

Lessons for Sub-Saharan Africa: Using the Development Model from East Asia in Nigeria, 1965–2015



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1 East Asia and the “Miracle” Development Model

East Asia, known for tremendous growth, has been recognized to have economies that are the most economically and politically effective among the developing world. Development economics, an important component of economics, consequently, has attracted scholars to search for effective public policies to ensure development in developing countries. The field of development economics earnestly started at the close of the Second World War. Since then, economists and policymakers have debated the appropriate role of public policy in developing economies [1]. Triggered by the global integration of world markets, especially in the 1990s, e.g., with entities such as the European Union and the North American Free Trade Agreement, East Asia began to identify itself with miracle economies driven by a particular growth model. This title, however, was dismissed by Krugman [2] where he attributes East Asia’s success to high educational achievement, investment in physical capital, and high population work ratio. Khan [3] states “the newly industrializing countries of Asia, like the Soviet Union of the 1950s, have achieved rapid growth in largest part through astonishing mobilization of resources.” The development model of East Asia in this chapter refers to the development strategies with public investments in which some profitable economic sectors and underlying economic fundamentals guide economic policymaking. For any single development model to hold, certain conditions must be fulfilled. This chapter explores these conditions and sets the stage for extended, transference research in a sub-Saharan Africa setting.

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1.1 East Asia's Development Model

Prominent development economist, Kuznets [4] argues that “any development model must have a particular attribute if it is to be a convincing and operational model.” Perkins [5] submits that no single model could describe what the most successful economies in East Asia did to achieve such regional transformation. This misconception was displaced in a World Bank report emphasizing that “there is no single East Asian model of development” [6]. For East Asia, much of the region experienced similar growth features ranging from state intervention through to the creation market-friendly policies, monitoring of market performance, incentives support for domestic industries, management of the finance sector, regional and global economic integration (i.e., leading to increased accumulation of physical and human capital), better allocation of resources, and high export growth. Perkins [7], in his opinion, identifies the export models by state interventionist theory in Japan, Korea, and Taiwan; the free trade barrier and commerce models of Singapore and Hong Kong (i.e., the Hong Kong Special Administrative Region of China and here forth “Hong Kong”); and the models of natural resource endowment in Indonesia, Malaysia, and Thailand, as fundamental to these countries’ economic success. Moreover, the successful capitalist ones mentioned by Berger and Hsiao [8], i.e., “Japan, [and] the so called Four Little Dragons, South Korea, Taiwan, Hong Kong, and Singapore and increasingly, at least some of the countries of ASEAN besides Singapore,” have distinctive socio-cultural features that highlight entrepreneurialism and the free market system. Johnston [9], Wade [10], and Amsden [11] center on East Asia’s growth in terms of regulatory economic policies adopted by governments as key to their success. For example, the important role of the Japanese government to work with its bureaucrats, especially those in the Ministry of International Trade and Industry, to limit corruption and inspire a national work ethic [9, 12]. All told, this explains the institutional model perspective in terms of East Asia’s region-centric growth. Figure 1 illustrates the key East Asian countries reviewed in this chapter.

1.2 Sustained Economies, Exogenous and Endogenous Growth, and Institutional Economics

In contrast, Domar [14] and Harrod [15] in their neoclassical view identify sustained economies due to different mechanisms at different development phases. The model classified as “sustained economies” functions through factor accumulation, resulting from increased capital wedges such as physical land, natural resources, and minerals at the early phase [16] and total factor productivity growth engine at the latter phase. Solow [17] argues and classifies labor and capital, as an exogenous model needed for any economic growth which is consistent with the growth model stated by Swan [18]. Solow [19] further adds total factor productivity growth to the capital and labor



Fig. 1 Reviewed countries’ development model in East Asia. Selected comparative assessment from 1965 to 2015 on countries with a box around their name. Source: adapted from Wikimedia Commons [13]

factors, suggesting that a balanced economy with a constant growth rate of capital, output, population, and consumption as the model anew. Conversely, Romar [20] and Lucas [21] suggest an endogenous growth model as improved technological progress and enhanced economic growth through investment in research and development and innovation. Krugman [2], however, argues that this growth can only be attributed to neoclassical growth theory of increases in productivity with an illustration of the Singaporean government and that of Stalin’s Soviet Union in the 1950s. As such, most of East Asia’s economic growth can be attributed to capital accumulation through high savings instead of technological progress. Krugman [2] points out that, in the long-run, accumulation of capital cannot be sufficient to maintain economic growth, i.e., “the rapid growth in output could be fully explained by rapid growth in inputs: expansion of employment, increases in educational levels, and above all, massive investment in physical capital.” Similarly, Young [22] concludes that total factor productivity does not account for the economic growth in East Asia and attributes the rapid economic growth to a highly skilled workforce dating back to

the 1960s. This, however, excludes Hong Kong which has had a high positive relationship with growth productivity. “In general, rapid factor accumulation, of both capital and labor, explains the lion’s share of the East Asian growth miracle, both in the aggregate economy and in the manufacturing sector” [22].

Drysdale and Huang [23], in contrast to Krugman’s labor and capital accumulation factor, attribute the rapid economic growth of the region to high productivity and technological advancement. In any event, while the growth models cannot be singularly attributed to a particular model, this chapter considers many economic growth drivers, particularly on how South Korea rapidly developed, and attributes those growth factors to regional, demographic, human resource, economic, institutional, and social factors since the 1960s. Moreover, an important economic growth trend, worth mentioning at this point, are institutional theories which play an important role in economic development. They emphasize the role of institutions in economies and the development advantage of having secure and reliable institutions that are trusted by the citizenry. Veblen [24] suggests the need to study the culture of the society through mental habits, traditions, norms, and customs to determine the shape and order of institutions of the state. Mitchell [25] and Commons [26] formalize institutional issues by measuring and studying the impact of institutions on the economy. This influence is reflected on the historical conditions of shaping the institutional order in which special attention is paid to economic transactions and related transaction costs. Based on this concept, new institutional economics was created by Coase [27], Alchian and Kessel [28] and Arrow [29] with reference made to transaction costs and information asymmetry in an economy. Williamson [30] and North [31] arrange and develop the problem of transaction costs. North [31] points out the importance of formal and nonformal regulations in shaping the institutional order of the economy, while De Soto [32] emphasizes the importance of property rights as an important factor in the level of institutional development of the economy.

