

Key points

- Economic development requires structural change from low- to highproductivity activities.
- The state of manufacturing development in Africa is weak and Africa still accounts for a very low share of global manufacturing
- Policy failures in design and implementation have contributed to the poor industrial performance of African countries.
- Africa needs a new framework and approach to industrial policymaking, one that is selective, strategic and that integrates lessons from the past.

THE STATE OF INDUSTRIAL DEVELOPMENT IN AFRICA: unexploited opportunities amidst growing challenges

A. The case for industrial development in Africa

In recent years, African countries have demonstrated renewed commitment to industrialization as part of a broader agenda to diversify their economies, build resilience to shocks, develop productive capacity for high and sustained economic growth, create employment opportunities and substantially reduce poverty. The renewed commitment to promoting industrial development in Africa is timely. African countries have been buffeted by three very serious and interrelated external shocks, namely hikes in food prices, increases in energy prices and the global financial and economic crisis, whose economic and social costs in Africa have been guite substantial. The triple crises have refocused attention on Africa's high vulnerability to external shocks and the need for policymakers to take urgent action to diversify their production and export structure to build resilience to shocks. The region is currently the least diversified in the world and, more importantly, has made relatively slow progress in this area in the last two decades. The export diversification index for the region improved slightly from 0.61 in 1995 to 0.58 in 2009. In developing countries in Asia, it fell from 0.32 to 0.26 and for developing America it fell from 0.36 to 0.33.

Furthermore, recent research suggests that economic development requires structural change from low- to high-productivity activities and that the industrial sector is a key engine of growth in the development process. Virtually all cases of high, rapid and sustained economic growth in modern economic development have been associated with industrialization, particularly growth in manufacturing production. The necessity for structural change in Africa also arises from the fact that Africa needs high and sustained economic growth in order to make significant progress in reducing poverty. One of the major challenges which African countries currently face is to generate productive jobs and livelihoods for the 7 million–10 million young people entering the labour force each year. This is difficult to achieve simply through commodity exports but rather requires a complementary process of agricultural productivity growth and the development of non-agricultural employment opportunities in both industry and services.

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While African policymakers have recognized the necessity to promote industrial and manufacturing development in order to address Africa's development challenges, at the same time they are also searching for a new approach to industrial development and industrial policymaking, one which does not repeat the mistakes of the past and takes into account the initial conditions of Africa's industrial development. The rest of this policy brief discusses the current state of industrial development in Africa, highlighting its trends and characteristics and gives an overview of some of the lessons to be learnt from almost four decades of attempts at industrialization in Africa.

B. The state of industrial development in Africa: facts and characteristics

The state of industrial and manufacturing development in Africa is weak and has not been improving with time. For example, the share of African manufacturing in gross domestic product (GDP) rose from a low of 6.3 per cent in 1970 to a peak of 15.3 per cent in 1990, and thereafter fell to 12.8 per cent in 2000 and 10.5 per cent in 2008. What is interesting to note is that the decline in the contribution of manufacturing to GDP since 1990 has been observed in all subregions of the continent. In

Eastern Africa, the share of manufacturing in GDP fell from 13.4 per cent in 1990 to 9.7 per cent in 2008. In Western Africa it fell from 13.1 per cent to 5 per cent over the same period. Furthermore, in Southern Africa, it fell from 22.9 per cent to 18.2 per cent and in Northern Africa from 13.4 per cent to 10.7 per cent.

Africa still accounts for a very low share of global manufacturing. The share of the region in global manufacturing value added fell from 1.2 per cent in 2000 to 1.1 per cent in 2008. In developing Asia, it rose from 13 per cent to 25 per cent and in developing countries in Latin America it fell from 6 per cent to 5 per cent over the same period. There has also been no significant change in the region's share of global manufacturing exports in recent years, although Africa's share of global manufacturing exports rose slightly from 1 per cent in 2000 to 1.3 per cent in 2008.

Africa has made some progress in boosting medium- and high-technology manufacturing activities in recent years. The share of medium- and high-technology activities in total manufacturing value added in the region increased from 25 per cent in 2000 to 29 per cent in 2008. Furthermore, the share of medium- and high-technology exports in total manufacturing exports rose from 23 per cent in 2000 to 33 per cent in 2008. The growing share of medium- and high-technology activities in both African manufacturing value added and manufacturing exports is important because technology-intensive manufacturing sectors grow faster, have greater learning prospects, and have more spillover effects on the rest of the economy. Furthermore, they generate higher value added and impose higher entry barriers. In contrast, simple sectors such as resourcebased and low-technology manufacturing generate lower and less-sustainable margins as competition is much tougher. Despite the recent progress made, it should be noted that the shares of medium- and high-technology activities in both Africa's manufacturing value added and manufacturing exports are still low relative to those of Asia and Latin America. Furthermore, Africa's medium- and hightechnology manufacturing activities are highly concentrated in the chemical industry. Other medium- and high-technology activities play a relatively minor role in African manufacturing. In terms of exports, Africa is mostly active in medium- rather than high-technology product groups.

