Chile, Argentina, Colombia, and Peru).

The pattern of structural change observed in East Asia can be shown to have followed closely that exhibited by Japan during its transition from an agrarian to an industrial nation. In many ways, Japan's experience of structural change and development has served as a model for the rest of East Asia, and has been promoted by a pattern of regional investment and trade during the postwar period. In the writings of many East Asian development thinkers, this pattern has been characterized as the "flying geese" model of economic development, in which successive states in East Asia, beginning with Japan, have taken the lead in the development of certain industries, beginning with labor intensive manufacturing, and have then transferred that lead to another country, as the first leader of that industry moved to higher value-added production with the development of technological capability and a skilled labor force.[16] This phenomenon will be examined in more detail in chapter 6 in the context of the development of GPNs within the East Asian region. To an important extent, the successful pattern of structural change and economic growth in East Asia has to be attributed to its development of technological capability in terms of labor force skills and the mastery of sophisticated production processes by domestic industries. Natural resource endowments in terms of a low ratio of arable land per person also played a role in orienting the region's comparative advantage toward industry and manufacturing. In addition, the role of government in nurturing a process of "dynamic" comparative advantage toward more technology-intensive areas of industrial activity in East Asia is explored in chapter 6.

No similar pattern of economic development based on rapid industrialization can be observed in Latin America. While many governments in Latin America started to promote industrialization in response to the upheaval of the Great Depression and the associated collapse of the terms of trade for its natural resource-based exports, this pattern of development was gradually reversed during the postwar decades, as the region entered into a phase of deindustrialization. In the early post–World War II decades, Latin America pursued an inward development strategy that

was a reaction against certain features of the global economic system engendered in part by its northern regional partner, the United States, in contrast with East Asia, which, as noted above, pursued an economic strategy emulating that of its dominant regional partner (Japan).

After 1980, however, Latin America's approach to economic development shifted. In part, this transition was a response to the new thinking at the global level about development paradigms noted earlier. As a result of the more liberalized economic environment encouraged under the precepts of the Washington Consensus, many of the industries that thrived during the structuralist phase of Latin America's early postwar development prior to 1980 proved to be unviable because of their uncompetitive price structure and dependence on government subsidies or tariff protection. This phenomenon coincided with what a number of development analysts have referred to as the problem of the "middle-income trap."[17] In recent years, this pattern has been reinforced by growing demand for natural resources on the part of China, India, and other countries in East Asia. In view of the sharp differences in the pattern of structural change in the two regional economies, some researchers have established that a significant share of the difference in regional economic growth rates can be attributed to the contribution of structural change to the overall labor productivity in East Asia, which is discussed in the next section of this chapter.

During the past couple of decades, the Latin American region has made major progress in establishing conditions of macroeconomic stability, following the example set by Chile since the late 1970s. Nevertheless, growth in real income per capita during the first decade of the new century remained still below that of East Asia, while an expansion in trade was significantly dependent on favorable terms of trade and a strong demand for primary commodities, emanating in part from China and India.[18] In the light of these developments, it is interesting to see that China in the current century, through its trade and investment activity in Latin America, is playing a role reminiscent of that played by Great Britain in South America during the nineteenth century. While this might be true for countries such as Argentina, Brazil, Chile, and Peru in terms of the development and export of their large natural resource-based exports, such as soybeans, wheat, copper, and iron ore, China is playing a very competitive role with other countries in the Latin American region, which has been one factor that has contributed to the phase of deindustrialization noted earlier.

Accounting for the Divergent Pattern of
Regional Economic Development

Most studies of economic growth and development attempt to "explain" observed patterns of aggregate economic behavior through the prism of the neoclassical growth model and the technique of growth or development accounting.[19] Because of a number of limitations in the reliability and explanatory power of this accounting, which is examined in the next chapter, this study relies mainly on a broader framework of analysis, as noted in chapter 1. However, it is useful nonetheless to take account of the results of growth accounting exercises, as a prelude to the development of that broader frame of reference.

