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CHAPTER 7

Renewing Industrialization Strategies in Africa

BEYOND A MIDDLE INCOME AFRICA:

Transforming African Economies
for Sustained Growth with Rising
Employment and Incomes

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CHAPTER 7

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Patrick Kormawa and Afeikhena Jerome



Introduction

Growth in real gross domestic product (GDP) in Africa has averaged 5.4 percent a year during 1995–2013, with nearly one-quarter of countries in the region growing at an average rate of 6 percent or higher (OECD/AfDB/UNDP 2014). The region is now the second highest growing in the world, outperformed only by East Asia and the Pacific region. Overall, the size of the regional economy has more than doubled (in real terms) during this period (Diop 2015). The increase in Africa's economic size during this period is likely to be even larger than previously thought, as shown by the results of recent rebasing of nominal GDP in several countries. (Ghana commenced the current round of rebasing in 2010, which saw its economy surge by 62 percent; Nigeria rebased in 2014 and the size of its economy increased by 89 percent, thus surpassing South Africa to become Africa's largest economy, at US\$510 billion; Kenya experienced a 25.3 percent increase and Uganda 13 percent after both countries rebased in 2015.)¹

Yet, important risks remain. Economic growth is still largely driven by commodity exports, especially oil and metals. The economic structures of several African countries, especially the resource-rich countries, have become more concentrated, making them more vulnerable to external shocks. This is in sharp contrast to the growth pattern of other developing regions, especially Asia, where growth has been driven by a solid industrialization agenda underpinned by manufacturing. Slumping oil and commodity prices, a slowdown in China's pace of industrialization, and the Ebola outbreak that severely disrupted economic activity in Guinea, Liberia,

and Sierra Leone are already conspiring to bring down Africa's growth rate this year to its lowest in two decades.

Recent growth in Africa has also not been accompanied by significant structural transformation characterized by a reallocation of resources from low-productivity activities into modern, high-productivity sectors such as manufacturing (UNECA 2014; ACET 2014). Available evidence suggests that structural transformation in Africa is either growth retarding (McMillan and Rodrik 2011) or at its formative stage and marked by atypical transition from agriculture to service, bypassing manufacturing (McMillan and Harttgen 2014).

As a result of very low poverty to growth elasticity, Africa is the only region in the world that has experienced an upsurge in poverty over the last three decades, in stark contrast to the dramatic gains in the fight against poverty that were achieved particularly in Asia. Thus, Africa is still home to a disproportionate 30 percent of the world's poor despite comprising merely 12 percent of the world population. Worse still, the number of people in extreme poverty has doubled to some 300 million people since the mid-1980s and is expected to reach as high as 400 million by 2015 (Ajakaiye and Jerome 2014). Moreover, Africa's recent growth has not been inclusive because it fails to provide remunerative employment opportunities for its rapidly growing youthful population. Only one in two young Africans participates in wage-earning jobs because most economic activities take place mainly in the informal sector, accounting for more than half of GDP and employing more than 80 percent of the population (World Economic Forum 2015). Deprived of gainful means of livelihood, many fleeing African

¹ All dollar figures are in United States Dollars

youths are embarking on the deadly boat rides through the Mediterranean in the quest to migrate illegally to Europe. In February 2014 alone, as many as 1,100 migrants, mainly from Africa south of the Sahara (SSA), were rescued from inflatable boats 220 kilometers off the coast of Italy (Global Initiative Against Transnational Organized Crime 2014).

Indeed, more than half of the 20 lowest ranked countries in the Global Competitive Index ranking of 2014/2015 were African countries, and overall the region continues to underperform in many areas of the basic requirements of competitiveness: the infrastructure deficit remains profound, and despite gradual improvements in recent years, health and basic education remain low and institutions are inchoate. The highest ranked country was Mauritius at 39 out of 144 countries, 17 places ahead of the second-ranked country, South Africa, at 59. No African country featured in the 37 countries tagged as innovation-driven economies.

In sum, Africa's recent economic growth is no doubt masking serious future growth challenges that will need to be addressed if African economies are to join the rank of middle-income economies. In spite of the positive growth performance of African economies since 1995, lack of structural change—the shift of resources from low-productivity to more dynamic higher-productivity sectors—continue to elude Africa and limit its long-term growth prospects and opportunities for productive employment. Africa's relevance in the global economy today seems to be relegated to that

of a source of raw materials, and this has to change. Going forward, the main challenge will therefore be to turn high growth into inclusive growth. This will require focusing on efforts to transition from still largely agriculture-based economies to higher value-added activities through industrialization to address these challenges.

Nonetheless, there is a renewed push for industrialization in Africa in recent years and a groundswell of activities around industry. At the request of the African Union, the United Nations Industrial Development Organization (UNIDO) has formulated, together with African governments and the private sector, the “Action Plan for the Accelerated Industrial Development of Africa (AIDA),” a strategy that aims to mobilize both financial and nonfinancial resources and enhance Africa's industrial performance. AIDA was adopted by African heads of state at its summit in 2008, which was devoted to industrialization.² AIDA is a central pillar of the new Africa's strategy for 2063 and of the Africa-EU roadmap for 2014–2017.

Africa Industrialization Day is now celebrated with fanfare on November 20 each year.³ The Sixth Joint United Nations Economic Commission for Africa and the African Union Conference of Ministers of Economy and Finance met in Abidjan on March 25–26, 2013, and deliberated on the theme “Industrialization for an Emerging Africa” (African Union 2013a). Since 2013, the Economic Report on Africa, jointly produced by the Economic Commission for Africa and the African Union, has focused

² AIDA provides practical options and an integrated framework for accelerating industrial development at regional and continental levels. It comprises 16 programs and 49 projects to be undertaken within seven clusters and its accompanying implementation strategy.

³ The 25th Ordinary Session of the Assembly of Heads of State and Government of the Organization of African Unity (OAU) held in Addis Ababa, Ethiopia, in July 1989 declared November 20 as Africa Industrialization Day. On December 22, 1989, the UN General Assembly also proclaimed this date to be Africa Industrialization Day. It was first observed on November 20, 1990. Each year, events around Africa Industrialization Day concentrate on a particular theme.

on industrialization, which also featured prominently in recent continental plans, such as the Common African Position (CAP) on the Post-2015 Development Agenda and Africa Agenda 2063 (African Union 2013b).⁴

At the global level, industrialization is being reinvigorated as part of the Post-2015 Development Agenda. The Open Working Group (OWG) recognized that quality growth and jobs should be central to a new development framework beyond 2015 and accordingly has proposed Goal No. 9 as part of the 17 Sustainable Development Goals (SDGs) on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation that accords industrialization a pride of place.

What is needed is to sustain the current momentum and move from rhetoric to action. Africa is already demonstrating its resilience despite considerable external challenges and taking advantage of emerging opportunities. Several countries are showing that they can sustain a trajectory of economic growth and beat the “resource curse” through prudent macroeconomic policies adopted in the last two decades. Five countries were among the ten reformers in the 2015 Doing Business Ranking (see Diop, Yong, and Shide 2015). Foreign direct investment surged to a record \$56 billion in 2014, driven by international and regional market-seeking investments as well as infrastructure investments, according to UNCTAD’s World Investment Report 2014.

As a result of the slowing down of emerging market growth and China’s rebalancing trouble, the continent is becoming more attractive to

investors seeking to take advantage of its one billion people. Manufacturers are already looking to countries such as Ethiopia, Kenya, and Rwanda as a result of rising production costs in Asia. A Chinese firm, the Huajian shoe factory, which opened in Ethiopia in 2012 as a result of a combination of cheap labor and electricity and a government committed to attracting foreign investment, is already showing that Africa can indeed become a global manufacturing hub. Apart from becoming profitable in its first year of operation, the company, which currently employs about 600 people, has committed to invest \$2 billion over the next decade to create a light manufacturing special economic zone in Ethiopia, creating about 30,000 jobs in Addis Ababa by 2022. Other African countries need to latch on to these developments and close the convergence gap with the rest of the world by reviving industrialization, among other measures.

This chapter reviews Africa’s effort toward the renewal of industrialization over the past several years and proposes a new approach to industrial policy for Africa. The chapter is divided into five sections. After this introduction, the second section builds a case for Africa’s industrialization and assesses the current state of the industry. Section 3 introduces the past industrial strategies and their outcomes. Section 4 provides an outline for a new industrial policy for Africa.

