UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

The G20 Initiative on "Supporting Industrialization in Africa and LDCs"

Review of progress

Contents

Abstract

The G20 Leaders' Summit in Hangzhou, China, in September 2016, launched the 'G20 Initiative on Supporting Industrialization in Africa and Least Developed Countries'. This voluntary initiative on industrialization addresses a core development challenge. All G20 members surveyed for this report argued that the initiative has been 'somewhat effective'. Unfortunately, there is also a lack of awareness of the initiative. More generally, G20 members acknowledged it is very difficult to establish a direct link between the G20 initiative and subsequent actions to help countries industrialize. Awareness is a challenge in the recipient's side too. While industrialization was confirmed to be among the respective national development priorities, only four out of 19 respondents of the surveyed African countries, and one Asian LDC, stated they had some awareness of the initiative.

Encouragingly, the initiative is well conceived and tackles crucial gaps in the development challenge, such as the low level or even falling levels of industrialization as measured by the share of manufacturing in GDP. However, the theory of change behind the G20 initiative shows some weaknesses in crucial areas. For example, the initiative could have led to more and better global discussions or could have raised more awareness of the industrialization challenges in Africa and LDCs. On the positive side, the initiative has been consistent with the increased attention given to industrialization by some donors recently, including from G20 members. This specific initiative may also have contributed to the development of other G20 initiatives in the area of industrialization such as the Compact with Africa. The initiative has not been accompanied directly by specific additional measures, implying that there is little evidence that African countries and LDCs have been supported by this G20 initiative. That being said, several related G20 measures may have had direct and indirect effects.

G20 members need to be aware that business as usual is not going to reverse the decline in industrialization (share of manufacturing in GDP) currently happening in many of the poorest countries. Of course, low income countries need to make a step-change in implementing stated industrialization policies to reach their ambitions. But importantly, this report suggests three low cost actions by the G20 and its members to support implementation of industrialization measures. First, the G20 could put a greater spotlight on industrialization, particularly when focusing on Africa and LDCs. Second, the G20 agenda could continue to report on progress on the initiative and link it more systematically to other G20 initiatives and the G20 2030 Agenda Action Plan. And third, there could be stronger collaboration between G20 Members and beneficiaries around practical measures for industrialization and the development of toolkits around such practical measures.

1 Background

1.1 Introduction and background on the G20 initiative

Industrialization is a critical component in economic transformation, job creation and the achievement of the Sustainable Development Goals (SDGs). This report reviews progress on a voluntary initiative introduced by the Hangzhou G20 Summit to support industrialization in African and Least Developed Countries (LDCs). It provides background to the initiative, discussing how it is expected to support industrialization and reviewing the actions that G20 countries are undertaking to support industrialization in Africa and LDCs. The G20 Initiative on Supporting Industrialization in Africa and LDCs, which we refer to as "the G20 initiative" or "the G20 initiative on industrialization" in this report, has put forward an important concept which is meant to encourage voluntary policy action in G20 areas related to industrialization.

Unfortunately, industrialization has not advanced much in recent years in Africa and LDCs, though with notable variations, and hence further policy attention is required. Encouragingly, there appears to be evidence that G20 countries have put in place further measures to support industrialization in Africa and LDCs, which is consistent with the Hangzhou statement and the SDGs, and particularly SDG 9. A renewed and focused attention at the G20 could consolidate such efforts further.

The declaration of the G20 leaders' summit in Hangzhou, China, in September 2016, launched the 'G20 Initiative on Supporting Industrialization in Africa and Least Developed Countries'[1]. Specifically, paragraph 35 states

> *"We launch the G20 Initiative on Supporting Industrialization in Africa and LDCs to strengthen their inclusive growth and development potential through voluntary policy options including: promoting inclusive and sustainable structural transformation; supporting sustainable agriculture, agri-business and agro-industry development; deepening, broadening and updating the local knowledge and production base; promoting investment in sustainable and secure energy, including renewables and energy efficiency; exploring ways to develop cooperation on industrial production and vocational training and sustainable and resilient infrastructure and industries; supporting industrialization through trade in accordance with WTO rules; and leveraging domestic and external finance and supporting equitable access to finance - with a focus on women and youth; and promoting science, technology and innovation as critical means for industrialization."*

[1] *http://www.g20.utoronto.ca/2016/supporting-industralization.html*

This initiative came at the request of the Chinese Presidency. The United Nations Industrial Development Organization (UNIDO) facilitated a range of discussions and drafted a report on the challenges and opportunities in Africa and LDCs for the G20 Development Working Group[2] 'Industrialization in Africa and Least Developed Countries. Boosting growth, creating jobs, promoting inclusiveness and sustainability.'

