The return of industrial policy on the African continent and the drivers of this revival

Christopher Cramer
SOAS, University of London

Nicolas Meisel
Agence Française de Développement (AFD)

Issues Papers on Structural Transformation and Industrial Policy
No. 001-2016

Ethiopian Development Research Institute (EDRI)

In Partnership with:

School of Oriental and African Studies, University of London
&
Agence Française de Développement (AFD)

March 2016

© Copyright 2016 Ethiopian Development Research Institute; School of Oriental and African Studies, University of London; Agence Française de Développement

The return of industrial policy on the African continent and the drivers of this revival

Christopher Cramer **Nicolas Meisel**

Industrial policy that is of relevance to low-income countries in Africa has made something of a comeback lately. The UNECA's annual report in 2014 argued that turning impressive African growth rates in recent years into lasting structural transformation requires credible industrial policies and supportive institutions. Renowned international economists and former chief economists of the World Bank Joseph Stiglitz and Justin Lin both argue for industrial policy in Africa. Many others have jumped on the industrial policy bandwagon, despite the fact that for a long time, until very recently, advocates of industrial policy were regarded by mainstream economists as pariahs.

Yet it remains unclear exactly what industrial policy is or should be, and what makes it work in some contexts and fail in others. This brief defines the core of industrial policy and explains why it is necessary. It also shows, however, that working out exactly how to implement an industrial policy that produces desired outcomes is more challenging than any technical or textbook blueprint can capture.

There are many definitions of industrial policy. But most are variants on a theme, namely, such policy involves government intervention in the economy to direct resources to and support the expansion of manufacturing in order to accelerate structural change in the economy. Or as one detailed definition states, industrial policy is: "any type of selective intervention or government policy that attempts to alter the structure of production toward sectors that are expected to offer better prospects for economic growth than would occur in the absence of such intervention, i.e., in the market equilibrium" (Pack and Saggi, 2006).

Most discussions of industrial policy invoke the examples of East Asian newly industrialising countries (NICs) such as Taiwan and Republic of Korea, which implemented industrial policy and secured historically unprecedented rates of growth of output, productivity, and poverty reduction.

There are economists who recognise the role of industrial policy in underpinning the success of 'late developers' such as the Republic of Korea but who remain extremely pessimistic about the prospects of successful industrial policy in Africa. The well-known economist Dani Rodrik is one such commentator: "I come down on the pessimistic side, due to what I think are poor prospects for industrialization…Africa finds itself in an environment where it is facing much stronger headwinds…Having liberalized trade, African countries have to compete today with Asian and other exporters not only on world markets, but also in their domestic markets" (Rodrik, 2014). Nonetheless, Rodrik bemoans 'anti-growth structural change' in Africa (as well as Latin America) in recent years – that is, the fact that growth has been driven more by primary commodity sectors.

Given the risks involved, the evidence that industrial policy has often failed to meet its stated aims, and the weight of economic theory warning against interfering with the signals emitted by flexible market prices, why should one try to design and implement industrial policy? The strongest response is that there is something unique about the manufacturing sector. If economic development is a matter of an increasing proportion of the population shifting from low to higher productivity activities, then manufacturing generally involves higher productivity production than much of agriculture. But there is more to this argument than this assumption.

Though many of the current advocates of industrial policy do not acknowledge the earlier incarnations of their ideas, a powerful source of inspiration for industrial policy comes in the work of the economist Nicholas Kaldor. In his famous growth laws, he proposed that the rate of growth of manufacturing output is related, positively and causally, to the rate of growth of the overall economy; that productivity growth in manufacturing is related to the rate of growth of manufacturing output (namely, that there are economies of scale); and the growth of manufacturing output is also linked to the increase of productivity elsewhere in the economy.

There are other reasons to promote industrial policy. The prices of unprocessed primary commodity exports are typically both lower and more volatile than those of

manufactured goods. Many African countries rely on natural resource exports, whose prices are especially volatile. And as African economies grow, they run into a fundamental balance of payments constraint: their economies develop a rising propensity – and need - to import, but they often do not export enough to cover the costs of increasing imports. Industrial policy can help to reduce import costs through import substitution; and it can help generate foreign exchange earnings through manufactured exports.