The Case for African Industrialization

Industrialization is crucial to economic development. Virtually all cases of high, rapid, and sustained economic growth in modern economic history

⁴ The Common African Position is the outcome of intense consultations by the High-Level Committee (HLC) comprising ten heads of state and government and was constituted in May 2013 to sensitize and coordinate the activities of African leaders and build regional and intercontinental alliances for the Post-2015 Development Agenda. The Common African Position was adopted at the 22nd Summit of African Union Heads of State and Government, held in Addis Ababa, Ethiopia, January 21–31, 2014. The document groups Africa’s development priorities into “six pillars.” Pillar 1, on structural economic transformation and inclusive growth, has diversification, industrialization, and value-addition as one of the main goals.

have been associated with industrialization, particularly manufacturing (Szirmai 2009), while countries that are struggling to develop—including several African countries—are also the weakest in the area of industrial development. It is generally acknowledged that industry is most often the leading high-productivity sector. It is a high-value-added sector into which labor can flow. Ajakaiye and Page (2012) indicate that the average manufacturing–agriculture labor productivity ratio for low-income Africa is 2.5 to 1. Manufacturing also easily benefits from economies of scale as it expands, in contrast to either agricultural or purely extractive activities, which experience shortage in land, water, or other resources (Monga 2012).

Industry’s potential is virtually unlimited, especially in an increasingly globalized world. Empirical evidence indicates that economies with more diverse and sophisticated industrial sectors tend to grow faster. Only in exceptional circumstances, such as an extraordinary abundance of land or resources, have countries succeeded in developing without industrializing (UNIDO 2009). Even then, these countries had to carefully navigate through effectively managing the resource curse and the Dutch-disease syndrome.

Until recently, industrialization was the quickest means for a country to transform to a middle-income or developed economy through its contribution to productivity, innovation, and trade. The East Asian economies were able to transform themselves into industrial powerhouses within a generation, and the unprecedented pace of industrialization in Brazil, Russia, India, China, and South Africa (BRICS) has lifted millions out of poverty. Since initiating market reforms in 1978, China has successfully led the fight against poverty in the world by lifting more than 600 million people out of poverty on the heels of rapid economic growth, sustained by industrialization.

This conventional path to development is becoming much more difficult to actualize in other regions. Industry, especially manufacturing, has transformed in several ways, especially with the dominance of global supply chains. As Rodrik (2014) recently established, industry has become much more capital and skills intensive, with diminished potential to absorb large amounts of labor released from low-productivity agriculture. Not surprisingly, several developing countries in Latin America and SSA are witnessing what Rodrik (2015) also described as premature deindustrialization and the atypical transformation from agriculture to low-value services, the so-called “tertiarization” that has so far failed to deliver quality jobs.

Informal manufacturing is also beginning to play a major role in generating employment, despite the relatively low productivity exhibited by informal enterprises. McMillan (2014) has shown that manufacturing employment in the informal sector increased from a little over 300,000 to 1.6 million in Kenya between 1990 and 2007, while the formal sector employed only 11 percent of the labor force. This trend also holds sway in Nigeria with the recently released rebased figures where the informal sector accounted for about half of the 11 percent of the workforce engaged in manufacturing.

A major issue for Africa is to what extent services can play the role that manufacturing did in the past. The available evidence is currently mixed and the jury is still out. While Ghani and O’Connell (2014) argue that services can indeed be a growth escalator, providing enormous space for catching up and convergence, skeptics like Rodrik (2014) posit that services can hardly deliver rapid growth and good jobs the way manufacturing does, despite dominating the GDP in several low-income countries as a result of two contravening factors. First, services are highly skilled-intensive sectors

employing high-wage and comparatively few skilled workers, a rarity in several developing countries that mostly have unskilled workforces. Second, the sector in several developing countries is still dominated by nontradable services, such as retail trade and housework, operating at low margins and low levels of productivity. The envisioned productivity gains are ultimately self-limiting because they will push down costs and profitability, except when backed by simultaneous and complementary gains in productivity in the rest of the economy.

What is clear is that Africa needs to industrialize massively to transform its economies structurally for several reasons. While Africa's economic performance in the last 15 years has been characterized as impressive, the seemingly positive growth outlook is not very credible, because "good growth" still needs to be translated into less poverty, reduced inequality, job creation, structural transformation, and technological upgrading.

The current slump in fuel and commodity prices has exposed yet again one of the major weaknesses of a number of African economies: their dependence on either too few export commodities or too few sectors. Such dependence makes many countries vulnerable to fluctuations in commodity prices, demand, and extreme weather events such as droughts and floods. Economic diversification thus holds great potentials to increase Africa's resilience, and the heavy reliance on primary products must be reduced; this requires a new and important role for manufacturing exports, which remain one of the most potent forces for economic growth. Manufactured exports act as a catalyst to transform the economic structure of countries from simple, slow-growing, and low-value activities to more productive activities that enjoy greater margins driven by technology and higher growth prospects (Amakon 2012). The potential benefits are even greater today

because manufactured exports represent the hub of technical progress in both developed and developing economies.

Global value chains (GVCs) are an important feature in today's global economy. Over the past decade, transnational companies have fragmented their production processes, taking advantage of advances in information and communication technology and regulation. This has allowed them to optimize their sourcing strategies through geographic reorganization and the separation of production stages to exploit different countries' comparative advantages along value chains. Africa is still an insignificant player in global trade in value-added, accounting for only 2.2 percent in 2011, though up from 1.4 percent in 1995, and at the low rungs of the ladder it does not guarantee structural transformation (UNECA 2015).

Participation in GVCs is key for Africa's transformation, and significant opportunities exist for upgrading to higher levels. African countries can further integrate into GVCs by opening up to trade, targeting regional and emerging markets, modernizing infrastructure, promoting local entrepreneurship, and investing in technical education (OECD 2015).

Relevance of Industry to Africa's Push toward Middle Income

There is no agreement or standard for classifying middle-income countries (MICs). Different organizations have developed various classifications based on national income, level of industrial development, trade openness, and other indicators. In the United Nations system, the category of middle-income countries is often used to describe developing and transition economies not categorized as least-developed countries.

A widely used definition is that of the World Bank, defining MICs through their per capita gross national income (GNI) and dividing the MICs into an upper and lower segment (see Nielson, 2011 and Bulman, Eden, and Nguyen, 2014). Using the World Bank updated income classification for the 2015 fiscal year, low-income economies are defined as those with a GNI per capita of \$1,045 or less in 2013; middle-income economies are those with a GNI per capita of more than \$1,045 but less than \$12,746; and high-income economies are those with a GNI per capita of \$12,746 or more. Lower-middle-income and upper-middle-income economies are separated at a GNI per capita of \$4,125.

Using this classification, Africa has 24 out of the 102 middle-income countries worldwide that collectively account for more than half of UN memberships and nearly two-thirds of the world population.⁵ These countries have very few commonalities. They have varying territorial sizes, population, political systems, levels of human and industrial development, and other social factors. Despite their impressive growth performance, MICs face myriad development challenges, including widespread poverty, rising inequality in income, and growing environmental pollution and degradation. They also confront the prospects of growth deceleration and falling into the so-called “middle-income trap,” a situation where countries get stuck in the middle-income group for a long period of time and do not move up.

Historically, the economic development of nations has been a long sequence from low income to middle income and then high income. The transition of an economy from low-income to middle-income status is a

major leap toward attaining the coveted high-income status and eventually catching up with the richest (Spence 2011).

It is estimated that of the 35 countries that have been low income since 1950, 30 of them are in SSA, 4 in Asia, and 1 in the Caribbean (Felipe, Kumar, and Galope 2014). They are obviously in a “low-level equilibrium trap” and need to urgently transition to middle income in the near future and avoid the middle-income trap. During the last two and a half decades, while many developing countries have enjoyed the benefits of transitioning, some rapidly, from a low-income country to a middle-income country, only 13 countries and economies have graduated into high-income country status (Jankowska, Nagengast, and Perea 2012).⁶ This suggests that, at middle levels of income, economic growth and structural upgrading become more arduous. Escaping the middle-income trap is a function of structural transformation through diversification into a greater number of products, as well as movement into higher value-added products over time. Countries like South Korea have been able to exit from the trap as a result of rapid growth in industrialization.