1.3 Learning from East Asia and Moving Outward

Dating back to the 1960s, a leading development textbook ranked Africa’s growth potential ahead of East Asia—as a whole [33]. While it is obvious that East Asian countries are experiencing rapid economic growth, sub-Saharan African countries have, regrettably, been experiencing slow, stagnate growth in comparison. Lawrence and Thirtle [34] and Easterly and Levine [33] made comparative analyses to find reasons for growth divergence between Asian and African countries despite similar income levels in the 1960s and found factors such as “ethnic diversity, low schooling, political instability, underdeveloped financial systems, distorted foreign exchange markets, high government deficits, and insufficient infrastructure” [33] as key differences. Collier and Gunning [35] in their study found internally faulty public policy as a factor for growth tragedy in sub-Saharan Africa. Frankel [36] classifies natural resources as the main cause as it often shifts the attention of the

economy away from developing other sectors such as manufacturing. However, Presbitero [37] infers some lessons that sub-Saharan Africa could learn from East Asian economies by emphasizing investment in education and human capital, macroeconomic stability, increases in manufactured exports, and equitable and re-distributive economic growth. While it is obvious that sub-Saharan Africa, generally, could learn from the export diversification model of East Asian countries, there is still a need to address future economic sustainability through the adoption of aggressive financial policy and proper management of household debt.

This chapter evaluates the “miracle” development model of East Asia, to derive lessons for sub-Saharan Africa’s regional economic growth. The idea employs a mixed qualitative and quantitative research method by combining the literature with analyses of official data from reputable databases to present an in-depth understanding of economic growth of the selected subregions. Using a mixed method has the benefit of (1) analyzing the extent of the development and divergence between the two regions and (2) employing theories from economic and social scientific fields with a clear focus on growth, economic, institutional, and social development factors. Considering the broadness of economic activities and large number of countries in the selected subregions, this chapter uses case research from South Korea and Nigeria as representative entities of East Asia and sub-Saharan Africa, respectively. An in-depth look at the economic growth of the subregions between 1965 and 2015, i.e., five decades, is the timeline of the research. This chapter also identifies initial similarities as well as major growth determinants between the two and pieces together the main challenges confronting sub-Saharan Africa’s economic growth and draws out applicable lessons for sub-Saharan African countries in regard to growth resilience from East Asia. In addition, suggestions are drawn out to better understand how East Asia has been able to sustain economic growth and what sub-Saharan Africa could do in terms of transparency and innovative advantage. This refers to a proffering of solutions to further develop, promote, and sustain an inclusive economic model of growth and progress in sub-Saharan Africa that has been successfully tried and tested. A breakdown of the subsequent sections are as follows: to review the patterns of East Asia’s development model and identify major economic indicators to better understand the contributing economic growth factors, to identify factors of economic growth in South Korea and Nigeria and analyze economic performance over the five-decade timeline of the research (i.e., drawing out lessons for Nigeria), and to discuss how South Korea can further sustain its economic growth in an ever-increasing competitive global market.

2 Key Economic Indicators that Boost Economic Growth in East Asia and Stagnate It in Sub-Sahara Africa

The major economic indicators that contributed to economic growth in East Asia revolve around the region's development model and historical top-down decisions that went hand-in-hand with visionary socio-cultural factors. Specifically, an analysis on East Asia's development model is centered on questions that try to identify positive indicators and reasons to how they developed and to the rapidity their development. What model accounted for East Asia's rapid economic growth? Is there a unified East Asia growth model? Why has East Asia succeeded while other subregions from around the world, such as sub-Saharan Africa, have not? What factors have driven the divergence of economic performance between East Asia and other subregions from around the world, including sub-Saharan Africa? These questions date back to East Asia's post-war persistence, its year-on-year economic growth championed by Japan, South Korea, Taiwan, Singapore, Hong Kong, and China—i.e., popularly referred to as economies that transformed independence to industrialization, and the subregion's ability to incorporate and engage its population with effective public policies. Comparatively, sub-Saharan Africa is considered among those with growth potential but faces underutilization of economic growth with inappropriate public policies that attribute poor economic performance and growth.

Historically, East Asia and sub-Sahara Africa were predicted of having a high tendency of population growth prior to the Second World War. It is well documented that different trends of population growth over the last 50 years shows two different growth models. In most cases, both subregions increased in population, however, on a year-on-year basis selected East Asian countries have decreased this rate significantly, i.e., China having the highest recorded average population growth of 92.7% over the five decades, while Japan, South Korea, and Hong Kong average 28%, 75%, and 90%, respectively. Contrariwise, sub-Saharan African countries continue to boost their population at increasing rates over the same period, i.e., Nigeria—251%, Zimbabwe—261%, Malawi—322%, and Kenya—383% (Table 1).

Rent seeking, the practice of manipulating public policy or economic conditions as a strategy for increasing profit, is another important indicator that dominated the two regions' economic activities before the start of the growth in East Asia. Specifically, rent seeking enables individuals and institutions to make money from natural resources and land, neither adding value nor contributing to society. In most cases, it is neither immoral literally or illegal, but it does hinder local productivity and economic growth. Nonetheless, in East Asia, it can be said to have overcome the rent seeking syndrome on their way to genuine industrialization, while the problem has, generally, degenerated into blackmail and social crimes such as kidnapping and terrorism in many parts of sub-Saharan Africa, particularly in Nigeria. Similarly, the state of social and economic infrastructure in the early 1960s was very poor in both East Asia and sub-Saharan Africa, respectively. For example, the Korean War of 1950–1953 led to the destruction of major roads, sea and airports, power systems,

Table 1 Historical population change of selected East Asian and sub-Saharan African countries, 1965–2015