Appendix A includes the outcome text of the G20 initiative. It concludes that "the Development Working Group (DWG) will follow up on this initiative with relevant work streams and ask UNIDO and relevant International Organizations to report back to the DWG in 2018 for a review of actions taken to address the above policy options". This process started and this progress report in three sections forms part of it. The rest of Section 1 contains background on the initiative, and how it is expected to support industrialization in Africa and LDCs, followed by a discussion on progress in industrialization and factors affecting it. Section 2 includes a stock taking of actions in support of the G20 initiative by G20 members. Section 3 concludes and discusses suggestions for the future, informed by a survey conducted among G20 members as well as African countries and LDCs.

1.2 The G20 initiative and industrialization: expected pathways

From the outset in 2016, the G20 initiative on industrialization was designed to be a voluntary initiative, which was meant to inform other future initiatives in the G20. The statement argues that "[i]ndustrialization plays an important role in eliminating absolute poverty and promoting sustainable development" and also that industrialization faces a range of barriers including poor infrastructure, weak logistics, lack of integration and absence of accreditation systems. To address these constraints, the initiative suggests that the G20 will consult and consider the following voluntary policy options:

- Collaborate in promoting inclusive and sustainable structural transformation and industrialization in Africa and LDCs through knowledge sharing;
- Support sustainable agriculture, agri-business and agro-industry development and their linkages with other sectors;
- Strengthen skills development for youth;
- Promote investment in sustainable and secure energy, renewables and energy efficiency, and sustainable and resilient infrastructure;

[2] *https://www.unido.org/news/unido-publishes-report-industrialization-africa-and-least-developed-countries-g20-summit*

- Industrialise through trade and public-private partnerships (PPPs) in sustainable infrastructure;
- Support equitable access to finance for women and youth; and
- Promote science, technology and innovation.

Appendix A, which presents the whole initiative, provides more details and clarifies that these policy options are aimed specifically at industrialization. This targeted focus distinguishes the initiative from many other economic policy initiatives, which tend to be of a more general economic nature.

An assessment of the initiative would consider the following steps:

- Has the initiative led to global discussions and awareness of industrialization in Africa and LDCs?
- Has it inspired new G20 measures directly (either collectively or individually)?
- Has it directly influenced individual policies in G20 countries, or global policies?
- Has it had any other, indirect influences?
- And finally, have industrialization patterns in Africa and LDCs improved?

