SET SUPPORTING ECONOMIC TRANSFORMATION

TRANSFORMING KENYAN INDUSTRY

An issues paper

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EXECUTIVE SUMMARY

While Kenya ranks among the pioneers of the post-colonial effort to industrialise Africa, its industrial development has not been equal to its recent growth or its national aspirations. Between 1990 and 2010 the average rate of growth of manufacturing was less than 2% and manufacturing output per worker declined. Manufacturing sophistication, a key driver of overall growth has declined significantly over the past three decades. Today manufacturing plays about the same role in Kenya's economy as it did 30 years ago.

Manufacturing, together with agro-industrial exports and tradable services, has a critical role to play in sustaining growth and generating employment as Kenya moves toward Vision 2030. Kenya's working-age population is projected to grow from 25.5 million in 2015 to 39.2 million in 2030. Although Kenya's modern service sectors, such as financial services and communications, have been growing rapidly, their job-creating potential is small. Manufacturing is a high productivity sector with the ability to absorb large numbers of modestly skilled workers, and it has the potential to create large numbers of good jobs indirectly.

Given its late start, however, can Kenya aspire to compete in the global market for industrial goods? Three important changes are taking place in global markets that suggest there is a window of opportunity. First, economic trends in China are creating an opportunity for late-industrialisers. Second, a growing share of global trade in industry is made up of stages of vertical value chains—or tasks—rather than finished products, and third, trade in services and agro-industry is growing faster than trade in manufactures, broadening the range of tradable products in which Kenya can compete.

The literature on industrialisation in developing countries suggests that four factors have largely shaped the global distribution of industry. The first is the presence or absence of some 'basics:' infrastructure, human capital and institutions. The second is growth of manufactured exports. The third is industrial agglomerations, and the fourth is firm capabilities. Like most of Africa, Kenya entered the 21st century with large gaps in infrastructure, human capital and institutions compared with other parts of the developing world. If Kenya is to industrialise, it must get these basics right.

At the same time, while efforts to strengthen the investment climate are important, they alone are unlikely to make it possible for Kenya to compete with the world's incumbent industrial producers. The drivers of industrial location are interdependent. Country studies of successful industrial development highlight the importance of addressing the basics, exports, agglomerations and FDI in an integrated way. Cambodia and Vietnam, for example, each implemented a coordinated set of public investments, policies and institutional changes designed to increase the share of industrial exports in GDP. This "export push" was accompanied by policies designed to promote the formation of industrial clusters and attract FDI. The combination of the export push, clustering and FDI, in turn, boosted the acquisition of firm capabilities.

Because manufactured and services exports offer opportunities for learning, the social returns to investments in export capacity can exceed the private returns to individual investors. Export Push strategies, designed to tilt incentives toward non-traditional exports, have been adopted by newly industrialising countries in Asia since the 1970s. Cambodia and Vietnam are the most recent examples. Although Kenya emphasised promoting exports in Vision 2030, there is little evidence that it has implemented the coherent set of policies that characterise an export push. The government needs to achieve progress in three critical areas, policy and institutional reforms affecting exports, trade logistics and exchange rate management.

The productivity enhancing effect of industrial agglomerations creates a collective action problem. If a critical mass of firms can be drawn into a new industrial location every firm will realise productivity gains from clustering. At the same time, there is no incentive for a single firm to move in the absence of others. For this reason, spatial industrial policies are an essential complement to an export push. Kenya's EPZs

offer a better policy and institutional environment than is available to firms in the domestic economy, and the quality of infrastructure and services is superior. But, the EPZs also have significant limitations. The quality of infrastructure in the zones still lags considerably behind that offered by Asian and Latin American competitors and little has been done to address gaps beyond the EPZ gates.

Whether Kenya can compete in manufacturing hinges on whether its firms can compete in capabilities. Public policy has an important role to play in capability building. An export push, for example, is an effective tool. Policies and institutions for attracting FDI are another. Foreign investment in Kenya's manufacturing sector has fared relatively poorly in comparison to regional neighbours. An effective investment promotion agency is a prerequisite for boosting FDI. Another key area for action is to remove the obstacles that current policies—mainly in Export Processing Zones—place in the way of linkages between foreign and local firms.

For Kenya to seize the opportunities coming from changes in the global industrial economy, it will need to develop a new approach to industrial development. Part of that new approach will involve reforms to existing policies to align them more closely to the objectives set out in the government's vision documents. New policies and institutions to address the drivers of industrial location will also be needed, and effective implementation will be a major challenge.

