Africa growth trajectory: sustaining the momentum in a challenging global environment

Harvard University Center for African Studies

Dr. Hippolyte Fofack

Chief Economist & Director of Research
The African Export-Import Bank

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Transforming Africa's Trade

- I would like to thank Professor Emmanuel Akyeampong for inviting me to contribute to the multidisciplinary debate organized by the **Harvard University Center for African Studies** to promote knowledge exchange and economic development in Africa and indeed around the world;
- We are particularly grateful for the excellent contribution Professor Akyeampong has made over the years, both in the academic arena and in the realm of institution building at Harvard in Cambridge but also around the world, where his contribution includes bringing Harvard University (perhaps I should say a tiny part of Harvard) to Africa;
- Just last May Professor Emmanuel Akyeampong and Professor Alan Garber were in South Africa opening the **Harvard Africa Center in Johannesburg**;
- I would also like to thank the leadership of Harvard University, especially Pr. Drew Faust, President of Harvard University, and Pr. Alan Barber, University Provost, for making it possible for Professor Akyeampong to serve Africa and the world through Harvard;

- Working with an institution such as the Harvard University Center for African Studies compels us to think hard and strive to have a multidisciplinary approach to research and economic development—going beyond headline numbers and macroeconomic aggregates;
- Even though Africa has achieved strong economic growth since the turn into the new millennium, that growth has been accompanied by a relative increase in the number of young Africans seeking better opportunities elsewhere;
- At the same time growth deceleration following the end of the commodity super-cycle in 2014 has raised a number of challenges—sustaining growth and increasing the number of jobs to meet rising demand expected from projected population growth over the coming decades;
- Since growth in the first response—a necessary condition, though not sufficient, sustaining the growth momentum we have recently seen in Africa's growth trajectory is the main theme of the talk today;
- Comprehensively analyzing the growth trajectory of any country will be a non-trivial task. Doing so for a continent that is the cradle of civilization is perhaps even more challenging;
- The good thing is that history, which is about longue durée, can also be both synthetic and instructive;

- An anonymous recorder on the voyage of Pedro Alvares Cabral, a Portuguese explorer, in 1500 noted of Kilwa, off the coast of present day Tanzania:

"This island is small, near the mainland, and is a beautiful country. The houses are high like those of Spain. In this land there are rich merchants, and there is much gold and silver and amber and musks and pearls. Those of the land wear clothes of fine cotton and of silk and many fine things and they are black men."

- **Yet another sign of greatness and exceptional advances in pre-colonial Africa was the ability of the leaders to move markets as illustrated during Mansa Musa's stop-over in Cairo on his way to pilgrimage in Mecca in 1324;**

- **The Arab historian Shihab al-Umari, who visited Cairo 12 years after King Mansa Musa, wrote: "Mansa Musa left no emir or holder of royal office without a gift or load of gold; he and his company gave out so much gold that they depressed its value in Egypt and caused prices to fall";**

- **Yes, actions taken by an African leader as far back as 14 centuries could depress the world price of gold;**

- **The continent is still well endowed with natural resources, accounting for:**

  - ✓ ***94*** *percent of world platinum reserves;* ***90*** *percent of global cobalt reserves;*
  - ✓ ***64*** *percent of the world's manganese;* ***56*** *percent of world diamond reserves;*
  - ✓ ***60*** *percent of the World's usable arable land;*
  - ✓ ***50*** *percent of the world gold reserves;* ***70*** *percent of world coltan reserves;*
  - ✓ ***75*** *percent of world cocoa;* ***60*** *percent of world coffee;*

- **But actions taken by African leaders no longer move any markets, even for resources they control. The world prices of gold and other precious metals and natural resources are set outside of Africa;**

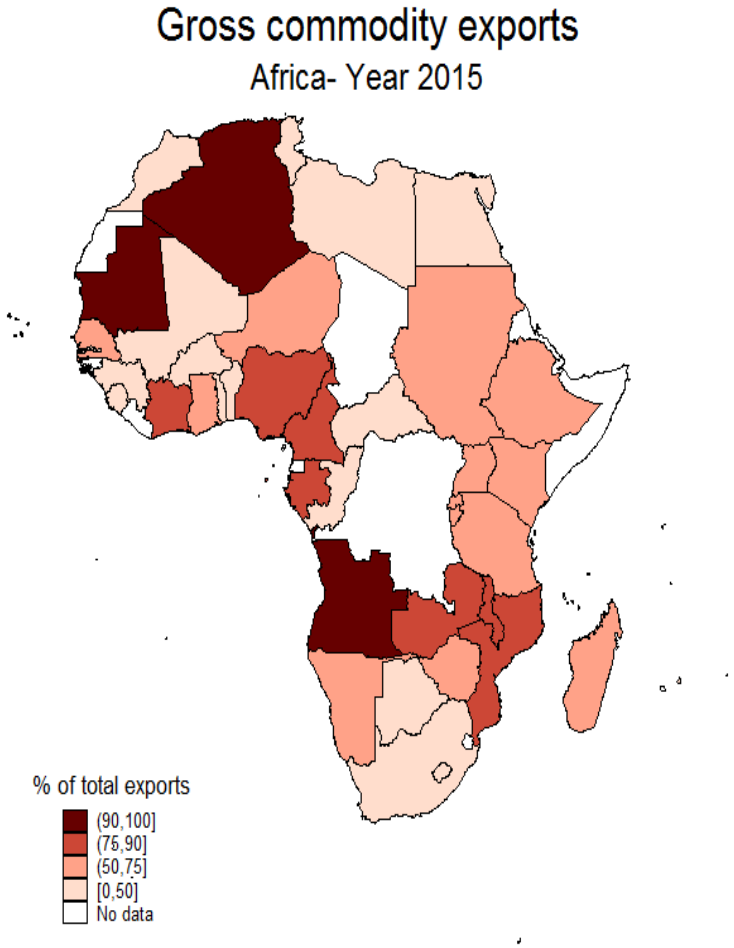
- The Africa which emerged from the colonial era in the 1960s was much different, accounting for less than 3% of global trade, most of which was with Europe, which accounted for over 70% of total African trade;

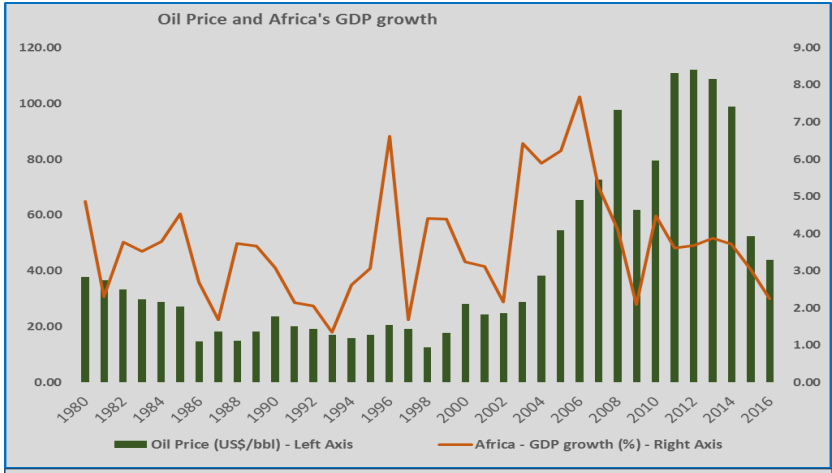
- At independence, intra-African trade was also very low, accounting for less than 8% of total African trade;

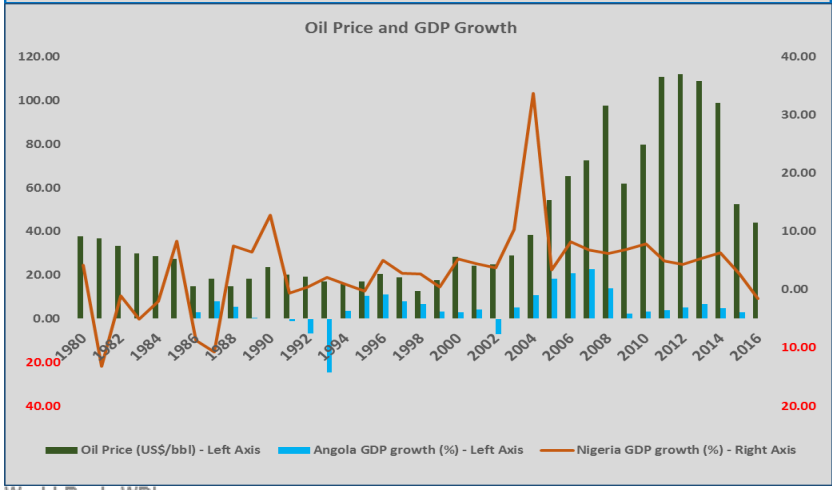
- And with the lowest level of intra-regional trade, even by the standard of developing countries, Africa was highly vulnerable to exogenous shocks and global volatility;

- In time these exogenous shocks were exacerbated by the fact that countries which emerged from independence were heavily dependent on primary commodity and natural resources;

Low Diversification of exports







Source: World Bank, WDI

- While growth in the post-colonial world has been robust and sustained in most other regions, especially in Asia, it has been weak and more volatile in Africa, where the growth trajectory has been characterized by shifts between expansion and contraction—boom-bust cycles;
- The poor performance recorded between the late 1970s and mid-1990s led to the labelling of "Lost Decade" though increasingly scholars are labeling the era as the "Lost Quarter Century," in reference to the fact that downturns and recession were much larger and sustained in the region [Artadi and Sala-i-Martin (2003);
- But a closer look clearly shows that boom-bust cycles have been strongly correlated with the global dynamics in the commodity markets;

- Since the turn into the new millennium the region has exhibited some sign of growth resilience in the face of a succession of major global economic and financial crises:

  - The 2007/08 global financial crisis;
  - The Euro fiscal and sovereign debt crisis;
  - Synchronized slowdown in emerging market economies; and
  - End of the commodity super-cycle in 2014;

- In that challenging global economic environment, which has moved from crisis to crisis, Africa has managed to sustain growth, achieving an average economic growth rate of 4.2% between 2000 and 2016;

- However, in the midst of that resilience, a review of the growth trajectory since 2000 reveals that the adverse effects of the end of the commodity super-cycle were far more significant than economic costs associated with the Euro fiscal and sovereign debt crisis;
- While Africa posted an average growth rate of over 4% between 2010–2013, the performance decelerated significantly in 2015, with the region growing at around 3% between 2014 – 2015;

- Although the global economy has gone through a period of recurrent global economic crises, volatility has been less severe in Africa over the last 15 years, with the region experiencing fewer down-breaks than in the previous decades [IMF (2017)];
- The key question is what factors have been driving the changes observed in the Africa growth trajectory since the turn of the millennium ?
- The objective of this lecture is to provide an overview of the Africa growth trajectory and outline policies and options to sustain the growth momentum the region has enjoyed since the turn of the millennium despite the challenging global environment of sustained declines in commodity prices, synchronized slowdown in emerging markets, and rising protectionism.

