



Manufacturing

The Manufacturing scenario

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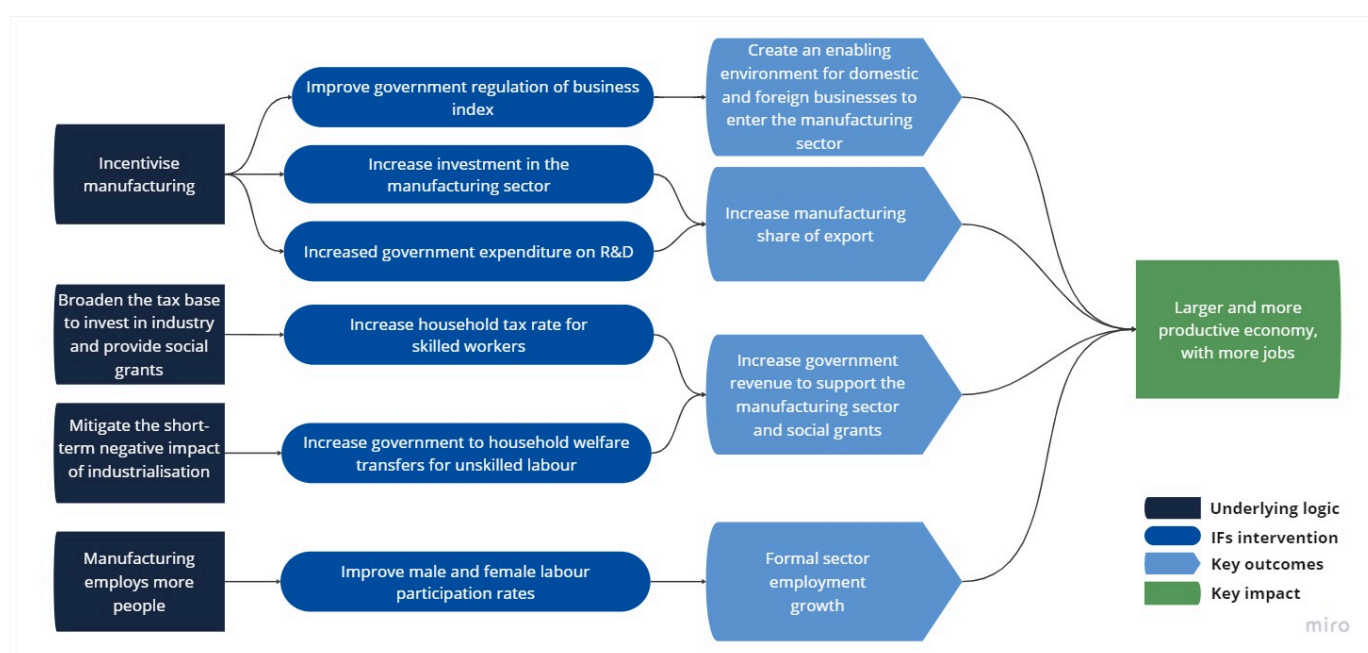
The Manufacturing scenario

- Briefly
- Impact of the Manufacturing scenario

Briefly

This section briefly presents a set of interventions modelled in the IFs platform to emulate a manufacturing push in Africa with a time horizon to 2043, the end of the third ten-year implementation of the African Union's Agenda 2063, and compares its impact to the Current Path forecast. The conceptualisation is set out in Chart 8.

Chart 8: Manufacturing scenario



Clear industrial policy and determined government leadership and action are critical if African economies are to grow more rapidly. For this reason, the first set of interventions increases government revenue to allow for investment in manufacturing and the roll-out of a social grants programme. It reflects the determined efforts by forward-looking African governments to set the agenda for industrial development and to reduce the short-term impact of these measures, which often initially increase poverty and inequality until more rapid economic growth is able to reduce both.