To begin the process, the following questions should be addressed:

1. What are the key constraints keeping Kenya from moving from vision to action in implementing the industrialization strategy outlined in Vision 2030?
2. What are the priority areas for public action to build the basics in public infrastructure and relevant skills?
3. How can the investment climate agenda be modified to support the private sector more effectively?
4. What are the regulatory constraints to greater competition in industry?
5. In view of the priority given to exports in Vision 2030, what are the key policy instruments and institutional innovations needed to mount an export push?
6. What are the priority public actions needed for building and implementing SEZs and industrial parks?
7. What institutional innovations will support active FDI promotion?
8. How can government help build linkages between local and foreign firms?
9. How can greater policy coherence and coordination in implementation be achieved within government?
10. What institutional framework is needed to strengthen government consultation and collaboration with the private sector?

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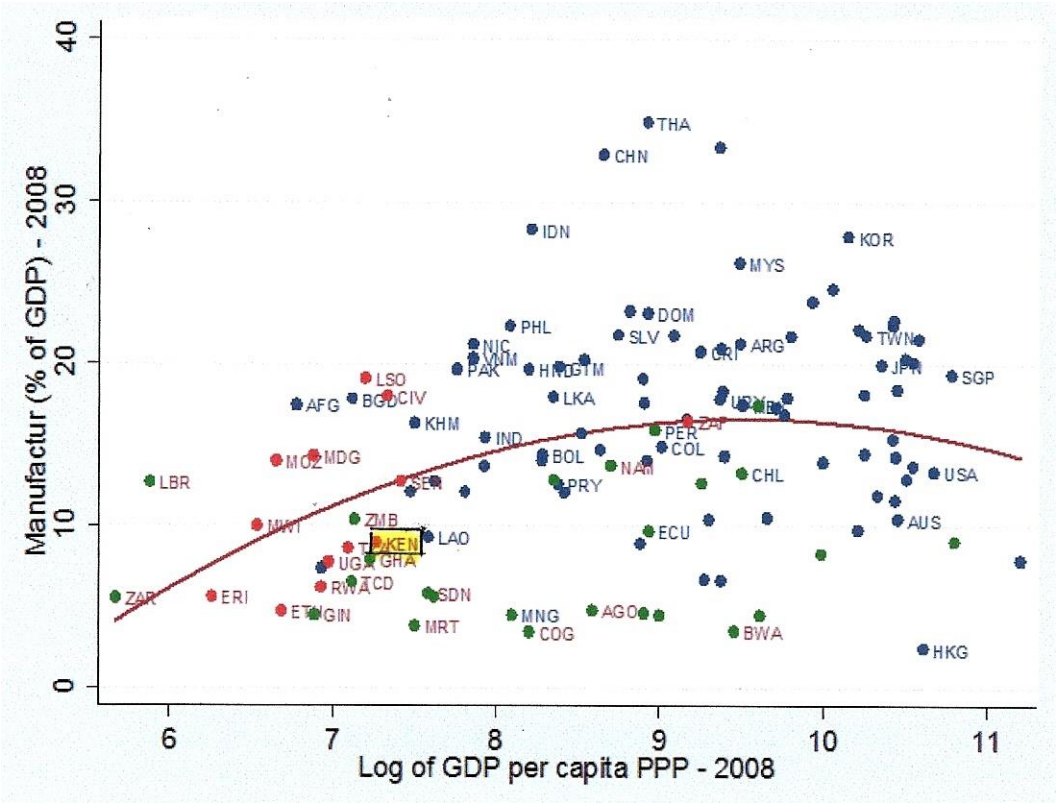
1. INTRODUCTION

Although it was an early leader in Africa's industrial development, Kenya's long-run experience with industrialisation has been disappointing. Manufacturing as a share of GDP has remained virtually constant over the past 30 years. In 2010 it was 11.2%, only modestly higher than the Africa-wide average of 10% and well below the value predicted for its level of income (Figure 1). Between 1990 and 2010 the average rate of growth of manufacturing was less than 2% and manufacturing output per worker declined. Manufacturing sophistication, a key driver of overall growth has declined significantly over the past three decades.