Past Industrial Strategies and Outcomes

The debate on industrial policy and strategies has ranged over the last six decades or so and different approaches have emerged. Four broad categories can be identified: (1) import-substitution industrialization (ISI) policies; (2) export-oriented industrialization (EOI) policies, which include variants such as export processing zones (EPZs), special economic

⁵ Cameroon, Cape Verde, Côte d'Ivoire, Djibouti, Egypt, Ghana, Lesotho, Monrovia, Nigeria, Republic of the Congo, São Tomé and Príncipe, Senegal, South Sudan, Swaziland, and Zambia are lower-middle-income countries; Angola, Algeria, Botswana, Gabon, Libya, Mauritius, Namibia, South Africa, and Tunisia are upper-middle-income countries.

⁶ These countries and economies are Equatorial Guinea, Greece, Hong Kong, Ireland, Israel, Japan, Mauritius, Portugal, Puerto Rico, South Korea, Singapore, Spain, and Taiwan.

zones (SEZs), and industrial clusters; (3) resource-based industrialization (RBI) policies; and (4) industrialization through innovation (see Low and Tijaja 2013).

There have been numerous attempts and initiatives in the past to propel industrialization in Africa. While industrialization patterns, strategies, and policies in Africa are as varied as the countries themselves, the continent has no doubt experimented with all the approaches, especially the first three. In what follows, we review the major epochs, comparing developments in Africa with results in other developing regions.

Immediate Post-Independence Era, 1960–1985

On attaining political independence, mostly in the 1960s, most African nations actively sought to promote industrialization as a means of closing the gap with the colonial administrators who previously discouraged industrial development. Industrialization was viewed as the surest means to hasten the transformation of African countries from agricultural to modern economies, create employment opportunities, raise incomes as well as living standards, and reduce vulnerability to terms of trade shocks resulting from dependence on primary commodity exports.

As in other developing country regions, while the initial focus was on consumer goods, there was the expectation that, as the industrialization process proceeded, the intermediate and capital goods needed by the

domestic consumer goods industry would also be domestically produced. Although there are country-specific differences in policies adopted, the implementation of import substitution industrialization (ISI) in Africa generally involved the following elements: (1) restriction of imports to intermediate inputs and capital goods required by domestic industries, (2) extensive use of tariff and nontariff barriers to trade, (3) currency overvaluation to facilitate the import of goods needed by domestic industries, (4) subsidized interest rates to make domestic investment attractive, (5) direct government ownership or participation in industry, and (6) provision of direct loans to firms as well as access to foreign

FIGURE 7.1—ANNUAL GDP GROWTH RATES: AFRICA AND OTHER DEVELOPING REGIONS, 1960–1985

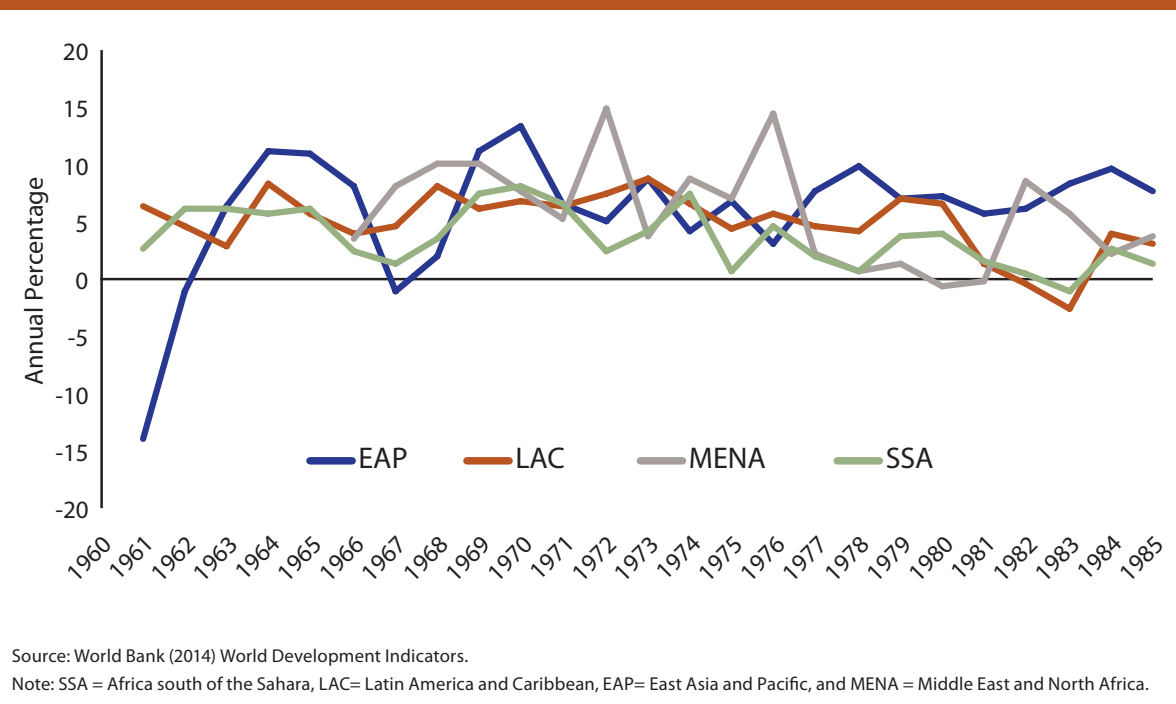
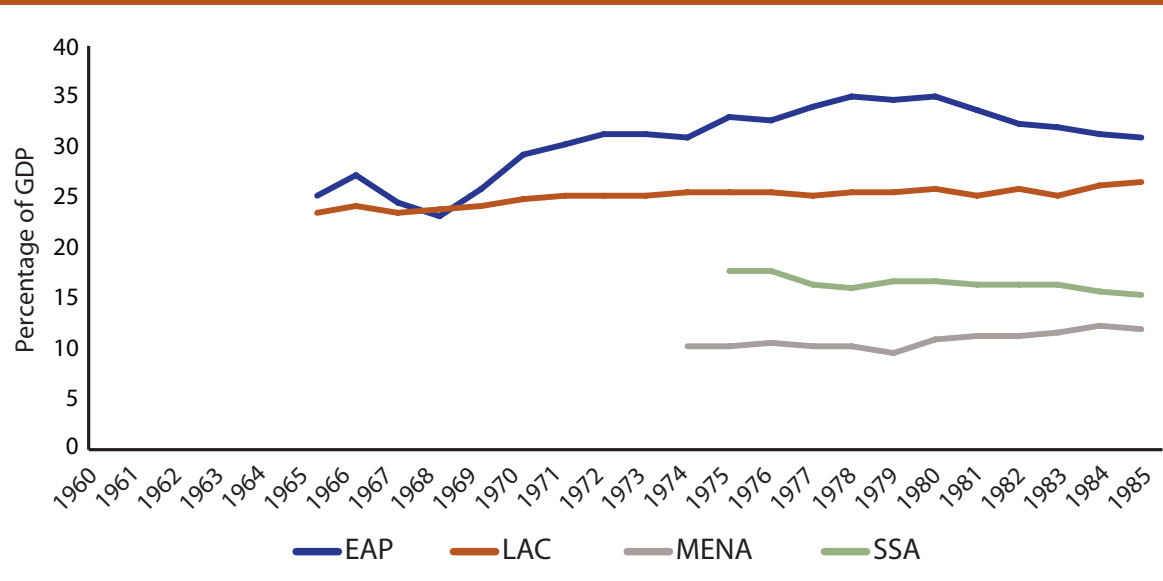


FIGURE 7.2—CONTRIBUTIONS OF MANUFACTURING TO GDP: AFRICA AND OTHER DEVELOPING REGIONS, 1960–1985



Source: World Bank (2014) World Development Indicators.

Note: SSA = Africa south of the Sahara, LAC= Latin America and Caribbean, EAP= East Asia and Pacific, and MENA = Middle East and North Africa.

As shown in Figure 7.2, the increase in contributions of manufacturing to GDP was quite steep in the case of EAP and least perceptible in the case of SSA. Just as economic growth in SSA lost momentum in the first 15 years of the post-independence era, the structural transformation that appears to have commenced during this period also plummeted thereafter. As a result, the much-desired development (growth plus structural transformation) did not materialize in Africa. In Asia, indications were already stark by 1985 that development had, indeed, been initiated.

However, it became evident in the late 1970s, with successive oil shocks and an emerging debt problem, that industrial development through the ISI model could not be sustained.

exchange for imported inputs (Mkandawire and Soludo 2003; UNIDO and UNCTAD 2011).