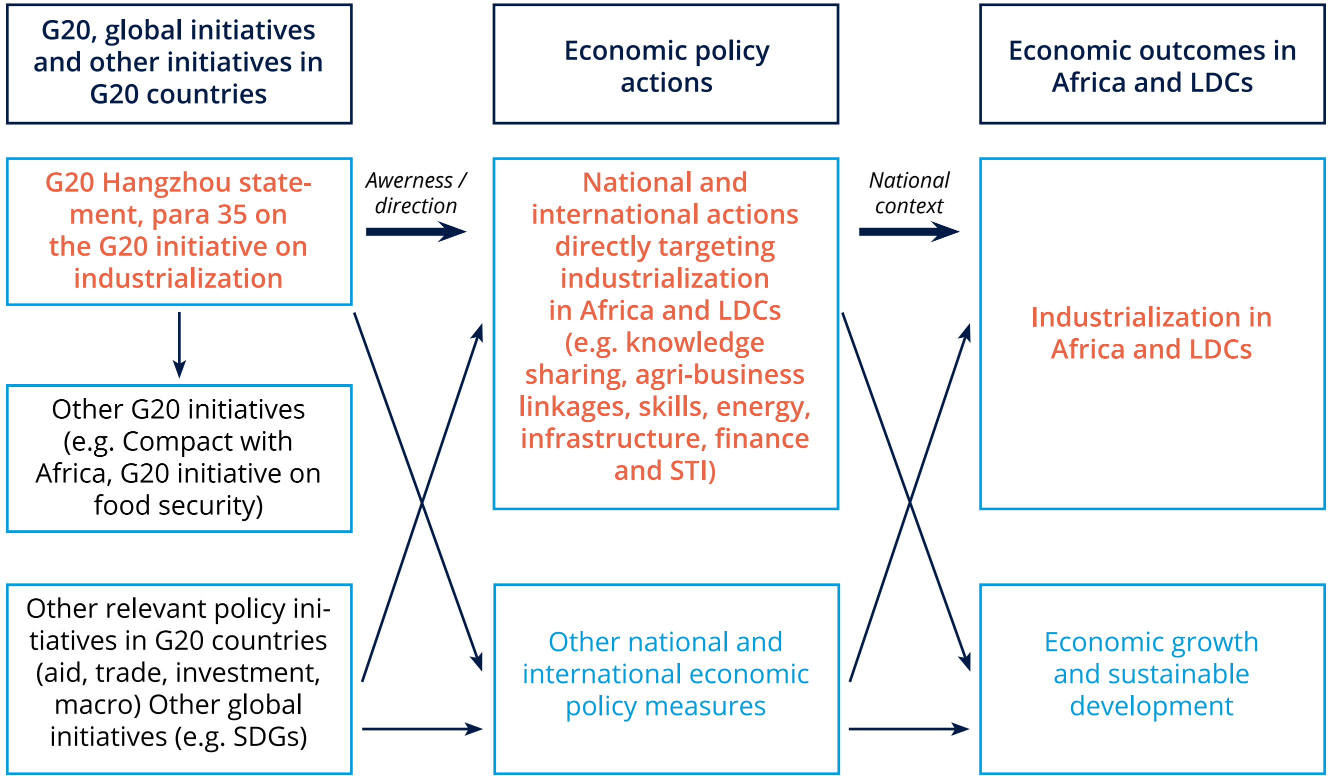
Figure 1 presents the proposed theory of change for the initiative. The G20 Initiative on Industrialization contains a range of voluntary aspirations (red box in the first column) and these are expected to trigger policy action in areas beyond, but related to, industrialization, other G20 policy actions or other global initiatives and national economic initiatives in G20 countries.

Initiatives in and by G20 countries may inspire economic policy actions. The G20 initiative on industrialization could lead to new and better actions to promote industrialization in Africa and LDCs (the orange arrow between the first and second column) as well as other economic development policy actions. Of course, many initiatives in the G20 (collectively and individually) may play a role, and these could have been inspired by the G20 Initiative on industrialization.

Economic policy actions (second column) can lead to economic policy outcomes, mediated by the national context (which is crucial, but which this report does not tackle in much detail). Policy actions specifically targeting industrialization as envisaged by the G20 Initiative on industrialization could have direct effects on industrialization in Africa and LDCs (the orange arrow between the second and third column). They can also have impacts on economic progress generally. There are also other economic policies which can affect industrialization and economic development more generally.

Whilst the ultimate objective is industrialization, a key driver of development, the G20 Initiative on industrialization should be assessed on how it has been able support policy actions directly aimed at this, through the orange arrows in figure 1, in addition to any indirect pathways.

Figure 1 Assessing the G20 Hangzhou initiative on industrialization



Source: Authors.