FIGURE 1 – MANUFACTURING SHARE OF GDP BY INCOME PER CAPITA, 2008



Source: World Bank, *World Development Indicators*

This lack of industrial dynamism is important. As the Kenyan economy moves toward Vision 2030 it will need to undergo profound changes in economic structure, both to support more rapid growth and to provide jobs for a young and rapidly growing population. Kenya's working-age population is projected to grow from 25.5 million in 2015 to 39.2 million in 2030. Although Kenya's modern service sectors, such as financial services and communications, have been growing rapidly, their job-creating potential is small. Between 2009 and 2013, three million youth reached working age. Employment in financial services and communications grew at rates of 7% per year between 2009 and 2013, but created fewer than 10,000 jobs per year. The growth in high-productivity employment has not keep pace with labour force growth, pushing the majority of job seekers into sectors with below average productivity, such as informal trade and hospitality (World Bank, 2016).

Manufacturing is a high productivity sector with the ability to absorb large numbers of modestly skilled workers, and it has the potential to create large numbers of good jobs indirectly. Manufacturing has important backward and forward linkages; it creates opportunities both for the suppliers of inputs and for the provision of business services. In addition, recent evidence suggests that modern manufacturing

industries in low-income countries converge to global best practice productivity levels regardless of geography, institutions or policies (Rodrik, 2013). Increasing the share of employment and output generated by the manufacturing sector could play a critical role in sustaining growth and boosting job creation.

This paper considers how Kenya might embark on an industrial transformation. Section 2 provides a snapshot of Kenya's "manufacturing deficit" in terms of economic structure and the sophistication of manufacturing production. Section 3 briefly reviews industrial policy and performance. Section 4 asks whether it is reasonable, given its late start, for Kenya to aspire to compete in the global market for industrial goods. Section 5 discusses the drivers of locational choice for industry and reviews Kenya's current status with respect to: some basic prerequisites, manufactured exports, industrial agglomerations and firm capabilities. Section 6 suggests some policy and institutional reforms, and Section 7 concludes with issues for discussion.

2. KENYA'S MANUFACTURING DEFICIT

Following the rebasing of gross domestic product (GDP) in September 2014, Kenya joined the ranks of lower-middle income countries transitioning to upper-middle-income status. Table 1 compares Kenya's employment structure with the distribution of employment of four "benchmark" economies, corresponding to the international classification of countries by per capita income.[1] The most striking feature of Table 1 is how far the structure of the Kenyan economy is from the middle-income benchmarks. About 12.8% of Kenyan workers were employed in manufacturing in 2010, compared with 14-25% of workers in the middle-income benchmark economies. Services in contrast represent about 35% of total employment, about 10 percentage points greater than the lower middle-income benchmark.

TABLE 1 – BENCHMARKING KENYAN MANUFACTURING

Country	**Share of Labour Force**			
	Agriculture	**Manufacturing**	**Other Industry**	**Services**
Least Developed Country Benchmark (US$ 700)	70.0	9.0	3.0	18.0
Low Income Benchmark (US$ 1100)	60.9	11.5	2.9	24.7
Lower Middle Income Benchmark (US$ 1500)	57.9	13.7	3.0	25.4
Upper Middle Income Benchmark (US$ 4200)	14.0	25.0	4.0	57.0
Africa Average 2010	49.8	8.3	5.1	36.8
Kenya 2010	**48.4**	**12.8**	**3.6**	**35.2**

Notes: Least developed country benchmark: BGD (1994) CAM (1996) CHN (1987) IND (1989) IDN (1982) VNM (1992)
Low income benchmark: BGD (2003) CAM (2002) CHN (1992) IND (1994) IDN (1986) THL (1980) VNM (1996)
Transitioning economies benchmark: CAM (2005) CHN (1995) IND (2000) IDN (1992) PHL (1982) THL (1985) VNM (2001)
Middle income benchmark: CHL (2003) KOR (1993) MYS (2004)

[1] The benchmarks show the structural characteristics of economies —mainly in Asia—that have made or are making the transition to middle income status. The labour share values for the benchmarks are the simple averages of the labour shares of the relevant countries at the time their per capita incomes were first equal to the income classification in the Table.

Source: Author's calculations based on World Development Indicators and de Vries, Timmer and deVries (2013)

Table 2 compares Kenya with its East African regional peers, Tanzania and Uganda, and with the region-wide average for Africa as a whole on some key indicators of industrial dynamism. It also provides comparative data for all developing countries. While Kenya stacks up well relative to its near neighbours and the region as a whole, it lags the developing country average on all indicators, except the rate of growth of manufactured exports per capita, often by wide margins.