One of the simplest economic accounting frameworks that one can use to explain differences in the growth experience of East Asia and Latin America is the Harrod–Domar (H-D) model, which preceded the neoclassical growth model. Based on the early post–World War II dominance of the Keynesian approach to macroeconomic analysis, the H-D model essentially explained economic growth as resulting from the interaction of the savings-income and incremental capital-output ratios. In one recent study, a team led by Jeffrey Sachs performed a simple simulation exercise, based on the H-D framework, using a commonly assumed incremental capital-output ratio of 3 and actual data for savings and depreciation (as a share of national income) and population growth averaged across the two regions for the period 1980–2001. Remarkably, this relatively simple accounting framework could account for the 6-percentage point difference in the observed growth of per capita income, which was 6.4 percent in the case of East Asia and 0.4 percent for Latin America.[20] The basic reason this calculation worked so well is that the national savings ratio for East Asia during this period (and as a result the rate of capital accumulation) was nearly double that of Latin America. As noted earlier, throughout the second half of the past century, the rate of investment as a share of gross domestic product was also significantly higher in East Asia than in Latin America. Given the importance of capital accumulation as a basis for changes in labor productivity and growth in per capital income, one cannot deny that this factor has played a key role in accounting for the difference in economic growth across the two regions that we observe during the post–World War II era. This basic result is also derived from growth accounting exercises based on the neoclassical growth model, as noted below.

In the light of this kind of quantitative result, one is left with the basic question of what more fundamental factors can account for the

substantial difference in the rate of capital accumulation between the two regions that has occurred since the middle of the past century, which plays such a key role in determining the divergent pattern of economic growth between East Asia and Latin America. This question is one of the reasons why this study is rooted in the so-called deep determinants of growth, as distinct from the "proximate" determinants of growth that are rooted in the Keynesian (i.e., the H-D model) and the neoclassical growth models, as explained in more detail in the next chapter.

As distinct from the H-D model, the neoclassical approach to growth accounting decomposes the measure of capital accumulation into a specific factor for physical capital formation (corresponding to the notion of investment in national income accounting) and one for human capital accumulation (h). It also changes the nature of the relationship between Y (output) and K (physical capital) in the H-D model by including a measure of total factor productivity (TFP), which is usually labeled "A."[21] Since TFP cannot be measured directly, it is derived as a residual in growth accounting exercises, given specific estimates that are derived for income per capita, investment or physical capital accumulation, and human capital formation. However, since A is a residual calculation in these exercises, it also captures any errors in the estimation of the other factors used in such exercises, which means that it can vary significantly from one study to another.[22]

One of the most often cited studies of cross-regional economic growth based on the neoclassical growth accounting framework is that done by Barry Bosworth and Susan Collins (2003). For the period 1960–2000, they calculated the growth of real income per worker in terms of the contribution of the growth in capital per worker, human capital per worker, and, by residual, the contribution of technological change (or TFP), as reported in Table 2.5.

During the period of the study, the growth rate in real income per worker for East Asia was three and a half times higher than in the case of Latin America. Notwithstanding this significant difference, somewhat more than half of the growth in real income per worker in the two regions could be explained by the contribution of capital per worker, which is qualitatively consistent with the results of the H-D exercise for a different time period described earlier. The contribution of the growth in human capital per worker is fairly similar in both regions, whereas that of TFP growth in significantly higher in East Asia, which may be related to the stronger attributes of technological capability that can be attributed to that region, as noted earlier. The lower rate of TFP

Table 2.5   Growth decomposition

East Asia vs. Latin America & Caribbean (1960–2000) (percentage change)

	Output per worker	Capital per worker	Schooling per worker	Total Factor Productivity (TFP)
East Asia	3.9	2.1	0.5	1.0
Latin America & Caribbean	1.1	0.0	0.4	0.2

Source: Collins and Bosworth (2003).

growth also reflects a relatively long history in Latin America of higher tariff barriers than in East Asia and higher barriers to domestic competition arising from high entry costs for business, poorly functioning financial markets, and low labor market flexibility.[23]

A more recent study by Margaret McMillan and Dani Rodrik (2011), utilizing a relatively new cross-regional database developed by the Groningen Growth and Development Center (see Timmer and DeVries 2007), provides additional insight into the divergent growth experience of East Asia and Latin America on the basis of production and employment data disaggregated by major sector of the regional economies. These analysts attempt to quantify differences in labor productivity growth, which is the principal source of economic growth in the two regions given the marked differences in capital per worker discussed earlier. Based on the observed structural change among the primary, secondary, and tertiary sectors of the two regional economies, these economists calculated for the period 1990–2005 the growth of labor productivity as the sum of two components: one is the growth of productivity in a given sector (a so-called within component), and the other is the growth of productivity that can be attributed to shifts in labor to other sectors of higher or lower productivity than in a worker's sector of origin (a so-called structural component). As displayed in Table 2.6, the growth in labor productivity was nearly three times higher in East Asia than in Latin America for the time period of the study, which is broadly consistent with differences in the growth of real GDP per capita quantified in the two sets of studies discussed above. In the case of East Asia, most of this productivity growth can be explained by productivity growth in each of the three sectors (i.e., agriculture, industry, and services); however, a significant share is also due to the structural shifts of labor that occurred during 1990–2005, which was a period of marked structural change consistent with observations made earlier in this chapter. By contrast, the contribution of the "structural" component in the