This development strategy seems to have been successful during the first one and a half decades of independence, as can be seen from Figure 7.1. GDP growth rate hovered around 4 percent on the continent and trended well with the other developing regions. By the beginning of the second half of the 1970s, SSA and Latin America and Caribbean (LAC) regions had definitely lost momentum, while the East Asia and Pacific (EAP) and Middle East and North Africa (MENA) regions continued to forge ahead.

Structural Adjustment Programme Era (1986–1995)

The Structural Adjustment Programme (SAP) era in Africa commenced in the mid-1980s when many African countries lost the growth momentum of the first 15 years post-independence and also experienced severe balance of payments crises resulting from the cumulative effects of the first oil shock, the decline in commodity prices, and the growing import needs of domestic industries. To manage the crisis, many countries sought financial assistance from the International Monetary Fund (IMF) and the World Bank. African countries that obtained the financial support of the IMF and World Bank

had to adopt a SAP, which required them to implement certain policy reforms. As a result, the mid-1980s witnessed the formulation and implementation of wide-ranging economic policy reforms by most African countries at the behest of the International Financial Institutions (IFIs). The policy reforms included: (1) deregulation of interest rates, (2) trade liberalization, (3) privatization of state-owned enterprises (parastatals), (4) withdrawal of government subsidies, and (5) currency devaluation. A key objective of SAPs was to reduce the role of the state in the development process and give market forces a greater role in the allocation of resources. The assumption was that markets are more efficient than the state in resource allocation and that the appropriate role of the latter should be to provide an enabling environment for the private sector to flourish.

Despite the vigorous implementation of SAPs in many African countries, economic performance continued to lag behind those of other developing regions. Indeed, by the beginning of the 1990s, when the impact of SAP policies had become manifest, Africa had become the slowest growing region in the world (see Figure 7.3).

Clearly, SAP policies failed to deliver on development in Africa, the growth revival of the first half of 1990s notwithstanding. African countries curtailed specific policy efforts to promote industrialization and focused

on removing anti-export biases and furthering specialization according to comparative advantage. It was expected that competitive pressures would revitalize economic activity by leading to the survival of the fittest. But while these policies were certainly intended to have structural effects, the conventional view is that they did not boost industrialization in the region (Soludo, Ogbu, and Chang 2004).

The contributions of manufacturing to GDP in Africa, which had increased slightly up to the end of the 1990s, started to decline thereafter (see Figure 7.4). The same is true with greater intensity in the case of

FIGURE 7.3—ANNUAL GDP GROWTH RATES: AFRICA AND OTHER DEVELOPING REGIONS, 1986–1995

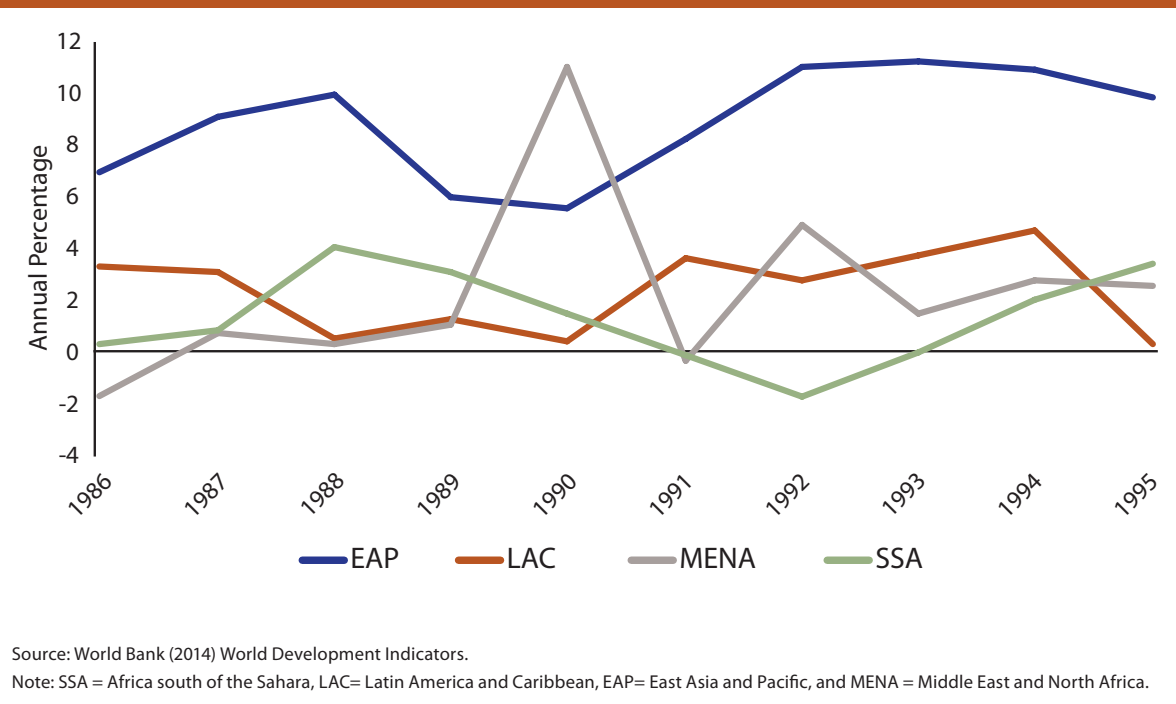
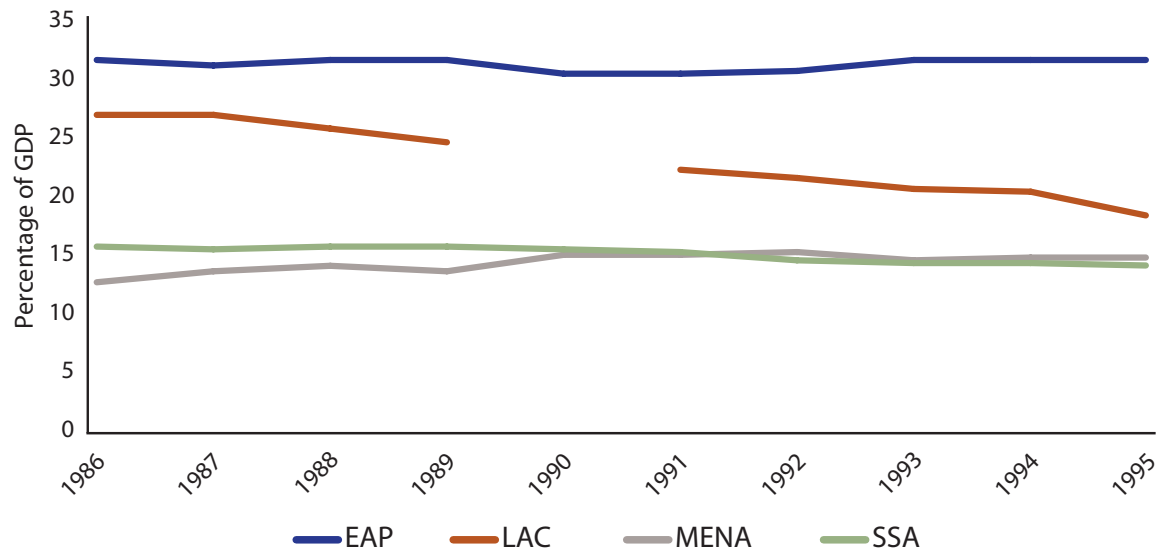


FIGURE 7.4—CONTRIBUTIONS OF MANUFACTURING TO GDP: AFRICA AND OTHER DEVELOPING REGIONS, 1986–1995



Source: World Bank (2014) World Development Indicators.

Note: SSA = Africa south of the Sahara, LAC= Latin America and Caribbean, EAP= East Asia and Pacific, and MENA = Middle East and North Africa.