II. Africa Growth Trajectory

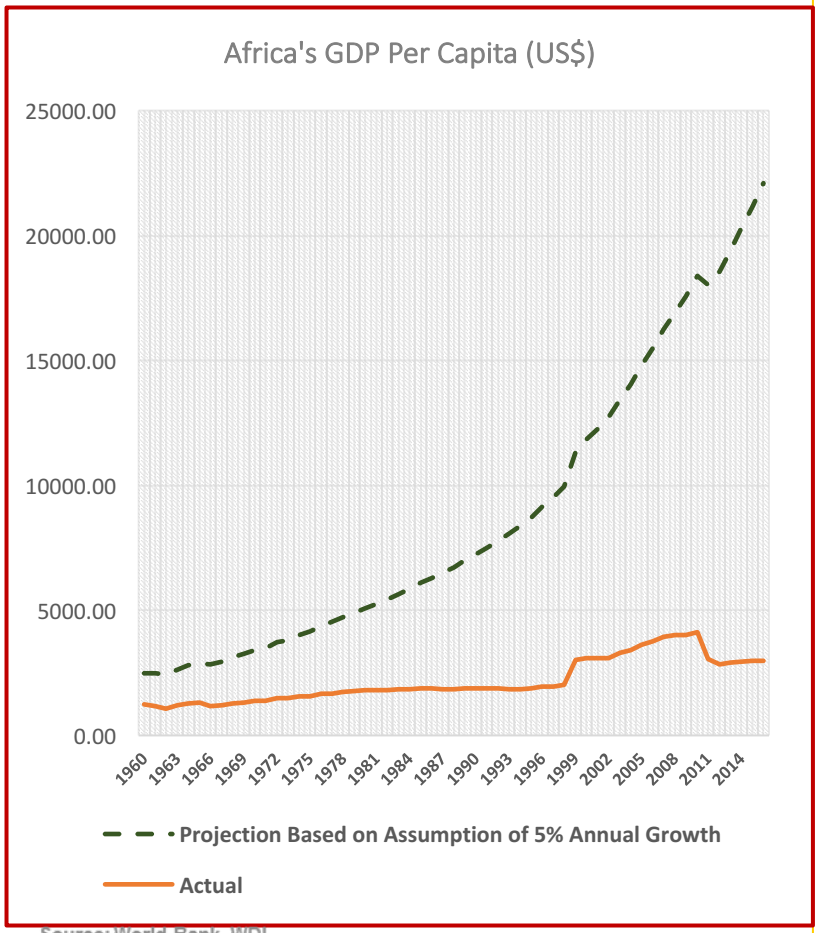
- An anatomy of African growth suggests that the growth trajectory has not been linear, in part reflecting excess growth volatility in the post-colonial period;
- Interestingly, the immediate aftermath of independence was a period of euphoria, with the region enjoying robust economic growth, significantly above the average growth rate registered in subsequent years;
- In effect, while the growth performance of the region was dismal in the 1980s and even beyond, between 1960 and 1970, the first decade into independence, Africa as a whole achieved an average growth rate of 4.4%;
- Up until the mid-1970s, Africa enjoyed relatively strong economic growth and had an average per capita GDP of US$1410, higher than that of Asia, US$1225;

- In effect, the first decade into independence was marked by euphoria – and buttressed by strong performance, with Africa emerging as one of the most promising developing regions in the world;

- So robust was the growth performance and so promising was Africa on the development ladder that Gunnar Myrdal, the 1974 Nobel Laureate in Economics, predicted in his best-selling book **"The Asian Drama"** that *"Africa's growth prospects will be superior to those of those of the overpopulated Asia"* [Myrdal (1968)];

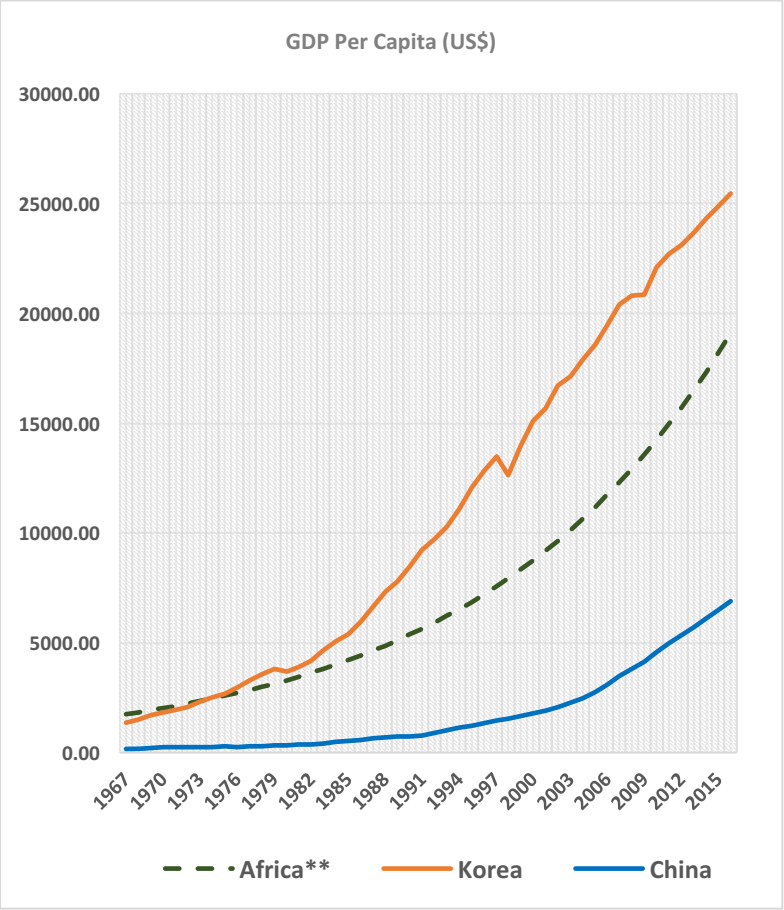
- In fact the region was on a very strong growth trajectory, almost euphoric [World Bank (2005), Fofack (2014)];

- Had Africa remained on the same growth trajectory it enjoyed in the immediate post-independence era, its per capita income would have been US$19,099 in 2016, significantly above the current level of US$2993;



Source: World Bank, WDI

- Likewise, had Africa remained on the growth trajectory it enjoyed during the period of growth euphoria in the aftermath of independence, its per capita income would have reached US$19,099 by 2016, significantly higher than the average in China (US$6,894) and closer and comparable to Korea at US$25,458;



Source: World Bank, WDI

- Instead, the region followed a different growth trajectory, one that was highly volatile and not at all consistent with the one predicted by or envisaged by Professor Myrdal;
- After the early years of post-independence euphoria, growth faltered and the following decades became largely characterized by recurrence of structural breaks in the growth trajectory [IMF (2017);
- To understand what happened to the Africa growth trajectory, which turned a period of euphoria into a growth tragedy, it is important to take a close look at the anatomy of Africa growth over a relatively long period [Artadi and Sala-i-Martin (2003), Fofack (2014)];
- The anatomy of Africa growth suggest that sustaining economic growth has been a major challenge in Africa—a region where growth turning points have been more common than in any other region of the world, especially from the late 1970s and early 1990s [IMF (2017)];

- Turning points or breaks in economic growth provide an elegant entry point to reflect on and analyze the African growth trajectory;
- These breaks in economic growth are classified into two possible categories:
  - ✓ Up-breaks—periods of higher growth than before, or growth acceleration;
  - ✓ Down-breaks—periods of lower growth than before, or growth deceleration;
- A recent empirical analysis of growth turning points around the world by the IMF is instructive;
- Although growth turning points - up-breaks and down-breaks - are common across the world, the great majority of growth turning points occurred in the developing world over a 56-year period spanning 1960-2016;
- And within the developing world, turning points were most common in Africa, which experienced disproportionately more up-breaks and down-breaks than any other region;

- African accounted for more them 25% of total up-breaks and down-breaks identified around the world over the period 1950-2016 [IMF (2017)];
- In effect, growth in the region was characterized by excess volatility and frequent shifts between periods of expansion and contraction—the recurrence of boom-bust cycles;
- Up-breaks, periods of growth acceleration, were more common during 1985-1999;
- While down-breaks, period of growth decelerations, were more common during 1970-1984;