In addition to low rates, complex and antiquated systems and inefficiencies in revenue collection mean that African governments forgo large amounts of tax revenue. There are also lucrative new tax opportunities for taxing big tech companies. With millions of Internet users in Africa (including 255 million using Facebook alone) in 2022, taxing the digital economy could contribute to the fiscal demands of many African economies.[1]

Implementing such policies is not easy or straightforward as they require significant political determination. In Ethiopia, efforts launched in 2006 to expand the tax base made steady progress. Total taxes collected nearly tripled in seven years, from US\$1.3 billion in 2007 to US\$3.8 billion in 2013, but then stalled for several years after the death of Prime Minister Meles Zenawi. However, as a share of total government revenue, the contribution from tax grew from 48% in 2007 to 82% in 2016.[2] Zenawi had personally championed the reforms and insulated them from political interference.

At 16.5% of GDP, Africa's average tax-to-GDP ratio is lower than other regions, such as Asia and the Pacific (19.1%), Latin America and the Caribbean (21.9%) and Organization for Cooperation and Development (OECD) countries (33.5%).^[3]

Without sufficient revenues, governments cannot deliver on improved education, infrastructure or healthcare, provide security or democracy, or, as is modelled here, invest in a more productive economy.

In the Manufacturing scenario, African governments are expected to raise US\$260 billion more in taxes by 2043 compared to the Current Path forecast. Government-to-household transfers increase from 7.5% of GDP in 2043 (in the Current Path forecast) to 9.3% (in the Manufacturing scenario), translating to US\$163 billion in additional transfers. Rapid structural transformation may entail a trade-off between growth and inequality.^[4] Progressive taxation and welfare spending are important to mitigate this effect. Generally, cash transfers are better than fuel or other government subsidies such as those used in Nigeria, Tunisia, Algeria and Egypt. Subsidies that lock governments into foreign exchange-linked expenditure (such as bread subsidies in Egypt, which are linked to wheat imports, or fuel subsidies in Nigeria) are particularly problematic. Large fluctuations in the exchange rate or a deterioration of rates create an external financial obligation that may escalate beyond the means to service the associated costs, which is domestically difficult to scale down or remove.

In the Manufacturing scenario, government expenditure in research and development (R&D) also increases by about US\$1.3 billion by 2043 relative to the Current Path forecast—a particularly powerful driver of improvements in productivity. Technology upgrading through R&D is crucial for a robust manufacturing sector. It stimulates innovation, increases productivity and improves the quality of products.

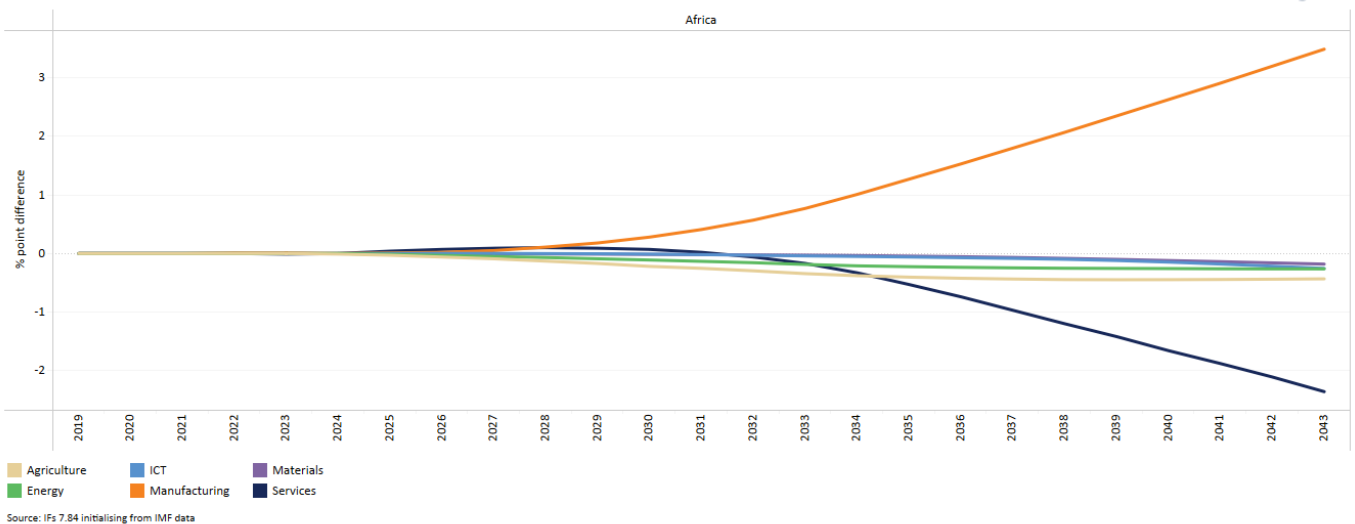
The Manufacturing scenario improves the quality of business regulation and investment in the manufacturing sector.