1.3 Current trends in industrialization in Africa and LDCs

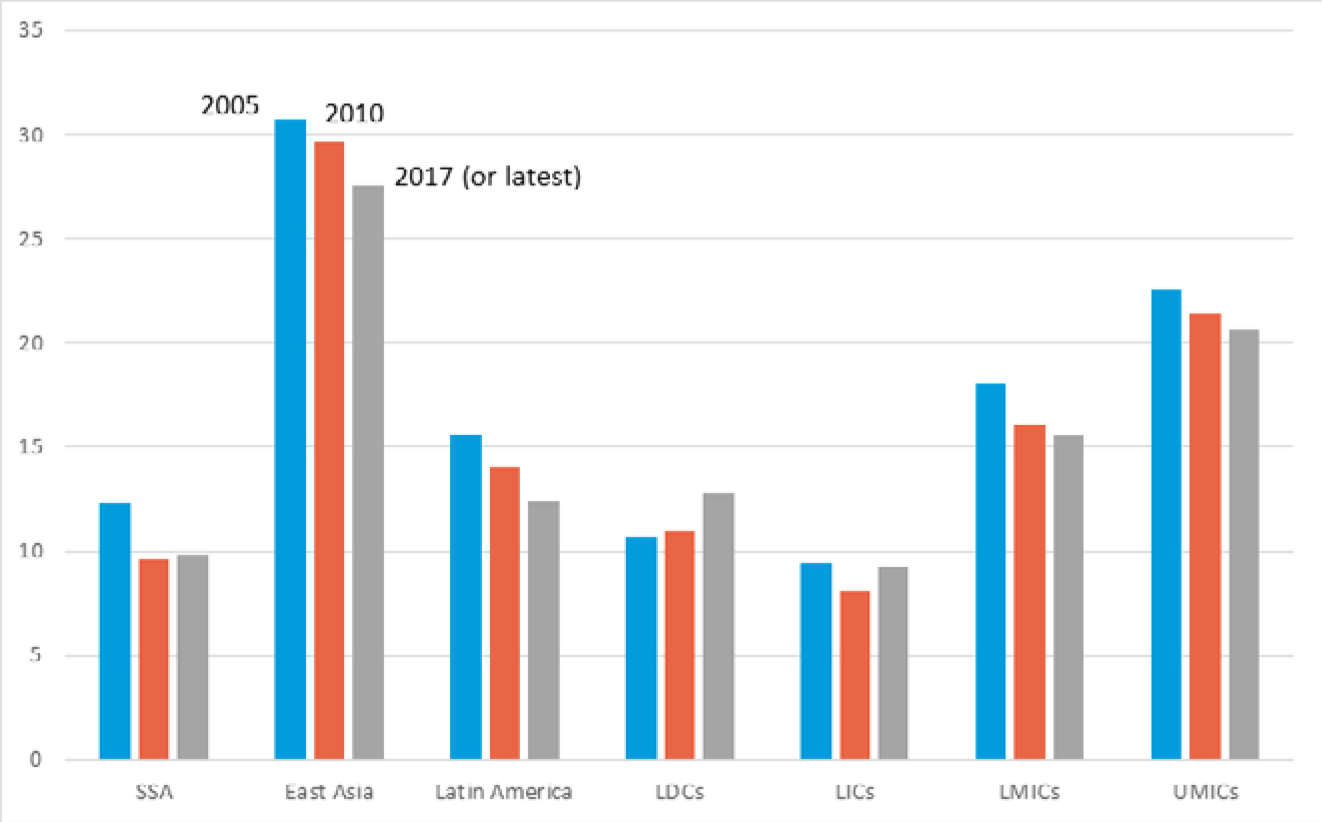
Moving labour out of low-productivity agriculture and into higher-productivity manufacturing is crucial for economic transformation in Africa (McMillan et al., 2017). Expanding manufacturing production and exports, and increasing their sophistication, can drive industrialization and create much-needed jobs. Export-led manufacturing has so far been the only proven model to drive economic transformation and boost employment in a sustained way (Balchin et al., 2016). This is evident in the experiences of many Asian countries, which have shown that export-intensive manufacturing can generate significant numbers of jobs. Countries such as Bangladesh, China, Malaysia and Viet Nam have developed light manufacturing – by building textiles and garment industries – to kick-start industrialization.

The lessons from successful experiences of economic transformation, such as those of East and South East Asian countries, are more subtle than is perhaps commonly thought. Ansu et al. (2016) argue that the form of the institutional arrangements behind economic transformation did not follow a single pattern. As the institutional forms have been quite varied, it is better to think about performing core functions that are central to development and transformation everywhere. **The Asian and African countries that have implemented economic transformation strategies successfully have focused on four characteristics:** (i) establish economic transformation as a nation-building project; (ii) provide leadership and co-ordination within government; (iii) establish effective mechanisms for public-private sector collaboration; and (iv) facilitate explicit experimentation, feedback and correction.