New Orthodoxy Era (1996–2010)

By the end of the 1990s, the IFIs had started to reconsider their approaches and practices in the developing countries. Eventually, a joint initiative launched by the IFIs at the end of 1999 put the fight against poverty at the heart of growth and development policies. As a result, low-income countries wishing to apply for financial aid from either of the two organizations, or for debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative, were required to draw up poverty-reduction programs known as Poverty Reduction Strategy Papers (PRSPs). At the same time, the UN was actively engaged in setting the millennium development goals (MDG)—culminating in the Millennium Declaration in 2000 (AUC 2013), with poverty reduction at its heart—while remaining silent on the issue of

LAC. On the other hand, the picture is quite different in EAP and MENA regions, where manufacturing contributions remained high and rising at different degrees. Evidently, the declining contributions of manufacturing to GDP in Africa are stark manifestations of the de-industrialization that occurred during the SAP period in the region. Africa suffered serious de-industrialization, which swelled the rudimentary service sector dominated by low-productivity distributive trade activities, and poverty became a serious concern in the region (Ajakaiye and Jerome 2014).

structural transformation. A hallmark of these initiatives is the continued reliance on market fundamentalism to undergird development policies, and state intervention remained an anathema (Ajakaiye and Jerome 2014).

Since the turn of the millennium, however, the external environment has shifted in favor of developing countries. Not only did the volume of capital inflows increase, but also commodity prices began to rise sharply as a result of increasing demand by China, while some countries also saw remittances increase. Paradoxically, this shift and the global economic and financial crises opened up the space for developing countries to explore a

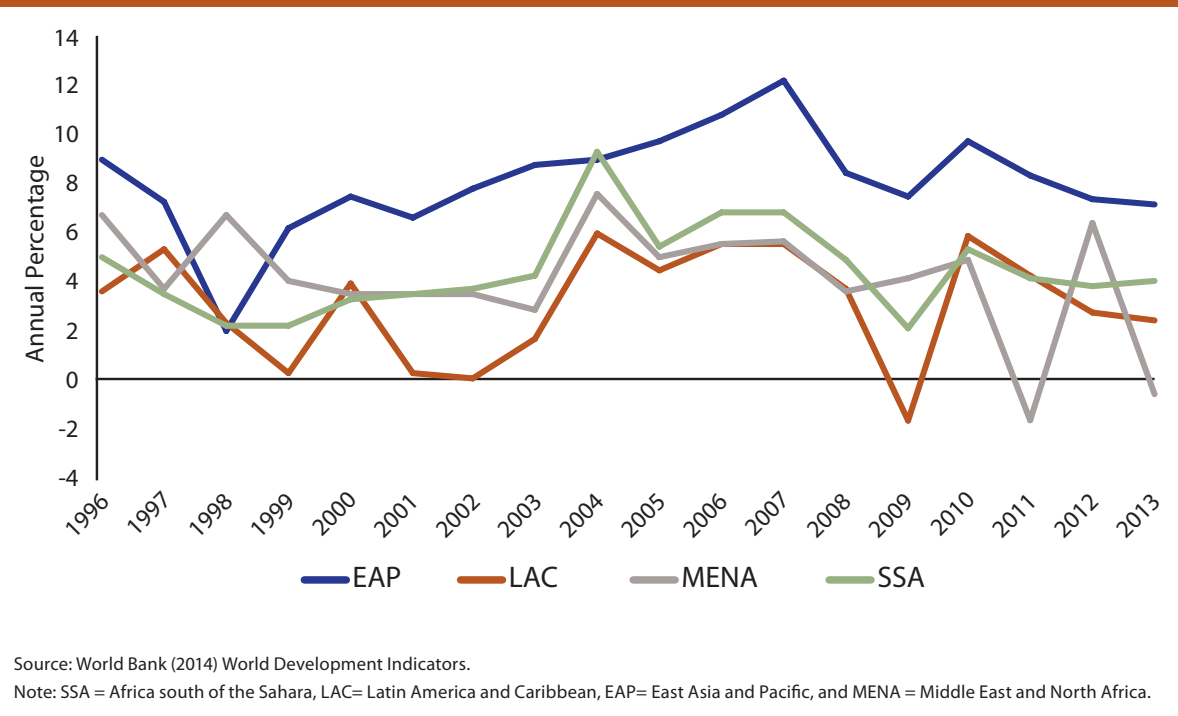
much wider set of policies than those endorsed by the Washington Consensus to shape their growth and development prospects and to build closer economic and political ties with each other through renewed South–South cooperation (Salazar-Xirinachs et al. 2014).

In Africa, several countries experienced a welcome surge in growth in the years immediately after 2000. Figure 7.5 shows that Africa’s recovery, which started in 1999, was sustained such that by the beginning of the 21st century, Africa had become the second fastest growing region in the world, next to Asia. However, much of this growth was associated with a commodity boom and with extractive industries.

The resumption of growth in SSA, though impressive, is yet to translate into the economic transformation that provides the basis for sustained, rapid growth. The shares of manufacturing and formal-sector employment have still not recovered to the 1980 levels (Noman 2013), (see Figure 7.6).

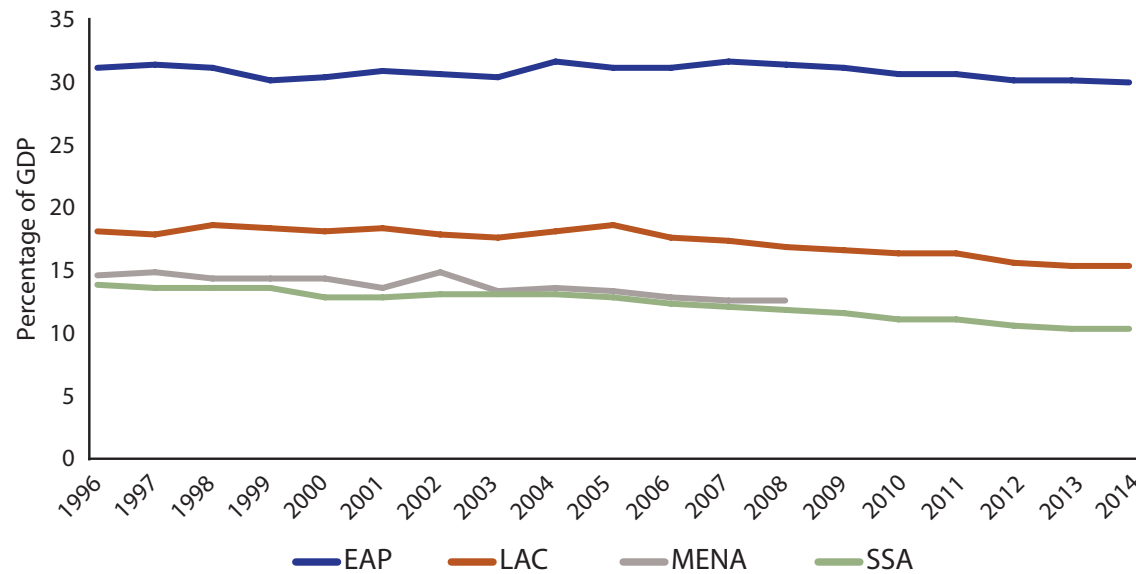
Indeed, some countries underwent structural changes that saw productivity fall, with some productive sectors shrinking and excess labor moving from higher to lower productivity sectors and to informality (McMillan and Rodrik 2011). In fact, most African countries south of the Sahara experienced premature de-industrialization: manufacturing

FIGURE 7.5—GDP GROWTH RATES: AFRICA AND OTHER DEVELOPING REGIONS, 1996–2013



value-added as a percentage of GDP declined from 15 percent in 1990 to 10 percent in 2008 (UNIDO and UNCTAD 2011), despite contrary evidence provided by McMillan (2014) that the manufacturing sector has started to flourish. This is partly attributable to the pace and depth of trade liberalization, exacerbated by a neglect of investment in agriculture and especially in supporting small farmers. These policy mistakes have been widely recognized in the last few years and there has been a renewed appreciation of the importance of an industrial policy to achieve more

FIGURE 7.6—CONTRIBUTIONS OF MANUFACTURING TO GDP: AFRICA AND OTHER DEVELOPING REGIONS, 1996–2014



Source: World Bank (2014) World Development Indicators.

Note: SSA = Africa south of the Sahara, LAC= Latin America and Caribbean, EAP= East Asia and Pacific, and MENA = Middle East and North Africa.

Current Status of African Industry

The record of industrialization in Africa has been profoundly disappointing. The majority of countries continue to have a weak industrial base without the structural change and diversification experienced by other developing countries. Not surprisingly, Africa lags behind other developing regions in industrial performance. Several key statistics from the United Nations Industrial Development Organization (UNIDO) are illustrative.