	1965	1975	1985	1995	2005	2015
East Asia						
South Korea	28,392,722	34,713,078	40,501,917	44,652,994	47,605,863	50,293,439
	2.52	2.00	1.58	0.77	0.60	0.49
Japan	97,341,852	110,804,519	119,988,663	124,483,305	126,978,754	126,573,481
	1.03	1.33	0.69	0.36	0.20	-0.12
Hong Kong	3,801,814	4,355,301	5,414,790	6,144,498	6,842,465	7,287,983
	4.33	1.93	1.39	1.18	0.17	0.83
China	706,590,947	905,580,445	1,052,622,410	1,227,841,281	1,305,600,630	1,376,048,943
	1.86	2.29	1.48	1.24	0.55	0.52
Sub-Saharan Africa						
Nigeria	50,238,569	63,565,598	83,901,570	108,424,822	139,611,303	182,201,962
	2.13	2.52	2.63	2.55	2.59	2.71
Zimbabwe	4,422,132	6,170,284	8,862,601	11,683,136	12,984,418	15,602,751
	3.34	3.46	3.99	2.19	0.76	2.23
Malawi	4,058,680	5,292,816	7,205,635	9,822,812	12,747,846	17,215,232
	2.32	2.83	3.17	0.86	2.64	3.11
Kenya	9,504,702	13,486,241	19,660,713	27,373,035	35,349,040	46,050,302
	3.24	3.69	3.86	3.15	2.62	2.69

Note: *top* figure is population and *bottom* figure is percentage change

Source: World Bank [38]

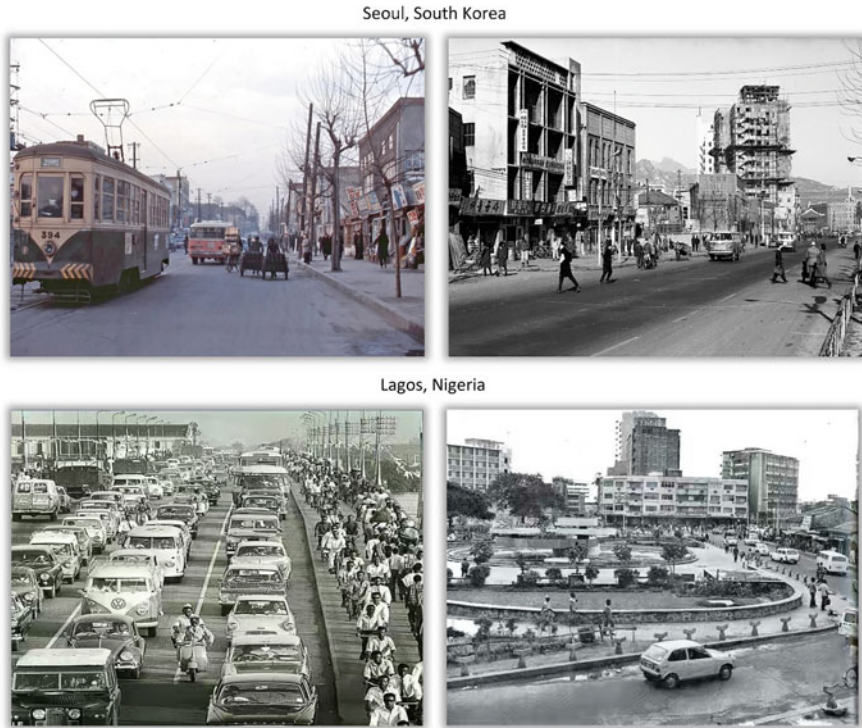


Fig. 2 Capital cities in Nigeria and South Korea in the 1960s: (*top left*) tram and minibus in Soeul, South Korea, in 1966, (*top right*) busy street near the center of Soeul, South Korea, in 1965, (*bottom left*) start of the expressway Ikorodu Road, Lagos, Nigeria, in 1960, and (*bottom right*) Tinubu Square, Lagos, Nigeria, in 1960. Source: (*top left and top right*) Photographs by Stephen Dreher at Quora, Creative Commons Public Domain; (*bottom left and bottom right*) photographs by Slimthugchimee at Nairaland, Creative Commons Public Domain

and even schools, hospitals, and prisons in South Korea. Since then, South Korea has demonstrated an impressive record of economic performance. Much of its success stems from a commitment to infrastructure development. On the other hand, Nigeria remains in shortage of both social and economic infrastructure investment traced to the then Biafran War, persistent systemic corruption, lack of local know-how, and uncommitted government Fig. 2 illustrates a similar level of infrastructure between the capital cities of South Korea and Nigeria in the 1960s—noting the development in Lagos, as modestly, better than Seoul.

In terms of gross domestic product (GDP), differences in economic activity between East Asia and sub-Saharan Africa between 1965 and 2015 indicates several multiplier effects in East Asia not seen in sub-Saharan Africa. GDP, an indicator of how countries maximize their available potential, is a monetary measure of the market value of all the final goods and services produced over certain a period—usually per year. Economic performance in East Asia and sub-Saharan African as

first glance appear to be positive in both subregions; however, the volume at which GDP productivity is multiplied, considering the available potential including population, differs between the two (Table 2). Examining change in GDP growth in combination with the decreasing percentage growth in population of East Asian countries, it is evident that their GDP continues to go up exponentially—due to an upward trend in industrialization advancement. Nominal GDP values of South Korea, Japan, and China moved from billions to trillions of dollars. In South Korea, for instance, the economy grew from USD 3 billion in 1965 to USD 1 trillion in 2015. The exponential growth in GDP in the selected East Asian countries indicates maximum efficiency compared to what happened in the selected sub-Saharan African ones despite their enormous natural and human resources. Even with similar economic and social structures from the 1960s and 1970s, sub-Saharan Africa experienced slow and stagnated economic growth thereafter. As such, until 2005, no country in the sub-Saharan Africa was able to grow GDP above a half trillion dollars, including Nigeria, i.e., the largest economy on the continent (Fig. 3).

A closer look at the nominal GDP per capita, i.e., a factor closely related to the average income, purchasing power parity, and access to money by individuals, indicates how the general welfare of a society fares in terms of economic performance. Often this indicator is related to a country's standard of living, even though, GDP per capita is not a measure of personal income. Clearly, positive effects of the huge economic growth in East Asia show as surge in GDP per capita over time and, hence, continuous improvement in standard of living. On the other hand, sub-Saharan Africa, with increasing population and stagnate economic growth, has many citizens living in poverty (Table 3).

