THE DEVELOPMENT OF AFRICA IN THE POST-COLONIAL WORLD: IS INDUSTRIALIZATION POSSIBLE?

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Abstract. The development and dependence theories picture African countries as victims having no positive heritage. Our paper is not trying to disprove that colonialism had its downsides, we try to present arguments and the attitude of other authors who are not trying to explain the development of Africa solely in terms of the socio-economic system that disappeared 60 years ago and still has its influence. The paper analyzes the development perspectives of industrialization of Africa region and discusses the importance of manufacturing, in connection with the fact that 2021 is the year of the launch of the free trade area within the African Union. Africa's political leaders are making integration efforts within the African Union to deepen intra-African trade and promote industrialization. The history shows that the path of industrialization of developing countries has been largely linked to strong external factors of influence, either in the form of investments and/or technology transfer. Thus, this fact opens a debate for the African region. Natural wealth and availability of resources do not mean well-being by default. In the past, European countries saw African colonies as a source of raw materials. This has not changed to this day. How industrialization can be reached in Africa? Who will be interested in becoming Africa industrialized region?

Keywords: Africa, post-colonial world, industrialization

JEL: F15, F43, N17

1. Introduction

Often when Africa is discussed or considered, a conceptual context is used containing all aspects and stereotypes that generalize characteristics to the whole Sub-Saharan Africa. Some scientists and economists explain the very wide gap between the economic development of Africa and the countries on other continents by the exploitation of African resources by the developed countries (Rodney, 1972). They mention not only the impact of colonial administration on the economy, infrastructure (Rodney, 1972), politics, but also culture through an influence on language (Young, 2016) as well as collective psychology through a sense of supported collective inferiority (Burke, 1976). In 2021, Ghana's President Nana Addo Dankwa Akufo-Addo, during the official visit to Switzerland, stressed that Ghana is Switzerland's largest trading partner in Sub-Saharan Africa as the country mostly exports cocoa and gold (Der Schweizerische Bundesrat, 2020). During the visit, emphasis was placed on the need to move from exporting unprocessed commodities to processed products, to producing chocolate and to pushing Ghana higher in the value added chain, which would mean the need to change the structure of production and employment. In our article, we aimed at studying scientific literature, identifying possible causes of the ever-recurrent, fundamental economic problems of the "black continent".

2. Related literature review

In the past, European powers saw African colonies as a source of raw materials. This has not changed to this day. The extraction of natural resources has become one of the central pillars of the colonial project, especially during the Industrial Revolution, when the extraction of minerals and other raw materials was very important for the development. This is one of the causes that led to the state of underdevelopment of industry in Africa during colonialism. The current globalized world also needs a "just in time" supply of raw materials to global chains and uses them to create added value. The higher the entity in this chain, the greater the value added.

In the second half of the 19th century, the interest of European powers in African raw materials peaked mainly in gold, rubber, spices, tea, opium, etc. Between 1884 and 1885, the Scramble for Africa was initiated during the Berlin conference. The result was the division of the continent into colonies ruled mainly by the British, French, Germans, Portuguese and Belgians. Certain regions of Africa served as a resource for Europe's thriving economies during colonialism. In North Africa, foreign capital has been invested in the use of a wide range of natural resources, including phosphates, oil, lead, zinc, manganese and iron ore. In the West African countries of Guinea, Sierra Leone and Liberia, mining has focused on rich deposits of gold, diamonds, iron ore and bauxite. Other key natural resources went to Europe from Nigeria (tin), Ghana (gold and manganese), Tanzania (gold and diamonds) and Congo-Brazzaville (copper) (Rodney, 1972). For many of these countries, these export items remain the largest to date.

Raoul Prebisch (1950) wrote in the work "The Economic Development of Latin America and its Principal Problems" that, although not dealt with Africa in particular, we believe that it can be applied to African countries, namely that labour productivity is growing faster in industrial production than in agriculture, which leads to more favorable terms of trade for entrepreneurs in the secondary sector. Prebisch pointed to the fact that the increase in labour productivity in the secondary sector reduced the cost of industrial goods, but at the same time the prices of these goods increased during the considered period, which worsened inter-industry terms of trade. While considering the objective comparative advantages distribution and the structural distribution of production in the world economy, he hypothesized that this also alters terms of trade between industrialized states and peripheral states.

