



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



**COUNTRY BRIEF**  
**SOUTH**  
**AFRICA**

**Counteracting premature  
deindustrialization**

November 2020

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## COUNTRY BRIEF SOUTH AFRICA

South Africa needs a vibrant and dynamic manufacturing sector to stimulate economic growth and tackle high unemployment rates. However, the country's economy is characterized by declining shares of manufacturing value added and employment. This has raised concerns that 'premature deindustrialization' may well be underway in South Africa. Recent industrial policy efforts highlight the need for the country to gain ground in medium- to high-technology industries, and indicate the government's resolve to support manufacturing through infrastructure upgrading, technology adoption, and skill development.

## Counteracting premature deindustrialization

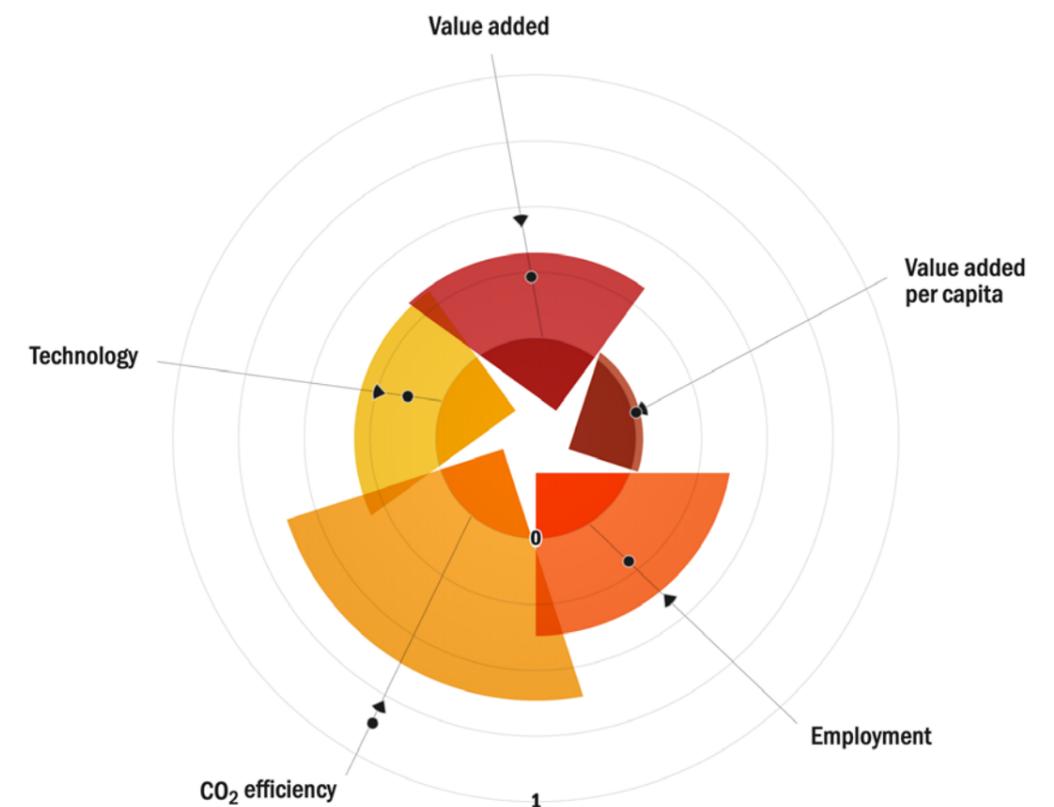
South Africa has a long history of manufacturing and prides itself on a manufacturing value added per capita that is among the highest on the African continent. Due to its strong mining sector, related industries such as the fuel and base metals industries enjoy a considerable presence within the country. Other industries such as food processing, machinery and appliances, chemicals, and the automotive industry are similarly well established (Figure 2 and 3).

In the SDG-9 Industry Index, South Africa ranks 73<sup>rd</sup> out of 128 countries (Figure 1). While South Africa outperforms the African average (in all categories except CO<sub>2</sub> efficiency), the country's record is more mixed when compared to countries with similar GDP per capita, such as Egypt.<sup>1</sup>

South Africa's performance has deteriorated over time, which means that the country now ranks ten positions lower than it did in 2000. However, while both the African average and South Africa's performance have seen significant decline during this period, the gap between the two actually narrowed, meaning South Africa's decline was noticeably sharper than elsewhere in Africa. By way of comparison, other countries in Southern Africa, such as Botswana and Mozambique, improved their Index position during this period, albeit from a very low base.