3 Patterns of East Asia's Development Model: Case of South Korea

As one of the world economic powers, South Korea remains the twelfth largest economy globally and continues to be in the limelight as one of a handful of developing countries that have adjusted successfully to both the oil shocks of the 1970s and the debt shock of the early 1980s—partly due to its export-oriented growth model. South Korea's economic growth strategy shifted from import dominated to an export-oriented economy dating back to as early as 1960, yielding a tremendous positive impact to the growth of the country. Its economy which was categorized as one of the world's poorest at the end of Second World War, moved to become globally recognized as a developed economy after proper implementation of export promotion policy [10, 23, 39]. Between 1965 and 2015, South Korea has transformed GDP via continuous growth from expansion of industrial goods, manufacturing goods, and increased exportation of locally made goods. Prior to the country pursuing an export-oriented economic agenda, deficit trade balance was

Table 2 Record of nominal GDP (USD) (*top*) and GDP growth rate (annual %) (*bottom*) of selected East Asian and sub-Saharan African countries, 1965–2015

	1965	1975	1985	1995	2005	2015
East Asia						
South Korea	3,017,614,366	22,797,520,661	103,729,914,254	559,329,547,369	898,137,194,716	1,377,873,107,856
	5.2	7.3	7.5	8.9	3.9	2.6
Japan	90,950,278,257	512,861,437,158	1,384,532,251,034	5,449,116,304,981	4,755,410,630,912	4,383,076,298,081
	5.8	3.1	6.3	2.7	1.7	1.2
Hong Kong	2,435,078,534	10,048,022,369	35,699,543,050	144,652,912,433	181,570,082,162	309,234,500,374
	14.6	0.5	0.8	2.4	7.4	2.4
China	70,436,266,146	163,431,551,779	309,486,394,557	734,548,001,963	2,285,965,854,313	11,064,664,793,255
	17.0	8.7	13.4	10.9	11.4	6.9
Sub-Saharan Africa						
Nigeria	5,874,422,511	27,778,934,624	28,873,977,228	28,546,958,641	112,248,353,104	486,792,837,970
	4.9	-5.2	8.3	-0.3	3.4	2.7
Zimbabwe	1,311,435,800	4,371,300,700	5,637,259,300	7,111,270,700	5,755,215,200	14,419,185,900
	4.9	-1.9	6.9	0.2	-5.7	0.5
Malawi	229,460,183	613,196,872	1,131,349,992	1,397,454,122	3,655,892,941	6,403,820,949
	13.6	6.1	4.6	16.7	3.3	2.8
Kenya	997,919,319	3,259,344,935	6,135,034,338	9,046,326,059	18,737,895,401	63,398,041,540
	2.0	0.9	4.3	4.4	5.9	5.6

Source: World Bank [38]

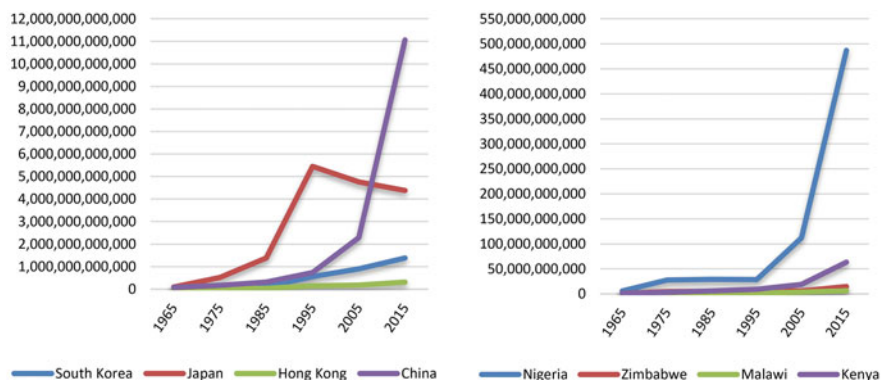


Fig. 3 GDP growth of selected East Asian and sub-Saharan African countries, 1965–2015. Source: World Bank [38]

Table 3 Record of nominal GDP per capita (USD) of selected East Asian and sub-Saharan African countries, 1965–2015

	1965	1975	1985	1995	2005	2015
East Asia						
South Korea	105.13	646.17	2542.04	12,403.91	18,657.52	27,221.52
Japan	919.78	4581.57	11,465.73	43,440.37	37,217.65	34,523.70
Hong Kong	676.81	2252.11	6542.93	23,497.49	26,649.75	42,327.84
China	98.49	178.34	294.46	609.66	1753.42	8069.21
Sub-Saharan Africa						
Nigeria	116.93	437.01	344.14	263.29	804.01	2671.72
Zimbabwe	296.56	708.44	636.07	608.68	443.24	924.14
Malawi	56.54	115.85	157.01	142.27	286.79	371.99
Kenya	104.99	241.68	312.05	330.48	530.08	1376.71

Source: World Bank [38]

noticed in foreign trade until 1985. However, the country moved to a surplus trade balance regime as a result of increased exportation of locally made goods that went up by 37%, i.e., from 8% in 1965 to 45% in 2015, while imports swelled by only 23%, i.e., from 16% to 39% [38]. Likewise, industrial and manufacturing sector contribution to nominal GDP grew from 21% to 38% and 14% to 30%, respectively. Meanwhile, contribution of the agriculture sector, i.e., the main source of country’s primary goods to GDP fell drastically in the five-decade review (Table 4).