Africa's share of world manufacturing output was a paltry 1.49 percent in 2012, compared to 10 percent of China's manufacturing value added. Manufacturing as a share of GDP for Africa was only 10 percent in 2012, in contrast to 23

economically sustainable and inclusive growth paths (Salazar-Xirinachs et al. 2015; Yong 2014). This commitment to industrial policy has been particularly strong in countries such as Rwanda, Ethiopia, and South Africa. Meanwhile, Regional Economic Communities (for example, East African Community (EAC), Southern African Development Community (SADC), and Economic Community of West African States (ECOWAS) are also introducing industrial policies as an essential pillar of their economic integration strategies.

percent in Asia and the Pacific and 15 percent in Latin America (see Table 7.1). The global average was 16.7 percent. In regional terms, West Africa had the lowest percentage share of manufacturing in GDP (5.2 percent), followed by East Africa (7.2 percent), Central Africa (7.3 percent), North Africa (10.8 percent) and southern Africa (12.6 percent). There is only one country (Swaziland) where manufacturing as a share of GDP exceeds 25 percent, the benchmark for considering a country as having achieved the critical threshold of industrial take-off. This figure ranges from 0.3

TABLE 7.1—MANUFACTURING INDICATORS

Region	MVA (2012) in \$US 000	MVAPC (in \$US 000)							MVA 2012 (% of GDP)	MVA 2012 (% of world total)
		1990	1995	2000	2005	2010	2011	2012		
Africa	132,456,691	122.08	111.47	117.32	122.03	127.27	126.92	129.51	9.989	1.49
North Africa	48,943,543	193.43	198.29	229.34	247.87	280.41	275.60	287.54	10.843	0.55
Central Africa	4,535,131	113.15	86.50	98.46	103.97	100.74	102.11	104.05	7.343	0.05
West Africa	13,954,772	41.29	36.96	38.46	39.36	41.94	41.97	43.56	5.224	0.16
East Africa	5,243,059	22.02	20.71	20.36	21.48	24.69	25.45	25.96	7.244	0.06
Southern Africa	59,780,185	227.73	196.10	198.47	205.90	205.62	207.69	208.60	12.628	0.67
Africa south of the Sahara	13,954,772	41.29	36.96	38.46	39.36	41.94	41.97	43.56	5.224	0.16
African LDCs	15,810,077	28.24	23.97	26.07	28.88	31.93	32.57	33.04	7.706	0.18
Asia and the Pacific	3,811,507,105	440.44	492.66	564.26	681.36	844.20	871.97	912.28	23.007	42.80
South Asia	258,270,165	55.20	67.91	78.83	101.06	140.80	148.58	153.97	15.351	2.90
North America	1,959,915,077	4,040.65	4,456.92	5,291.22	5,702.58	5,500.09	5,529.68	5,590.37	13.246	22.01
Latin America	516,788,049	750.98	772.22	838.94	856.78	891.37	912.83	859.02	15.069	5.80
Europe	2,483,933,716	2,585.88	2,493.61	2,853.21	3,054.51	3,013.44	3,080.20	3,030.50	14.470	27.89
World	8,904,600,638	941.13	956.46	1,075.69	1,174.07	1,240.35	1,264.17	1,277.10	16.711	100.00

Source: Computed from UNIDO, (2015) Industrial Statistics database.

Notes: MVA = Manufacturing value added, MVAPC = Manufacturing value added per capita, Africa LDCs = Africa's least developed countries.

percent in Equatorial Guinea to 30.2 percent in Swaziland. Manufacturing, value added (MVA) as a proportion of GDP is still less than 10 percent in 30 African countries (Jerome 2013). Within Africa, the distribution of manufacturing activity is highly skewed, with just one country, South Africa, accounting for 38.9 percent of total MVA, followed by Egypt (15.4 percent).

In 2010, Africa's share of global manufacturing exports was 1 percent, lower than India's share of 1.4 percent and China's 15 percent. High technology exports account for only 3.5 percent of manufactured exports from Africa compared to 32 percent in East Asia and the developing country average of 22 percent. The export composition of African countries continues to be dominated by primary rather than processed or semi-finished products.

TABLE 7.2—MANUFACTURED EXPORTS⁷ IN MILLION US\$ AND AS SHARE OF EXPORT OF GOODS AND SERVICES FOR SELECTED REGIONS

Year	East Asia and the Pacific		Europe and Central Asia		Latin America and the Caribbean		Middle East and North Africa		Africa south of the Sahara	
	Manufactured exports	As share of exports of goods and services (%)	Manufactured exports	As share of exports of goods and services (%)	Manufactured exports	As share of exports of goods and services (%)	Manufactured exports	As share of exports of goods and services (%)	Manufactured exports	As share of exports of goods and services (%)
2000	1,518,599	76.0	2,065,581	59.8	214,043	43.9	47,463	13.1	25,366	21.7
2001	1,371,318	74.6	2,101,329	60.2	207,653	43.2	45,967	13.7	24,121	22.1
2002	1,486,787	75.4	2,259,118	60.6	208,006	42.9	56,755	16.1	31,119	26.6
2003	1,753,791	76.2	2,686,177	60.4	222,532	42.0	71,653	16.6	34,947	24.1
2004	2,171,872	76.1	3,225,041	60.0	271,986	42.8	88,574	15.7	-	-
2005	2,480,041	75.4	3,523,350	59.4	324,844	43.1	99,917	13.3	-	-
2006	2,863,700	75.0	3,971,544	58.8	375,170	42.5	139,690	15.5	62,493	22.2
2007	3,286,692	74.0	4,595,494	57.7	444,484	45.0	134,453	12.8	75,327	23.4
2008	3,608,089	71.6	5,107,547	56.8	467,191	41.3	188,433	13.5	97,753	24.3
2009	3,005,649	71.6	3,892,052	54.8	352,704	38.7	168,793	17.0	67,978	22.6
2010	3,837,327	71.3	4,419,394	55.6	443,881	37.9	224,876	18.6	98,701	24.2
2011	4,366,415	69.0	5,254,316	56.2	536,898	39.2	-	-	112,581	22.0
2012	4,515,379	68.8	5,022,300	54.8	545,483	39.3	-	-	115,957	22.6
2013	4,642,382	68.9	5,237,074	54.8	557,851	40.0	-	-	116,335	25.2
2014	4,873,776	70.2	5,513,031	56.5	625,302	45.5	-	-	-	-

Source: Computed from UNIDO, (2015) Industrial Statistics database.

⁷ Manufactured exports as a share of merchandise exports in current US\$.

Some progress has been recorded in Africa's manufacturing export performance, but it remains concentrated in a few countries even though the upward trend in African manufactured exports is in play in several countries across the continent. As shown in Table 7.2, manufactured exports in SSA increased substantially from \$25,366 million in the year 2000 to \$116,366 million in 2013. Nonetheless, this is far lower than what is obtainable in all other developing regions of the world. As a share of total merchandise exports, the trend for Africa south of the Sahara hovers from 21.7 percent in 2000 to 25.2 percent in 2014, performing only better than the Middle East and the North African region.

A cursory examination of Table 7.3, which presents manufactured exports for selected economies, indicates that South Africa is clearly an outlier, contributing as much as 63.6 percent of SSA's total manufactured exports, though the figure has declined considerably over the years, reaching 37 percent in 2014. Botswana has also demonstrated relatively good performance and the trend, though declining, has been relatively stable, from 9.4 percent of SSA's share in 2000 to 5.7 percent in 2013. Mauritius's share has been on the decline, from a peak of 5 percent in 2000 to 1.4 percent in 2013.

Africa's industrialization has been weak and inconsistent due to myriad factors, including inadequate and poor-quality infrastructure; skills shortage evident in two specific areas, soft skills (entrepreneurial and managerial skills) and hard skills (industrial and technical skills), which are both essential for promoting sustainable industrialization; technological deficit, which is reflected in lack of scientific and technological skills; and business and regulatory environments, despite marked improvement in recent years. Even with these constraints, there are new opportunities for inclusive and sustainable industrialization in Africa.

Toward a New Industrial Strategy for Africa

Africa is now being recognized as the most dynamic growth region and the continent with which to do business. At least six out of the fastest growing economies are in Africa. Africa's average GDP growth rates since 2001 has averaged about 5 percent, but it has not translated into jobs for the teeming youth population. Thus, the reality is that in 2014, SSA was the world's poorest region, with just over 50 percent of its population living on less than \$1.25/day. In fact, the income gap between Africa and other developing regions has been widening over the past 40 years, implying that other regions are growing even faster. Growth in most other regions is driven by structural change of the economy, manufacturing, and value-added services; however, in Africa, growth has largely been driven by a commodity exports boom—largely minerals and oil.