Figure 2.2a. Selected Groups: Growth Up-Breaks, 1950–2016

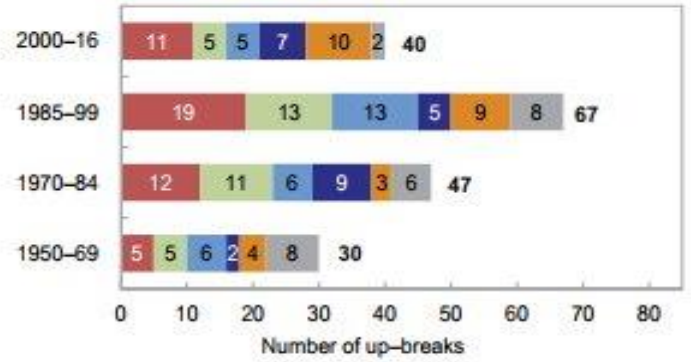
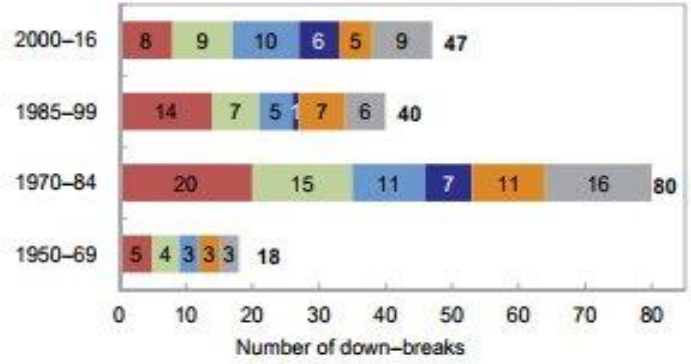


Figure 2.2b. Selected Groups: Growth Down-Breaks, 1950–2016



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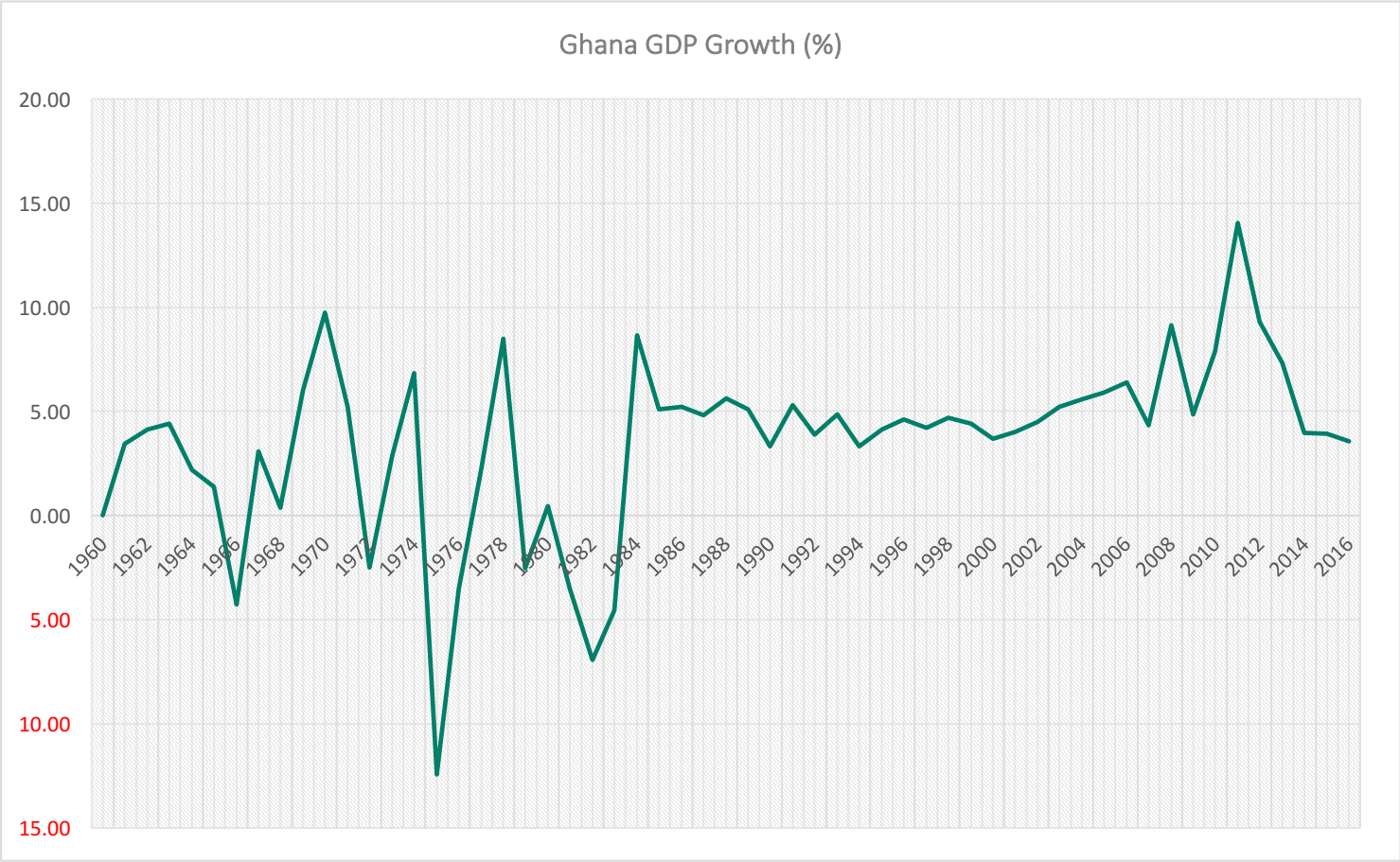
- Furthermore, the anatomy of African growth shows that countries experience large growth fluctuations between up-breaks and down-breaks;
- These relatively large break sizes between up-breaks and down-breaks suggest high volatility, has constrained income growth;
- In effect, on average per capita income growth was about 10 percentage points higher after an up-break compared to the period before it;
- African countries also experienced disproportionately large swings in growth following down-breaks, pointing to more widespread stop-and-go growth patterns than in other regions;
- In addition to turning points, the growth trajectory is also affected by growth spells - that is, episodes where growth after up-breaks was sustained;

- Africa as whole recorded 40 growth spells between 1950 and 2016, about 30 percent of total spells identified worldwide, and growth spells were also shorter than average in other regions;
- In other words, growth breaks are frequent in the region, but growth spells are shorter than elsewhere – reflecting large swings in growth rates and high growth volatility;
- The median length of complete growth spells in Africa has been six years, compared to 10 years for other developing economies and 8 years for emerging economies [IMF (2017)];
- Spells in the region are not just likely to be shorter - it is also the case that fewer complete spells in the region last longer;
- For example, only one out of three spells in the region lasts at least 10 years, compared to more than 50 percent of spells in the rest of the developing world and about 80 percent of spells in industrialized economies;
- Spells in Africa tend to be characterized by the largest swings in growth before, during and after spells;
- Overall, spells in the region start from large positions and typically end in "hard landings" or crashes—in sharp contrast to the rest of the world, where spells are characterized by both milder starts and softer landings;
- The shorter growth spells and larger swings in growth point to specific difficulties in the region in engineering and sustaining growth over long periods;

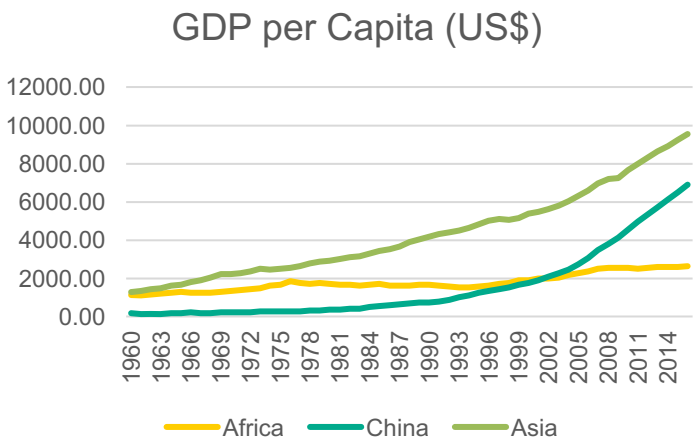


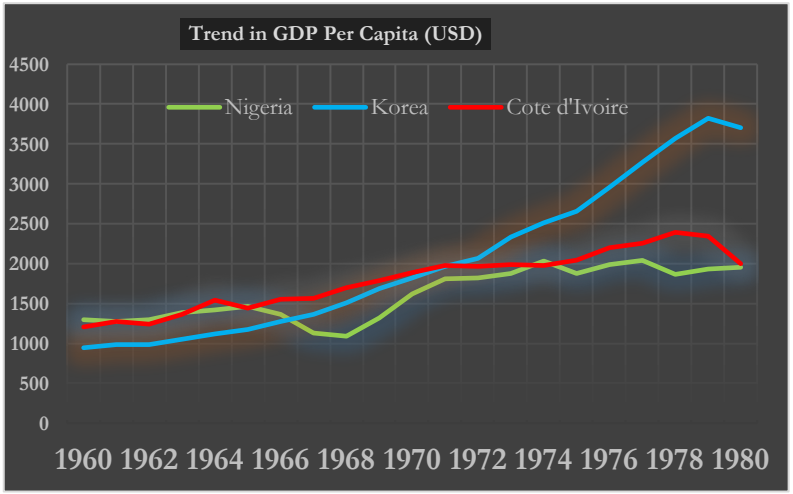
Source: World Bank, WDI

- The disproportionately high frequency of turning points and shorter growth spells, which are sources of high growth volatility, have for decades (especially from the mid-1970s to the mid 1990s) made it difficult for Africa to remain on a strong and long-run growth trajectory;

- The consequence has been the widening income gap between Africa and other regions of the world, which experienced fewer turning points and stronger growth and longer growth spells;

- As a result of the widening income gap, that era of excess growth volatility observed in the African growth trajectory has been referred to as the "lost quarter century" or the "economic tragedy of the 20th century" [Stiglitz (2017), Artadi and Sala-i-Martin (2003)];