Inflation is a crucial macroeconomic indicator. South Korea maintained a positive growth, persistently achieving a reduction in the general price levels in its economy. Inflation which is simply the GDP deflators was relatively unstable until 1982. As such, inflation in South Korea reached a record high of 33% in 1964, 30% in 1974, 24% in 1975 and 1980, respectively. On the other hand, a new trend began in 1982 when the inflation suddenly dropped from a two-digit figure of 17% in 1981 to a single-digit figure of 6%. South Korea has maintained, globally, one of the relative

Table 4 South Korea economic snapshot, 1965–2015

Indicator	1965	1975	1985	1995	2005	2015
Nominal GDP (USD)	3,017,614,366	22,797,520,661	103,729,914,254	559,329,547,369	898,137,194,716	1,377,873,107,856
Inflation, GDP deflator (annual %)	6.42	24.42	4.21	7.46	1.03	2.21
Industry, value added (% of GDP)	21.31	27.39	36.10	38.38	37.50	37.98
Manufacturing, value added (% of GDP)	14.32	20.26	25.23	25.34	28.28	29.49
Agriculture, value added (% of GDP)	39.36	25.39	12.51	5.82	3.15	2.31
Trade (% of GDP)	24.22	58.64	59.01	54.32	71.18	84.84
Imports of goods and services (% of GDP)	15.92	33.33	29.23	27.66	34.37	38.94

Source: World Bank [38]

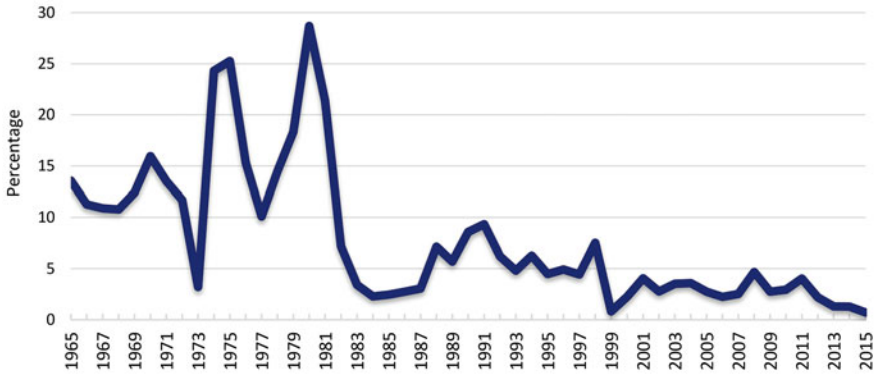


Fig. 4 South Korea inflation profile, 1965–2015. Source: World Bank [38]

lowest single-digit inflation rates for over 35 years (i.e., from 1982) with an all-time record low of -1% in 1999 (Fig. 4).

Domestic demand is the sum of household, government, and firm expenditure, i.e., respectively called consumption, public expenditure, and investment, also saw an aggregate domestic consumption in South Korea fall over the five-decade review. In 1965, approximately 92% of South Korea's GDP originated from domestic demand with household demand at 82%, while government consumption accounted for only 10%. Despite the trend of a huge increase in GDP per capita, total domestic consumption fell from 92% of GDP in 1965 to 65% in 2015. This accounted for a sharp reduction in household consumption from 82% to 49% of GDP from 1965 to 2015, respectively. As such, in 1990, South Korea's public debt represented only 13.4% of total GDP, while in 2014, the debt value jumped to approximately 35.9%, and a 1.9% rise to 37.8% in 2015. South Korea had a total debt of about USD 102.5 billion in 2002 which rose to over USD 480 billion in 2015, representing over an increase of 371% within a 12-year period. When compared with Japan, the United States, France, and the United Kingdom, where public debt to GDP was as high as 261%, 93.6%, 102%, and 103.7% in 2015 and some of the most developed economies in the world, respectively, according to the Organization for Economic Co-operation and Development (OECD) [40], with total debt less than 40% of total GDP, South Korea is still considered a financially stable country [41]. That being said, the World Bank considers any country with public debt less than 48% of GDP as a low-risk case, however, the rate of South Korea's public debt growth in the five-decade review is alarming. Nevertheless, its external debt position is still strong. Total foreign debt amounts to around 40% of GDP and around 65% of total current account receipts. Short-term foreign debt amounts to about one-third of total foreign debt (Fig. 5). As an instrument that enables South Korea to successfully divert a large portion of available resources to the leading sector [i.e., its heavy and chemical industry (HCI)], it supports the positive result of the export market which can be said to devalue the South Korean won.

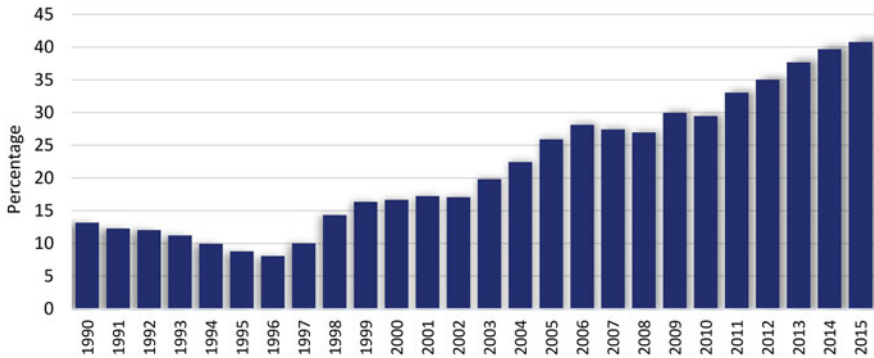


Fig. 5 South Korea total foreign debt as a percentage of GDP, 1990–2015. Source: FRED Economic Data [42]

Qualitatively, after analyzing South Korea’s economic performance over the five-decade period, sound leadership, economic diversification through a shift from traditional import substitution policies to export-oriented ones (i.e., to support development of local manufacturing through various incentives), and promotion of all forms of export without distinguishing commodities from other exports are evident. The protection of the domestic market, i.e., to create competitive secondary or capital and technology-intensive manufacturing goods, is to progress to achieve a second phase that focuses on light industries and HCI as a third phase via export promotion policies. As such, South Korea adopted a number of pronounced fiscal and financial measures that pilot this change even today. Figure 6 exhibits some of the modern-day advances that highlight South Korea’s prosperity and development. The export measures of South Korea comprise of tax incentives, financial incentives, establishment of free trade zones, and supporting organizations (Table 5). South Korea employs other critical complementary policies that also create investment-friendly environment and organizational measures to reinforce its export-oriented economy. Some of the major policies include free trade zones, exchange rate devaluation, and formation of organizations to further liberalized the economy in order increase the flow of foreign investment which drives export performance.

