



**TIPS FORUM 2023**

**INDUSTRIAL POLICY IN AN ERA OF GLOBAL STRUCTURAL CHANGE: IMPLICATIONS FOR SOUTHERN AFRICA**

## **Industrial Policy in Southern Africa: The New Structural Economics Perspective**

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## ABSTRACT

The need for industrial upgrade in Southern Africa cannot be overemphasized. For most developing countries, the industrialization strategies have been influenced by the aftermath of series of crises. In Africa, the prevailing economic order that is also aimed at industrial development is influenced by the Washington Consensus recommendations following the 2007/2008 global financial crisis. However, the emergence of Covid-19 has exposed the inefficiency of the current economic development system to sufficiently allocate resources in the economy for industrial upgrade. Subsequently, this paper provides the New Structural Economics as a new thinking as a new strategy for industrial upgrade in Southern African. Thus, the aim of this paper is to emphasize the importance of the endowment resources that form basis for each country's comparative advantage, the interactive role of the state and the market state facilitation and development financing institution for efficient allocation of resources for industrial development. The paper also offers the innovative financing models for high-priority projects. The overall conclusion is that, for African economies to realize industrial development, it requires the interaction of facilitating role of the state for industrial upgrade, and the competitive markets for efficient allocation of resources.

**Key Words:** New Structural Economics, Development Financing Institutions, Comparative Advantage, and Industrial Upgrade.

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## BACKGROUND

Perhaps the eruption of Covid-19 has exposed the African economies to the existing problematic economic system that has been ignored for long. The prevailing economic order, particularly in developing countries is substantially influenced by the series of recommendations deduced from past economic crises. For instance, post- World War II, most African economies were predominantly influenced by the Structuralism Economic System, which became the first wave of structural development thinking that aimed at achieving modern industries, through the adaptation of import-substitution strategy. The idea behind this strategy was to assist African and low developed economies to catch up with industrialized economies [see (Baer, 1972; Mendes, Bertella prof and Teixeira, 2014)]. Albeit the theoretical underpinning of structuralism was plausible then, its results nonetheless, became questionable since the beginning of the 1960s to the late 1970s as it failed to achieve the planned outcome. On the contrary, (Kokko, 2006) indicates during the same period from the 1950s to the late 1970s, the East Asian tigers<sup>1</sup> including Mauritius defied import-substitution strategy but adopted the export -promotion strategy. With the export-promotion strategy, these economies were able to significantly stimulate their economic growth.

The main causative factor to the collapse of the Structuralism Economic System is that, it defied a specific country's endowment structure as a key determinant of sustainable development, shouldering blame on the government's failure to sufficiently allocate resources in the economy. That is, the structuralism proponents advised the governments of low developed countries to develop sophisticated industries such as those prevailing in high-income countries that were by far too advanced compared to their countries' level of development and went against their comparative advantage. Resultantly, firms were non-viable in open competitive markets, thus required unceasing governments' subsidies and protection against competitive foreign firms. The misallocation of resources further triggered the rent-seeking government behavior, corruption as well as political capture.

In the 1980s, the Structuralism Economic System eventually collapsed and the Neoliberalism Economic System as a second wave of development thinking emerged with the aim of addressing governments' failures to sufficiently allocate resources. The major emphasis of neoliberalism was on the establishment of modern market institutions with laissez-faire market systems. However, in the 1990s, the effectiveness of neoliberalism in sustaining the development was also questioned as it had also proven to have led to '*the lost decade*'(Hermann, 2017). Neoliberalism failed to achieve inclusive growth as well as sustainable development for two fundamental reasons: first, it defied the specific country's level of development, and second, the laissez-faire market systems failed to efficiently allocate resources. These results became more vivid during the 2007/2008 global financial crisis when the whole global economy failed, and the market failed to reallocate the resources through the *invisible hand*<sup>2</sup>. A typical example of neoliberalism is the Washington Consensus, which came as a response to government failure as well as the 2007/2008 global financial crisis. The ten recommendations from the Washington Consensus included liberalization of

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<sup>1</sup> Hong Kong, Singapore, South Korea and Taiwan

<sup>2</sup> The invisible hand is the unobservable market force that helps the demand and supply of goods in a free market to reach equilibrium automatically, and was first introduced by Adam Smith (1776) in his book of "The Wealth of the Nations".

inward foreign direct investment; liberalization of trade; competitive exchange rates; and tax reforms, to mention but few<sup>3</sup>.

(Stiglitz, 2009) posited that the Washington Consensus as a policy prescription has proved neither necessary nor sufficient for sustainable development. In the same fashion, (Arifin, 2017) postulated that Latin American economies that approved the Washington Consensus policy recommendations now have a lower rate of growth relative to East and Southeast Asian countries that defied these recommendations. (Arifin, 2017) made this assertion based on the empirical observation that during the period 1960 to 1980, the economic growth of both Latin America and East Asia reached 5.5%. However, after Latin America adopted the Washington Consensus policy recommendations, during the period 1990 to 2004, the Latin American growth rate declined to 2.7%, while that of East Asia increased to 7.8%. The Washington Consensus failed to recognize that the distortions were endogenous to the need of protecting nonviable firms in the priority sectors and advised the government to eliminate all distortions immediately, which caused the collapse of old priority sectors. In addition, the Washington Consensus also opposed the proactive role played by the government in facilitating firm entry into sectors consistent with the country's comparative advantages.