Finally, increasing manufacturing should lead to direct and indirect employment in the sector. Therefore, the scenario includes a modest increase in labour participation rates equivalent to 1.5 percentage points above the Current Path forecast by 2043. Generally, the employment intensity of the manufacturing sector is declining globally when seen relative to the period when Asia experienced its most rapid manufacturing growth.^[5]

Impact of the Manufacturing scenario

Chart 9 presents the shift in the sectoral composition that would occur at the continental level due to the Manufacturing scenario. The manufacturing sector's share of GDP is, by 2043, 3.5 percentage points of GDP larger than it would have been on the Current Path, while the shares of other sectors in GDP decline compared to the Current Path forecast. The service sector accounts for 55% of the total African economy by 2043—2.4 percentage points of GDP lower than the Current Path forecast. The manufacturing sector has absorbed the shift away from agriculture, and other sectors becoming the second most significant contributor to Africa's GDP at just over 25% in 2043.

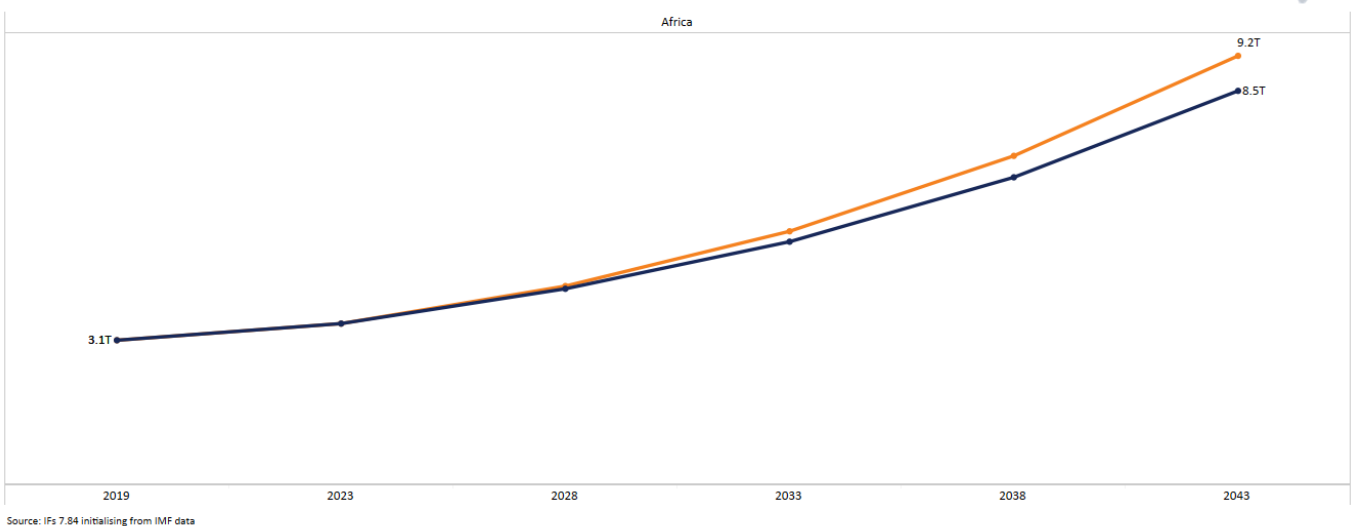
Chart 9: Shift in sectoral contribution to African economy: Manufacturing scenario relative to Current Path forecast, 2019-2043



In absolute terms, all sectors are larger by 2043 than in the Current Path forecast for that year, reflecting the growth spillover effect from the manufacturing industry to the other sectors. The contribution of the manufacturing sector to GDP has the biggest improvement (an increase of US\$463.4 billion) compared to the Current Path forecast in 2043. The manufacturing sector is followed by the service sector with an increase of US\$163 billion above the Current Path in 2043. ICT comes in third position and is US\$16.5 billion larger than the Current Path forecast in 2043.