The Prebish-Singer hypothesis (hereinafter the P-S hypothesis) has emphasized that the terms of trade in the states of the periphery were deteriorating which led to the impossibility of getting out of poverty (Prebisch, 1950; Singer, 1949). The dependence theory (Cardoso, 1977) appeared from the P-S hypothesis and provided the ground for a policy of protectionism and isolationism, after the P-S hypothesis had been influenced by Marxist ideas (Fanon, 2004) and became dominant among such African leaders of the time as Kwame Nkrumah (English Heritage, 2021), who studied in the US at the University of Pennsylvania, and Julius Nyerere (Bjerk, 2017), who studied at the University of Edinburgh. They have imposed high tariffs on industrial imports in an effort to kick-start their home countries' own industrial production. Leopold Senghor, president of Ghana, also supported protectionism, but at the regional level instead of national (Joseph, 1976). These experiments at the regional level could not take advantage of the effect of economies of scale, given the small size of the domestic economies and low purchasing power of consumers (not even taking into account the know-how and the progress of technology).

Post-colonial development theory began to claim that the problems of former colonies are associated not only with the terms of trade, but also with psychology, sociology, politics, culture and demographics (Sachs, 2010). The idea that the global south is negatively affected by the past and colonial heritage was also developed by the other authors (Fanon, 2004; Rodney, 1972).

Author Dambisa Moyo (2010) says that in the decade since 2000, developed states have provided more than USD 1,000 billion in development aid. Moyo has emphasized that the development aid comes along with the political impact on political elites of recipient states, given the growing dependence, while also calling the period from the start of the millennium as a period of “glamorous development aid” or even calling it “dead aid”. Basically, the author argues that development aid is a generator of problems and makes the export of the recipient state uncompetitive. This debate could be extended further as well as our contribution to the reflections on the cynicism, where subsidization is perceived as harmful and dangerous (and may harm the production in the state of the importers of the subsidized products, which in turn may lead to the imposition of duties), but the development aid is perceived positively, while by its nature and effect it is similar to subsidization, only the path followed by cash flows differs, but not the nature of the phenomenon and the impact it produces: the inefficiency of the recipient country's production. The logic behind being the recipient has a purchasing power boost for additional manufacturing products from the industrialized nation.

Some time has passed since the 19th century, but when we analyze the exports of African states, we rarely see products with high value added. The ambition expressed by the President of Ghana was to divert 30% of the multibillion-dollar chocolate industry (USD 130.5 billion) from the world's MNC towards Ghana (Grand View Research, 2020). This measure raises an issue that is indirectly discussed in the development and dependence theories in the works of Fanon (2004), Rodney (1972) and Young (2016), who based on historical materialism and were aware of the need to change the structure of the economies of the former colonies, so that not only the well-being, but also consciousness, culture and even the psychology of the population of the former colonies can change. Singer (1949) and Prebisch (1950) have pointed disadvantaged terms of trade of the states focused only on exporting of primary raw materials (IMF, 2013). From the point of view of representatives of the dependence theory, the most important challenge is the need for industrialization. This paper aims to activate the debate on the importance of industrialization of the African states, as manufacturing makes it possible to achieve greater processing of raw materials and the value added of exported production. Even if we look at development within the dichotomy systems of Prebisch (1950) or Kindlberger (1996), the main point of discussion will still be the additional level of raw material processing that will affect the terms of trade. Are we able to imagine a world according to Nana Akufo's vision in which Western-like African brands would be sold around the world for billions of dollars a year? Would the corporations like Nestlé, Mars, Hershey's and others share the chocolate industry and be replaced in part by African vertically integrated companies?

3. Data and methodology

In current paper, we consider the literature findings explaining the development path of Africa in broader perspective than in terms of traditional view of the influence of colonial regime. We discuss the possibilities of industrialization of the region beyond the common perceptions and stereotypes about of Africa, taking into account the diversity of the continent as well as debatable impact of colonialism.