It is against this background expounded above that this paper aims at providing the alternative approach to inclusive and sustainable development post Covid-19. The rest of the paper is structured as follows: Section 2 provides rethinking African Industrial development framework from the perspective of the New Structural Economics pioneered by Justin Lin, as the optimal strategy to inclusive and sustainable development, while Section 3 provides the role of development financing institutions from the perspective of the New Structural Economics as the optimal strategy to finance industrial development projects in order to achieve both inclusive and sustainable development. Section 4 provides African Continental. Free Trade Area as a leverage to rekindle transboundary cooperation. Finally, Section 5 concludes the paper with recommendations.

## **1. RETHINKING AFRICAN INDUSTRIAL DEVELOPMENT: THE NEW STRUCTURAL ECONOMICS APPROACH**

The period before the 18<sup>th</sup> century was characterized by a flat world. That is, the gross domestic product (GDP) per capita of every economy in the world was virtually similar [see Figure 1]. It was until the 1760s when the first phase of industrialization emerged with high economic growth stemming from the steam-powered factories in Great Britain (Mohajan, 2019). This period coincides with the 1776 Adam Smith's book on; *An Inquiry into the Nature, and Causes of the Wealth of the Nations*. In his book, Adam Smith emphasized the importance of understanding the nature of the economy and the stimulus of economic growth (Smith, 2008). In the late 18<sup>th</sup> century, many other economies started to realize rapid industrialization starting with Western Offshoots followed by Japan, Former Union of Soviet Socialist Republics, and East Europe in the late 19<sup>th</sup> century. Finally, in the 20<sup>th</sup> century, Asian economies also started to see the increasing economic growth from industrialization [see Figure 1]. Notwithstanding the escalating growth in different parts of the world, on the contrary, the African economic growth rate remained stagnant. What is the missing link for African development? It is worth mentioning that, the period from the 18<sup>th</sup> century to date has experienced a series<sup>4</sup> of global crises and recession, yet industrialized economies were able to

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<sup>3</sup> See (Williamson, 2008) for detailed Washington Consensus policy commendations.

<sup>4</sup> For instance, the 1937 Roosevelt Recession cause by the stock market crash; the 1945 Union Recession caused by tail-end of World War II; The 1957 Eisenhower Recession and the 1969 Nixon Recession caused by

recover faster than the low industrialized economies (Kose, Sugawara and Terrones, 2020). In the light of this argument, it follows therefore that, central for Africa to achieve inclusive and sustainable growth, it has to rethink its industrial policy.

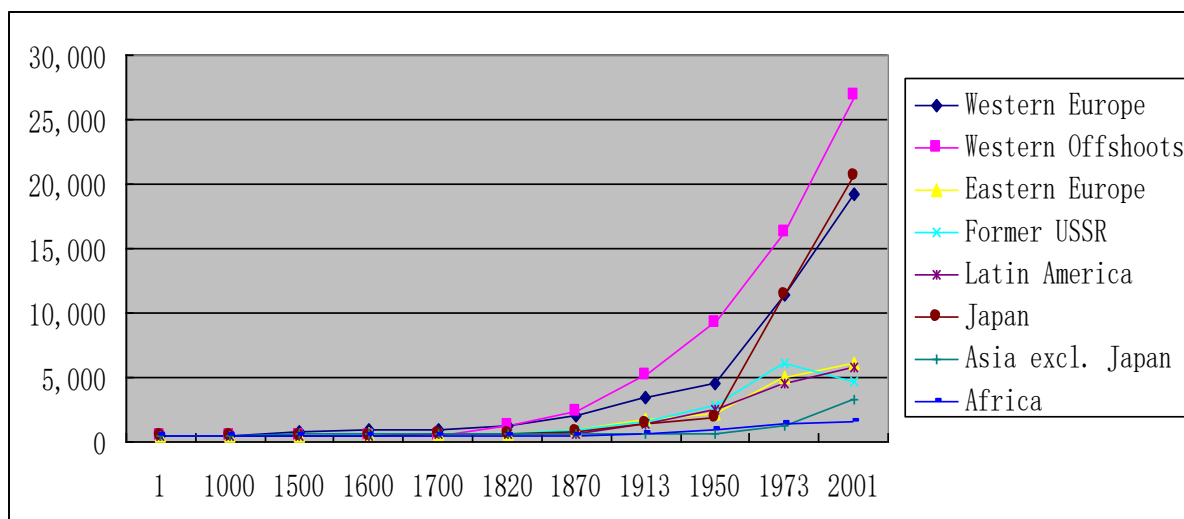


Figure 1: Per capita GDP trends before and after industrial evolution.  
 Source: Clio-Infra, (available at [www.clio-infra.eu](http://www.clio-infra.eu))