Moreover, South Korea’s exports are dominated by merchandise exports and have grown from USD 173 million in value to USD 526 billion, representing 304,383% growth between 1965 and 2015. The country’s exports consist of merchandise exports, commercial services, information and communication technology (ICT) services, and goods and services. Merchandise, being the leading exporting sector, comprises manufactured goods, ore and metal, food, and agricultural produce. However, manufacturing (i.e., led by high-technology goods) recorded major positive growth from 18% of merchandise to 90%. Equally, during the same period, commercial service exports which cover travel services, transport services, ICT, and insurance and financial services achieved growth of 1603%. In addition to commercial service, exports of ICT services from South Korea surged rapidly from USD



Fig. 6 Examples of modernization in Seoul, South Korea: (top left) integrated blue green development within the city center, (top right) vibrant and clean marketplace, (middle) perspective of the city atop Namsan Mountain exhibiting the vastness and order of the city’s development, (bottom left) GPS bike-sharing system, and (bottom right) one of the many urban green-friendly parks entrenched within the city. Source: Photographs by Giuseppe T. Cirella, September 29, 2018

881 million in 1965 to USD 1.4 billion in 2015, showing approximately a 2406% increase (Fig. 7).

Increasing government expenditure on various human development incentives also accounted for the successful economic growth in South Korea. Based on World Bank data, total government investment surge from approximately USD 307 million (i.e., 3.27% of the total GDP) in 1970 to USD 60.1 billion (i.e., 4.6%) in 2013. This investment represents a total growth of 19,478% over 44 years. With a population of

Table 5 Incentives offered and supportive measures for investors in South Korea

Incentives offered for investors by the central government	
Offered	Hi-tech businesses
Tax reduction and exemption	• Tax reduction or exemption for 5–7 years
Land support	• Rent reduced by 50–100%
Cash grant	• Not less than 5% of the investment amount
Other support	• Employment subsidy • Education and training subsidy
Supportive measures for foreign investors taken by the Seoul Metropolitan government	
Offered	Foreign investment company:
	1. Industry support service and high-degree technology business 2. Businesses in standalone type foreign investment zones (e.g., tourism)
Tax reduction and exemption	Income tax: • 100% for 5 years after income creation • 50% for next 2 years Acquisition and registration tax: • 100% for 10 years after income creation • 50% for next 5 years Property tax: • 100% for 5 years after income creation • 50% for next 2 years
Cash grant	• Businesses providing industrial services; hi-tech businesses; businesses building new facilities or expanding existing facilities in parts and material sectors • Employing a large number of employees (i.e., 50–300) • Employing permanent research employees (i.e., 5 or more) • Up to 50% of foreign direct investment amount
Training subsidy and employment subsidy	• Foreign investment ratio shall be over 30% • Regular worker should be over 20, USD 902 per person for 6 months, and limited to a total of USD 180,000 per company
Small and medium-sized enterprise fostering fund	• Businesses providing industrial services; hi-tech businesses; businesses engaging in knowledge-related services in manufacturing (i.e., up to 8 years and up to USD 1,739,000)
Support for fostering environment conducive to foreign investors	Business and operational expenses • Projects for the formation of foreigners' villages • Construction of infrastructure facilities designed to foster an environment suited to foreigners' everyday lives • Construction and operation of facilities related to improvement of the FDI environment
Biomedical fund	• Prestigious bio-businesses (i.e., domestic and foreign)
Research and development-related cash support	• Provision of research expenses on a selective basis for domestic university research institutes launching research institutes in Seoul jointly with world-famous counterparts

(continued)

Table 5 (continued)

	<ul style="list-style-type: none"> • Promotion of the Industrial Education and Industry Academic Co-operation Act
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Source: Invest Soeul [43]

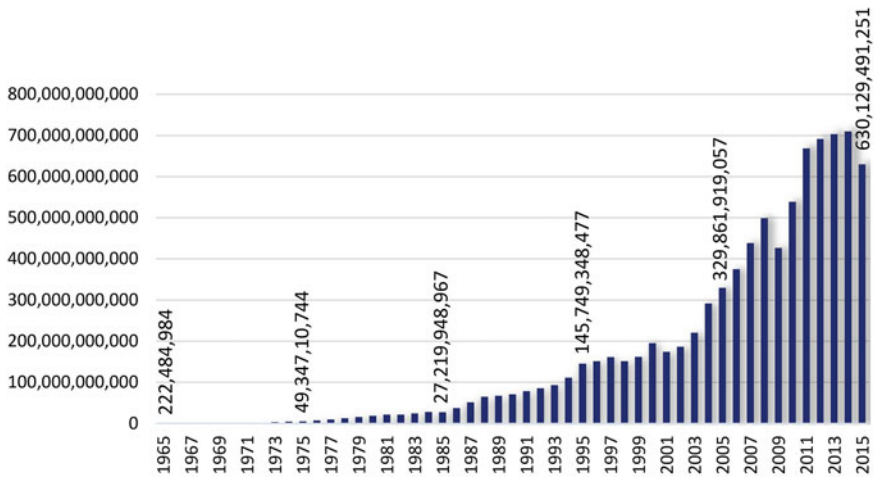


Fig. 7 South Korea export performance (USD), 1965–2015. Source: World Bank [38]

32.2 million and 50.2 million in 1970 and 2013, respectively, the surge in education investment indicates that government education expenditure was high while the population only grew by 55.76%.

4 Economy Appraisal of Nigeria and Lessons from South Korea

For a comparative analysis, GDP per capita in South Korea in 1965 was on USD 105.13 representing only 89% of that of Nigeria which was USD 116.93 per annual. Surprisingly, by 2015 South Korea GDP per capita grew to USD 27,221.52 per year, meaning 1000% above that of Nigeria that only grew to USD 2671.72 over same period. It is important to reiterate that Nigeria and South Korea shared the same socioeconomic features in the 1960s as previously narrated even with more potential for growth such as natural resources, population, and sufficient arable farmland in favor of Nigeria. However, how South Korea rapidly and consistently grew requires a critical breakdown of other developing nations at the time. An economic snapshot of Nigeria is presented in Table 6; this can be compared with South Korea’s economic snapshot in Table 4.