### SDG-9 Industry Index

↓ 73<sup>rd</sup>



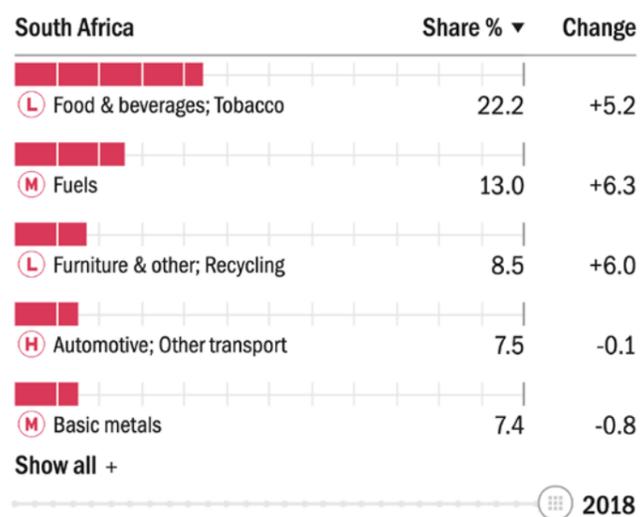
▼ Egypt  
● Africa

□ Show all countries

Figure 1: SDG-9 Industry Index for South Africa ([UNIDO IAP](#))

## Industry share of total manufacturing (%)

Value added Employment Gross output

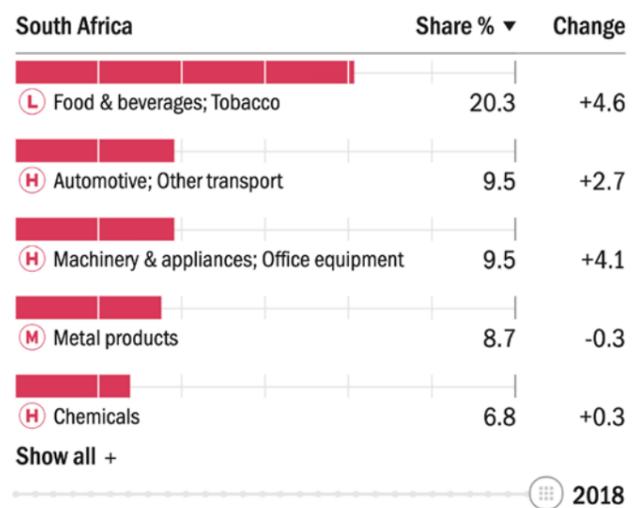


(UNIDO)

**Figure 2:** Industry share of total manufacturing %, Value added, 2018 (UNIDO IAP)

## Industry share of total manufacturing (%)

Value added **Employment** Gross output



(UNIDO)

**Figure 3:** Industry share of total manufacturing %, Employment, 2018 (UNIDO IAP)

## South Africa as an example of premature deindustrialization

Digging deeper, we can see that South Africa's manufacturing value added as a share of GDP has fallen by over 2 percentage points since the turn of the century; more than the African average (Figure 4). In fact, according to data from the United Nations Statistics Division, South Africa's manufacturing value added as a share of GDP peaked nearly four decades ago, in 1981 (at 15.7 per cent)—exhibiting a clear downward trend ever since, reaching 11.9 per cent in 2017.<sup>2</sup>

Manufacturing employment as a share of total employment has seen a similar sharp fall—from 15 per cent in 2000 to 11.1 per cent in 2017 (Figure 5). Broadening the scope further, we can see that the share of manufacturing in total employment has been decreasing since at least 1991.<sup>3</sup> It thus seems that South Africa has been experiencing relative deindustrialization for a number of decades.

The phenomenon whereby countries like South Africa experience their peak manufacturing share in value added and employment at a much earlier stage of development than the advanced economies of today is referred to as 'premature deindustrialization' in the academic literature.<sup>4</sup> But not all countries are equally affected by this trend.