III. Emerging Signs of Growth Resilience and Possible Drivers

- The Africa trajectory can be divided into three key periods:

i. The robust and sustained growth during the post-independence era of Great Euphoria;

ii. The "Lost Decade" or "Lost Quarter Century" from the late 1970s to the mid-1990s;

iii. Post- HIPC Growth resilience at the turn of the millennium;

- Despite the challenging global economic environment where the world has moved from crisis to crisis, starting with the 2007-8 Global financial crisis, then the Euro fiscal and sovereign debt crisis, synchronized slowdown in emerging market economies, and sustained deterioration of commodity terms of trade associated with the end of the commodity super-cycle, the region has achieved relatively strong economic growth, enjoying one of the longest growth spells on its highly volatile growth trajectory;
- In effect, since 2000, Africa has, on average consistently, recorded positive and robust economic growth, with the region achieving average growth rate of about 4.17% between 2000 and 2016;
- The growth performance was even more impressive between 2000 and 2013, with the region growing by about 4.42% in the lead up to the end of the commodity super-cycle;
- The growth trajectory which emerged at the turn of the millennium suggests that the region has indeed transitioned from a pattern of high growth volatility with frequent shifts from expansion to contraction to somewhat more regular patterns of growth upticks;

- The growth resilience, which is a new phenomenon on the African growth trajectory, is not just illustrated by the sustainability of growth in a context of excess global volatility; it is also illustrated by the ability of vulnerable countries, especially the ones which depend excessively on natural resources to either remain on a positive growth trajectory or rebound in the face of sustained deterioration in commodity terms of trade;
- While the adverse effects of commodity terms of trade shocks in the region have been long lasting in the past and are largely responsible for the "**Lost Quarter Century**" most countries in the region have remained on the positive growth trajectory after the end of the commodity super-cycle in 2014;
- Angola, which derives over 75% of fiscal revenues and 90% of export earnings from oil exports, recorded a GDP growth rate of 4.8% in 2014 and 3.0% in 2015, despite the collapse in oil prices;
- Likewise, Zambia, which derives over 30% of fiscal revenue and over 70% of export earnings from copper, recorded a growth rate of 4.7% in 2014 and 2.9% in 2015;

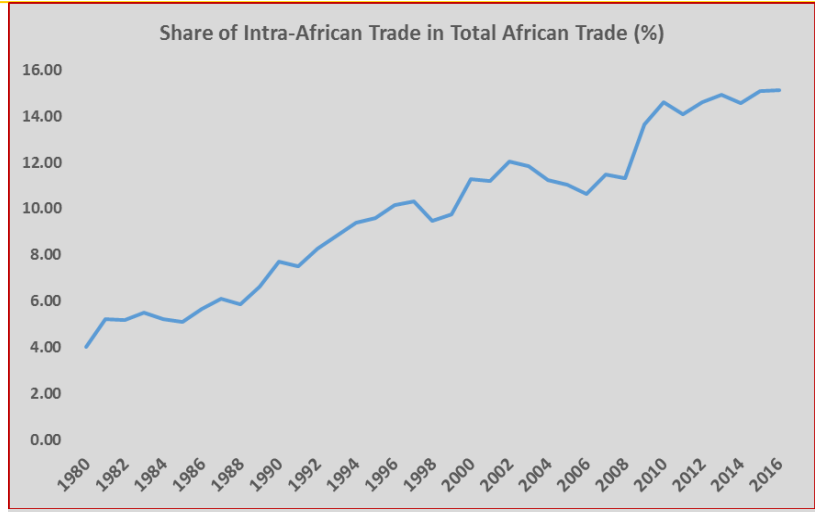
- Even counties which faced contraction, like Botswana, where the economy contracted by 1.7% in 2015, quickly rebounded in 2016, growing by 2.9%;
- Likewise, Nigeria, which contracted by 1.5% in 2015, is projected to grow by 0.8% in 2017;
- Overall Africa recorded an average growth rate of 2.9% in 2016 even though oil exporting countries still account for more than 50% of GDP and over 55% of export revenues;
- ***What are some of the factors driving the resilience of growth observed on the African growth trajectory since the turn into the new millennium?***
- **Improving macroeconomic management**—The post HIPC has been characterized by improving macroeconomic management and specifically (1) fiscal deficits have been very low; (2) public debt has been sustainable with debt/GDP ratios at lowest level over the last 20 years—according to empirical evidence, a reduction in the debt-to-GDP ratio increases the expected length of growth spells by about one year; (3) Monetary policy has been geared towards price stability and low inflation—(empirical evidence shows that a reduction in inflation increases the expected length of growth spells by six years), and (4) across Africa, a successful implementation of macro structural policies has led to a significant reduction of market distortions;

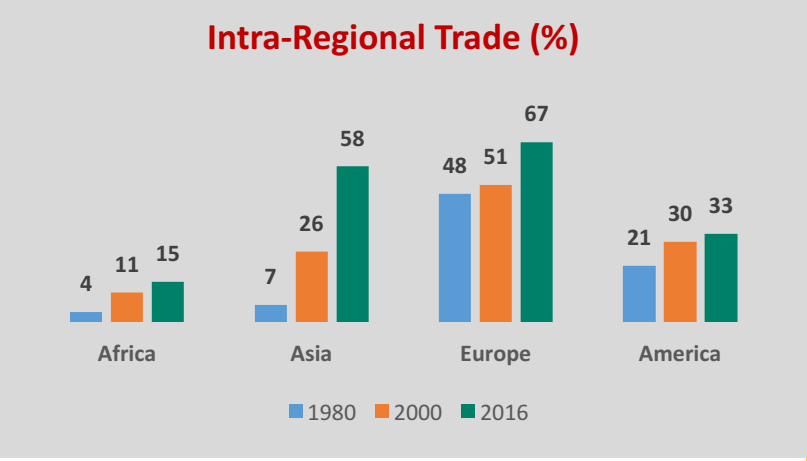
- Globally accommodating financial conditions reflecting the zero-lower bound interest rate regime of the post global financial crisis and the divergence of monetary policy – empirical evidence shows that tighter global financial conditions significantly increase the probability that a growth spell will end in the region;
- Diversification of sources of growth – even though natural resources and primary commodities continue to account for the lion's share of African trade, the process of diversification of sources of growth is ongoing, largely driven by African industrialists who are undertaking cross-border investments and injecting the patient capital needed to reduce the adverse effects of hot money and capital flows on growth volatility;
- Cross-border investments undertaken by African industrialists have grown significantly over the last two decades to the point where annual intraregional investments is estimated at US$15 billion, accounting for about 24% of total FDI flows to all African countries;
- In addition to growing investment in light manufacturing industries, the process of economic diversification is also supported by investment in strategic sectors and industries;

- **Investment in infrastructure** is attracting FDI and in the process extending the length of growth spells; in particular, infrastructure investment has been a big driver of output expansion in fast-growing economies such as Côte d'Ivoire, Kenya, Ethiopia and Senegal;
- **Significant improvement of commodity terms of trade**—the globally favourable terms of trade and commodity prices at the turn of the millennium have played a big role in both the resilience of growth and length of growth spells enjoyed by the region since 2000;
- **Increasing diversification of export partners and direction of trade** is another important factor explaining recent developments on the growth trajectory of the region;

- **Increasing level of intra-African trade is mitigating the risks associated with global volatility and acting as absorber of adverse global shocks. There is a growing recognition of the potential benefits of intra-African trade for long-run growth and sustainable development;**

- **Although intra-African trade remains relatively low compared to levels in other regions of the world it has increased by more than 57.2% since 1995 to reach 15% of total African trade by 2016;**





4. Option for Sustaining the Growth Momentum in a Challenging Global Economic Environment

- Since the turn into the new millennium, developments in Africa and around the world have set the Africa region on a different growth trajectory;
- Perhaps after the "Lost Quarter Century" the region is finally transitioning from a pattern of high growth volatility, with frequent shifts from expansion to contraction, to a more regular pattern of growth upticks;
- Sustaining that growth momentum to enjoy longer growth spells in a difficult global economic environment of excess growth volatility, recurrence of economic crises, and rising protectionism, is the challenge facing the region;
- Given the structure of African economies, which despite the ongoing process of diversification are still very much natural resource and commodities-dependent, sustaining the growth momentum will involve drawing on both short-term and medium- to long-term policy options;
- This section of the presentation outlines a number of policy options for sustaining the growth momentum in Africa;