In the quest for the prosperity of economies, (Mohanty and Ghosh, 2010) on Leadership and Growth Report, and (Spence, 2008) on Growth Commission Report indicated that thirteen economies that reported the growth rate of seven percent and more for a period of 25 years had the following macroeconomic features in common; 1) they were all open to international trade’ 2) they maintained high levels of macroeconomic stability, 3) they have both high savings and investment rate, 5) they adopted the market economy system, and 5) they all had the competent, credible and proactive government. Nonetheless, (Spence, 2008) further indicated that these five features are only ingredients of sustainable development, but not the recipe. The most imperative questions at this juncture are; 1) what is the recipe for inclusive and sustainable development? 2) Why the New Structural Economics (NSE) as opposed to any other structural adjustment policy recommendations should have any structural impact that will accelerate the inclusive and sustainable development post Covid-19? Thus, this section of the paper provides the optimal industrial policy for sustainability beyond Covid-19 from the perspective of the New Structural Economics (NSE).

In structural development theories, economies have been segregated into developing or developed economies. Subsequently, when dealing with economic policy structural reforms for development sustainability in developing countries, particularly in Africa, the recommendations have mostly been generic (for instance, the Washington Consensus) rather than addressing the unique nature of each economy’s challenges, resulting in daunting economic outcomes. The major implicit assumption made behind these ineffective structural policy recommendations is that, since these economies are classified as developing economies, and facing virtually analogous riddles, then it should be logical for them to have identical resource endowment structures. For instance, under the structuralism, in an attempt for developing economies to catch up with industrialized economies,

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government policies to tighten the monetary policy; the 1973 Oil Recession Crisis caused by quadrupling oil prices; the 2007 Great Recession cause by housing bubble; the 2019 Covid-19 Crisis caused by the outbreak of Covid-19.

low-income economies were ill-advised to build high tech industries similar to those in high-income countries. Convincing as it was then, this policy recommendation defied the specific resource endowment structure of each developing countries leading to the negative economic outcomes.

In contrast, the NSE is built of the following three crucial premises. First, development is not confined within the binary classification of developing and developed countries, but rather views development as a whole continuum that includes different levels of development. resultantly, each level of development is a point along the continuum of development stages from least developed economies to industrialized economies and that the resource endowment structure varies with each level of development. In light of the foregoing, it thus implies that continuous resource structure and industrial upgrade are central for development. Second, economies are endowed with different resources and each economy's structure of factor endowment varies with varying levels of development. Following from this hypothesis, albeit development is to be considered a dynamic process, however, for emphasis, if African economies could be classified as low-income economies (for instance, Zimbabwe); lower-middle-income economies (for instance, Ghana) and middle-income economies (for instance, South Africa) the resource endowment structures of these economies are conspicuously distinctive. Presumably, low-income group economies will have a higher labor-capital<sup>5</sup> ratio relative to middle-income group economies. Finally, the NSE asserts that, although the market is crucial for the effective allocation of resources, it acknowledges the facilitating role of the state<sup>6</sup> in the market.

In light of the preceding premises, it thus follows that the economic structure of each African country, including the level of industrial technology, industrial infrastructure (both soft and hard) is endogenous to its endowment structure at each specific time on the continuum of development. Therefore, in order to achieve inclusive and sustainable development, each specific economy should focus on its endogenous factor endowment structure for such factor endowment reflects the relative factor prices at the time in the competitive global markets (Rybczynski, 1955). If the low-income countries in Africa have high labor-capital ratio relative to the middle-income group, then they should first, focus on labor-intensive industries, since that is where they have comparative advantage based on their factor<sup>7</sup> endowment structure at that time. However, they should dynamically upgrade their factor endowment structure from high labor-capital ratio to high capital-labor ratio as a catch-up strategy with industrialized economies. With the adequate level of infrastructure (both hard and soft) and soft institutions that align to factor endowment structure, such industries will be the economy's competitive advantage. China, which in 1978 had the per capita income of \$210, one-third of average per capita income of sub-Saharan African countries (and equivalent to that of Ethiopia in 1978), qualifying it as one of the poorest countries in the world, was able to successfully change its factor endowment structure from high labor-intensive industries to high capital-intensive economies. As a result, China was able to reach the per capita income of \$10,000 in 2018.

According to (Lutz and Kaldor, 1961; Lin and Chang, 2009; Lin, 2011) what lies beneath the catch-up strategy is the differences between the rate of technology and capital accumulation between least developed economies and the industrialized economies convergence towards higher

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<sup>5</sup> Note that, although we just assumed labour and capital as the two resource endowments, different economies have different endowments of resources ranging from land (and natural resources) to labour, to capital. So labour and capital are only used for scenario purposes only.

<sup>6</sup> The government can play either developmental role or a facilitating role in the market, but this paper emphasizes on the latter.