In the analysis provided in the section on past policy interventions, it is clear that for decades, policy solutions for industrial transformation in Africa were prescribed and focused on microeconomic management. In addition, these were followed by numerous action plans, without due support for institutional capacity building at continental, regional, or country levels. As Rodrik (2004) posited, strong, well-functioning institutions are central for sustaining growth, though not necessary to catalyze it. In this respect, it is important for African countries to explore a new approach to industrial policy.

Three key issues need to be taken into consideration in developing a new industrial strategy. First, the new industrial strategy must target macroeconomic foundations within the context of sound macroeconomic strategy; second, African countries must realize that the world in the 21st

TABLE 7.3—MANUFACTURED EXPORTS FOR SELECTED COUNTRIES (million US\$)

Year	South Africa		Mauritius		Nigeria		Botswana	
	Manufactured exports	SSA share (%)	Manufactured exports	SSA share (%)	Manufactured exports	SSA share (%)	Manufactured exports	SSA share (%)
2000	16,145	63.6	1,258	5.0	43	0.2	2,396	9.4
2001	15,657	64.9	1,208	5.0	56	0.2	2,274	9.4
2002	18,495	59.4	1,308	4.2	901	2.9	2,205	7.1
2003	21,215	60.7	1,397	4.0	497	1.4	2,427	6.9
2004	26,569	-	1,357	-	-	-	3,008	-
2005	29,249	-	1,228	-	-	-	3,777	-
2006	30,750	49.2	1,492	2.4	786	1.3	3,621	5.8
2007	36,006	47.8	1,385	1.8	1,493	2.0	3,793	5.0
2008	42,186	43.2	1,366	1.4	4,713	4.8	3,777	3.9
2009	29,284	43.1	1,245	1.8	2,036	3.0	2,695	4.0
2010	44,466	45.1	1,360	1.4	5,616	5.7	3,733	3.8
2011	49,750	44.2	1,653	1.5	2,905	2.6	5,200	4.6
2012	47,537	41.0	1,635	1.4	3,302	2.8	5,278	4.6
2013	44,019	37.8	1,686	1.4	3,493	3.0	6,663	5.7
2014	45,141	-	2,063	-	-	-	7,014	-

Source: Computed from World Bank, (2015) World Development Indicators.

Note: SSA = Africa south of the Sahara.

century and specifically in 2015 is a very different place than that in the 1970s and 1990s; and third, strong institutions must form the foundation for a policy action agenda. In this respect, Africa's industrialization policy should focus on addressing key binding constraints that have inhibited the structural transformation of African economies through industrialization. The key binding constraints are discussed in the following paragraphs.

Investing in Infrastructure

Poor infrastructure—particularly energy, transport, and water supply—is a major binding constraint to industrial development in Africa. Good infrastructure enhances the competitiveness of an economy and generates a business environment that is conducive to industrialization and economic growth. Unfortunately, road infrastructure and road density in several African countries are poor compared to other parts of the world. In addition, access to modern forms of energy is one of the most pressing challenges facing the continent. It is estimated that the total installed capacity for power generation in 43 countries of SSA (minus South Africa) is less than or about the capacity in Poland and in the State of New York. Outside South Africa, modern energy consumption in SSA is around 1 percent of OECD levels and 82 percent of households rely on solid biomass (charcoal, wood, or animal waste) for cooking. Where electricity exists, frequent interruptions cause 2 to 3 percent loss of GDP and 6 percent loss to turnover in the formal-sector firms.

Africa's infrastructural networks are not only deficient in coverage and quality, but as the African Infrastructure Country Diagnostic (AICD) has revealed⁸, the cost of the services provided is also exceptionally high by global standards. Whether for power, water, road freight, mobile telephones, or Internet services, the tariffs paid in Africa are several times those paid in other parts of the developing world. The explanation for this is sometimes due to genuine higher costs and at other times due to high profit margins. For example, Nigeria's leading mobile provider, MTN Nigeria, spends in excess of \$5.55 million on diesel to power its 6,000 generator plants across the country each month (Jerome 2011). The weak infrastructure base consequently disrupts the creation of a competitive industrial sector, resulting in higher production and transaction costs in Africa.

At the continental level, Africa must promote and push for the full implementation of the Plan for Infrastructure Development in Africa (PIDA), which has at its core the scaling up of investments in the energy sectors. Without an ambitious transformation of Africa's infrastructure, industrialization will be delayed.

Improving the Business Environment

African countries should design and implement policies that improve the quality of the business environment. In particular, there is a need to design and implement a broad range of minor reforms to reduce bureaucracy, such as the time to register companies, register and complete property transactions, gain access to land, and so on. In this regard, the role of

⁸ The Africa Infrastructure Country Diagnostic (AICD) represents an unprecedented effort to collect detailed economic and technical data on African infrastructure in relation to the fiscal costs of each of the sectors, future sector investment needs, and sector performance indicators. Anchored by the World Bank, the main findings were synthesized in a Flagship Report entitled *Africa's Infrastructure: A Time for Transformation*, published in November 2009.

the state is vital. As proposed by Lin's (2011) New Structural Economics, the role of the state in promoting industrialization should focus on facilitating investment for industrial development. The new structural economics stresses the central role of the market in resource allocation and advises the state to play a facilitating role to assist firms in the process of industrialization by addressing externality and coordination issues. This new industrial policy focus is therefore in contrast to the old structural economics that advocate development of policies that go against an economy's comparative advantage and advises governments to develop advanced capital-intensive industries through direct administrative measures and price distortions.

To enable the business environment, specific policies and strategies need to be put in place to promote private enterprise. The new industrial policy approach for Africa must therefore emphasize "created" competitiveness in addition to "inherited" comparative advantages (natural resources and geography). In this respect, policy reforms in the business environment should be the basis for creating conditions that would help enterprises establish, grow, and compete internationally. The creation of an overall business environment for industrialization requires favorable business factors that are not determined by the internal capabilities of the enterprise. The most important of these business environment factors are macroeconomic, political, and social stability; favorable exchange rates; stable financial systems, institutions, and governance; land tenure; and advisory and support services.

Investing in Science, Technology, and Industrial Training

Science, technology, and skills form the backbone of industrial development. The inability of African countries to participate in the production of high-value-chain goods is mostly linked to the lack of scientific and technological skills. At present, Africa's gross domestic expenditure on research and development (GERD) is less than 1 percent. Only South Africa is approaching the target of a 1 percent GERD/GDP ratio, the level prescribed by the United Nations Educational, Scientific and Cultural Organization and the African Union. More worrisome is that about 29 countries in Africa either have no records or do not allocate funds at all to research and development.

Poor spending on research and development is reflected in the neglect of research in African universities. Universities are the citadels of higher learning and, quite often, the centers of research in science and technology. Over the years, African governments, spurred by donors, have focused on boosting primary and secondary education, thus neglecting universities. The end result is the growing evidence of quality problems with universities in Africa. Only seven universities (five in South Africa) featured in the top 1,000 universities in the 2015 Webometrics Ranking of World Universities. These are the universities of Cape Town (328), Stellenbosch (462), Cairo (474), Pretoria (494), Witwatersrand (563), KwaZulu-Natal (830), and Nairobi (855).⁹

⁹ For details, visit http://www.webometrics.info/en/Ranking_africa. Accessed June 29, 2015

African countries need to put in place policies and strategies that focus on skills development in specific industrial sectors to promote industrialization. This will require strengthening science, technology, and innovation (STI) policies and related infrastructure. A strengthened STI infrastructure is crucial for accelerating the productivity enhancement that is required for rapid and sustained industrial growth in Africa. In this respect, there is need for new and better-formulated STI policies, strategies, and, above all, implementation. This is a precondition to achieving dynamic and broad-based industrial development.

The availability of competent and qualified skilled labor is also a growing concern. For manufacturing industries to be globally competitive, employers must have not only a good pool of professional engineers and manufacturing managers but also access to well-trained entry-level and mid-skilled production employees and artisans. While the number of training institutions has increased over the years, unfortunately the educational system and workforce training programs do not deliver a sufficient number of qualified workers in several sectors of manufacturing. Thus, skills formation policies must be aligned with industrial development policies and strategies.