Table 2.6   Decomposition of productivity growth, 1990–2005 (percentage change)

	Labor Productivity Growth	Components due to	
		Sectoral productivity change	Productivity growth due to structural change
East Asia	3.87	3.31	0.57
Latin America	1.35	2.24	−0.88

Note: East Asia includes India; Latin America includes Argentina, Bolivia, Brazil, Chile, Costa Rica, Colombia, Mexico, Peru, and Venezuela.

Source: McMillan and Rodrik (2011).

case of Latin America was significantly negative, giving rise to a total absolute difference in the contribution of structural change to regional growth in labor productivity of around 1½ percentage points.

These results for the period in question are broadly consistent with other studies conducted by the Inter-American Development Bank (IADB) for Latin America that cover the second half of the twentieth century. In a recent study by Pages (2010), one can clearly see a marked difference in overall labor productivity growth in the periods before and after 1975. During 1950–1975, which marked the period of inward development noted earlier, overall productivity growth in Latin America was high, at close to 4 percent per year, with roughly equal contributions from the sectoral growth and the structural change components. However, during the period after 1975, which coincides with Latin America's shift to a more outward-oriented approach to development, total productivity growth drops substantially, especially during 1975–1990 when Latin America suffered the brunt of the debt crisis following the two oil shocks of the 1970s. During 1990–2005, the IADB team calculated a negative contribution of the "structural" component to overall productivity growth, similar to the results of McMillan and Rodrik summarized above, although the quantitative magnitude of the result is somewhat less than in the latter study.

In addition to these studies of the IADB, it is interesting to consider some of the more recent insights of the official development community that have a bearing on the comparative development of East Asia and Latin America, as reflected, for example, in the report of the World Bank Growth Commission, which was published in 2008. The Growth Commission comprised a group of leading practitioners and officials from developing countries and academic experts under the chairmanship of Nobel Laureate Michael Spence. The Commission's Report was the result of an elaborate series of consultations and workshops on four

continents with other leading academics and policy makers that reviewed and discussed some 40 thematic and country case studies during a period of two years. These studies covered many different aspects of the development process, such as equity and income distribution, health, technology transfer, and macroeconomic policy, as well as 15 country studies drawn from Africa, East Asia, the Middle East, and Latin America. These studies, as well as the full report of the Commission, are available on the Commission website (www.growthcommission.org).

The specific sample of high-growth cases on which the Commission based its report was determined by selecting those countries that had experienced a growth rate in real GDP of 7 percent for a period of at least 25 years since 1950. While the Commission's report claims that this group is "remarkably diverse," it turns out that 9 of the 13 selected countries are from East Asia: China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Singapore, Taiwan, and Thailand. (This sample includes eight of the nine members of the East Asian region chosen for this study, excluding Japan and the Philippines.) The other four cases include Botswana, Brazil, Malta, and Oman. Brazil is a somewhat anomalous case in that its period of "miracle growth" occurred during 1950–1980, according to the selection criterion of the Growth Commission, after which it entered into a period of relative decline. Except for a brief (half-page) box on p. 21 of the report, this case does not feature in any of the analysis of the Commission, as it does not share any of the lessons drawn from the other 12 cases. In this respect, the sample of the Commission appears heavily skewed toward East Asia, as very little is said about, nor is there any case material, for Botswana, Malta, and Oman, in addition to Brazil. It remains a question why the Commission did not set its selection criterion somewhat lower than it did in order to generate a more diverse set of countries.

The Commission concludes that the 12 cases of sustained high growth (excluding Brazil) shared five common elements: "a) they fully exploited the world economy; b) they maintained macroeconomic stability; c) they mustered high rates of saving and investment; d) they let markets allocate resources; and e) they had committed, credible, and capable governments (page 21)." Much of the report elaborates on the various policy dimensions of each of these elements. The report also includes a chapter on the development challenge for sub-Saharan Africa, small states, middle-income countries, and resource-rich countries. The concluding chapter includes reflections on a number of current global challenges including climate change, income distribution, migration and demographic change, and global governance.