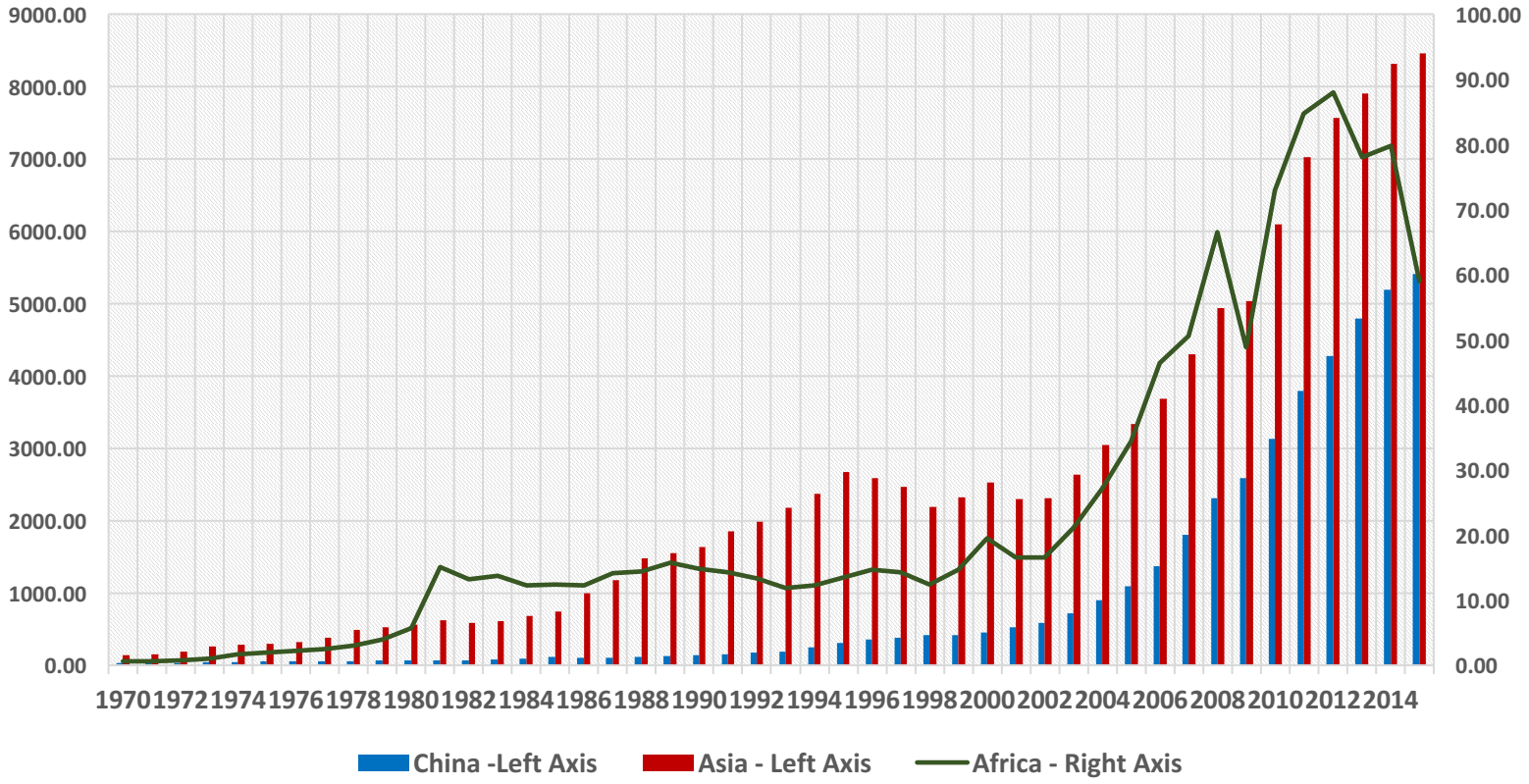
1. **Developing mechanisms and policies for coping with volatile commodity export prices;**
   - It has been argued that the long growth spell enjoyed by Africa since the turn into the millennium has been due to a number of factors, including (i) the improving macroeconomic environment; (ii) increasingly accommodating financial conditions; and (iii) favorable commodity terms of trade;
   - The difficulties faced by the region, most notably increasing macroeconomic management challenges in the form rising twin deficits and scarcity of foreign reserves, were largely associated with sustained declines in commodity terms of trade [Fofack (2016)];
   - These developments reflect still the level of correlation between growth performance and dynamics in the commodity markets, in a region where oil-exporting countries alone account for more than 50 percent of GDP and over 55 percent of export earnings;
   - In the short- and medium-term the region will continue to depend on primary commodities and natural resources, hence the need to explore options to mitigate the exposure of countries to adverse commodities terms of trade shocks;

- **Emerging options to better manage volatility involve:**
  - Structuring of financial contracts to hedge risks (Frankel (2017);
    - Option contracts can be used to hedge against short-term declines in the commodity prices;
    - Commodity-linked bonds can hedge longer-term risk;
  - Making fiscal and monetary policy counter-cyclical rather than pro-cyclical;
    - Overcoming the tendency towards pro-cyclical fiscal policy in commodity-exporting countries by insulating official forecasters against optimism bias;
    - **Overcoming the natural tendency towards pro-cyclicality of monetary policy in commodity-exporting countries**, most notably by allowing the local currency to appreciate in the face of positive terms-of-trade shocks and depreciate under the alternative;

2. **Adopting or promoting policies to raise domestic savings and domestic resource mobilization;**

- **Empirical evidence has shown that tightening global financial conditions significantly increase the probability that growth spells will end;**
- **Though the adverse effects of tightening financial conditions on growth and investment have been established, they are likely to be even more significant in countries which have a lower rate of domestic savings and hence rely heavily on external sources to close the financing gap;**
- **At US$60 billion in 2016, domestic saving is very low in Africa, even by developing country standards - the average in Asia is in excess of US$5 trillion;**

Gross Domestic Savings (US$ billion)



Source: World Bank, WDI

- Raising domestic resources will involve expanding the fiscal space and closing loopholes and leakages, especially the link to capital flight, which has been a major source of leakages and constraint to domestic resource mobilization and growth in the region [Ndikumana and Boyce (2011), Fofack and Ndikumana (2010), Fofack (2016)];

3. Increasing investment in infrastructure, both soft and hard, to close Africa's infrastructure gap in support of growth and structural transformation;

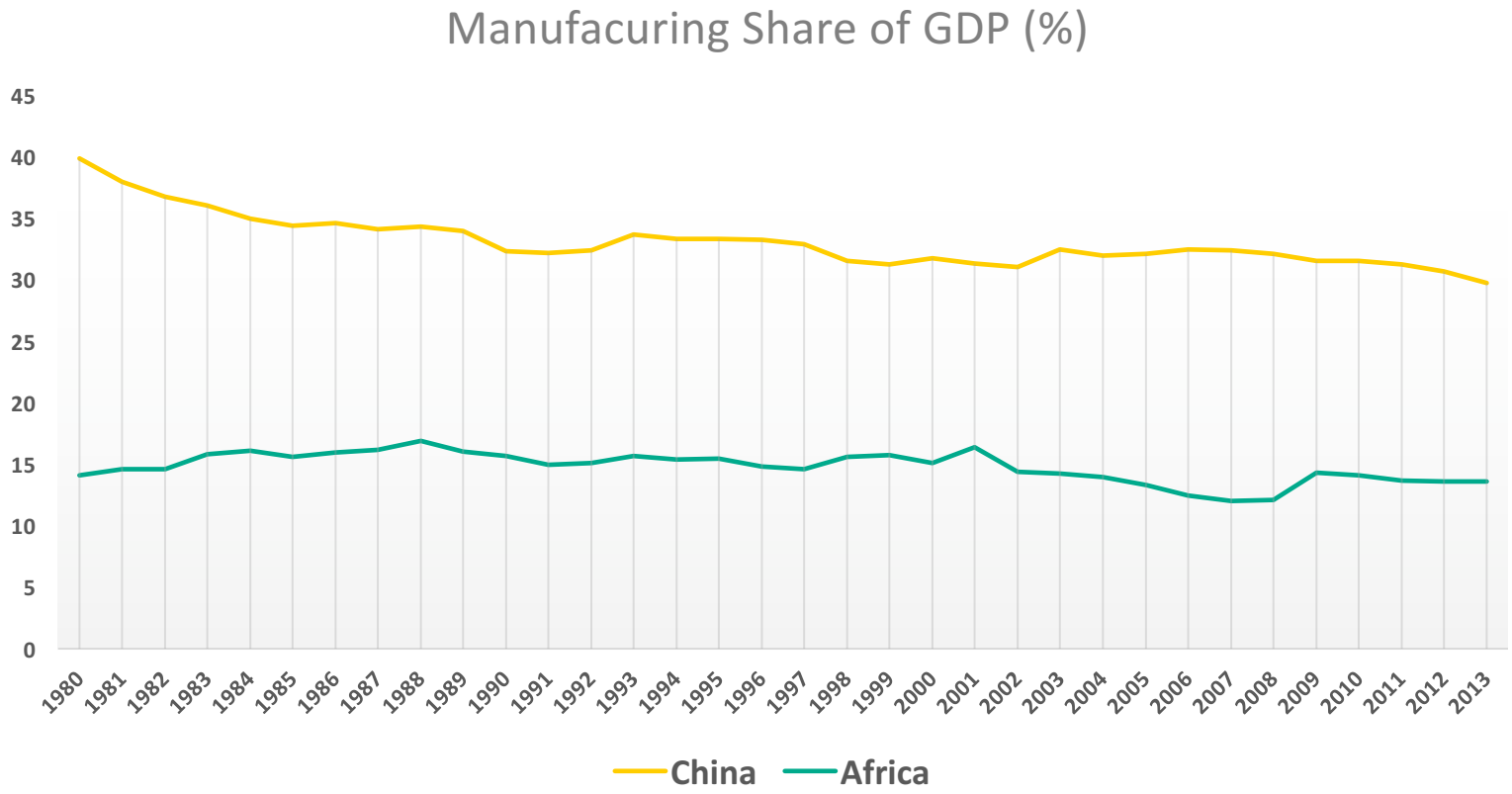
- Year after year, infrastructure deficit has been singled out as a major constraint to investment, growth and structural transformation in Africa;
- Infrastructure deficit is also a constraint to intra-African trade and growth, especially in the absence of cross-border and trade-enabling infrastructure;
- Indeed, empirical evidence has shown that the infrastructure deficit costs the region between 3-5% of GDP growth annually, suggesting that the region could sustain longer growth spells just by closing the infrastructure deficit, which is broad-based, affecting all sectors, including energy, transport, irrigation, agriculture, as well as **research and academic infrastructure**;

4. Increasing access to credit to the private sector in support of growth and structural transformation;

- Expressed as a percentage of GDP, average credit to the private sector is 26% in the region, compared to 143% in Asia and 102% in Europe;
- In a world where private sector growth is the key driver of output expansion, there is no better growth catalyst than access to credit;
- Access to credit will provide the resources for capital expenditure needed not only to generate growth, but also and equally importantly, to sustain longer growth spells and overall economic expansion;

5. Accelerating the process of industrialization and structural transformation of African economies

- Addressing the deficit of industrialization and economic diversification to increase the resilience to shocks by generating new sources of growth within the region is another key factor likely to extend the length of growth episodes and keep the region on a strong growth trajectory—export concentration has hampered the level of economic growth in the region;