<sup>7</sup> In this paper, we use factor endowments and resource endowments interchangeably.

capital accumulation increase the production efficiencies of economies thus increasing the economies of scale. (Lin, 2017) further postulates that the low-income trap and the middle-income trap both arise from the country's inability to have a dynamic structural change (that is, inability to accumulate capital). Endowment structure upgrade requires improvement in industrial technology and infrastructure; a phenomenon that has been a conundrum in African industries.

Industrial technology innovation has different meanings depending on the level of each economy's development. For, instance, industrialized economies that are in the frontage of technology means invention. The downfall of invention is that it comes with at least three risks. First, the operational risk, which is the failure to meet quality requirements; second, the commercial risk which involves the failure to attract the market; and third, the financial risk which results from investing in unsuccessful innovation project. On the contrary, African countries are still behind in industrial technology. Consequently, for Africa, technology innovation means adoption of the whole continuum of technologies that have been successfully used by industrialized economies when they were at the same level of development with each of African economies. Accordingly, as posited in the New Structural Economics, African countries can adopt these technologies because they represent the highly maximized chances of success [see (Fu *et al.*, 2014; United Nations Department of Economic and Social Affairs, 2018) for low developed economies that successfully adopted industrialized economies' technology]. In selecting industrial technology, it is of paramount importance to note that some economies are already in fourth industrial revolution. As a result, it could be very tempting for low-income African countries to want to engage in these industries. Not undermining the importance of fourth industrial revolution for sustainable development, policymakers should consider whether their countries' factor endowments are in line with technology used in fourth industrial revolution. This is to ensure that industries in Africa do not fall in the same trap they did under the structuralism by adopting sophisticated industries that defied the comparative advantage determined by each economy's factor endowments.

Finally, the NSE factors in the paramount role played by the proactive state facilitation and the effective market in allocating resources for inclusive and sustainable development. As mentioned in the preceding section, the structural policy reforms in Africa had been influenced by a series of global recessions which consequently blaming both the government failure and the market failure to efficiently allocate resources. It is worth noting that the state interacts in the market in two ways: first, in developmental role, and second, in facilitating role. The former occurs when the state assumes the leading role in the market through ways including determining what to produce, how to produce, for whom to produce for, and in setting prices. This developmental role of the state often leads to government failures as stipulated under the structuralism development thinking.

Conversely, in this paper, the emphasis is on the facilitating role of the state and its interaction with the market for efficient allocation of resources. While the resource allocation is determined through the market mechanism, on the other hand, collection of information about dynamics of the global market in value chains, co-ordination, which market should a firm enter, as well as factoring in externalities are facilitated by the state. As indicated by (Lin, 2011) the decision for industry to upgrade is barely a conspicuous choice as is a trial-and-error exercise for a firm. Consequently, the pioneering industry is riddled with information on which market to enter that is in line with its resource structure. Information collection and processing thus becomes a conundrum for and industry since it comes with high costs. However, once this information is readily available, it can be used at virtually zero costs but the next firm. Thus, this role requires the facilitating state. The other fundamental facilitating role of the state is to facilitate the construction of the special

economic zones<sup>8</sup>. Countries such as China, Mauritius, and Ethiopia that initiated special economic zones have realized a significant economic structural change. The importance of special economic zones for inclusive and sustainable development cannot be overemphasized.

In addition, albeit industrial infrastructure is in the best interest of each firm, but infrastructure such as building power plants, investing in adequate road infrastructure carry features of a public good. Therefore, no single profit-maximizing firm would invest in such infrastructure. Therefore, it becomes a call for African states to play an interactive role in industrial development. Subsequent to the aforementioned facilitating role of the state and industrial upgrade dynamics, it becomes obvious that adequate capital markets as well as well-established development financing institutions (DFIs) are inevitable for inclusive and sustainable development in Africa. Resultantly, the subsequent section discussed the paramount role the DFIs should play as a government policy tool for both inclusive and sustainable development, from the NSE perspective.

## 2. DFIs FOR INCLUSIVE AND SUSTAINABLE DEVELOPMENT

The Golden Jubilee summit of the Africa Union (AU) on 13<sup>th</sup> May 2013, saw the birth of the idea for a continental 50-year agenda through a people-driven process and subsequent adoption of the Agenda 2063 Framework Document<sup>9</sup> in January 2015 as the basis for Africa's long term socio-economic and integrative transformation covering a series of five 10-year plans over a fifty-year horizon. The first 10-year plan which was scheduled to run from 2014 to 2023 and which is currently disrupted by Covid-19 gave an indication that, in resourcing Agenda 2063 programs and projects, funding was not only what the continent needs but also needs a more effective and inclusive means of channeling funds (*including financial institutions and markets, financial instruments and financial services*) to where they can be most effective and where there is market failure in the allocation of the needed resources (*AGENDA 2063 The Africa We Want*).