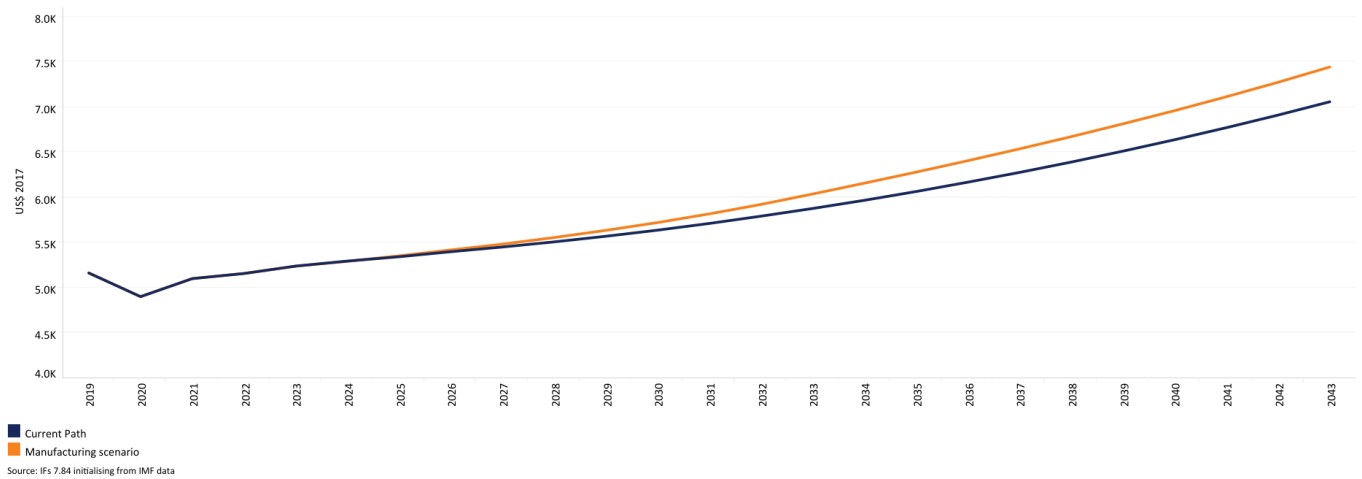
Chart 10 presents the size of the African economy in 2043 on the Current Path and in the Manufacturing scenario in market exchange rate (MER).

Chart 10: African GDP (MER) in the Current Path and Manufacturing scenario, 2019-2043



In 2019, Africa's GDP was just over US\$3 trillion. In the Current Path forecast, it will increase to US\$8.5 trillion by 2043, at an average growth rate of 4.4% per annum. In the Manufacturing scenario, the 2043 African economy is substantially larger: US\$9 trillion with an average growth rate of 4.8% — a difference of 0.4 percentage points. The result of the Manufacturing scenario is an African economy that is US\$658 billion (or 8%) larger in 2043 than expected in the Current Path forecast. The 23 lower-middle-income countries in Africa gain more (in a relative increase in the size of their economies) than low- or upper-middle-income countries.