The background studies for the Commission, which presumably represented the inputs for the Commission's deliberations, cover a range of interesting development topics and case study material. However, they are uneven in quality and presentation, with some topics covered in papers of only a few pages, while others are only in PowerPoint format. Some studies have not yet been made publicly available.

Given that East Asian countries dominate the sample of countries chosen by the Growth Commission, it is interesting to note that this sample (with the exception of China) is the same group of countries chosen for the World Bank's East Asia Miracle study of 1993.[24] Such a comparison raises the obvious question as to what, if anything, is new in the Bank's interpretation of these countries' development experience, given that it was one of the sponsors of the Growth Commission? How has the Bank's understanding of the East Asian development record changed in the past 15 years?

At one level, as reflected in the five common elements noted above, not much has changed. Each of the five characteristics of successful development cited earlier was already emphasized in the earlier East Asia Miracle study and is clearly part of mainstream development thinking. The importance of openness as an underpinning of successful growth and of growth as an essential aspect of poverty alleviation have long been stressed by the Bank in connection with the notion that "openness is good for growth, and growth is good for poverty alleviation."[25] Similarly, most development economists accept the proposition that macroeconomic stability is a necessary, if not sufficient, condition for growth. In addition, the promotion of high savings and investment and the presence of sound public administration have long been emphasized as striking features of the East Asian development experience.

At another level, it is clear that the Commission did not wish to adopt a prescriptive stance on development policy consistent with its view that each country must find its own way to development. It also advanced a relatively agnostic view about industrial policy, which has been extensively debated within the East Asian context and is reviewed later in chapter 6.

On this basis, one is led to conclude that the Growth Commission did not provide any new insight into the development process based on its examination of the East Asian experience. As a result, the Growth Commission report does not have any direct relevance for this study, which is grounded in certain concepts related to the fundamental or "deep" determinants of economic growth that are reviewed in the next chapter.

24. The data for manufactured exports from developing countries can be found on the website of the United Nations Industrial Development Organization (www.unido.org/Data1/IndStatBrief.)
25. This figure for 1980 is cited in Lall et al. (2006).
26. There is an extensive literature of the growth of global production networks or global value chains, as exemplified in the writings of Professor Gary Gereffi; see, for example, Gereffi et al. (2005).
27. A cogent analysis of the recent rapid growth in the trade of intermediate goods, or parts and components, associated with the development of global supply chains and global production networks, which has been called the "second unbundling" of globalization (see footnote 8 above), can be found in Baldwin (2011b).
28. For a recent review of the changes in the pattern of global trade summarized in the text, see IMF (2011).
29. These estimates are drawn from IMF (2011), table 1.

2 The Economic Development of East Asia and Latin America in Comparative Perspective

1. Data for FDI flows and stocks for 1990–2010 can be found in UNCTAD's *World Investment Report* (2012).
2. See UNECLA (2008).
3. During 1960–2010, the coefficient of variation of the average rate of growth in real GDP per capita for Latin America was double that for East Asia, while the average rate of inflation was seven times higher than for East Asia.
4. Based on the Gini coefficients compiled in the Deninger–Squire database of the World Bank (1996), which has recently been updated by UNU-WIDER and is available on its website (www.wider.unu.edu/research/Database/en_GB/database)
5. By 2010, this regional difference in Gini coefficients is estimated to have declined to around 5 percentage points, as Gini coefficients dropped in countries such as Argentina, Brazil, Colombia, Uruguay, and Venezuela, while the average Gini coefficient for East Asia increased to an estimated 45.6.
6. This important phenomenon is explored in Birdsall et al. (2011).
7. The "hukou" system, which has deep historical roots in China, is a household registration system that identifies an individual according to one's original home site (rural or urban) and limits that person's access to social benefits if s/he migrates from a rural to an urban area, for example, for purposes of work.
8. For a recent analysis of these trends in East Asia and Latin America, see Lustig et al. (2012).
9. Loayza and Rigolini (2006).