Ensuing from the aforementioned exposition and the massive infrastructure deficit in Africa, the importance of DFIs is one that cannot be downplayed. (Lin et al, 2013) postulated that appreciating the differences in financial structure and how it is related to economic development has policy implications for many countries, especially developing countries. The most fundamental question is, why DFIs as opposed to other sources of finance (such as commercial banks) could best serve as government policy to finance developments? The answer lies in the structure of DFIs and their policy mandate. While commercial banks are often privately owned and serve short-term projects, DFIs conversely are instituted to channel funds for medium to long-term development projects in sectors that are underserved by a country's financial system or a country's budget. Thus, in congruence with (Xu, Ren. and Wu 2019), DFIs are legally independent and government policy tool that aims at promoting public policy objectives of which industrial development is key. Nonetheless, despite their potential to fixing market failures, incubating markets, and promoting structural transformation, (Xu, Ren. and Wu 2019) indicates that their role has largely been neglected in development policies.

Historically establishment of DFIs boomed in the 1950s to 1970s this was in response to structuralism as the first wave of development thinking after the World War II to involve the government's interaction in the market for efficient allocation of resources. However, following from the failure of the government to efficiently allocate resources, DFIs were confronted with

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<sup>8</sup> A special economic zone is an area in which the business and trade laws are different from the rest of the country. This laws aim at attracting foreign investment and foreign capital.

<sup>9</sup> AGENDA 2063 The Africa We Want, A Shared Strategic Framework for Inclusive Growth and Sustainable Development



declining pressures in the 1980s emanating from neoliberalism as a response to the structuralism's failure to efficiently allocate resources in the market. Resultantly, the proponents of neoliberalism stressed on market liberalization, deregulation, and privatization of state-owned enterprises including DFIs [see also (Stiglitz, 1994)]. However, in recent years with the failures of Structuralism and Neoliberalism, DFIs have been widely recognized as the government tool for financing long term public projects. For instance (Xu, 2017) emphasis the role of DFIs in promoting economic structural transformation in developing countries despite the mainstream economic thinking to critically examine the role in development. The author has stressed the central role played by China Development Bank in infrastructure financing and incubating markets for long-term finance in China. In a similar fashion, (De Aghion, 1999) has also stressed the key role played by the Cr dit National of France in industrial development in France, and *Nacional Financiera* of Mexico that presents the model for role DFIs as the government policy tool for industrial development in the least developed economies.

Consequent from the above, DFIs will play a very critical role in a post Covid-19 agenda to accelerate an inclusive and sustainable development. This role becomes particularly important as Africa is currently confronted with enormous riddles that have created a long-running situation of long-term finance deficit needed for any development agenda. The strategy going forward as posited by NSE will be to combine a facilitating government with an effective market system to create an enabling environment for industrial upgrading and economic restructuring aimed at inclusive and sustainable development with support from DFIs positioned to; 1) reduce transaction costs as well as offer appropriate funding to provide or enhance soft and hard infrastructure, 2) to extend long term finance often with large risks for first movers to be able to venture into emerging industries and 3) provide the funding support needed to overcome bottleneck constraints for the upgrading of industrial technologies that will spur on the accelerated inclusive and sustainable development.

With the quest and drive for continental as well as regional integration comes social externality which needs to be addressed. Closely linked to this social externality are environmental externalities. (The World Bank's 2010 World Development Report) gives an indication that by 2030 total annual additional investments needed in developing countries to address climate change are estimated to be between US\$140 billion and US\$175 billion. Massive scaling up is therefore needed to unlock additional financial resources and foster a sustainable development pathway (Smallridge et al, 2013). Clearly private sector funds will not be able to meet up these financing requirements especially in Africa. There is therefore the urgent need to put in measures to attract public sector capital to create the enabling funding environment to realize enormous, transformational, long-term impacts that cut across all economies. Accordingly, DFIs by their nature and mandates tend to play unique roles that other financial institutions such as bilateral and multilateral financial institutions face barriers in undertaking such roles, especially operating in local terrains where accessing local financial markets information and understanding local barriers to investment is very critical.

Notwithstanding the Continent being home to many resource-rich developing countries, one major market failure it faces is the short supply of long-term financing needed to power the development agendas of the Continent. In this regard, DFIs by virtue of their nature and mandates are better positioned to solve the long-term financing needed for the continent's development agenda with long-term credit support in large amounts and in so doing create the enabling environment needed for accelerated inclusive and sustainable development.

### **3. INNOVATIVE FINANCING MODELS FOR HIGH-PRIORITY**

## PROJECTS

While the paper acknowledges that financing DFIs or industrial upgrade maybe be challenging for African economies, particular during this era of economic turmoil resulting from Covid-19, it thus becomes crucial for African policymakers to adopt some of the successful policies used in literature to finance DFIs, industrial upgrade, and infrastructure. (Chen, 2020) has presented two distinct funding models used by the Development Bank of Japan and the Credit Institute for Reconstruction in Germany. The two models are distinct in that, the former mainly relied on domestic savings while the latter relied on international financial markets. The choice and success of each fund-raising model as indicated by (Chen, 2020) relies heavily on extensive research and consultation with international agencies in various development banks to establish the funding mechanism that is in line with each economy's needs. It is from the favorable fund-raising mechanism that the economy can appropriately establish a unique financial structure based on each economy's level of development and its endowment structure.