Economic transformation and industrialization have been crucial factors behind development progress. A clear example is that of Ghana and Korea which had a similar gross domestic product (GDP) per capita in the 1960. Now, Korea is a high-income country having transformed its production structures and reduced poverty substantially, whilst Ghana still is a lower middle income country, with a lack of industry or high productivity services and high poverty rates. More generally, many Asian Tigers have transformed whilst most of Sub-Saharan African countries (SSA) have not.

Industrial development is often measured by its share in GDP. Figure 2 shows the share of manufacturing (which is one component in industry) in GDP. Africa's share is lowest amongst region, particularly in SSA. The share of LDCs is much lower than lower and upper middle income countries. In many countries the share has declined. Interestingly, the share in LDCs has increased and is higher than in Low Income Countries (LIC), which can be explained mainly by the strong manufacturing performance in Asian LDCs such as Cambodia, Bangladesh and Laos, on the basis of garment exports.

Figure 2 Manufacturing share in GDP, by region and income group, 2005-2017



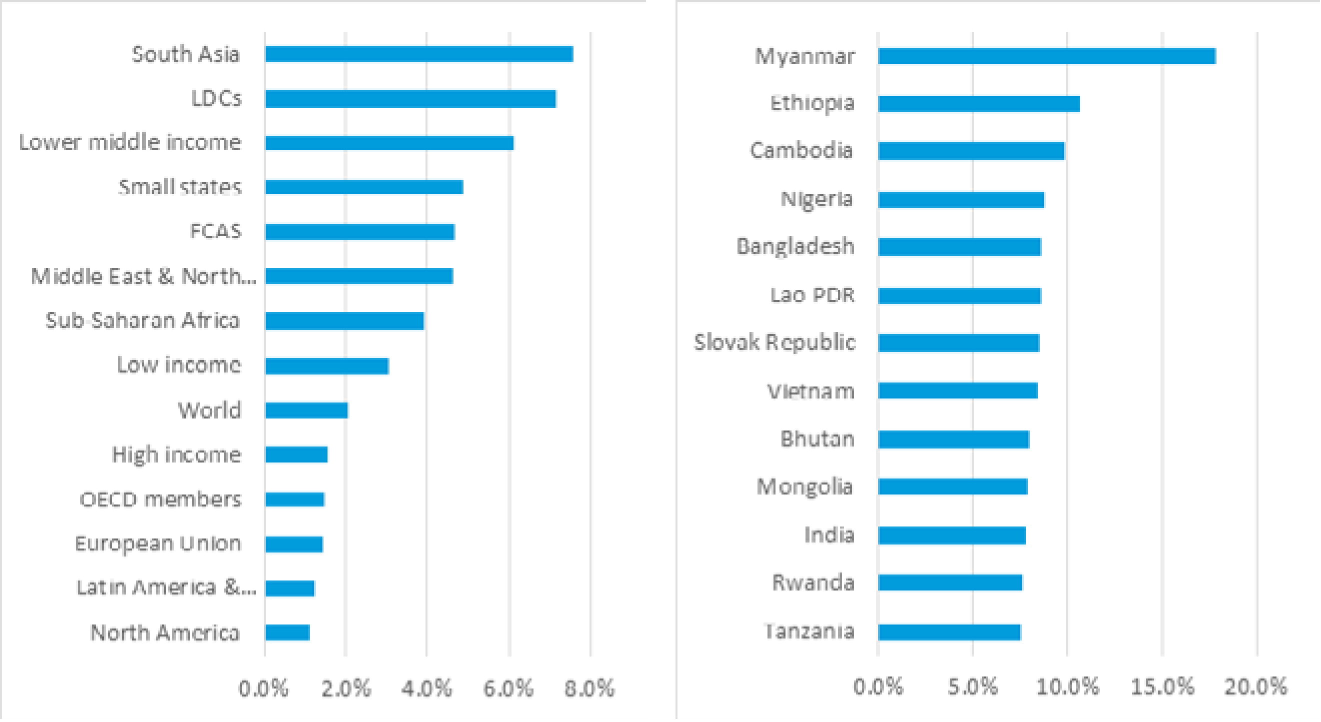
Source: World Development Indicators

Several regions and countries have seen their share of manufacturing in GDP decline, and earlier in their development path than was previously the case. Rodrik (2015) pointed to the concept of premature deindustrialization. Normally, countries increase their manufacturing share in GDP as they develop and reduce the share of agriculture but at some point decrease it when the services sector takes over. That manufacturing peak was reached at above 25% pre-1990, but post-1990 is happening faster than previously. Countries are reaching their peaks at an earlier point in time, and it is more difficult for later developers to enter into manufacturing production which has become more capital intensive. The production process has also become more specialised with many services activities undertaken outside the manufacturing firms or sector. On the other hand, the share of services in traded goods is increasing rapidly throughout developing countries.