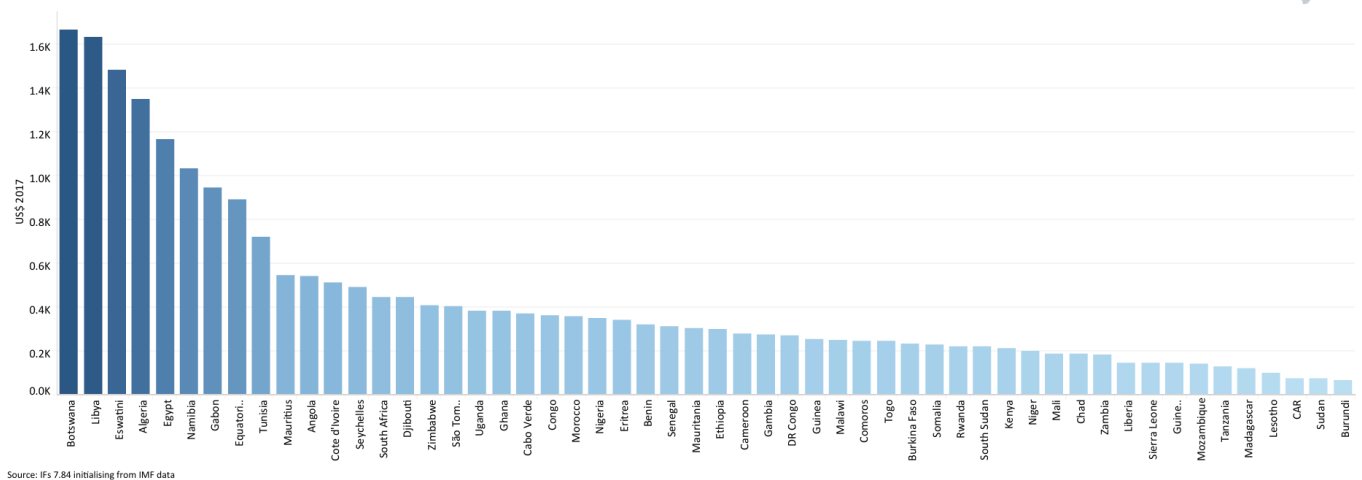
Chart 11: African GDP per capita (PPP) in the Current Path and Manufacturing scenario, 2019-2043



By 2043, the average African is forecast to have an income of US\$7 445, which is US\$383 more than the Current Path forecast of US\$7 062, with the largest increases in the upper-middle-income group (at US\$660 in PPP).

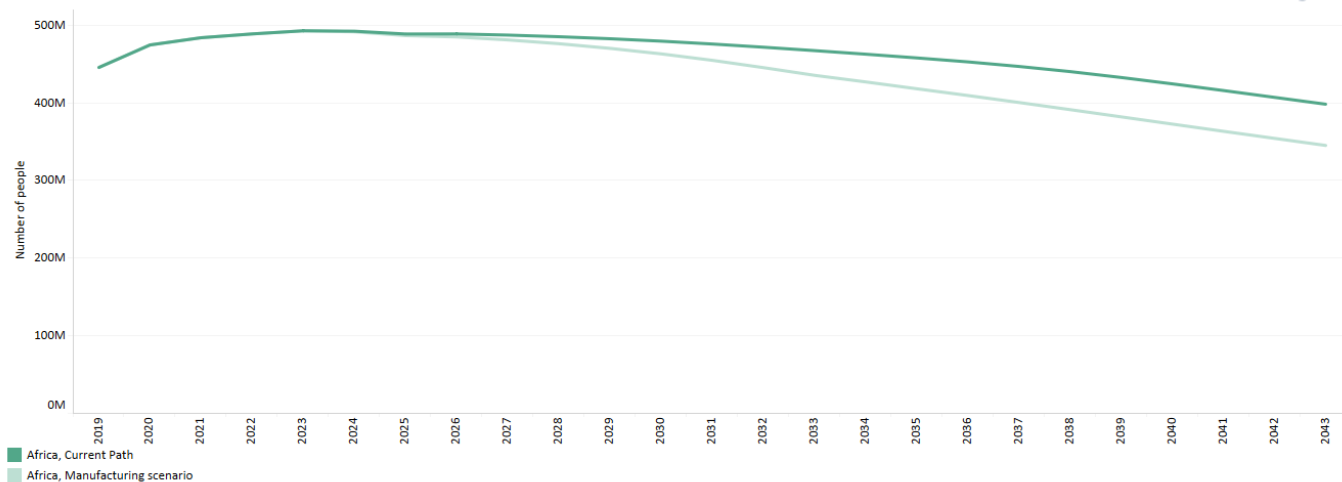
The impact of the scenario on GDP per capita also differs by country. The DR Congo experiences the largest increase in its GDP per capita (at 10%) compared to the Current Path in 2043, followed by Malawi. The countries that gain the least are Seychelles and Sudan. However, in absolute value, Botswana sees the largest increase in GDP per capita (at US\$1 671) compared to the Current Path in 2043, followed by Libya. The countries that gain the least are the Central African Republic and Burundi (Chart 12). The manufacturing sector in Burundi is weak; almost all manufactured consumer goods are imported. In 2021, Burundi ranked 51st of 52 countries on the African Development Bank's African Industrialization Index.[6]