(Lin, Sun and Jiang, 2013) have outlined the relevance of appropriate financial structure and industrial development nexus. The authors posited that while funding DFIs may be challenging, however, the core duty of such DFIs should be to allocate resources to industries that are viable and have the comparative advantage of the real economy. This is particularly plausible since these industries will not demand continuous financial support from the government in order for them to be globally competitive. Similarly, (Allen *et al.*, 2018) in examining the relationship between the structure of the real economy and country's using data from 108 countries' financial system found robust evidence that the real economy structure determines the country's financial sector. The implication of this result is that the financial structure needs to vary dynamically with the changing factor endowment structure of each economy in order to meet the needs of industries at each stage of development. Sri Lanka's Pioneer DFI and Brazilian Development Bank represent the successful cases mainly because they were able to vary their financial structure with changing factor endowment structure of the real economy.

Domestic savings and profound capital markets cannot be overemphasized in funding DFIs and long-term development projects yet for most African countries savings and capital markets have been a challenge. While these factors may be constraints to development, they also pose another opportunity for African, a natural resource endowed continent, to rethink resource-financed infrastructure as a finance mechanism for high-priority regional projects. (Halland *et al.*, 2014) has highlighted interesting insights on resource-financed infrastructure models. The authors postulated that the resource-financed models are appropriate in cases where the government cannot raise sufficient funds to build adequate infrastructure. Most developing countries including Angola have successfully used this mode of infrastructure finance. For the majority of African countries, their resources can be leveraged to raise the necessary credit needed for infrastructure development using national DFIs as a conduit and the type of economic approach that these funds could be applied in reaching this goal.

In principle, there are two main approaches to resource-financed infrastructure as postulated by (Halland *et al.*, 2014). First, through the extraction of natural resources and selling them for the inherent benefits. This is widely practiced in the oil-producing countries, whereby the natural resource is sold or extracted and sold. The inherent funds can then be used through a national DFI, for infrastructure development. However, this has future national security trade-off as natural resources deplete. Second, in this instance, the particular resource asset will not be exploited or mined until there is a default under a related Credit or Loan Agreement as stipulated by (Halland *et al.*, 2014). The underlying concept of the Credit Agreement will be in a format so as to determine what happens to the natural resource when a default occurs. In effect, the national asset will still belong to the nation until a default occurs. If no default occurs during the lifetime of the

credit agreement, then the Government is able to undertake the whole project with the national asset intact and not having to spend a single dollar of its own money. If this concept is used to support projects which are self-sustaining after completion without falling into a credit default, then resource-rich developing countries in Africa can undertake several self-sustaining infrastructure developments worth billions of dollars without incurring a single dollar debt on their national balance sheet.

### **3.1. TRANSACTIONAL PROCEDURE**

Such an infrastructure funding option as structured by (Halland *et al.*, 2014) would involve valuing the available natural resources and using them as an underlying asset to support a national DFI that would then raise bonds whose value is then derived from the strengthened DFI. This is a non-depletion resource option that will keep the natural resources intact while still able to access the debt market for needed infrastructure funding.

However, since the national natural resources are not mined or depleted but it is the inherent value that is used to support the DFI, the underlying uncertainties of the transaction (political and commercial risks), for instance, the possible future depreciation in the value of the resource (collateral-asset) and possible future political instability have to be mitigated to the satisfaction of investors. The paper therefore proposes an enhancement of (Halland *et al.*, 2014) original structure to satisfy the anxiety of investors on such uncertainties, with the use of a Put-Call Option Agreement (PCOA) to mitigate such concerns as well as proposing also how resource-backed bonds can be credit-enhanced to make them attractive. Following from this a transactional process under this enhanced structure would include; first and foremost a valuation of the intended natural resource by internationally recognized quantity surveyors whose valuation of the intended national resource would be easily acceptable to the international debt market; secondly issuing of the bonds by the DFI to be placed with investors on the international debt market for the inherent funds which are then used to meet with the infrastructure funding requirement; thirdly rating of the DFI-issued bonds by market-accepted rating agencies like S&P, Moody's and Fitch and finally a further credit-enhancement of the bonds (if so required) to enable them to achieve the required credit rating for the intended purposes, for instance, the use of the Put-Call Option Agreement (PCOA) and Financial Guarantee Insurance.

