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How to jumpstart inclusive and sustainable industrialization in Africa

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Summary: The paper argues that industrialisation is crucial to Africa's structural transformation and poverty eradication. With reference to the past successes of East Asia and China, and current successes in Ethiopia and Rwanda, the paper highlights the importance of political commitment to use limited resources strategically for improving infrastructure and business environment in industrial parks/special economic zones and attracting foreign direct investment to jumpstart the development of the country's latent comparative advantage industries. The quick wins in industrialization will have a snowballing effect on inclusive and sustainable structural transformation in the country.

INTRODUCTION

Currently, many African countries are trapped in poverty - but poverty is not destiny. In 1952, Taiwan, China was as poor as any country in Africa. Now it is a high-income economy. In 1979, per capita GDP in China was less than a third of the average in sub-Saharan African countries. Today, China is a high middle-income country, and on the way to becoming a high-income country by around 2020.

This is the story of many other East Asian economies like South Korea. In the 1950s South Korea was one of the poorest countries, post-colonial economies, in the world. Now it is a high-income economy, showing it is possible to get rid of the poverty trap and grow dynamically for decades, eventually becoming middle- or high-income.

INDUSTRIAL POLICY AND THE FACILITATING STATE

All the countries in the world were poor, including today's high-income countries. When they were poor, they shared a unique feature – they all relied on agriculture for their livings. 90% of their populations lived in rural areas and relied on agriculture. Now these countries share another unique feature: they relied on transformation from agriculture to manufacturing, and then to the post-manufacturing stage, to increase their income.

Africa is poor because African countries have not completed this transition yet. Today over 75% of African countries' exports are either agricultural or primary resources. Especially where natural resources are available, the government budget relies heavily on them. But resources see a lot of boom and bust, so the market is very volatile – and productivity levels are low.

The issue is how to achieve the transformation from an agrarian primary economy to industrialisation. For this, industrial policy will be necessary.

First movers and externalities

For structural transformation it is imperative to have first movers, a role which certainly carries a lot of risk. First movers' projects can be either a failure or success. If they are a failure, the first mover bears all the cost, and sends a signal to other people to say 'we are not ready' or 'the direction is wrong' - that way other people don't have to encounter similar failures. If the first mover succeeds, then it will attract emulators. With competition, the first mover will not have monopoly position and rent – therefore there is some kind of asymmetry between the cost of failures and the gain of success.

But no matter if it's a failure or a success, the first mover produces valuable information for other people. Without first movers there would be no structural transformation. The government needs to compensate for the information externalities generated by first movers.

The probability of the first mover being successful not only relies on their entrepreneurship - it also relies on coordinated improvement of hard and soft infrastructures. For example, moving from agriculture to manufacturing requires improvements in logistics, power, road, port facility, etc. Those improvements cannot be made by any individual manufacture investor. In addition, equipment investments in manufacturing are larger than those required by agriculture. Therefore, financial institutions are needed to mobilise the financial resources for investment. Likewise, institutions are needed to share the risk linked to the new industry. Entrepreneurs are not able to make these kinds of financial improvements by themselves either. The government needs to coordinate those changes, either by engaging the private sector, or providing coordination itself.

Infrastructure for new industries

For the government to play this role, industrial policy is required, as coordination should be sector-specific. The infrastructure and human capital needed differ for each sector. For example, agriculture requires irrigation, whereas the industrial sector requires power facilities.

If the government had unlimited resources then it could provide all necessary improvements in hard and soft infrastructures, but resources are limited, as is implementation capacity. As a result the government needs to act strategically according to what kind of sectors they want to promote, and what hard/soft infrastructure is desirable.

LATENT COMPARATIVE ADVANTAGE & PICKING WINNERS

Successful industrial policy needs to meet certain requirements.

Latent Comparative Advantage

Policies should promote sectors in which a country has latent comparative advantages, that is, the sectors in which the country can have the lowest possible factor cost of production that is consistent with comparative advantage determined by their endowment structure. The factor cost of production should be the lowest amount in the world.

Competitiveness in the global markets is based on total cost, which has two components: factor costs of production and transaction costs. Transaction costs are related to the hard infrastructure as well as to the soft infrastructure, that is, institution and business environment. If the infrastructure and business environment are poor, even if the factor cost of production is low, the transaction cost will be high, and so will be the total cost.

Industrial policy should aim to improve the business environment, institution as well as infrastructure in order to lower the transaction cost.

Realistic goal-setting

In the past, there have been many attempts at industrial policies, but most of them failed. The main reason is that they were too ambitious – they tried to target certain kinds of sectors, which looked very modern but which were very capital intensive. These industrial policies went against the countries' comparative advantages. As a result, even with government help, the sectors were built up, factor cost of production was higher than high-income countries with comparative advantages in these sectors.

In a Low-Income Country, the transaction cost by definition would be higher than in a high-income country, and as a result total cost would be too high to be competitive with products from high-income countries in open market. Consequently, the survival of those sectors relied on continuous subsidies from the government. That is the main reason why industrial policy has failed in the past.

Identifying which sectors have latent comparative advantage has become a challenge of theoretical and policy issues. A lot can be learned from historical experience. All the successful countries practised industrial policies, starting from the 16th Century when England wanted to catch up with the Netherlands in the wool textile sector. And up to recent times, all the successful countries have some kind of industrial policies.

What is there in common between these industrial policies, for example Korean and English industrial policy? These policies will be successful if they take a dynamically growing country as a reference; and secondly, if they target credible sectors in these dynamic growing countries. A third criterion is that the reference country should have a similar endowment structure with per capita GDP at most 100% to 200% higher.