Table 6 Nigeria economic snapshot, 1965–2015

Indicator	1965	1975	1985	1995	2005	2015
Nominal GDP (USD)	5,874,422,511	27,778,934,624	28,873,977,228	28,546,958,641	112,248,353,104	486,792,837,970
Inflation, GDP deflator (annual %)	0.86	23.50	5.54	113.08	22.02	2.86
Industry, value added (% of GDP)	–	–	29.86	46.02	43.51	20.38
Manufacturing, value added (% of GDP)	–	–	9.46	5.45	2.83	9.53
Agriculture, value added (% of GDP)	–	–	39.21	32.06	32.76	20.86
Trade (% of GDP)	26.91	41.17	25.90	59.77	50.75	21.45
Imports of goods and services (% of GDP)	16.02	22.83	8.51	24.01	19.09	10.79
Exports of goods and services (% of GDP)	10.89	18.34	17.39	35.76	31.66	10.66

Source: World Bank [38]

Table 7 Natural resources rent performance in Nigeria, 1970–2015

Indicator	1970	1975	1985	1995	2005	2015	% growth
Forest rents (% of GDP)	0.02	0.02	0.01	0.00	0.00	0.03	26.66
Oil rents (% of GDP)	1.64	1.94	2.62	8.11	2.17	1.32	(19.32)
Natural gas rents (% of GDP)	–	20.24	30.64	27.27	30.20	3.03	(85.01)
Coal rents (% of GDP)	1.64	1.94	2.62	8.11	2.17	1.32	(19.32)

Source: World Bank [38]

Despite Nigeria's huge local market and openness to regional and global markets, declining growth rate in major sectors indicates neglects and underutilization of the country's human and natural resources. Industry and agriculture value added to the percentage of GDP, i.e., as a measure of productivity, surprisingly depleted by –31.7% and –46.8% in the five-decade review. No wonder the country is ranked among the world's poorest. Nigeria's manufacturing only recorded 0.78% growth between 1965 and 2015, and the country only relies on importation of both primary and secondary goods to bridge the gap of shortages in local production. The collapse of agriculture, manufacturing, and industrial sectors forced Nigeria to depend solely on income from natural resources. Over the reviewed timeline, only forest rent recorded positive contributions to GDP. Nigeria's rents earnings from oil, natural gas, and coal which are the main stay of the economy have been deteriorating. They grew very significantly between 1970 and 2010, but dropped drastically since 2011 after persistence fall in global commodities price and advancement in energy transition to clean technology all over the world (Table 7).

Macroeconomic policy (i.e., monetary, fiscal, exchange rate, etc.) are primarily the vehicles to achieve economic growth and development within a stable and competitive market environment around the world. Various academic works attribute Nigeria's economic issues to factors such as political, security, diverse cultural, corruption, and poor infrastructural problems [44–49]. Nonetheless, for the purpose of learning specifically from South Korea's rapid economic growth, this chapter narrows the challenges. Underdevelopment and the financial market in Nigeria (i.e., with its very limited size) is unstable and continues to deepen in terms of inefficiency to mobilize savings and redirect them to the most needed. Thus, profitable investment such as domestic financing of startups of all ranges (i.e., small, medium, and large), project financing, and even government financing becomes difficult and frustrating due to increasing interest rates. For example, a critical examination of capital market valuation in Nigeria and South Korea in the 10-year period of 2004 to 2014 saw South Korea's market capitalization surge greatly from approximately USD 423 billion to USD 1.2 trillion, covering up to 56% and 89% of GDP in the respective years. Meanwhile, Nigeria market capitalization grew from USD 15.8 billion to USD 49.7 billion, representing 18% and 10% of GDP in the same period, respectively. The value of Nigeria's market capitalization stood at an average of 5% of that of South Korea annually (Table 8). Likewise, the sharp and continuous lower interest rate (i.e., lending rate) serves as another advantage of the stable financial market that encourages investment borrowing in South Korea, which is contrary to

Table 8 Market capitalization of listed domestic companies in South Korea and Nigeria, 2004–2014

Year	South Korea		Nigeria	
	Current USD	% of GDP	Current USD	% of GDP
2004	428,325,580,000	56.00	15,865,940,000	18.06
2005	718,010,710,000	79.94	22,244,000,000	19.82
2006	834,404,280,000	82.47	32,830,510,000	22.57
2007	1,122,606,330,000	99.99	84,894,570,000	51.00
2008	470,797,680,000	46.98	48,062,280,000	23.10
2009	834,596,860,000	92.53	32,223,400,000	19.01
2010	1,091,911,460,000	99.76	50,546,400,000	13.77
2011	996,139,920,000	82.84	39,028,390,000	9.55
2012	1,179,419,470,000	96.45	56,205,200,000	12.30
2013	1,234,548,550,000	94.56	80,609,900,000	15.85
2014	1,212,759,460,000	85.93	62,766,310,000	11.48
2015	1,231,199,760,000	89.36	49,973,880,000	10.27

Source: World Bank [38]

the situation in Nigeria, where the lending rate keeps going up due to scarcity of funds thereby discouraging investment.

In the case of Nigeria, political instability led to frequent change in fiscal and monetary policies resulting to the introduction of several unsuccessfully implemented policies which remain a major obstacle to economic growth in Nigeria and other sub-Saharan countries. This problem is accompanied by resource wastage, poor infrastructure, and high-country risk for businesses which impact negatively on foreign investments and real sector development (Fig. 8). That being said, the effectiveness of economic systems in these countries and the disproportions that occur in them can be related to institutional order. The regulatory order created by institutions as well as enforcement regulations can be assessed by the level of corruption and the size of the shadow economy [50–52]. The effectiveness of the institutional order is manifested in economic freedom, the rule of law, respect for private property rights, and political sovereignty (e.g., democracy) [53–55]. The high level of corruption and the size of the shadow economy usually prove to be a weakness of the economic institutions. In this case, presently Nigeria is a country with a higher degree of corruption and has a larger shadow economy as a share of its total economy. On the other hand, South Korea is not a country burdened with corruption and has a smaller shadow economy. Interestingly, data on South Korea's shadow economy over the period 1991–2015 does reveal its level of shadow economy percentage of GDP decreased from about 30% to less than 20%, respectively. In Nigeria, over the same period, the level of the shadow economy has consistently remained over 50%. Moreover, in terms of corruption, South Korea ranks much better, i.e., it has a relatively low level of corruption in comparison to Nigeria—i.e., one of the most corrupt countries in the world (Table 9). In addition, poor productivity of human resources in every sector of Nigeria's economy cannot