Even if premature deindustrialization exists in Africa (an alternative view is that Africa never had a good start), **there is still scope for increases in both the share and volume of manufacturing.** Even if the future peak suggested by the empirical literature would be much lower than in the past, the share of manufacturing in African GDP is currently only around 10%.

Whilst the share of manufacturing may have decreased in many economies, and manufacturing will look different in the future, being increasingly part of value chains or combined with a highly digitized service sector (see Section 1.6), we should also note that **real manufacturing production has increased at a faster rate in Africa and LDCs than in many other groupings,** pointing to some progress, albeit starting from a low base. Figure 3 shows that LDCs and SSA have witnessed faster growth in manufacturing since 2000 than High Income Countries (HIC) or Latin America. Several LDCs and African countries feature in the top 13 fastest growers, achieving remarkable growth over 7.5% per annum.

Figure 3 Annual growth in manufacturing 2000-2017 (groups, left, and top 13, right)



Source: World Development Indicators (no data for China)

While the share of manufacturing in GDP in sub-Saharan Africa declined from 18% in 1975 to 11% in 2015, manufacturing production has nearly doubled since 2000, from $85 billion in 2000 to more than $160 billion in 2015 (in constant 2010 prices). African manufacturing has grown at 3.5% annually in real terms over the past decade, more than in developed countries. Some African countries have done better than others (figure 3). Successful examples of manufacturing production include automobile assembly and production in South Africa, garments in Mauritius and East Africa and consumer goods across the continent. African exports to the US under AGOA has reached around US$ 1 billion in recent years, led by Kenya, Lesotho, Madagascar and now also Ethiopia.

Annual average growth in manufacturing exports between 2005 and 2014 was highest in Asia (8.3%), followed by Africa (7.4%), and much lower in Europe (4.3%), the Americas (3.9%) and Oceania (2.7%). Africa's manufacturing share increased marginally from 0.8% to 0.9%. Manufacturing foreign direct investment (FDI) rose in a group of nine African countries between 2003–2006 and 2010–2014, apart from Nigeria. Greenfield FDI in African textiles, clothing and leather increased from $1bn in 2016 to $4bn in 2017. The food and beverages sector is the dominant manufacturing sector, followed by textiles and clothing.

1.4 Experiences in Africa and LDCs

The Agenda 2063 of the African Union (AU) is highly consistent with the G20 Initiative on Industrialization through its prioritization of economic transformation and industrialization There are a range of regional industrialization strategies completed or in the making in the East African Community (EAC), Common Market for Eastern and Southern Africa (COMESA), Economic Community of West African States (ECOWAS), and Southern African Development Community (SADC), see OECD (2018).

Triggering and maintaining the momentum for the development and implementation of industrialization plans at the national level has been difficult. The following discusses a range of different national industrialization models and the implementation challenges they face to clarify the importance of national context in driving industrialization. International initiatives can support but never replace national efforts.

The Government of **Ethiopia** has taken serious steps to move away from an agricultural-led development strategy towards a manufacturing-led strategy. In recent years, it has built a number of industrial parks and the ambition is to have up to 20-30 parks by the end of 2020, building on the success of the Hawassa Industrial Park. Thanks to a focused approach to investment attraction and an infrastructure push supported by donors such as China, the UK, and Italy, and international organizations and institutions such as the European Investment Bank (EIB), the World Bank and UNIDO, Ethiopia's exports of garments have increased dramatically, doubling in the past year albeit from a low base. However, manufacturing and exports still have a very low share in GDP and challenges for trade facilitation and skills persist.