WHAT CAN BE LEARNED FROM HISTORY?

In the past, most industrial policies failed because they were too ambitious. They tried to emulate countries with a per capita income ten times or twenty times higher than theirs, and they tried to build up their industry in reference to these countries.

In the 1950s, China wanted to overtake Britain in ten years, and catch up with the US in 15 years – but Chinese per capita income at the time was only 5% of that in Britain and the US. As a result, even though China was able to build up its industries, these were very uncompetitive, because factor cost as well as transaction cost in China were too high, and they relied on excessive protection to survive.

Based on this, I have tried to understand: how can a successful industrial policy target a country with the right kind of characteristics? First, you need to look into countries with similar endowment structures so that they have similar comparative advantages. If a country is growing dynamically for several decades, then most of the industries in the country should be consistent with its comparative advantages.

Countries that are able to grow dynamically for several decades can accumulate capital quickly. So, industries that in the past have had competitive advantages are going to lose those advantages, and will become the countries' sunset industries. But for a country with a similar endowment structure, the sunset industries of the reference country can become sunrise industries, that is, the latent comparative-advantage industries.

Lessons from Asia

Following these ideas provides a golden opportunity for industrialisation in Africa. The few countries that succeeded at catching up since World War Two generally did so by capturing a window of opportunity for the relocation of light manufacturing, a window created by rising wages in the higher-income countries.

In post-WWII USA, the wage rate rose and so the US lost competitive advantage in light manufacturing sectors like garments, textiles and electronics. At that time, Japan captured that opportunity and became a very successful country in 1950s/60s.

Eventually, due to the success of the past two decades, wage rates in Japan also rose. This time, South Korea, Taiwan, Hong Kong and Singapore captured the opportunity to enter into the light manufacturing sectors, earning them the label 'Asian Tigers'. By the 1980s however, their wage rates had also risen, they had lost competitive advantage, and so China took advantage of this, and has been growing dynamically for three decades now.

China has now reached the same stage as Japan had in the 1960s, and the Asian Tigers in 1980s. China is about to relocate its light manufacturing sectors.

Lessons from Africa

The idea of capturing opportunities is already practiced in Africa. One of the most successful African countries is Mauritius. In the 1960s, everyone thought that it was a hopeless country, but it has actually become the most successful African country, with a per capita GDP already exceeding USD 10,000. How did Mauritius become successful? In the 1970s, it captured the opportunity of rising wages in Taiwan and in Hong Kong. It developed an industrial path, actively inviting the relocation of textiles and garments from Taiwan and Hong Kong. Now that Mauritius has become industrialised, it has transformed from a mono-economy of sugar production to an African industrial success story.

NEW OPPORTUNITIES FOR INDUSTRIALISATION

The rise of China will be a huge opportunity for Africa. Because in the 1960s the total employment of workers in manufacturing sectors in Japan was 9.7 million. In the 1980s, in South Korea, it was 2.3 million – and over 1.5 million in Taiwan, a million in Hong Kong, half a million in Singapore. In the light manufacturing sectors alone China cunrretly employs 85 million workers. These jobs are about to relocate to other LICs. Can this idea work for Africa? Can we really learn from past experiences and duplicate the same quick success and facilitate structural transformation in Africa?

I'm delighted that UNIDO Goodwill Ambassador and CEO of Made in Africa Initiative Helen Hai is here, because she has created two quick successes in African countries in a very short period of time, which captured opportunities and created a huge number of jobs. The first one is the Huajian shoe factory.

Huajin Shoes - Ethiopia

When I was at the World Bank as chief economist, I started to advocate the above ideas and show the opportunities that would be available for African countries. I'm delighted that the prime minister of Ethiopia, Meles, listened to this advice and went to China in 2011 to do investment promotion and invite Huajian shoes to relocate production to Ethiopia.

With the entrepreneurship of ambassador Hai, they quickly created 2,000 jobs in a year in 2012, and more than doubled the export of shoes from Ethiopia to the global market. By the end of the second year – 2013 - they had already created 4,000 jobs. Before 2012 no one really believed Ethiopia could produce light manufacturing products for the global market, but the success of Huajian has convinced people it's possible.

The Ethiopian government now knows how to really capture these opportunities: in 2013 they built up another industrial park near Addis Ababa with 22 factory units. Within three months all units had been leased to light manufacturing producing export for the global market. International buyers also come to Africa as they see that production costs in Africa are much lower than in China, and there is also the benefit of no customs duty for importing from low-income countries in Africa.

C&H Garments - Rwanda

This is not only a success story for Ethiopia. After understanding Ethiopia's success, Rwanda wanted to have similar success. President Kagame engaged in active investment promotion, and invited Helen Hai to help set up a garment factory there. They decided to make the investment in February this year [2015], recruiting 300 workers, completing planning and training work in May, and started to export by August, with a total of 500 workers. Now this company has become the largest employer in Rwanda, but in the past no-one really believed Rwanda could be a manufacturing floor for the global market.

CONCLUDING REMARKS

So from all this, I think that poverty is not destiny. Diversification and a continual industrial upgrading is the path to generate jobs and to achieve prosperity. Dynamic growth and rising wages in China will be an opportunity for Africa. And not only China, but other emerging markets economies, when their wages rise, they will also need to relocate sectors.

African countries, if they can capture these opportunities, can grow as dynamically as the East Asian countries, because fundamentally all the successful countries started their structural transformation from light manufacturing. Hopefully through our work we will really see that African countries can capture these opportunities and become as successful as other East Asian economies and other successful countries in the world.