What is far less clear is whether industrial policy promotes rapid growth in employment. This is an especially pressing concern in economies with a demographic composition skewed towards the very young. Manufacturing tends not to be the main direct driver of employment. But it does play a vital role in stimulating employment overall, through its indirect effects on the demand for labour (for example, through raising demand for labour in the production of agricultural inputs to manufacturing) and through inducing labour demand through the multiplier effect. This channel involves the process of those employed in high productivity manufacturing earning relatively high wages, much of which they then spend, increasing the demand for, and then production of, many other goods and services produced locally.

Government intervention to stimulate manufacturing is often deemed necessary because these benefits are unlikely to be achieved if the economy is left to market forces. The advantages enjoyed by those economies already sustaining large manufacturing sectors are just too great to allow for a 'level playing field'. Competition is fierce and markets are tilted in favour of those that already have the know-how to produce at high productivity.

Catching up, becoming a competitive industrial producer nation, involves a huge amount of learning – learning by doing, learning by copying appropriate role models, and learning by governments through making policy. Industrial policy means, typically, creating an environment in which this kind of learning can take place. Thus, it involves forms of protection and support for industrial producers.

All of these are reasons why there is a general case for industrial policy and a case for Africa in particular. That case is sharpened by the persistence of a high incidence of extreme poverty in much of Africa, despite decades of a poverty reduction agenda internationally, which has emphasised market liberalization, sound macro-economic policy, privatisation, 'good governance' and social sector investment. It is also sharpened by the fear that recent rapid rates of GDP growth in African economies are simply the latest episode in a long-run history of spells of growth that have been driven by external factors (namely, cheap international borrowing, a surge in foreign capital inflows, low debt and high commodity prices) rather than being driven by systematic and more lasting internal structural factors.

The case for industrial policy is also sharpened by the glaring balance of payments deficits in many countries (e.g., the deficit has widened in the recent years of growth in Ethiopia) and by the threat to 'policy space' and political independence that this process poses. And it is sharpened by the challenge of absorbing into the labour force a growing number of young people in a demographic structure biased strongly towards youth. But most African countries remain dependent on a small number of primary commodity exports, and manufacturing value added remains a pitifully small share of GDP.

It is fairly straightforward to recognise the case for industrial policy. It is far more difficult to define how to specifically design and implement an effective industrial policy. But there are a number of key principles.

First, the evidence suggests that industrial policy works best when it is applied *selectively*: not as a blanket set of supports to all industrial sectors but targeted support to particular sectors and enterprises, selected on the basis of a number of criteria.

Second, industrial policy is completely ineffective if there is no *discipline* on these firms and sectors. There needs to be what Alice Amsden called a 'reciprocal control mechanism': if a firm is to benefit from protective measures then it has to be held to

strictly enforced targets (such as for output, export growth and employment), with a credible threat that the supports will be removed if it falls short of targets.

Third, industrial policy should be designed with a view to maximising the chances of stimulating *backward and forward linkages*. Backward linkages occur where one activity (say, commercial timber and forestry) makes viable and prompts the development of production of inputs used in that activity (e.g., sawmill machinery). Forward linkages take place where one activity makes possible and provokes investment in new activities that use output from that activity as an input (e.g., paper manufacture or furniture making or, further down the line and at a higher level of technology, manufacture of capital goods used in related industries).

Thus, the example of the development of the national cement industry in Ethiopia has in some ways been the product of a determined effort to exploit the possibilities of a backward linkage effect from a construction sector that has boomed on the basis of commercial investment and the rapid expansion of urban condominium housing programmes. Similarly, the expansion of the floriculture sector has led to the expansion of domestic cardboard packaging production in Ethiopia as well as to the development of new and more efficient logistics, and to cold storage and freight terminal services at Bole International airport, which then become available to and make more economically viable the wider expansion of export-oriented horticulture.

Although Albert Hirschman's original setting out of the linkage framework suggested that linkages were more or less unavoidable economic compulsions, the reality is that linkages do not typically come about automatically; they require intense policy attention.

The fourth principle is that industrial policy might work differently across different sectors partly because of the specific *structure* of those sectors. Policy makers have to consider how technologically demanding a given set of activities in a sector is. Nowadays it is also especially important to develop an understanding of the global structure of production, which is often dominated by a small number of massive corporations with preponderant power over the distribution of and scope for

production of components of a 'global value chain'. How easy it is to implement a policy might also depend on whether a sector is composed of a large number of medium sized family firms or a small number of large businesses.

The fifth principle, which is very much related to this last point, is that industrial policy is inherently *political*. The interests of policy makers need to be aligned with the bureaucracy responsible for policy implementation—including the monitoring of targets, and the management of subsidies, protective tariffs, support for research and development, and development finance. In addition, if these efforts are aligned with a coherent, unified set of interests among economic actors in the sector, industrial policy has a greater chance of succeeding.