4. Results and Discussions

According to the available economic data, African economies grew in the first half of the 20th century (Jedwab & Moradi, 2012). The most significant growth was recorded between 1900-1914 and 1945-1960. However, what role colonialism played in this development is debatable. One big mistake is often made when assessing the impact of colonialism on Africa, namely that Africa is seen as a homogeneous group with the same history, sociology and economy. The concept of Africa often pulls behind a certain set of stereotypes. However, it is necessary to emphasize the diversity of this continent and, consequently, the fact that colonialism had a different impact on individual regions. Botswana, for example, is often cited as a successful example of a state receiving up to 20 percent of GDP in development aid in the 1960s (Sebudubudu et al., 2011), and thanks to rapid growth in 2000 the development aid accounted for only 1.6 percent of GDP. Botswana's political system was able to maintain continuity even during colonial rule, and perhaps the premise for success was the discovery of rich diamond reserves, which took place only after independence. Since the 1980s, Botswana's GDP has grown 10 times at constant prices (World Bank Group, 2021c). These facts have enabled Botswana to get the economy going. Rwanda has increased GDP more than fivefold at constant prices in the last 20 years after the devastating events of the 1990s and 1990s. The South African Republic, on the other hand, is often referred to as a failed state whose GDP was stagnated for the last 50 years (at constant prices). These three countries are in sub-Saharan Africa, with completely different development and colonial experiences and post-independence developments (Piknerová, 2017).

In the West African region, the economies have already enjoyed considerable growth in the pre-colonial period. This was mainly due to the export of agricultural production. When the area later came under colonial rule, colonialists focused on increasing the production of export crops and therefore the economies were not transformed. The problem is that the relevant data are absent, but it seems that the transformation of the economy has been directed towards tropical export crops and raw materials. Colonization is likely to have spurred economic growth in the short term by investing in infrastructure and providing more opportunities for trade that have benefited European entrepreneurs as well as traders in Africa.

The purpose of the infrastructure investment was to promote exports. After the boundaries were demarcated, the colonies were transformed into closed economic systems, even though regional trade was not officially concluded. However, this has made economies very sensitive to changes in the world market. Although economic policies in the colonies were changing, their role as producers of primary commodities remained the same. That is why Africa was the least industrialized region in the world at the end of the colonial era. Only a few countries have experienced significant growth in the modern production in Africa. These were countries either independent (South Africa), semi-independent (South Rhodesia — now Zimbabwe) or those that had the means to provide punitive measures to ensure the supply of cheap domestic labour that was employed in the manufacture sector (Belgian Congo — now the Democratic Republic of Congo).

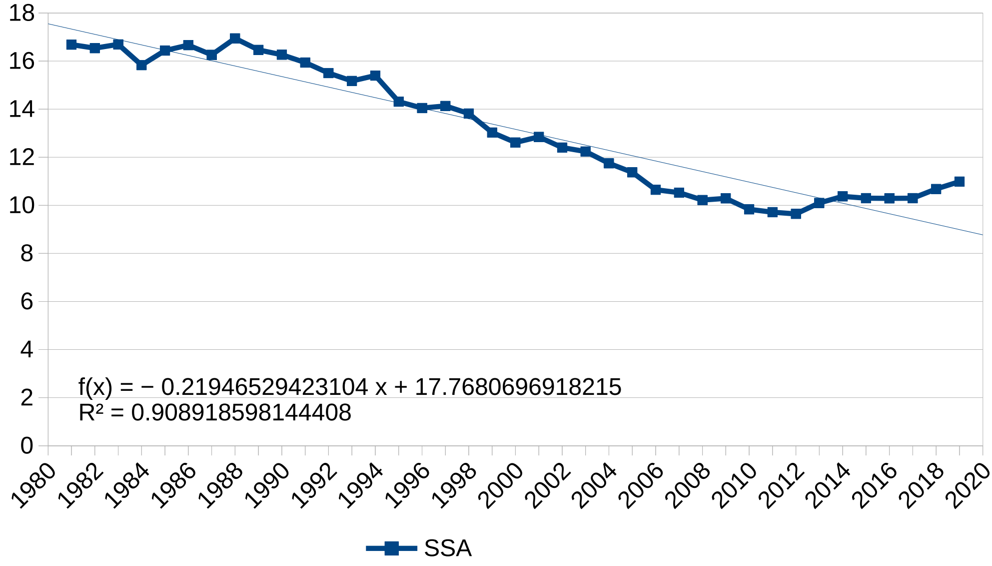
On the example of Rhodesia, it is well visible that in terms of the appropriate running of the economy, the strong power and economic structure of the state, functioning agriculture and infrastructure, the state can survive and prosper, despite extremely adverse external influences (sanctions, terrorist activities supported from abroad) (UN Security Council, 1968). Whereas, 40 years after the independence imposed by the UN, the initially self-sufficient and innovative country is reliant on an economic “miracle”, in the form of investments primarily made by the People's Republic of China (PRC). The investment and lending activity of the PRC in Africa can be seen as indirect support for– exports of Chinese products and a projection of political influence, in a modern form of neo-colonialism.