The Government of **Kenya** has developed a range of policies, strategies and measures to promote industrialization as part of President Kenyatta's 'Big Four' agenda, which prioritises manufacturing, building on past strategies such as Vision 2030 and the Kenya Industrial Transformation Programme (KITP). The KITP and the Big 4 agenda aims to create 1 million jobs, grow domestic and Foreign Direct Investment (FDI) fivefold and increase the contribution of manufacturing to 15% of GDP in 2022 (it is currently less than 10%). Whilst there is new attention to the role of SMEs, the implementation of SEZs appears much slower than in Ethiopia. Donor agencies such as the Trade Mark East Africa are supporting the reduction in trade costs and enhancing industrial capabilities.

The government of **Rwanda's** second Economic Development and Poverty Reduction Strategy (EDPRS2), which outlined its economic strategy for 2012-2017, initially had a strong emphasis on services, mostly in the form of electronics assembly, and paid little attention to manufacturing. However, the current five-year plan discussed in Rwanda's first National Strategy for Transformation (2017-2024) puts less faith in leapfrogging and is more explicit about promoting industrialization, job creation and exports, while maintaining the ambition to become a service-led economy.

There is some momentum behind **Tanzania's** ambitious industrialization agenda, but national implementation challenges persist. The government published its action plan for implementing the National Five Year Development Plan 2016/17-2020/21 (FDYP II), which prioritizes industrialization to drive economic transformation and human development. Implementation and further prioritization have often lagged. Plans have been constrained by a lack of coordination within the government and weak institutional conditions for implementation. Inadequate financing, and a lack of clarity on how to source the necessary finance, present persistent challenges. Little progress has been made in several areas accorded priority in the FYDP II, including the establishment of special economic zones and industrial parks.

Asian LDCs such as **Bangladesh, Cambodia, Myanmar and Laos** all have relatively large garment sectors built up on the back of attracting investors and contacts with global buyers making use of trade preferences in the European Union and the United States. These Asian LDCs have been much more successful in taking part in regional and global value chains compared to African countries. But these countries now face graduation but also challenges of diversification,

1.5 Conceptual interlinkages with other G20 initiatives and SDGs

The Developing Working Group of the G20 began in 2010 with a Seoul Consensus for Shared Growth. However, there was no mention of industrialization. The Chinese Presidency of 2016 made industrialization a core component of the G20's agenda. The Hangzhou G20 initiative on industrialization put the spotlight on industrialization in Africa and LDCs for the first time. However, a range of policy initiatives at G20 member states' national level as well as global initiatives directly or indirectly support industrialization. In particular, there were a range of policy announcements that contribute to industrialization such as on infrastructure (French Presidency in 2011), green growth (Mexican Presidency in 2012) or Food Security[3].

The German G20 Presidency of 2017 initiated the G20 Compact with Africa to promote private investment in Africa[4]. The primary objective is to increase attractiveness of private investment by improving the policy, business and financing frameworks. It co-ordinates a range of actors including African policy makers, international organizations and bilateral partners around country-specific policy agendas. Since its launch in 2017, twelve African countries have joined the Compact: Benin, Burkina Faso, Côte d'Ivoire, Egypt, Ethiopia, Ghana, Guinea, Morocco, Rwanda, Senegal, Togo and Tunisia. Whilst the focus seems to be on policy frameworks, it is interesting to note that some country action plans emphasize industrialization in a more targeted way, such as through the establishment of Special Economic Zones (SEZs) in Ethiopia. A high-level Compact with Africa meeting was held in Germany in late 2018 which further maintained the momentum, whilst an in-country visit to Ethiopia was followed by new investment commitments by G20 companies.

While the 2018 G20 Communique of the Argentinian Presidency paid little attention to industrial development, the priorities of the Japanese G20 presidency included free trade, science and technology, infrastructure, health, climate change, ageing, and SDGs. The resulting G20 Osaka leaders' declaration of 2019 clearly reiterated its "continued support to the G20 Africa partnership, including the Compact with Africa (CwA), with strengthened bilateral engagement by G20 members and enhanced roles for WBG, African Development Bank, and IMF in implementing the CwA, and the G20 initiative on supporting the industrialization of Africa and other relevant initiatives that contribute to the realization of the African vision as set out in the African Union's Agenda 2063." This is an important continuation of G20's support for industrialisation. Japan has also organised the Seventh Tokyo International Conference on African Development (TICAD VII) in August 2019, a meeting between Japanese and African leaders, continuing the focus on industrialization.