Chart 12: Increase in GDP per capita in the Manufacturing scenario relative to the Current Path in 2043



Considering progress towards the SDG headline goal of eliminating extreme poverty by 2030, using US\$1.90 as the extreme poverty line, the Manufacturing scenario could lift about 16 million Africans out of poverty by 2030 and 53 million people (a 2.4 percentage point reduction in the poverty rate) by 2043.

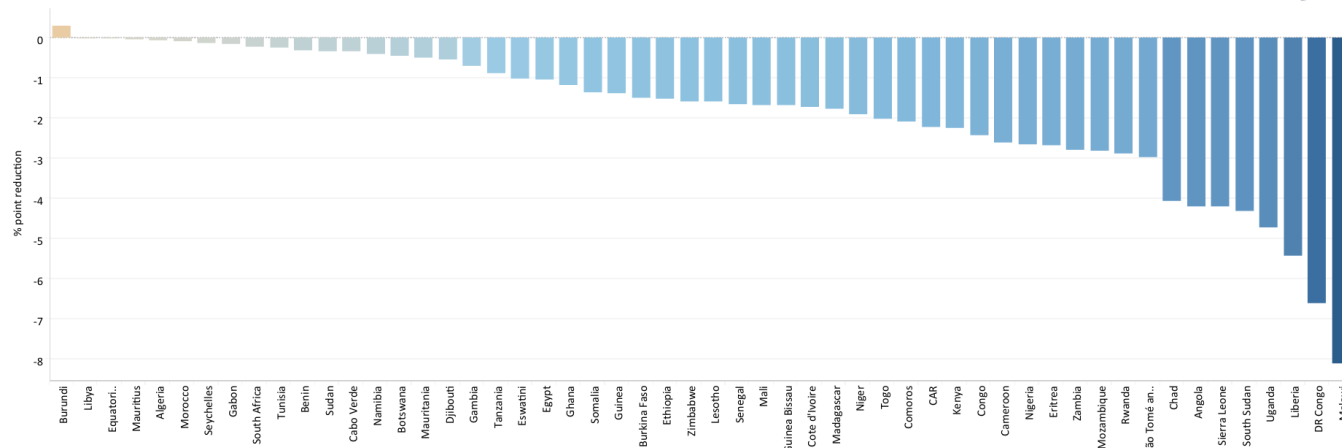
Chart 13: Absolute number of poor people (US\$1.90): Current Path vs Manufacturing scenario, 2019-2043



Source: IFS 7.84 initialising from IMF data

The magnitude of the impact of the scenario on poverty reduction differs between African countries. Chart 14 presents the percentage point reduction in poverty rate (US\$1.90) in 2043 in the Manufacturing scenario compared to the Current Path. Malawi, the DR Congo and Liberia are set to experience the largest decline in poverty rates. However, in considering the absolute number of poor people, the DR Congo sees the biggest poverty reduction by 2043 (11.3 million fewer poor people compared to the Current Path forecast), followed by Nigeria (10.5 million fewer poor people). The extreme poverty rate at US\$1.90 is already eliminated in countries such as Seychelles, Mauritius and in North Africa. As a result, the number of people lifted out of poverty by 2043 is marginal in these countries.