### **3.2. ACCESSING INTERNATIONAL DEBT MARKETS**

Pension Funds are the main source of inexpensive and long-term funds for infrastructure development on the international debt market as outlined by (Della Croce, R. 2011), however, they are not allowed to invest in bonds lower than the "BBB" investment grade threshold. As most of the African countries' sovereign ratings are below this investment-grade, a resource-backed bond should be aimed at generating an investment-graded bond rating that would be above the respective sovereign's own credit ratings in order to make the bonds attractive and possible for the pension fund managers' investment options. This could be made possible by credit-enhancing the bonds using either firstly a Put Call Option Agreement (PCOA) which is a sovereign-backed alternative to the traditional sovereign guarantees or letters of support and could be used to underwrite all the underlying uncertainties of the transaction (political and commercial risks), for instance, the possible future depreciation in the value of the resource (collateral-asset) and possible future political instability. Structured carefully, a PCOA, unlike a sovereign guarantee, will not leave any unattainable debt situation on the sovereign's National Balance Sheet. This is extremely attractive for host Governments who are concerned about their debt burden or who have obligations to the World Bank or the International Monetary Fund. These instruments have typically been used to

underwrite the obligations of a Government, Ministry, Department or Agency to compensation on the early termination of a project.

Like a guarantee or a letter of support, PCOA can be rolled out for infrastructural development or project financing where some form of Sovereign support is deemed necessary to attract investment as used in the Azura-Edo<sup>10</sup> independent power project in Nigeria. The disadvantage of relying on the PCOA is that, since the PCOA is sovereign-backed, the bonds being backed by the PCOA might not be rated any higher than the Sovereign's own rating. Since most of the African countries' Sovereign ratings are below the "BBB" investment-grade, the sovereign-owned DFIs issued bonds might equally not be rated higher than that of the Sovereign's.

A second way of credit enhancing the bonds is by using Financial Guaranty Insurance, which is to seek bond insurance services from financial guaranty insurers like AMBAC<sup>11</sup> or MBIA<sup>12</sup>, to guarantee scheduled payments of interest and principal on the bond in the event of a payment default by the DFIs issued-bond. This generally results in the automatic credit rating of the DFIs' issued and insured bonds as holding a similar credit rating of its mother-insurer. AMBAC and MBIA are financial guaranty insurers with "AAA" credit rating by all the major credit-rating agencies, that guarantees public finance and private structured finance obligations. The attainment of such rating, would enable the DFIs to access Pension Funds on the capital market, while keeping the natural resources intact for future security and or development.

With reasonable access to investment capital, African economies, with abundant resources and labour could through good fiscal policies and national DFIs acting as a policy bank, direct and facilitate the national economic development and related industries. This strategy has several advantages. Firstly, it adds value to extractive resources by building related processing plants that will gradually build an industrial base upon which human resources will be enhanced to increase per capita income. Secondly, it has potential to develop and upgrade other industries (e.g., agriculture and related industries) in which there is comparative advantage (raw material and input) at relatively low cost to the economy.

## **4. AFRICAN CONTINENTAL FREE TRADE AREA:**

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<sup>10</sup> The Azura-Edo IPP is a 461MW Open Cycle Gas Turbine power station near Benin City in Edo State, Nigeria. It is Phase 1 of a 1,500MW IPP facility located on a 100 hectare site, financial close for Phase 1 was reached on 28 December 2015 and it became fully operational in May 2018.

<sup>11</sup> Ambac Financial Group, Inc. is a group of financial guarantee insurance companies whose policies include financial guarantees of public finance and structured finance obligations in the public and private sectors globally.

<sup>12</sup> MBIA Inc. headquartered in Purchase, New York is a holding company whose subsidiaries provide financial guarantee insurance and other specialized financial services.

## LEVERAGE TO REKINDLE TRANSBOUNDARY COOPERATION

The World Bank Trade data shows that a handful of countries dominate trade within Africa. For instance, the exports of 15 of the 54 countries constituted 82% of Africa's total exports in 2010 and 2016. The top exporting nations to the rest of Africa in 2016 include: South Africa (34.4%), Nigeria (7.2%), Côte d'Ivoire (5.4%), Egypt (5.15), and Ghana (3.7%) The fragmented nature and uneven distribution of trade leaves more room for the African Continental Free Trade Area (ACFTA) to create more trade opportunities, particularly among the trailing countries. Intra-African trade is predominantly dominated by primary and manufactured products. Generally, trade in the broader primary and manufactured product categories, including food items, machinery and transport and fuels, has been rising over the years. Primary commodities, including crude oil, precious stones and precious metals largely from intra-African trade champions, continue to dominate intra-African trade (Tralac, 2018). This heavy reliance on primary commodities continuously exposes the continent to external shocks, due to lack of product and export diversification.

The ACFTA, in view of these observations, should accentuate policies promoting export diversification for each member country. Also, efforts must be increased to motivate more technology-intensive manufactured goods through the upgrade of resource structures from a high labour-capital ratio to a high capital-labour ratio. Given the current average technology and skill content in intra Africa trade, the agreement seems to be well positioned to help achieve and deliver more technology intensive manufactured goods. Implementing the ACFTA arguably presents an opportunity for Africa to transform its economies and, in the process diversify its sources of growth and trade for a better integration into the global economy. The economic opportunities that ACFTA presents to member states is very enormous by all standards, however for regional economic blocs and hence member states to fully leverage these opportunities in the long run, policy makers would need to adopt supporting policies to encourage structural transformation. In this regard member states will need to reduce their overly dependence on commodities and put in measures to move up the value chain.