[3] *This item to develop with IFAD*
[4] *https://www.compactwithafrica.org/content/compactwithafrica/home.html*

The G20 has supported the process and outcome documents of the Sustainable Development Goals and the 2030 Agenda Action Plan. There are direct conceptual links between the G20 Initiatives, including the Initiative on Industrialization and the Agenda 2030. While industrialization notably can be linked to the Agenda as a whole, it is worth highlighting some particular examples. SDG 8 aims to promote inclusive and sustainable economic growth, employment and decent work for all. This includes work on innovation, productivity, diversification, job creation and growing enterprise. Even more specifically, SDG 9 aims to build resilient infrastructure, promote sustainable industrialization and foster innovation[5]. This includes inclusive and sustainable industrialization, upgrading of industrial technologies, and support for technology development and industrial diversification, which is at the core of UNIDO's programmatic activities and its mandate to support inclusive and sustainable industrial development.

Science, technology and innovation (STI) are key means of implementation of the SDGs and these issues have been at the forefront of the 2019 G20 presidency[6]. The G20 initiative on industrialisation is directly related to this.

1.6 Opportunities and challenges of Industry 4.0 and other mega trends for Africa and LDCs

Digitalization may shift the basis for competitiveness of manufacturing away from the cost of labour to factors such as connectivity and digital readiness. Over 1980-2010, African manufacturers faced strong competition from Asian manufacturers (especially in Bangladesh, Cambodia, China and Viet Nam), which mostly benefited from similar or lower wages, higher productivity, better infrastructure, access to a more skilled labour force and greater integration into global value chains (Balchin et al., 2016). Over the recent decade, many Asian countries have seen wages rising much faster than African countries, offering new opportunities for African countries exports as well as creation of new jobs linked to these exports though the value chain.

However, Banga and Velde (2018a) also highlight that African countries are facing a two-pronged challenge in the digital era. Firstly, there is **a significant digital divide between SSA countries and the rest of the world, across a range of technologies** – from something as sophisticated as robotics and artificial intelligence to something as basic as having access to internet. The internet penetration in SSA in 2016 was 10% lower than that in South Asia, and in terms of robots, the share of Africa in the number of robots sold in the year 2015 was more than 15 times lower than its share in the global GDP of that year.

Secondly, even if African economies were to have the same access to internet and digital technologies as other parts of the world, **they will still not be able to derive similar productivity gains from the internet.** New empirical evidence suggests that a doubling of internet penetration boosts manufacturing labour productivity in middle-income economies by roughly 11%, but the impact on low-income countries is only around 3%. This digital divide in terms of 'use of internet' can, to some extent, be reduced through skills development: an increase in the average skill level of a country increases the impact of internet penetration on manufacturing labour productivity by 9%.

If appropriate actions are not taken by African countries to prepare for the digital future, and the digital divide persists in the context of growing global digitalization levels, then there will be an increased threat of re-shoring of manufacturing tasks from Africa, or the threat that production will never be transferred to Africa in the first place (e.g. China itself is digitalising fast). Whilst the cost of capital is declining rapidly in developed countries – the cost of 3D printers and robots have, on average, declined by 5% annually – wages in developing countries are rising (Banga and Velde, 2018a). This indicates that there may be a future increase of an already occurring trend of firms in developed economies finding it more efficient to re-shore production from developing countries (which are major offshoring hubs) back to the technologically advanced factories in the developed parts of the world. It is therefore crucial for Africa to prepare and to put in place policies to adapt to the digital future, and the challenges it may bring, and to create jobs including in a more digitally oriented manufacturing.

A significant part of this policy agenda is well trodden, but there are also new elements which require urgent attention. Manufacturing firms face well-known challenges to digitalization, including (i) high cost of capital, (ii) high cost of electricity and unreliable power supply, (iii) lack of available credit, (iv) high prices of raw materials, (v) lack of relevant skills, and (vi) poor customs and logistics procedures. However, **to achieve digital transformation, national policies need to not only address these challenges but also build digital capabilities and manage inclusive digital transformation in manufacturing through targeted actions**. Banga and Te Velde (2018b) discuss 10 policy options. The G20 work on digital economy can support this.