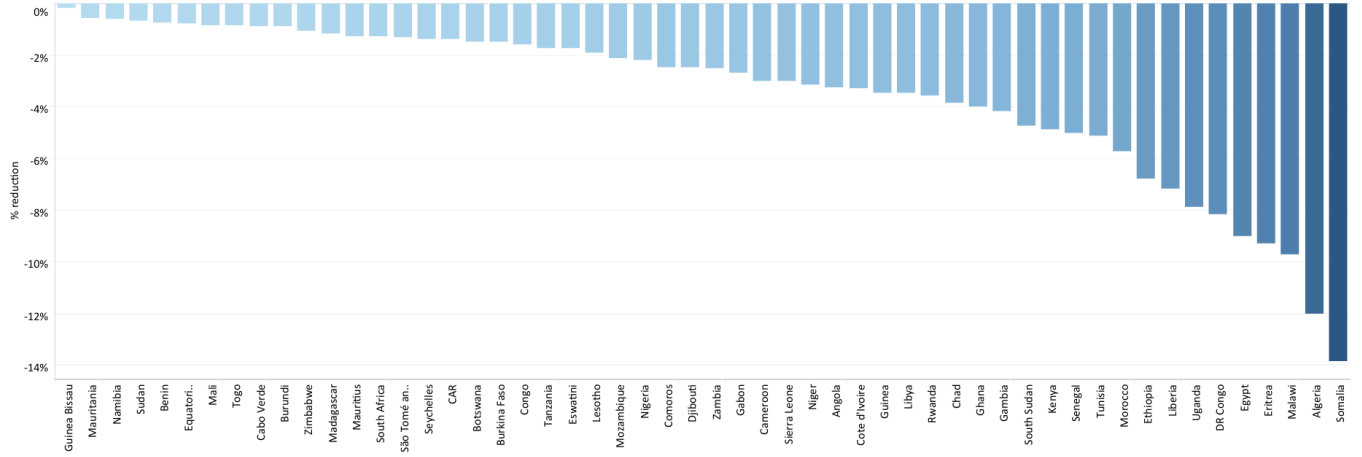
Chart 14: Percentage point reduction in poverty rate (US\$1.90) in 2043: Current Path vs manufacturing scenario



Source: IFS 7.84 initialising from WDI data

The scenario also contributes to income inequality reduction as measured by the Gini coefficient (index) in all the countries. As shown in Chart 15, Somalia and Algeria gain the most from the Manufacturing scenario, whereas Guinea-Bissau, Sudan and Cabo Verde gain the least. In sum, with determined efforts to embark on a manufacturing pathway and taking active steps to cushion the immediate costs of pushing a manufacturing agenda, solid improvements in the well-being of a large portion of the African population are possible.

Chart 15: Percentage reduction in Gini coefficient in manufacturing scenario relative to the Current path in 2043



Source: Ifs 7.84 initialised from WDI data

Endnotes

1. See, for example: ActionAid, [How just three Big Tech companies could address nurse shortages in 20 poor countries by paying their fair share of corporate tax](#), 2020; Internet and Facebook data from: Internet World Stats, [Internet penetration in Africa](#).
2. L Schreiber, [Funding development: Ethiopia tries to strengthen its tax system, 2007–2018](#), Innovations for Successful Societies, Princeton University, 2018.
3. Brookings, [Foresight Africa 2023](#).
4. This is known in the literature as ‘developer’s dilemma’ or ‘Kuznets’ tension’. See Armida et al, [The developer’s dilemma](#), WIDER Working Paper 2020/35.
5. Actually, levels of peak manufacturing employment have declined with each wave of industrialisation, from around 30% of employment during the first wave of smokestack industries in Europe two centuries ago to levels roughly half of that of today. See: H Bhorat, R Kanbur, C Rooney and F Steenkamp, [Sub-Saharan Africa’s Manufacturing Sector: Building Complexity](#), Working Paper No. 256, Abidjan: African Development Bank Group, 2017.
6. African Development Bank, [Africa Industrialization Index 2022](#).

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Dr Kouassi Yeboua is a senior researcher in African Futures and Innovation programme in Pretoria. He recently served as lead author on ISS studies on the long-term development prospects of the DR Congo, the Horn of Africa, Nigeria and Malawi. Kouassi has published on various issues relating to foreign direct investment in Africa and is interested in development economics, macroeconomics, international economics, and economic modelling. He has a PhD in Economics.

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