The structure of the area's resources and, thus, the surplus of land and labor shortages are also to blame for the under-resourced production sector in these countries. Investment in infrastructure has reduced transport costs, causing an influx of processed goods that have been produced cheaper outside Africa. While colonial authorities have called for investment to diversify, such efforts have not been fulfilled due to a lack of capital and a reluctance of Europeans to help African producers to grow. Colonialism facilitated integration into the world market, but at the same time prevented structural change and industrialization. In context of this, it could be argued that colonialism promoted short-term economic growth but hindered structural change and lasting economic development and industrialization.

During the 25th ordinary meeting of the Heads of State of the Organisation of African Unity on 20 November 1989, was declared African Industrial Day. In 2019, the African Union has planned activities under the

African Industrial Week entitled “Positioning African industry to supply the African Continental Free Trade Area (AFCTA)”. In doing so, the African Union stresses the importance that industry is assigned to the future of Africa's economy. In context of the fact that African heads of state are aware of the importance of industry, it is interesting to research how industry has developed in Africa over the last decades. As shown on Figure 1 the share of industry on GDP is quite well described by a down tending linear slope with a slight pick up from the year 2012. This implies that the relative weight of industrial production for the time being is lagging behind the other sectors.

Figure 1: *Value added produced in industry in Sub-Saharan Africa (as % of GDP)*



Source: author based on World Bank data (2021d)

Industrialization is accompanied, by the shift of factors of production from the primary sector to the sectors with higher productivity and technological progress. The result is the mass production of goods and services, the creation of productive jobs and the improvement of living standards. These processes of structural change have been dragged by industry in the past. This was the case of the industrialization of Europe and the economic miracle of Asian tigers.

Over the last few decades, Africa has seen a large increase in investment in the extraction of mineral resources (World Bank Group, 2021b). However, despite rapid economic growth, the share of value added generated by the industry has decreased since 1990 (Figure 1, Table 1). In particular, “traditional” mining countries such as Canada and Australia have invested in the mining sector in the long term and have recently been joined by emerging countries such as Brazil, India and China. These new investments play an important role in reducing the dependence of poor African countries on development aid, which has often been criticized (Moyo, 2010).

Table 1: *Value added production by region in 1990, 2000 and 2014*

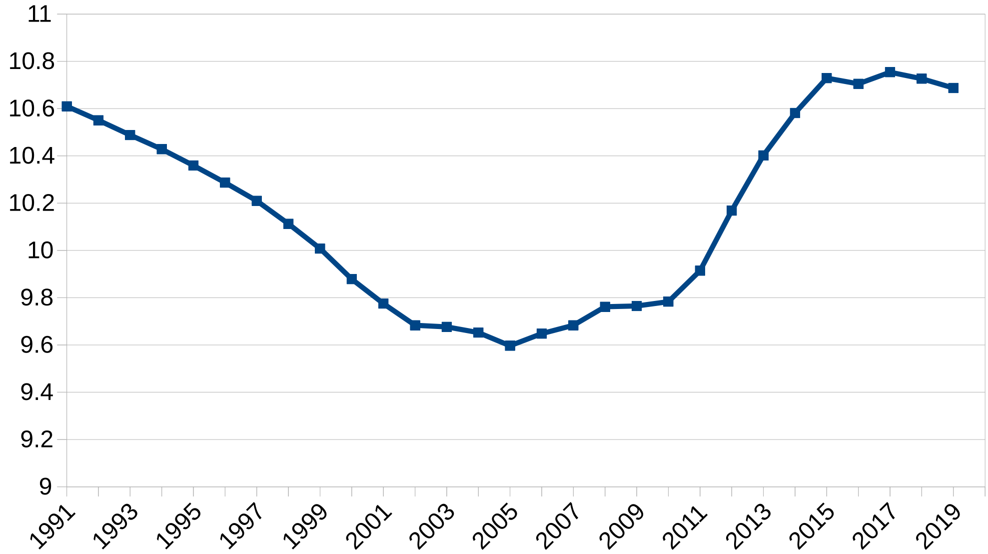
	Added value (billions, constant 2005 prices USD)			**Percentage of industry in total value added**		
	1990	2000	2014	1990	2000	2014
World	4,753	6,295	9,228	100	100	100
Industrialized developed countries	3,907	4,902	5,914	82	78	64
Emerging industrial economies	846	1,393	3,314	18	22	36
By Development Group						
Emerging industrialized countries	708	1,222	2,994	84	88	90
Least developed countries	20	22	54	2	2	2
Other developing countries	118	148	266	14	11	8
By Region						
Africa	79	92	144	9	7	4
Asia & the Pacific	315	746	2,362	37	54	71
Europe	151	164	300	18	12	9
Latin America	301	391	508	36	28	15