As we can see in the graphs, Emerging Industrial Economies as a group have since 2000 been able to expand their manufacturing sectors in terms of both value added and employment, to levels far above those seen in South Africa—a trend mainly driven by East Asian rapid industrializers, such as China. Moreover, trends in value added and employment do not always have to match, as demonstrated by the case of Egypt. While the country exhibits a decline similar to South Africa in manufacturing value added as share of GDP, it has been successful in stabilizing the share of manufacturing in total employment.

## Economic growth as a remedy for high unemployment

While South Africa is struggling to move towards the SDG 9.2 target, which requires significant expansion of the share of industry in value added and employment, the country is also facing difficulties in meeting the goals defined in its National Development Plan (NDP). The ambitious 2012 document lays out a vision for South Africa in 2030 which sees generating economic growth to fight unemployment as one of the country's top three priorities.<sup>5</sup>

However, since the end of the last commodity boom, South Africa's growth performance has not met the expectations set. While real GDP grew between 2000 and 2008 at an average of 4.2 per cent per annum, this figure dropped to 1.6 per cent for the period 2009-2017.<sup>6</sup> This growth rate falls short of both the target set out in the National Development Plan and that of the current Industrial Policy Action Plan, which cites sustained annual economic growth of 5 per cent as essential to tackling poverty, unemployment and inequality in the country.<sup>7</sup>

With regard to unemployment, the NDP states a target rate of 14 per cent for 2020. However, pre-COVID, this rate was hovering around the 30 per cent mark.<sup>8</sup> Under an expanded definition of unemployment, which includes discouraged workers, over 38 per cent of the South African labour force were jobless in 2019. Coupled with a youth (15-24 years) unemployment rate of more than 50 per cent, this poses a serious challenge to social cohesion within the country.

## Value added

↓ 69th

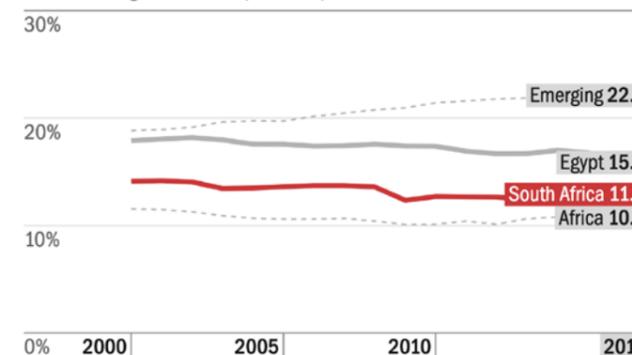
Progress

Negative

Outlook

Reverse trend

Manufacturing value added (% of GDP)



**Figure 4:** Manufacturing value added, 2000-2017 (UNIDO IAP)

## Employment

↓ 63rd

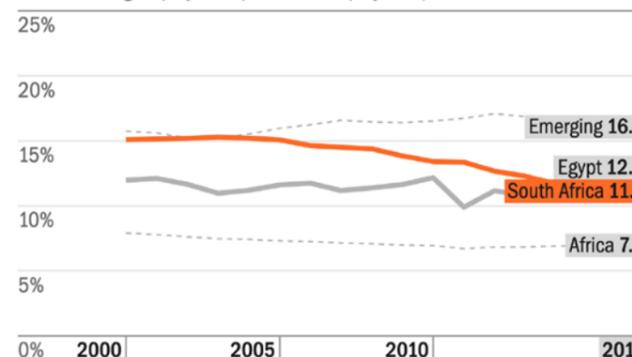
Progress

Negative

Outlook

Reverse trend

Manufacturing employment (% of total employment)



**Figure 5:** Manufacturing employment, 2000-2017 (UNIDO IAP)

# WHY MANUFACTURING IS NOT (YET) ABLE TO HELP

In contrast to the situation in South Africa, several Asian economies such as Vietnam and Bangladesh have leveraged manufacturing production within global value chains (GVCs) to significantly reduce poverty, through generating growth and employment. It is therefore prudent to ask why South Africa, with its considerable industrial base, has so far been unable to follow a manufacturing-based growth model. There are several reasons that may offer an explanation for this:

## High input costs

Measured in proportion to productivity, companies in South Africa face distinctly higher costs compared to other countries in the region. Relatively high wages make it hard to attract the labour-intensive industries which have allowed Asian countries to enter global manufacturing. One recent study found that South Africa's labour costs were in fact higher than those of comparatively advanced economies in Latin America, such as Mexico and Chile.<sup>9</sup>

Moreover, since lower wages do not seem to be politically tenable, it is unlikely that South Africa will be able to follow the path of countries like Bangladesh. However, the challenge of high input costs goes beyond wages, extending to areas such as transportation and electricity, and heavily impacting manufacturing companies.<sup>10</sup> South Africa also has some of the most expensive internet costs in the world and many citizens remain unconnected, especially in rural areas. Encouragingly, the government—through its 'SA Connect' project—aims to deliver universal broadband access by 2030. The seemingly imminent release of high-demand spectrum may further improve broadband access and quality.

## Reliability of basic economic services

South Africa's manufacturers are also affected by unreliable provision of key public utilities such as electricity and water. The country's electricity system is dominated by the state-owned Eskom, which since 2007 has on many occasions been unable to meet demand. This has led to implementing periods of 'load shedding' or scheduled rotating power outages in an effort to balance demand with supply. These recurring power outages create major challenges for South African producers, acting as a serious drag on industrial growth.

## Skill development

Since low-skilled manufacturing does not seem to be a viable entry point for South Africa, the country will likely need to become more competitive in the mid- to high-skilled segment. However, the majority of South African workers are not yet sufficiently skilled to take part in this segment of the labour market. As mentioned in the country's Voluntary National Review on SDG progress, the dearth of workers with a STEM education is particularly worrying. Only 6 out of every 1,000 children who started elementary school in 2001 pursued a STEM qualification at tertiary level, while only 3 ultimately graduated.<sup>11</sup> The low skill profile of South Africa's unemployed makes it particularly difficult to fight the socially disruptive high unemployment rates the country is experiencing. As a result, around 70 per cent of unemployed have been without a job for more than one year.<sup>12</sup>

## Advanced production technologies and job creation

Due to the surge in disruptive technological change, even successful industries in South Africa may face problems generating jobs in the future. An apt case in point is the automotive industry, which has seen rapid automation in recent years. Supportive policies since the mid-1990s—such as the Motor Industry Development Programme (MIDP) and the Automotive Production and Development Programme (APDP)—have allowed South Africa to position itself as Africa's leader in automotive production. The industry is well integrated in the global production networks of leading world manufacturers and the South African economy benefits from an extensive, nationwide network of suppliers. According to the Automotive Master Plan, almost one third of all value addition in manufacturing is (either directly or indirectly) connected to the assembly or manufacturing of components for the automotive industry.<sup>13</sup>

However, it can be shown that new technologies are already changing the nexus between production and employment within the industry, in quite a fundamental way. Moreover, a recent study shows that the expansion of the automotive industry in South Africa has been accompanied by rapid automation. The progressing automation of processes in South African plants has led to significant job loss, or displacement to those departments next in line to be automated. Therefore, it can be concluded that while the automotive industry has been able to act as a stable source of high-quality jobs in the past, technological change might seriously hamper its ability to do so in the future.<sup>14</sup>



# Making progress towards SDG-9

## The Renewable Energy Independent Power Producer Procurement Programme (REIPPPP)<sup>17</sup>

In contrast to South Africa's performance in the area of electricity supply, its Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) is widely regarded as exemplary in the field. Thus far, the Programme has consisted of a number of consecutive bidding windows, whereby private sector players bid on contracts for different types of energy generation. In less than four years, the competitive tender process has elicited significant private sector participation, allowing South Africa to achieve more IPP investment than the rest of sub-Saharan Africa has secured during the past twenty years. However, the IPP programme has faced headwinds in recent times, while the process of unbundling Eskom has created uncertainty regarding the future structure of the energy system generally. Nonetheless, the involvement of IPPs and programmes like the REIPPPP are likely to play a key role in any strategy to bring stability to South Africa's electricity supply. UNIDO is actively supporting South Africa's transition to clean energy and more efficient energy use in its industrial sector. Among other areas, past and ongoing projects have been concerned with energy generation from organic waste from agriculture and agro-industries, the mainstreaming of advanced energy efficiency methodologies and standards in industry, and the deployment of clean energy technologies in municipal waterworks.<sup>18</sup>