10. One of the most in-depth studies of informality in Latin America can be found in World Bank (2007).

11. These data are based on Annex Tables A.3 in UNDESA 2006.

12. "Factory Asia" is a term that is commonly used to refer to the highly integrated value chain of production for garments, electronic goods, and automobiles, in particular, that has developed throughout the nine countries of East Asia.

13. These rankings are based on data assembled by Athukorala and Hill (2010), see table 8.

14. These data are drawn from Easterly and Reshef (2009), see table A1.

15. These data are drawn from Athukorala and Hill (2010).

16. The "flying geese" theory of economic development has a long history in the discussion of the post–World War II economic development of East Asia and originated in the writings of Akamatsu (1962). It is discussed again in chapter 4.

17. The "middle-income trap" has been identified with many economies in Latin America, as exemplified recently by Felipe (2012) and Jankowska et al. (2012).

18. It is interesting to note that while the favorable terms of trade effect during the period prior to the onset of the global financial crisis in 2008 was not larger than experienced in some previous decades, the estimated income windfall of the favorable export prices was unprecedented because of the higher scale of exports. Economists at the IMF have estimated that this income windfall was equivalent to 15 percent of annual income per year from 2003 to 2012, or 100 percent of regional domestic income on a cumulative basis. In some oil export countries, such as Venezuela, the income effect was higher than just noted, whereas in some other countries such as Brazil it was lower (Adler and Magud 2013).

19. Growth accounting quantifies the contributions of growth in capital, labor, and total factor productivity to growth in real income per capita, whereas development accounting does the same exercise in terms of levels (as distinct from changes).

20. This exercise is presented in Sachs et al. (2004). The predicted or estimated growth rates for East Asia and Latin America were 7.2 and 1.2 percent, respectively, compared with actual growth rates of 6.4 and 0.4 percent.

21. TFP is required in the neoclassical growth model to offset the effects of declining marginal productivity of capital on income growth, which is ignored in the Harrod–Domar model by virtue of its assumption of a constant ICOR.

22. It is interesting to note that the basic equation of the Harrod–Domar framework ($Y=AK$, where $A=s/v$), nearly 70 years after its first introduction (1946), becomes the basic equation of the endogenous growth model in its so-called AK format ($Y=AK$), which gives rise to the phenomenon of perpetual growth. The main differences between the two frameworks

is that the definition of "A" changes from the ratio of savings to the incremental capital-output ratio (s/v) in the Harrod–Domar model to a measure of technological change or TFP in the endogenous growth framework and the definition of "K" is broadened to include human capital and the output of R&D efforts.

23. These points are persuasively developed in a study by economists at the Federal Reserve Bank of Minneapolis (Cole et al. 2006).

24. The World Bank's East Asian Miracle Study (World Bank 1993) was one of the most widely cited and extensively debated analyses of the economic development experience among its member countries during the past 25 years. Part of the study's controversy is that it downplayed the role of industrial policy in accounting for East Asia's high-growth experience.

25. This phrase most recently has been associated with the work of two World Bank research staff, David Dollar and Art Kraay, for their 2002 study titled "Growth is good for the Poor" (Dollar and Kraay 2002).

3   Changing Paradigms in Development Economics

1. The initial exposition of the neoclassical growth model was presented in Solow (1956) and later elaborated in Solow (1970). In some written contexts, the neoclassical growth model is referred to as the Solow–Swan growth model because of a similar theoretical framework that was developed by the Australian economist (Trevor Swan) and published soon after Solow's original paper.

2. A recent example of growth accounting is Caselli (2005).

3. The two economists most closely associated with the development of endogenous growth theory are Romer (1986) and Lucas (1988).

4. A more recent discussion of the results of growth accounting for East Asia and Latin America than that of Collins and Bosworth (2003) can be found in Singh and Cerisola (2006).

5. A recent study that has examined these limitations in growth accounting can be found in Acemoglu and Autor (2012).

6. The sentiment expressed in this paragraph to some extent echoes a criticism offered by Professor Jonathan Temple in his call for more attention to the role of dual economy models in the analysis of development challenges for low-income countries (Temple 2005).

7. Two extensions of the standard growth model that generate balanced growth with structural transformation can be found in Kongsamut, Rebelo, and Xie (2001) and Ngai and Pissarides (2007).

8. This view of Krugman, based on the research of Alwyn Young (1992), was popularized in an article in Foreign Affairs (1994).

9. The "evolutionist" approach to understanding the East Asian growth "miracle" is laid out in Nelson and Pack (1999).