The labour-intensive sectors (for example, textiles, apparel and leather products) play a rather limited role in African manufacturing today, both in terms of domestic manufacturing production as well as exports. At the domestic level, lowtechnology manufacturing activities account for roughly one fifth of African manufacturing value added only and this share has decreased from 23 per cent in 2000 to 20 per cent in 2009. A large part of this change is due to a decline in the share of textiles, from about 7 per cent in 2000 to 5 per cent in 2009. The three most important low-technology manufacturing activities in Africa today are fabricated metals, textiles and apparel. In terms of exports, the share of low-technology manufacturing exports in Africa's total manufacturing exports has also decreased, from 25 per cent in 2000 to 18 per cent in 2008. As a result of this decline, the region's share of global low-technology exports fell from 1.5 per cent to 1.3 per cent.

In 2009, resource-based manufacturing accounted for about 49 per cent of total manufacturing value added in the region, compared with 20 per cent for low-technology manufacturing and 31 per cent for medium- and high-technology manufacturing. In terms of exports, Africa also has a strong dependence on resourcebased manufactures. In particular, the share of resource-based manufactures in total manufacturing exports was 52 per cent in 2000 and 49 per cent in 2008. While resource-based manufacturing exports can contribute to high growth rates, they involve relatively low value addition and also make exporting countries highly vulnerable to external price shocks. Furthermore, natural-resource-based sectors exhibit lower productivity growth and have few linkages with the rest of the economy. In sum, resource-based manufactures show only very limited product differentiation and thus share several characteristics of commodities.

An important feature of African economies is that the industrial structure is very weak in terms of both the number of firms and of their average size. While there are differences across countries, the large majority of industrial firms are small or microenterprises operating side by side with a few large-scale (often foreign or State-owned) firms found mostly in the raw material and extractive sectors. It should be noted that a significant proportion of the small or microenterprises in Africa are informal as opposed to formal firms. Furthermore, African economies are characterized by a "missing middle" in the size distribution of firms in the sense that there are very few medium-sized firms. The small average size of African firms is a problem from the perspective of long-term growth since the size of firms is correlated with export activity and productivity. In particular, small firms tend to be less productive than large firms.

Another interesting feature of manufacturing in Africa is that domestic firms have weak technological capabilities and are embedded in fragmented learning and innovation systems. The weak technological capability of African firms can be attributed to a lack of technological support and infrastructure for domestic enterprises. Furthermore, it has been argued that most African enterprises do not make significant investments in technological effort. Consequently, they have difficulties entering into, as well as competing in, export markets for medium- and high-technology manufactures.

Another characteristic of African manufacturing is the preponderance of informal enterprises. While it is difficult to obtain recent and reliable data on informality in the region, there is some evidence that it is quite high. Recent estimates suggest that for sub-Saharan Africa, the informal economy accounts for about 38 per cent of GDP compared to 18 per cent for East Asia and the Pacific, 27 per cent for the Middle East and North Africa, 25 per cent for South Asia and 35 per cent for Latin America and the Caribbean. The extent of informality is relevant to the issue of industrial development because it has been shown that there is correlation between the legal status of a firm and its production characteristics. A recent study in 2011 for instance, based on data from 24 African countries, found that informal firms have lower productivity than small formal firms.

Finally, heterogeneity amongst countries is an important feature of African manufacturing. In particular, there is a wide variance across countries in terms of both the level and growth of manufacturing value added per capita. In 1990, 6 of the 52 African countries for which data are available had manufacturing value added per capita of at least \$200, rising to 9 countries in 2010. In terms of manufacturing growth, 23 African countries had negative manufacturing value added per capita growth over the period 1990–2010 and 5 countries had a manufacturing value added per capita growth above 4 per cent.