Industry actors might then be effective in developing an organised 'voice' with which to discuss concerns with the government and bureaucratic agencies. And there would be less chance that policy makers or bureaucrats will be 'captured' by specific interests, or that policy design and implementation will be confounded by conflicting interests in the sector.

An informative example in this regard is the contrast between the cashew processing industry and the sugar business in Mozambique. The Mozambican government found it difficult to resist heavy external pressure, from the World Bank, to unravel completely rather than to just reform an industrial policy meant to support the cashew processing factories that had not been effective for years. One reason for ineffectiveness was that the cashew sector comprised different groups – i.e., processors, farmers and traders – whose interests directly conflicted with one another. By contrast, there was more agreement among the groups in the sugar sector in this country, who therefore managed to work closely with and encourage the development of a protective policy by the government.

The sixth principle is that industrial policy is about nurturing *learning*: learning to produce, to compete internationally, to organise production in efficient firms, to acquire and adapt technologies, and to develop productivity-enhancing institutions and supportive governance. This process involves a range of activities – pragmatic

assessment of the merits of alternative experiences in other countries (e.g., with industrial zones or infrastructure provision or trade policy); study tours and the use of research on other relevant policy experiences; acquiring understanding of specific global markets and the scope for adding value through branding techniques; and, perhaps above all, encouraging research and development within large firms and at the government level as a public good.

Supporting R&D is one of the core policies in countries with very different kinds of industrial policy such as the Republic of Korea, Brazil and Finland. Furthermore, it is not adequate to have dedicated R&D organizations or to subsidise R&D efforts in specific sectors. Industrial policy requires some form of long-term development finance. Whatever the institutional solution that a particular country finds with regard to this challenge, it is important that development banks hire people who are not just trained in finance but are also experts in the specific sectors that will be supported by development finance.

Fundamentally, it is impossible effectively to make good selective choices in industrial policy, create 'reciprocal-control' disciplining mechanisms, and decisively enforce such choices if the state cannot impose its policy on a politically fragmented, divided or unduly powerful set of sectoral interest groups.

This factor is probably more critical than another important, but extremely difficult, challenge: not only *how* to do industrial policy but *how much*? The answer to this question divides economists. One of the neatest divisions is captured by a debate between those who—like the former Chief Economist of the World Bank and advocate of a new structuralist development economics, Justin Lin—argue for a 'facilitative' state that uses industrial policy to follow and encourage comparative advantage and those who, like Ha-Joon Chang, argue that the state needs to take bolder steps to challenge or defy comparative advantage.

Essentially, this choice is related to an underlying difference on core economic principles and on a kind of risk profile. Challenging comparative advantage with a more "Kaldorian" strategy is certainly a higher risk option but perhaps it would

have greater rewards if successful than a more modest, cautious, comparative advantage approach that follows a "Ricardian" strategy. Neither option is easy. But if governments are to adopt a more Kaldorian strategy, the onus is on them to pay particular attention to the principles listed above: to the politics of industrial policy, to selectivity, to learning, and to the design of disciplining measures as well as forms of active support.

Finally, industrial policy in low-income countries is implemented in the context of extreme balance of payments constraints and substantial challenges posed by technology, infrastructure and a learning and productivity gap. But these challenges do not constitute a reason to avoid industrial policy. As Hirschman wrote, development is about what a country does, and what it becomes as a result of what it does—rather than about what it is (namely, its 'endowments').

While industrial policy develops and takes time to produce results, policy has to promote rising productivity in, and a rapid rate of growth of export earnings from, agriculture. This challenge poses a final question: can industrial policy principles be applied to agricultural policy. The answer is yes. Though the gains might not take quite the same form, agriculture is crucial to economic development and 'catching up'.

Generating rapid improvements in agricultural productivity and export earnings requires versions of the same techniques used in industrial policy. These include huge support for R&D (a very important example, or possible role model, is Embrapa in Brazil, the state agricultural R&D organization), targeted infrastructure provision, and selective support for the best producers (conditional on, for example, their contribution to exports and/or employment).

References

Pack, Howard and Kamal Saggi, 2006. "The case for industrial policy: a critical survey." World Bank Policy Research Working Paper 3839, The World Bank.

Rodrik, Dani, 2014. "An African Growth Miracle?" CEPR Discussion Paper No. DP10005, Centre for Economic Policy Research.