Fig. 8 Examples of resource wastage, poor infrastructure, and high-country risk from real sector development in Ota, Ogun, Nigeria: (*top left*) poor bridge infrastructure, (*top middle*) dilapidated electricity transformer, (*top right*) regularly flooded internal road, (*bottom left*) overflowing waste on urban road, and (*bottom right*) abandoned service station due to poor road conditions. Source: Photographs by Olajumoke I. Omodara, July 31, 2022

Table 9 Shadow economy percentage of GDP (*top*) and Corruption Index ranking (*bottom*) of South Korea and Nigeria, 1991–2015

	1991	1995	2000	2005	2010	2015
South Korea	29.13	27.48	27.50	26.03	22.97	19.83
	–	48	48	40	41	43
Nigeria	56.95	62.21	57.90	55.84	52.80	52.49
	–	90	90	152	143	136

Source: Global Economy [56] and Transparency International [57]

be separated from inadequate human capacity development. Nigeria’s Human Development Index value for 2015 is 0.527—which put the country in the low human development category—positioning it at 152 out of 188 countries and territories [58] (Table 10).

The experience of a resilient economy and social transformation of South Korea serves as an encouraging model for other developing countries of the world,

Table 10 Sectors of South Korea and Nigeria, 1965 and 2015

Indicator	Country	1965	2015	% growth
Industry, value added (% of GDP)	South Korea	21.31	37.98	78.22
	Nigeria	29.86	20.38	(31.74)
Manufacturing, value added (% of GDP)	South Korea	14.32	29.49	105.88
	Nigeria	9.46	9.53	0.78
Agriculture, value added (% of GDP)	South Korea	39.36	2.31	(94.13)
	Nigeria	39.21	20.86	(46.80)
Imports of goods and services (% of GDP)	South Korea	15.92	38.94	144.64
	Nigeria	16.02	10.79	(32.63)
Exports of goods and services (% of GDP)	South Korea	8.30	36.81	343.38
	Nigeria	10.89	10.66	(2.17)

Source: World Bank [38]

particularly Nigeria. When we consider how South Korea committed its industrial upgrading from light industry to HCI, it successfully transited the country's labor force from initial subsistence sectors to advanced industrial ones. For developing subregions, like sub-Saharan Africa, an ability to uphold strong fiscal discipline, low public debt, and financial prudence and accountability as in South Korea's development model is debatable for each country's future. Developing countries, through planning and policy, must first evaluate if such a model is suitable and viable and then ascertain if aspects of such a model can be integrated and achieved within an appropriate timeframe.

5 Conclusion

The East Asian development model has no doubt been dismantled as imperfect by scholars alike [59–63]. Nonetheless, economic growth in the East Asian region has been achieved through increased labor force, investment in capital, export led growth, and technological advancement, as well as investment in research and development, an efficient market system, and proactive government implementation of various developmental and reform policies suitable to each country. Moreover, a development focus was separately determined by socioeconomic values and culture throughout the region. This chapter attributes the development model of East Asia primarily through the case of South Korea. In a general sense, this has meant supporting investment in education to enhance human capital. Education has no doubt a large effect on economic growth as it helps in innovation, new ideas, efficient productivity, and critical thinking for positive values in terms of development economics. This manner of thinking improved the region's competency, comparative advantage, and increased productivity, in turn, leading to economic growth. In addition, it can be recognized that the effective role of industrialization in South Korea aided in its economic transformation and development strategy.

Specifically, the Korean government shared in investment risk by reducing all forms of trade barriers and giving maximum support to private investors to increase market competitive performance, on a global scale, with adequate supervision of the financial sectors. As a result, the South Korean economy grew rapidly from its industrialization policies, interlinking with its OECD membership, by integrating aspects of its trade economy into its development model. Nigeria's economy, on the other hand, though recording positive economic growth from 1965 to 2015, was slow and stagnate. In 2015, South Korea's GDP per capita grew to USD 27,221.52 per year, i.e., 1000% above Nigeria's USD 2671.72, over the period of review. Overall, sectoral performance of Nigeria's economy has not been impressive despite the natural resources advantage over South Korea.

In regard to what led to the inadequate, overall, economic performance of Nigeria, this chapter points out factors such as lack of development of financial markets (i.e., with very limited size and instability), consistently boosted inefficiency of the market to mobilize savings. Also, political instability which often cause change in fiscal and monetary policies resulted in unsuccessful implementation of them, thereby altering economic growth of the country and sub-Saharan Africa at large. Moreover, poor productivity of human resources in every sector of the economy cannot be overlooked as this is chiefly caused by inadequate human capacity development. It is worth noting that the level of development of South Korea and other OECD countries is based on the foundations of efficient institutions and the regulations they create. The challenge for Nigeria should be to improve the functioning of institutions conducive to the economic and social system. The high level of corruption and the shadow economy in Nigeria requires clean-up and change in this area. As such, this chapter concludes that the experience of a resilient economy and even the social transformation of South Korea, especially its transition from being an aid receiver to aid giver, serves as hope for other developing countries. This can be achieved if countries are able to diversify their economies, improve domestic labor force skills (e.g., through enhanced research and development), innovate and advance ICT, and implement sound institutional policies capable of adequately supervising and maintaining stable financial and healthy fiscal policies. For the continued sustainable economic growth of South Korea, this work further suggests the need for further diversification of the economy to develop underperforming sectors, and to raise domestic demand and other sources of income. Developing other sectors of the economy and increasing domestic demand will serve as a security measure for the economy and protect it from potential global market shocks, e.g., the COVID-19 crisis. To end, the research work suggests strengthening budgetary control to improve fiscal solvency. Maintaining a low external debt profile will also reduce government expenditure on debt servicing and, thus, continue to boost the country's image as a stable and relatively risk-free economy, inducing further investment. The work suggests restructuring and optimization of trade through reduction in imports, and exports expansion for more efficient trade balance. Finally, as East Asia enters a new phase of Chinese dominance, sub-Saharan Africa's reliance on and support from China may offer alternate opportunities as African

countries veer towards the African Union's Agenda 2063 and its blueprint and master plan to transform Africa into a future global powerhouse.

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