C. Lessons from past industrial development efforts in Africa

The nature and implementation of domestic policies matter. One of the lessons from the industrial development experience of African countries is that the form and implementation of domestic policies is an important factor. Policy failures both in design and implementation have contributed to the poor industrial performance of African countries. During the import-substitution industrialization phase in the 1960s and 1970s, government policies and efforts focused more on providing support to entrepreneurs than on getting them to perform. Furthermore, the emphasis was on setting up industries rather than on building dynamic capabilities that would allow firms to be competitive and survive in export markets. During the structural adjustment phase of the 1980s and 1990s the withdrawal of government support, even in the presence of pervasive market failures, and the liberalization of trade without taking account of the capabilities of domestic firms are some examples of policy failures. In the case of the poverty reduction strategy papers phase that began in the early 2000s, the main policy failure was that resources were shifted away from the productive sectors that are necessary for sustained growth and poverty reduction.

Structural constraints have to be dealt with. Although policy failures and exogenous shocks did contribute to poor industrial performance in Africa, structural factors also played a role and have to be addressed to enhance the likelihood of success in industrial development. The structural factors are manifest in the form of poor infrastructure, low human capital, small size of domestic markets, and a low entrepreneurial base.

Ownership of the development process is important. Another lesson from the experience of African countries is that, if they are to make significant progress in boosting and sustaining industrialization, they must take effective leadership of the development process. Because of Africa's high dependence on official flows, external actors have had significant influence on the choice of policies and development paths in the region and this has had serious consequences for the attainment of national development goals. Promotion of industrial development requires active government policies to build domestic capabilities and direct investment and resources to priority areas.

External influences in the form of policy and process conditionalities have limited the policy space available to governments and made the achievement of industrial development more difficult.

Exclusively inward-looking industrialization strategies have severe consequences.

The experience of import-substitution industrialization in Africa suggests that an industrialization programme that focuses exclusively on the domestic market and does not have an export promotion component is likely to run out of steam. The small size of domestic markets in most African countries implies that they are unlikely to sustain an industrialization programme without access to external (regional and global) markets. External markets would provide an opportunity for African countries to expand production as well as exports, and reap the benefits of scale economies. It would also provide access to the foreign exchange needed to import intermediate inputs and capital goods for domestic industries. In this context, it is important that industrial development in Africa be part of an overall process of integration into the global economy rather than inward-looking as in the import-substitution industrialization period. This means that both the domestic and external (regional and global) markets are important in the industrialization process.

Technological capabilities of domestic firms have to be developed. Technology and innovation are important in building the capabilities of domestic firms and preparing them to compete in export markets for mediumand high-technology manufactures. One of the lessons from past attempts to promote industrialization in Africa is that governments did not pay enough attention to the building of technological capabilities of domestic firms to enhance their ability to produce medium- and high-technology goods.

Linkages are needed between agriculture and industry. The need to enhance food security implies that agricultural development should be part of Africa's development agenda. Furthermore, given the region's current endowment structure and stage of development, it is evident that the agriculture sector will continue to be a major source of revenue, employment and foreign exchange in the short to medium term. Therefore, it is important that the promotion of industry is not done at the expense of agriculture. The experience of industrialization in Africa has shown that promoting industry through discrimination against agriculture will ultimately lead to agricultural as well as industrial stagnation, with dire consequences for growth and poverty reduction.

Avoid a top-down industrialization process.

The government and the executive branch of government in particular, has been the main actor in the industrialization process of African countries. It allocates resources and makes decisions on which activities or sectors should be accorded priority, often with little or no consultation with the private sector. The experience of African countries, particularly during the import-substitution industrialization period, suggests that effective State-business relations are needed for effective design, implementation and monitoring of industrial development programmes.

Political stability is a necessary condition.

Another important lesson from the decades of implementation of industrial development strategies in Africa is that political stability is a necessary condition for the success of any industrial development programme. Domestic and foreign entrepreneurs are unlikely to invest in a society that is politically unstable. In addition, political instability hampers the development of manufacturing because it is often associated with the destruction of infrastructure and an increase in the cost of credit through rising risk premium.

D. The way forward

African countries need to foster industrialization, in particular manufacturing, as part of their economic transformation strategies. They also need a new framework and approach to industrial policymaking that is strategic, selective, integrates lessons from the past, recognizes the heterogeneous initial conditions of each African country and takes into account the realities of a changing global environment. Elements of this new approach towards industrial policymaking are discussed in the *Economic Development in Africa Report 2011*.

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References

For more on this topic and references, refer to *Economic Development in Africa Report 2011: Fostering Industrial Development in Africa in the New Global Environment*, available at http://www.unctad.org/en/docs/aldcafrica2011_en.pdf.