Source: author based on UNIDO (2015)

Since the beginning of the millennium, China has become a major investor in the countries of Africa. Chinese investment in Africa was mainly directed to primary sectors. China was the second largest consumer of oil in the world and the largest market for iron, coal, copper, cement, aluminium and nickel, aims to secure the supply of raw materials for its own industrial production. This is reflected in the statistics (Table 1) documenting the increase in value added generated by industry, which has grown almost tenfold in Asia since the 1990s in constant prices. Africa developed only modestly in terms of this indicator and even experienced a decrease in proportion (see Table 1). Since the beginning of the Millennium, Chinese investment in Africa has become a significant phenomenon and has become more important over time. As shown in Figure 2 the percentage of workforce occupied in the industrial sector follows a U-shaped pattern of development slightly rising after the year 2005 and reaching about 11 % in 2019. These numbers are the evidence that industrialization is rudimentary and is still the matter of the future development.

The impacts of Chinese state-owned entities involvement in Africa are visible in different spheres. Due to Chinese investment, progress has been made in infrastructure, healthcare, technical and telecommunications support and education. From an industrialization point of view, these investments largely mimic colonial experience, when infrastructure was mainly directed to significant stocks of raw materials. The industrialization of African countries can be expected to depend largely on the political will of African elites to channel capital into the secondary sector. Chinese investment comes along with China's workforce, breaking the headline target of structural changes in industrialization: “creating productive jobs and improving living standards”.

Figure 2: *Percentage of industrial workforce in sub-Saharan Africa (as % of total labor)*



Source: author based on World Bank data (2021a)

In 2021, it can be argued that efforts to create a continental free trade area within the African Union have begun in economic practice, with 54 of Africa's 55 countries participating from 1 January 2021 (Ighobor, 2021). The creation of the African Continental Free Trade came just 70 years after Prebisch has expressed the ideas about the nIghoboreed for a change in terms of trade of peripheral countries, the need to export products with higher added value and to move closer to the developed countries. Intra-African trade accounts for only 17 % of African exports in 2021, up from 10 % in 1995 (Ighobor, 2021). This tendency is likely to accelerate along with liberalization efforts.

5. Conclusion

More than a half of a century ago African countries began their efforts to follow the path of industrialization and the promotion of intra-regional trade. Different approaches and theories were applied. In the view of the available statistics, these efforts can still be assessed as relatively unsuccessful. No matter we can count down the time either from the mid-20th century – from the appearance of the ideas of Singer — Prebisch's hypothesis, or from the beginning of the process of decolonization of Africa. The colonization period focused mainly on primary production. This has been debated for a long time, but the reality is that after a half of a century, industrialization is still in the plans. The products of monocultural economies and the export of natural resources are still the main source of income for the most states of Sub-Saharan

Africa. Industrial production still accounts for only about 10% of total value added and employs roughly 10% of total labor force. At the same time, the phenomenon of industrial era “skipping” can be observed as production factors move from the primary sector to the tertiary sector.

Realizing that natural wealth is not a factor in automatic richness helps African countries leaders to initiate efforts to develop African economic integration and industrialization at the same time. Historical experience shows that the path of industrialization of developing countries has been largely linked to strong external influence, either in the form of investments and/or technology transfer. However, the question remains: who will be interested in industrializing African countries?

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