Source: World Bank, WDI

- Diversification is also a risk mitigant for resource-dependent economies, especially as manufacturing exports are associated with higher value added content and less volatile prices;
- Rising production costs in China provide a unique opportunity for Africa's industrialization:

-As China undergoes the process of rebalancing, moving towards the manufacturing of goods with increasingly high technological content, it is estimated that about 85 million manufacturing jobs will leave the country in the coming years;

- A number of African countries are already taking advantage of the extraordinary bonanza associated with the process of continuous industrial and technological upgrading happening in China;

- In particular, countries such as Ethiopia and Rwanda are drawing on manufacturing outsourcing from China to diversify their sources of growth and trade, taking into account their comparative advantage and endowment structure;

- **Interesting development has been the rise of African industrialist:**
- Leading examples of these entrepreneurs include **Mr. Aliko Dangote—the Founding Chairman of the Dangote Group**—which is leading cross-border investment in a number of strategic sectors and industries, which until recently have been vectors for capital outflows and leakages;
- **Production of cement**: The Dangote Group made history last year when it finally ended Nigeria's cement importation regime;
- Nigeria, which until last year has been one of the world's major importers of cement, spending billions of dollars every year on that product, with adverse implications for the balance of payments, became a net exporter in 2016;

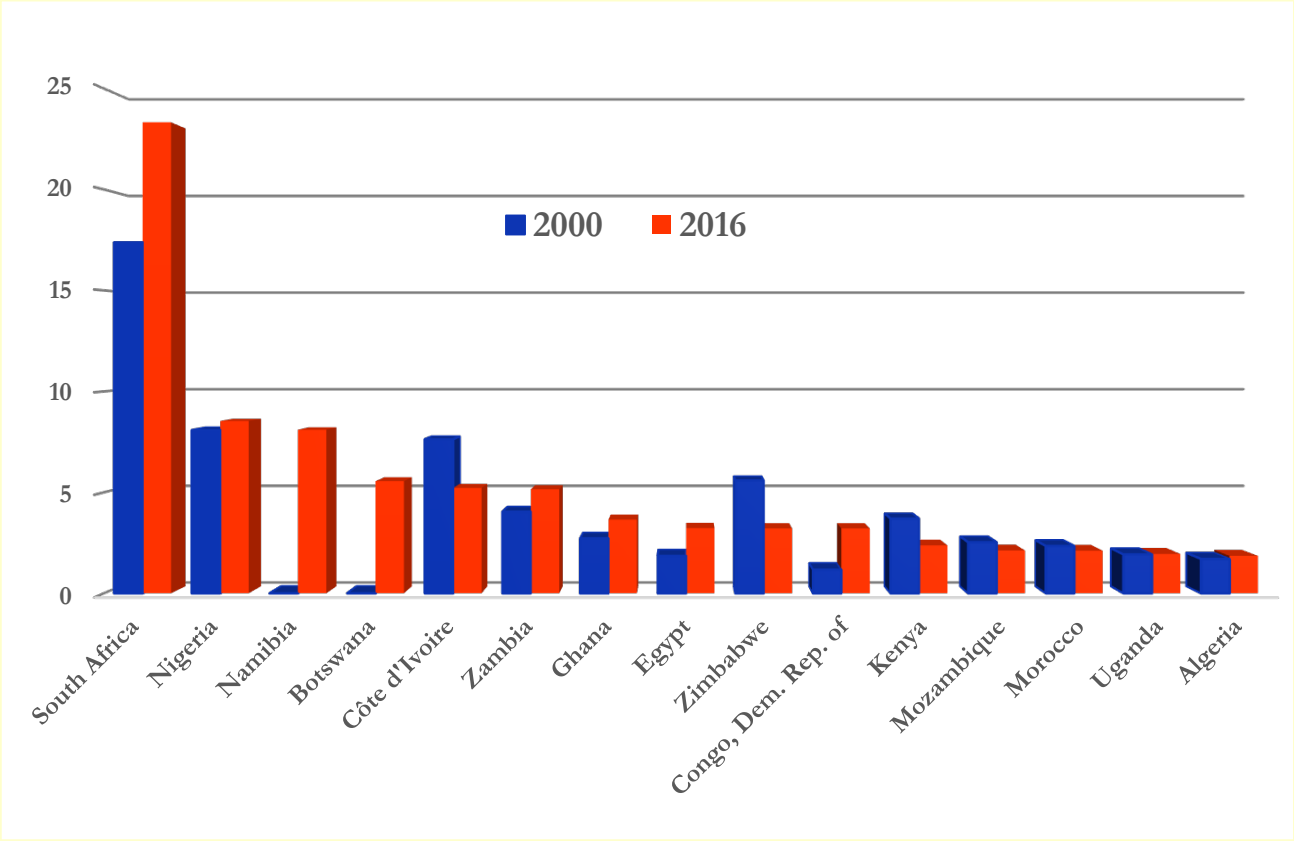
- Investments undertaken by the Dangote Group in other countries, including Cameroon, Congo, Ghana, Ethiopia, Senegal, Sierra Leone, South Africa, Tanzania and Zambia, are likely to have a similar effects in terms of growth, job creation and macroeconomic management;
- **Oil refineries and production of refined petroleum and derivatives** is another sector which has been a source of leakages: Although Africa is well endowed with natural resources and derives over 55 percent of export revenues from oil, the continent also spends billions of dollar every year to import refined petroleum;
- In 2015, Africa, which was a net exporter of crude oil, spent more than US$46 billion towards the import of refined petroleum;
- Investment made by the Dangote Group in that strategic sector will also reduce leakages while at the same time creating thousands of jobs and growth opportunities for other sectors;
- The transition of Africa from the current state of "*passive globalizer*" to that of "**active globalizer**" will depend on the ability and success of countries on the industrialization path;
- The African Export-Import Bank is actively supporting the process of industrialization by acting as a catalyst, supporting the development of industrial parks and Special Economic Zones to accelerate industrialization under infrastructure constraints;

6. Expanding intra-African trade to mitigate the risk of exposure to recurrent adverse terms of trade shocks and global volatility and deepen regional integration;

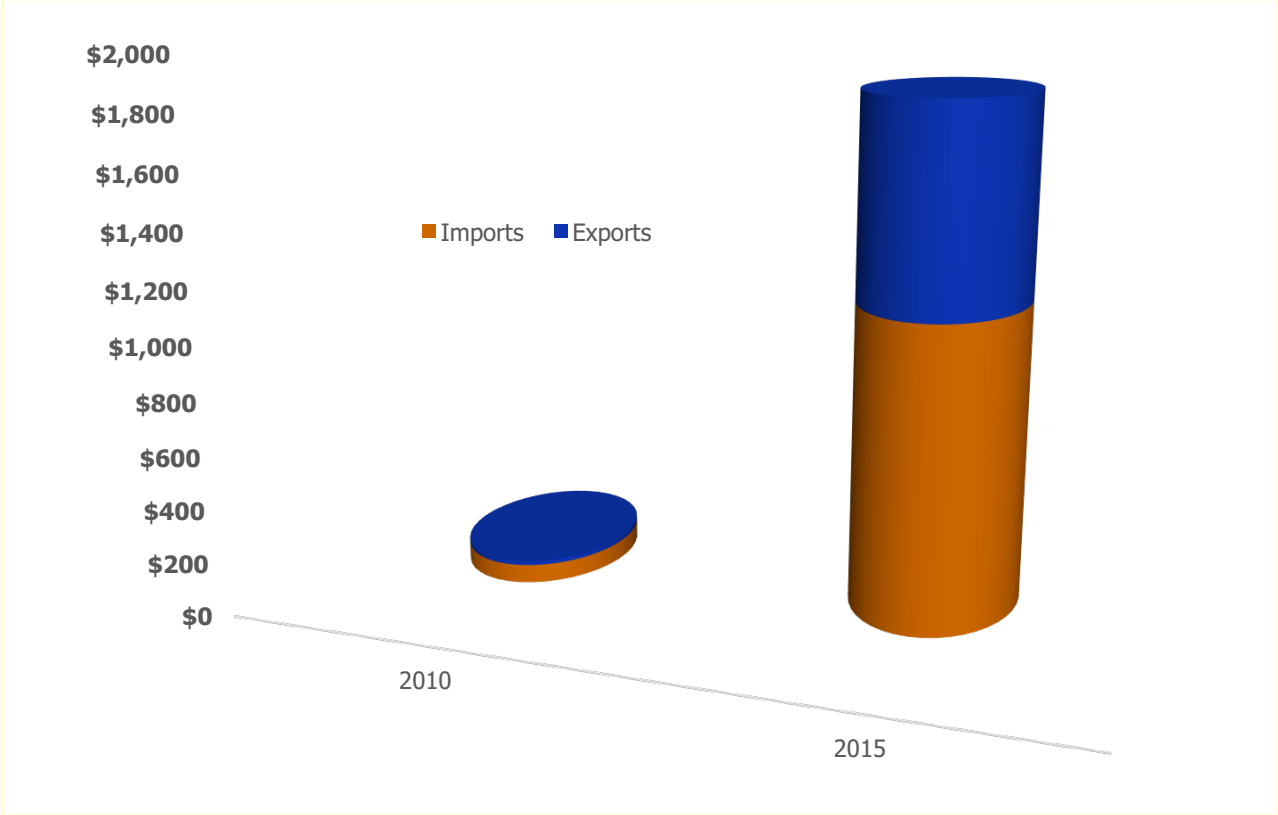
- Despite the progress achieved over the last two decades, at 15% of total African trade, intra-African trade still compares unfavorably against the trade performance in other regions of the world;
- While the focus has been on addressing product concentration and infrastructure deficits, other critical constraints such as access to trade information have not been given the same attention;
- Yet it is a major constraint which could raise the level of intra-African trade even under the current state of product concentration and deficit of diversification;
- There have been some positive developments in recent years, pointing to increasing political will and commitment to expand intra-African trade;
- At the continental level, the African Union declared 2012 a year of intra-African trade and the AU launched shortly afterwards a strategy for Boosting Intra-African Trade (BIAT);
- Plans are well advanced for the launch of the Continental Free Trade Area (CFTA) in the coming months;