Policies to encourage structural transformation could cover capacity programs to ensure a smooth reallocation of labor and capital to sectors that are more likely to grow, such as manufacturing. In this way the continent would be able to, in a shortest possible time, take advantage of ACFTA as a mechanism to establish its presence in the global value chain. ACFTA intends to liberalize only 90% of tariff lines. Member states must look at limiting the extent and scope of carve outs for tariff reductions. In a possible situation where a substantial portion of the remaining trade is contained in the remaining 10 percent of tariff lines, the potential welfare benefits of the ACFTA would be reduced, especially if potentially exempted sectors are the most protected. To fully realize welfare benefits from the ACFTA, member countries need to look at possibly liberalizing 100 percent of tariff lines over the medium term.

In addition, ACFTA member states should adopt a detailed program for reducing all non-tariff barriers to the maximum amount realistic. The non-tariff barriers reduction program should also address a wider range of barriers that impede trade, including infrastructure gaps, and an enhancement in the business environment across the continent. To encourage smooth and increasing intraregional trade, one critical measure is to look at reductions in ground transportation

costs given the 15 geographic configurations of the continent. Efficiency must also be improved in administrative procedures required for international trade. The creation of an enabling business environment will go a long way to ease intraregional trade. Following from that, measures to reduce the cost and time for the registration of new businesses is very important. In implementing ACFTA, resolute efforts are also required to increase financial depth and inclusion across the continent to levels that can match other regions. Also, there has to be measures to promote easy access to trade financing or funding for the creation or expansion of businesses.

For the continent to leverage the African Continental Free Trade Area to rekindle transboundary cooperation, in research and development for inclusive value chains and industries, it is of paramount importance of each of African economy policymakers to engage in research and development on each economy's factor endowments and thus each economy should pay a special attention on the production line that give it a comparative advantage. This way, each African economy will have competitive advantage not only within the continent, but also at global scale. This is a prominent strategy in Africa as some economies are endowed with water, some with energy, while others have moved on to information and technology industries. However, in order to boost high-value added intra-African trade, sectors of the economy that are producing labor-intensive products should dynamically work on upgrading their capital structure in order for them to gradually produce the more capital-intensive products. Central to industrial upgrade is adequate infrastructure.

## **5. CONCLUSION AND RECOMMENDATIONS**

The aim of the paper was to provide the alternative approach to inclusive and sustainable development post Covid-19. To achieve this objective, the paper outlined the background of previous structural development theories, what informed their thinking, and why they failed. The literature indicated that structuralism development thinking failed because it encouraged low-income group countries to build sophisticated industries that defied factor endowments of these countries, while neoliberalism failed because it ruled out the facilitating role of the state in the market. Thus, the paper emphasized on NSE as recipe for inclusive and sustainable development for Africa beyond Covid-19. Under the NSE, the paper stressed the importance of endogenous factor endowments in predicting the development of each economy, with the interactive role of the state to facility industrial upgrade and the market to efficiently allocate resources. The paper further showed the advantage of backwardness that African economies have over technology relative to industrialized economies.

This paper also sought to throw light on an innovative model for financing high-priority regional projects in Africa beyond COVID19 from the perspective of NSE following on the comparative advantage of massive natural resource endowments in Africa and how it can be leveraged to back national DFIs which are now inevitable for inclusive and sustainable development in Africa. The paper went on to discuss the paramount role that DFIs can play as Government policy tool for both inclusive and sustainable development, following the renaissance of them in recent times with structures and mandates that positions them to channel funds for medium to long-term development projects in sectors that are underserved by a country's financial system or a country's budget. The paper showed that this role has become particularly important as Africa is currently confronted with enormous riddles that have created a long-running situation of long-term finance deficit needed for any development agenda.

In line with NSE, first, it is recommended that each African economy should critically examine its factor endowment structure because it represents its total budget and determines its comparative advantage, they should invest in industries that use the most abundant factor while it dynamically upgrades its industries towards capital-intensive industries when capital becomes abundant. This recommendation is consistent with successful East Asian growth strategy that is commonly known as East Asian Miracle. Secondly, it is also recommended that each economy in Africa should look at establishing or reforming existing DFIs positioned to; 1) reduce transaction costs as well as offer appropriate funding to provide or enhance soft and hard infrastructure; 2) to extend long term finance often with large risks for first movers to be able to venture into emerging industries in comparative advantage sectors and; 3) provide the funding support needed to overcome bottleneck constraints for the upgrading of industrial technologies that will spur on the accelerated inclusive and sustainable development. This recommendation is consistent in bridging Africa's long-running situation of long-term finance deficit needed for any development agenda. On ACFTA, the African economies are still presented with enormous opportunities in intra-Africa value chain. Nonetheless, for regional economic blocs and hence member states to fully leverage these opportunities in the long run, policy makers would need to adopt supporting policies to encourage structural transformation that aligns to comparative advantage of each economy as predicted by its endogenous factor endowments.

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