Sustainable Development of the Private Sector

Sustainable development of Africa's private sector is needed to bridge the industrial gap on the continent. African policymakers have recognized that for growth to be sustainable over the longer term, it needs to be underpinned by a vibrant private sector. However, the formal private sector in Africa remains limited and encumbered by several constraints, including the high cost of doing business, infrastructure bottlenecks, and critical skills shortages. Although considerable variation exists across Africa, five distinctive structural deficits of the region's enterprise structure command

the attention of policymakers: (1) widespread and rising informality, (2) a "missing middle" and lack of upward mobility of enterprises, (3) weak inter-firm linkages, (4) low levels of export competitiveness, and (5) lack of innovation capabilities (UNIDO/GTZ 2008).

The government has a central role to play in private-sector development beyond deregulation and formulation of industrial and technology policies. In contrast to the earlier failed efforts at industrial policy, African states must learn to work with the market. The debate should move away from whether there is a role for government in the industrialization process; rather, it should focus more productively on what its exact role in promoting industrialization and structural change should be. The practical experiences of most transforming economies suggest that an appropriate mix of both horizontal and vertical approaches is more likely to succeed. It is increasingly clear that the success of the East Asian Tigers often involved the use of both vertical and horizontal policies where appropriate. Public action needs to move beyond the regulatory reform agenda pushed by the international financial institutions to address the physical, institutional, and knowledge constraints limiting Africa's industrial development. Fiscal incentives should be time-bound, reward first movers, and be subject to rigorous evaluation. Measures should also be designed to improve state-business relations, support innovative entrepreneurship, strengthen intra-firm specialization and linkages, promote exports, and improve financial services with a view to addressing the deficits of Africa's private sector.

A number of African countries have successfully experimented with forging close coordination with the private sector. Gebreeyesus and Iizuka (2011) document the experience of the Ethiopian cut-flower industry, in which government played an active and apparently successful role. Monthly meetings involving representatives of the flower producers took

place with both the minister of industry and the prime minister. Firms were encouraged to identify barriers to their growth and action points were agreed upon. Significantly, the relevant government agencies took prompt and effective action to address the constraints, and progress was monitored in succeeding meetings.

Intensifying Regional Integration within Africa

African countries through the African Union must intensify their efforts to achieve regional integration. Regional integration can be an important instrument for achieving full economies of scale in the adequate production of raw materials and the provision of key infrastructure, such as roads, electricity, water, and information and communications technology. In particular, special effort should be given to completing transportation corridors and locating industrial parks or zones in physical proximity to such corridors. Also, through better coordination between the key institutions and key stakeholders of different countries, regional integration can facilitate harmonization in critical areas, such as policies, trade, institutions, science and technology, product standards, and the establishment of simplified customs procedures and financial services.

Financing Africa's Industrialization

Industrialization requires long-term financing, usually by the private sector, while the public sector provides the enabling environment. Long-term investments can be promoted most effectively in countries or areas that enjoy an investment-friendly and enabling environment. There are two clear paths toward financing industrialization in Africa: through domestic resource accumulation, particularly income from natural resources, and through industrial partnerships.

Although several African countries are endowed with significant mineral resources, many of them are exploiting them without any clear long-term industrial policies for value-addition locally. It is a fact that no country, even the developed countries such as the United States, Australia, Canada, and Norway, that is endowed with natural resources has transformed this “inherited wealth” (the natural resources) into “created wealth” without highly developed manufacturing industries. These countries would not have become rich only by exporting raw materials, as is done today by several African countries. It is in this respect that many poor African countries with natural resources never see any significant return in terms of equitable growth and development. Accumulated income from national resource trade could be used to finance industrialization; however, there is a need for policy response at the national, regional, and even global levels. Income generated from resource trade could form the basis for domestic resource mobilization, sovereign wealth funds, and leveraging development finance and foreign direct investment to finance industrial projects.

The second source of financing industrialization in Africa is through “partnerships for industrialization.” This involves strategic partnerships between African countries and other countries in the south or north that are focused on developing specific industrial projects in Africa. In such partnerships, industrialization can be facilitated through regional trade agreements, technology transfer, and foreign direct investment. South-South trade has emerged as one of the most dynamic elements of global manufacturing and trade (UNIDO 2006). The growing interdependence of developing Asia was a result of intensified intra-industry linkages and cooperation due to integrated production networks, subcontracting arrangements, and regional trade agreements (UNIDO 2006). This makes the establishment and facilitation of innovative regional value chains for

intensified intra-industry linkages and regional trade agreements important items in the revised agenda for industrial and trade cooperation initiatives. African countries can also promote industrial cooperation with developed countries by intensifying south-south trade.

Conclusions

Industrialization has contributed little to Africa's economic growth over the years. In particular, there has been a disconnect between policy, strong commodity-driven economic growth, employment, and social development. This situation has further been compounded by the failure of most African economies to structurally transform, thus the failure to experience inclusive growth. The volatile commodity prices, which highlight the strong economic growth without concurrent industrial development and structural transformation, are cause for concern.

As has been demonstrated in developed economies, structural transformation is associated with the reallocation of resources, especially through new investment, from low to higher productivity activities, typically from agriculture to industry and modern services, leading to higher economywide productivity and progressively raising income. Much of Africa, however, has seen the opposite, as resources moved from higher to lower productivity sectors, slowing growth in national productivity. In domestic and international markets, African countries remain marginal players for their manufactured goods, with a negligible share of manufactured exports in world exports, compared even to other developing countries.

As a result of a low industrialization index, Africa's share in global trade is way below potential, at around 3.3 percent, and oil, metals, and minerals

dominate its exports. Intra-African trade remains low compared to other regions due to trade barriers. Despite the high potential for Africa to increase intra-African trade in agricultural products, this is not happening, not only because of trade barriers but also because of the low value-addition and manufacturing of agricultural products, both food and nonfood. Even with several African countries' dependence on agriculture as a major source of income and food for the majority of its citizens, there is little manufacturing, and thus agriculture's contribution to sustainable poverty reduction has been minimal.

It is becoming increasingly more difficult than ever for the poorer developing countries to foster industrial development and structural change as they face a more complex and daunting set of circumstances compared to the developing countries that embarked on industrialization in the 1960s. New challenges that have arisen include the shrinking of policy space in the present international order, the rise of the Asian driver economies and the intensified global competition, the jobless growth in manufacturing as a result of increasing mechanization, and the threats of global warming and climate change. As a result, apart from broad strategies such as investing in infrastructure, the development of the manufacturing sector will need to be thought through carefully in the context of country-specific conditions. For example, countries that have abundant agricultural resources and that have access to ports are probably well placed to strategically invest in agro-based manufacturing. This would, however, require as much an emphasis on agriculture as on the pre-requisites for manufacturing.

Nonetheless, a new industrial strategy is fundamental to structural transformation and inclusive development in Africa. Economic advancement

does not occur in a vacuum, despite the dictates of market reform. As is evident from the analysis of past policies and the experiences of the newly industrialized economies in Asia, market forces alone cannot sustain increases in a country's income and development. Countries that have industrialized during the past five decades have required sustained, state-facilitated efforts to address binding constraints to industrialization. African countries must move in this direction as they design new industrial policies.

As African countries strive toward a new industrial strategy for structural transformation of their economies, there are some generalities that need to be considered, while at the same time avoiding a uniform strategy. The Commission on Growth and Development report (2008) identifies five factors in all highly successful countries over the past five decades. These are (1) openness to the global economy, (2) macroeconomic stability, (3) high savings and investment rates, (4) market allocation of resources, and (5) strong leadership and good governance. As illustrated in the review of past industrialization policies, these fall short of being sufficient conditions for industrial growth and development, which is where policy interventions

are justified to establish the macroeconomic foundations for growth and to boost infrastructure, which has so far acted as a drag on industrialization, through the orderly implementation of the Programme for Infrastructure Development in Africa (PIDA), which was adopted by the African Union in July 2012 as the integrated strategic blueprint for continental infrastructure transformation during 2012–2040.

The prominence of the informal sector in Africa's industrial landscape deserves urgent attention. This prominence stems from the opportunities it offers to the most vulnerable populations, such as the poorest, women, and youth. Even though the informal sector is an opportunity for generating reasonable incomes for many people, most informal workers are without secure income, employment benefits, and social protection.

There is a need to put in place policies and strategies that will support the formalization of the sector. Effective regulatory framework, good governance, better government services, improved business environment, and better access to financing, technology, and infrastructure are essential in this process.

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