- Many countries that used to look North have recently discovered the value of regional integration and are pursuing greater trade and economic ties with the rest of Africa. Egypt hosted the summit that led to the signing of the Tripartite Free Trade Agreement;
- Another important development is the emergence of regional value chains, which are drawing on re-export model to boost intra-regional trade;
- The rise of re-export model in the region, whereby intra-African trade is supported by the re-exports of goods that are imported within the continent for further processing before being sent to the rest of the world, is supporting the development of RVC;
- Under that emerging re-export model, a growing proportion of goods is moving from the intra-African to the extra-African trade path;
- The model is fundamentally changing the dynamics of intra-African trade, with a number of smaller African countries becoming leaders in the intra-African trade space;

Country Share of Total Intra-African Trade (in %)



Total Trade between Botswana and Namibia (USD million)



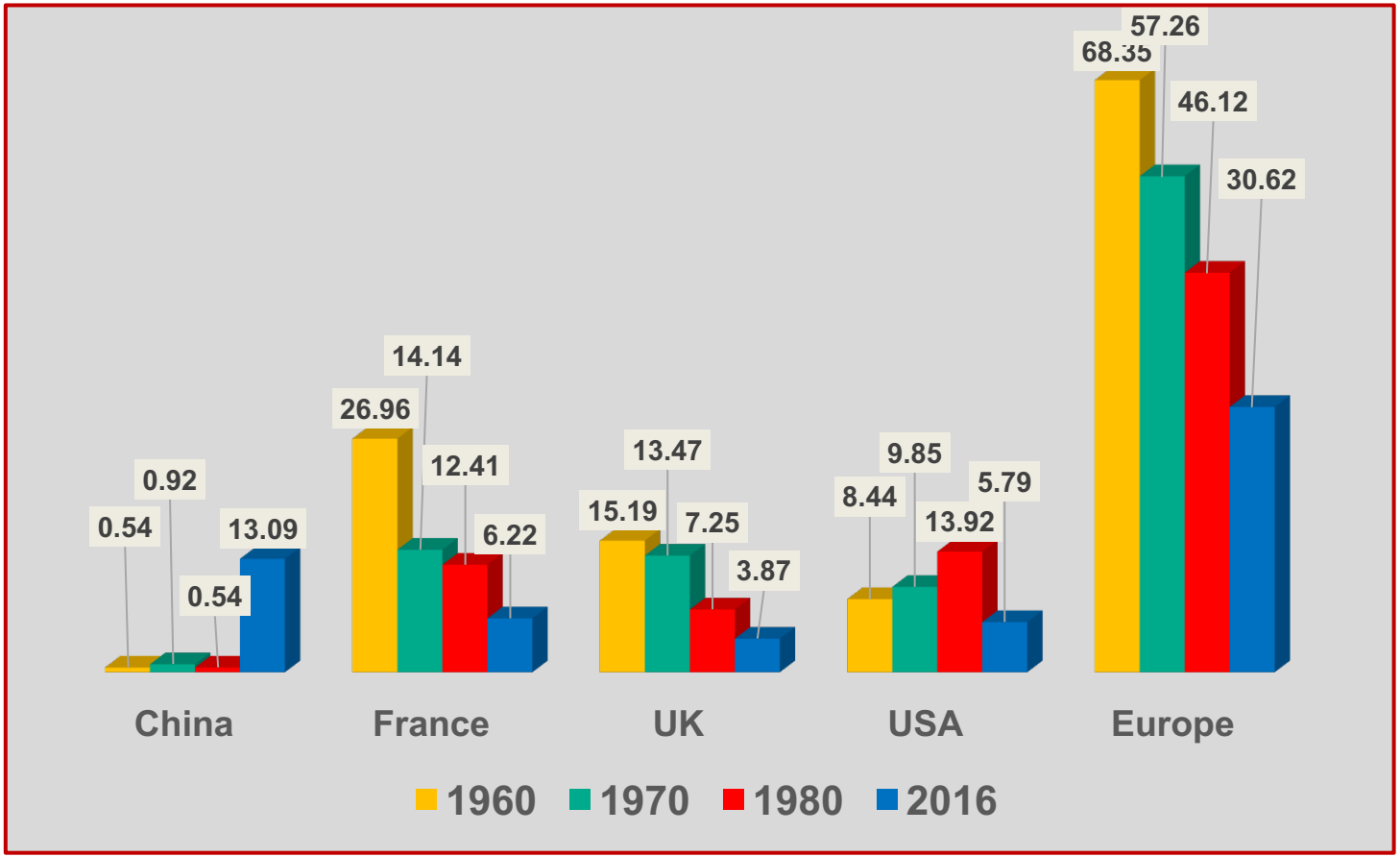
7. Deepening the process of diversification of export partners

- Countries which emerged from the colonial era were heavily linked to their former colonial powers under the colonial model, which forbade trade between colonies and between colonies and any other country but the colonial power;
- Under that model of colonial dependency, growth in Africa was heavily affected by business cycles in Europe—hence the expression "*when Europe sneezes, Africa catches cold*";
- Increasing diversification of direction of trade away from traditional partners is reducing that risk; it is also a sign that the colonial legacy and links are weakening with the rise of Asian Tigers;

  -Trade between Africa and Asia has increased significantly over the last few decades, rising from less 2.0% of total African trade in the 1970s, to more than 25% in 2015;

  - In the process, China has become Africa's single largest trade partner, overcoming traditional partners such as France, the UK and USA;

Share in Africa's Trade (%)



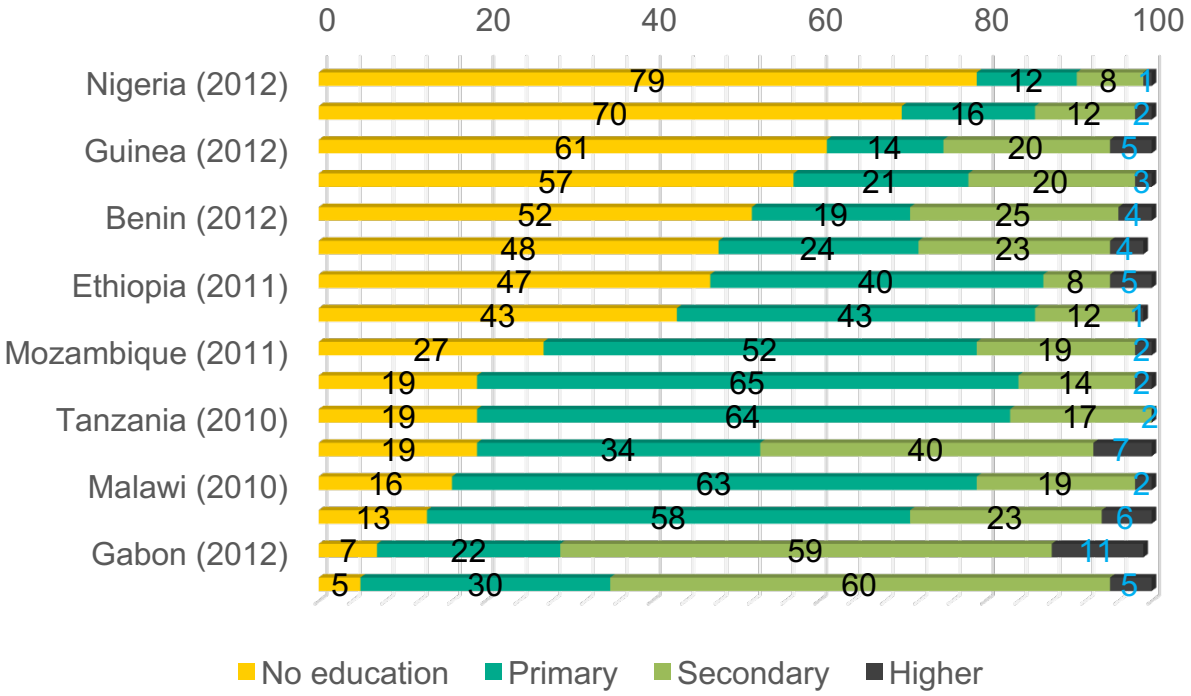
8. Increasing investment in education, research and technology

- One of the major constraints to growth and structural transformation facing the region is the deficit of research and technology, as well as technical skills, which played a key role in the process of structural transformation during the industrial revolution and have become even more important recently in the new knowledge economy where progress is increasingly driven by technological changes instead of organizational changes;

- So critical is technology to growth and integration into the global economy that high levels of investment in education, research, and technology - also known as "the Scandinavian model" - have been identified as the path to making globalization work for all;

- Yet, in addition to the chronic deficit of academic and research infrastructure, tertiary enrollment rates are dismally low in Africa—less than 15 percent in most countries;