The challenges outlined above are well known in South Africa and various administrations have made significant efforts to reignite the manufacturing sector. Nevertheless, the country continues to find itself caught in the middle-income trap. Early and radical liberalization following the end of Apartheid has exposed South Africa to strong competition from global markets, particularly from cheaper producers in East Asia. Since 2005, the share of foreign value added in the country's gross exports has increased markedly, which may point to challenges in fostering local input production while remaining integrated into global value chains (Figure 6).

Distilling this analysis of South Africa's situation into practical calls for action, a number of areas appear particularly key to improving SDG-9 performance:

### Ensuring reliable energy supply

Addressing the energy deficiency that is acting as a binding constraint on economic growth is one such area. Encouraging in this regard is the recent gazetting of a Ministerial Determination enabling the development of approx. 12 GW of new electricity capacity by Independent Power Producers (IPPs)<sup>15</sup>, and indications that municipalities will be able to procure electricity directly. Equally encouraging is the fact that renewables would constitute over 50 per cent of the planned capacity. However, given the increasing price competitiveness of renewables, South Africa may reap greater benefit still by

further accelerating its transition away from fossil fuels—as outlined in the Integrated Resource Plan 2019<sup>16</sup>.

### Improving the investment climate

Secondly, attracting investment is vital to increasing manufacturing value added and industrial employment. However, this will likely require South Africa to address the perceived risks associated with investing in the country, as the widening fiscal deficit and subsequent loss of an investment-grade credit rating has dented the country's attractiveness. Given the increasingly constrained fiscal environment, it might well be prudent to focus expenditure on areas contributing to economic growth.

### Deepening trade integration

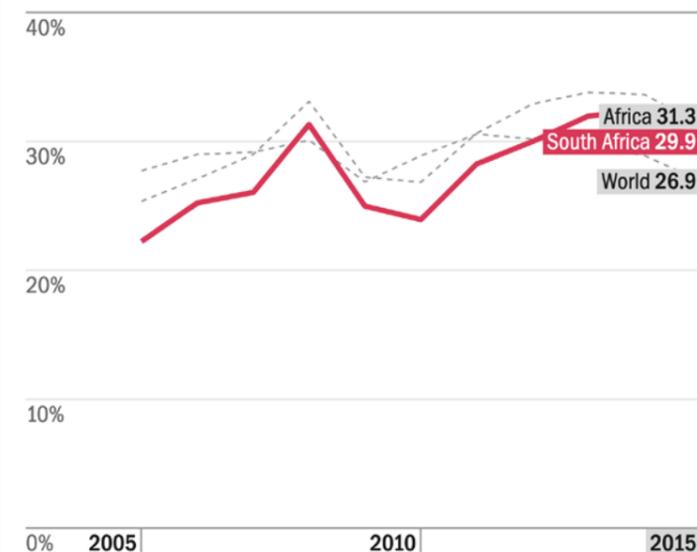
Thirdly, there are various industries that require significant scale to be viable, yet, at present, the local and regional market is not sufficient to support many of these industries. For this reason, South Africa would stand to benefit from the removal of tariff and non-tariff barriers on the continent. One way to make significant progress in this area would be through full implementation of the African Continental Free Trade Agreement (AfCFTA). This would significantly expand the effective market size accessible to South Africa, thus increasing the number of industries that can viably operate within the country.

## Preparing for the Fourth Industrial Revolution

Finally, as acknowledged by the Presidential Commission on the Fourth Industrial Revolution (4IR), South Africa may also reap substantial gains through sustaining the levels of innovation required to be competitive in global value chains in the era of 4IR. In this pursuit, expanding the connectivity infrastructure necessary to support digitalization would be a key element; while continuing to invest in the education system, training and preparing students for STEM careers.

### Foreign value added in domestic exports (%)

#### All manufacturing



**Figure 6:** Foreign value added in domestic exports %, 2005-2015 (UNIDO IAP)

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