Distribution of active population according to education level



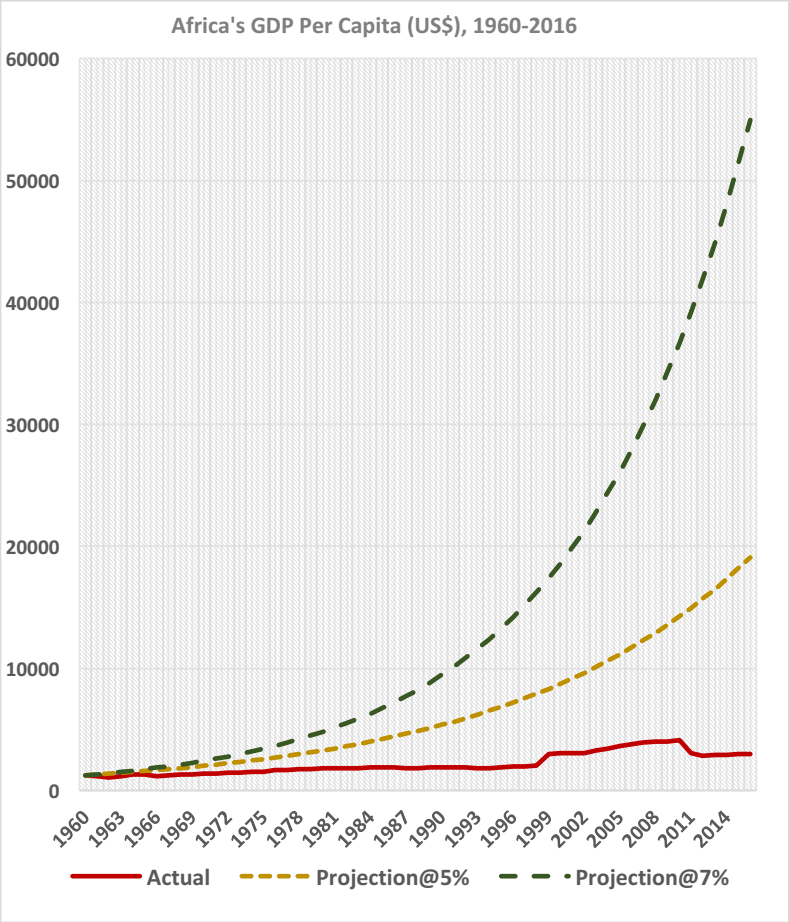
Note: Only countries with data after 2009 are included. Number are in percent.

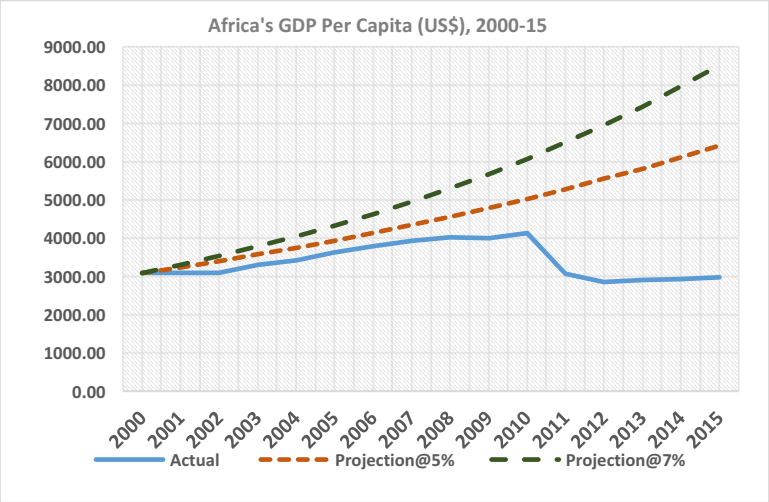
Source: Demographic and Health Survey, reproduced from Chevallier and Le Goff 2014.

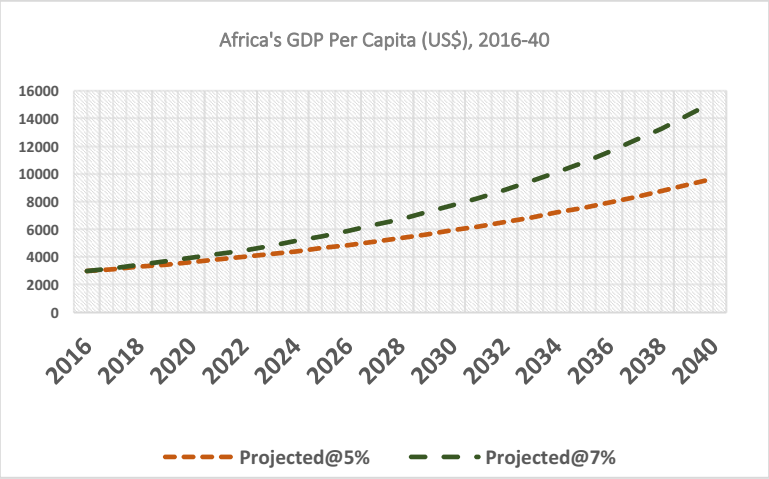
- At the same time, the scientific and technological gaps between Africa and other regions of the world have been widening, especially with the progress achieved by Asian economies in recent years;
- The Asian economy - first Japan, then the Tigers, and more recently China - all understood that the income and welfare gap with the more advanced economies was largely in knowledge and technology;
- In essence and informed by the history of economic development—there is no income convergence without technological convergence—governments in Asia took important steps to close the knowledge and technological gap:
- Encouraging foreign direct investment and insisting that technology transfer come along with it;
- Investing massively in education and scientific infrastructure—soft infrastructure is just as important as hard infrastructure;
- Perhaps ongoing efforts to deepen the process of regional integration will create large markets and strengthen the bargaining power of African governments and corporations in their quest for new technologies;

4. Why would the strategy just outlined work?

- The strategy just outlined has several benefits and is likely to sustain Africa on a long-run growth trajectory for a number of reasons, including:
- Reduced exposure to adverse exogenous and terms of trade shocks in a context of increased diversification of sources of growth and trade;
- Industrialization and the rise of labor-intensive manufacturing industries will play a key role in sustaining the region on a strong growth path, but also in generating millions of jobs over the next 20-25 years to absorb the stock of un/under-employed in the region—the region is currently generating 3 million jobs annually in an environment where new entrants in the labor market are estimated at 18 million per year over the next decade;
- The adoption and deepening process of technology and growth of technology-intensive industries will not only sustain productivity and income growth, it will also enable the region to integrate GVC and transition from "passive globalizer" into a new state of "active globalizer";
- Encouraging growth projections which suggest that under various scenarios the region could register accelerated income growth and gradually narrow the welfare and income gaps with other regions of the world;


Africa's GDP Per Capita (US$), 1960-2016
60000
50000
40000
30000
20000
10000
0
1960
1963
1966
1969
1972
1975
1978
1981
1984
1987
1990
1993
1996
1999
2002
2005
2008
2011
2014
Actual
Projection@5%
Projection@7%


Africa's GDP Per Capita (US$), 2000-15
9000.00
8000.00
7000.00
6000.00
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
Actual
Projection@5%
Projection@7%


Africa's GDP Per Capita (US$), 2016-40
16000
14000
12000
10000
8000
6000
4000
2000
0
2016
2018
2020
2022
2024
2026
2028
2030
2032
2034
2036
2038
2040
Projected@5%
Projected@7%

4. Towards a Research Agenda for the Harvard Center for African Studies

- Perhaps a research agenda for the region in the coming years could focus on the role of technology and science in the process of economic development and integration into the global economy;
- The research agenda could follow two broad approaches: a comparative analysis and historical perspective;
- For instance, it would be instructive to investigate the history of science and interaction between science and economic development, going back to pre-colonial Africa;
- It would be instructive to explore the sources and origins of discontinuity in the path of scientific discovery and innovation in Africa;
- It would instructive to undertake a comparative analysis of different policies and strategies undertaken by various countries to close their technological gaps, contrasting Northern and continental Europe, Europe and Asia, as well as Europe and North America;
- At the same time, another important research agenda with short-term impact could focus on the role of capital markets in the development of financial instruments to mitigate the risk associated with the volatility of commodity export prices;

V. Conclusion and summary

- Despite the heavy burden of the colonial legacy - bias in the direction and composition of trade and chronic infrastructure deficit - newly independent African countries entered the free world in the 1960s positioned on a rather strong growth trajectory;
- However, sustaining the growth momentum by remaining on that growth trajectory proved challenging, in part because of the excessive dependency on natural resources and primary commodities, legacy of the colonial model, which exposed countries to recurrent adverse terms of trade shocks;
- Over time a combination of high frequency of turning points and short growth spells associated with excessive dependency on natural resources and primary commodities put the African continent on a completely different growth trajectory—frequent shifts from expansion to contraction;
- Despite the resilience of growth observed at the turn of the millennium and emergence of longer growth spells, the region remains vulnerable to recurrent exogenous shocks and global volatility as recently illustrated by the end of the commodity super-cycle which pushed a number of strong growth performers into recession;

- After a review of Africa's growth trajectory, this session outlines a set of policies and options for engineering growth and sustaining growth momentums with fewer down-breaks, sustained growth accelerations and longer growth spells;
- Fostering industrialization and diversification of export composition are singled out as important options for sustaining the resilience of growth episodes in the region;
- Deepening the process of integration and expanding intra-African trade is also critical for sustaining long-run growth in the region;
- In addition to mitigating the exposure of the region to adverse global shocks, expanding intra-African trade and deepening economic integration will also accelerate the development of regional value chains to enhance integration into global value chains—the new driver of globalization and international trade;
- While there is a growing commitment and political will for industrialization and intra-African trade, there are a number of critical areas where the challenges remain important, including extension of credit to the private sector and closing scientific and technological gaps between Africa and other regions of the world;

V. Conclusion and summary

- Perhaps developing the right technological and scientific infrastructure to gradually narrow the gap with other regions of the world and modernize African economies is the most important challenge facing the region;
- If there is any lesson to derive from pre-colonial Africa, when leaders from African kingdoms could move world markets and trade, it is the role played by technology in the process of growth and production;
- Back then, Africans pioneered some of the major achievements and advances in various fields, including engineering and mathematics, today illustrated by the Giant Pyramids of Giza;
- The region also enjoyed some of the most renowned centers of learning, including the University of Timbuktu which attracted world scholars in fields as diverse as architecture, mathematics, and engineering;
- More recently, the Asian experience has shown that technological convergence tends to precede income convergence and ultimately accelerates the process of income convergence between nations;

Thank You!