TABLE 2 – SELECTED INDICATORS OF INDUSTRIAL DEVELOPMENT

	Manufacturing Value Added			Manufactured exports		
	Share of GDP 2000 (%)	**Share of GDP 2010 (%)**	**Per capita 2011 (US$ 2005)**	**Share in total exports 2010 (%)**	**Per capita 2010 (US$ 2005)**	**Per capita growth 2000–10 (%)**
Kenya	10.3	11.2	61	48.9	62	12.0
Tanzania	7.2	9.8	40	42.3	43	19.9
Uganda	6.0	9.4	29	51.1	32	20.4
Sub-Saharan Africa average	8.1	7.0	36.7	30.0	61.8	10.3
Developing countries average	20.5	21.0	400.2	74.0	579.6	7.1

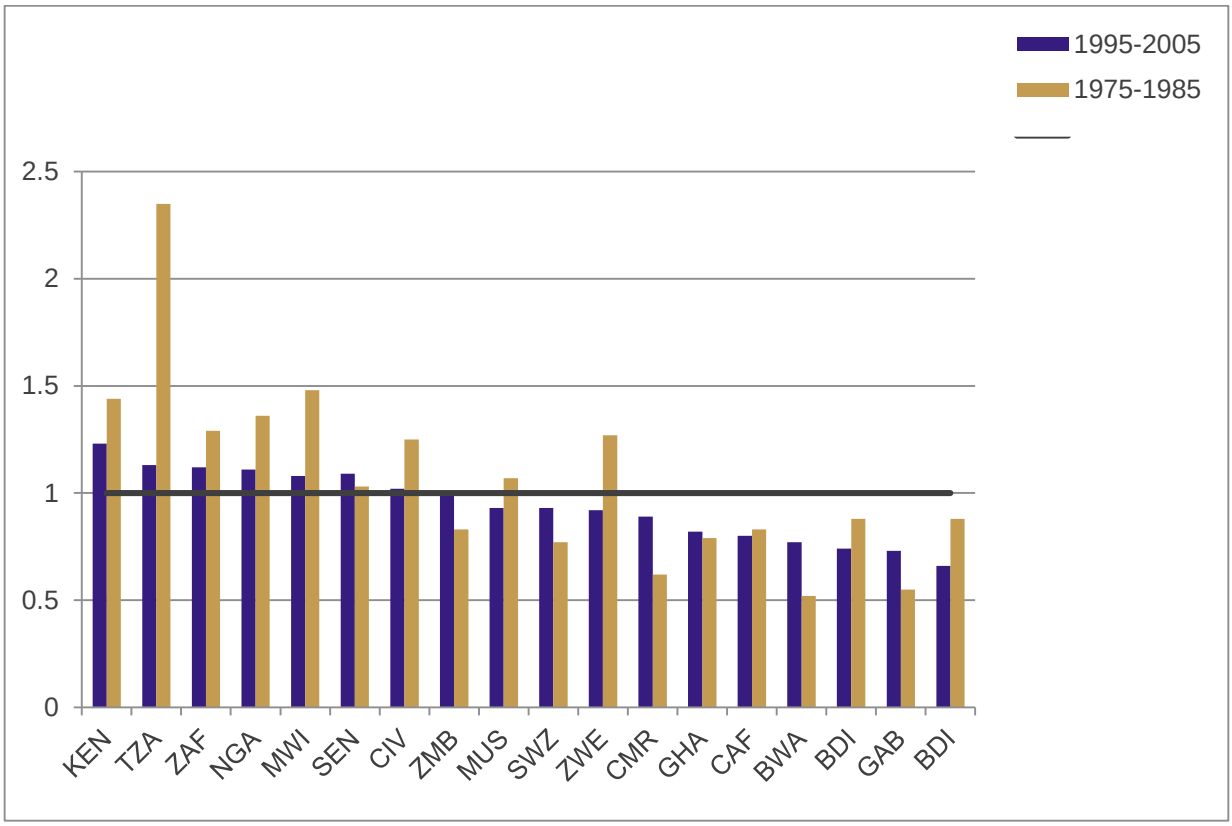
Sources: UNIDO (2009); UNIDO (2013); UNIDO Industrial Development database. Authors' calculations.
Notes: Sub-Saharan Africa average excludes South Africa.

Two structural characteristics of industry – diversity and sophistication – have been linked to overall economic growth. Figure 2 gives the economy-wide average level of production sophistication in 18 African countries for two 10 year periods one centred on 1980, and another on 2000.[2] Because the relationship between per capita income and production sophistication rises with income, it is more informative to compare each country's observed level of manufacturing sophistication with the predicted value based on its per capita income from the global sample.[3] Countries above their predicted values, those with a ratio greater than 1, produce goods more typical of economies at higher levels of income. Countries below their predicted values, those with ratios less than one, produce goods that are less sophisticated than would be predicted by their income level.

[2] Data on production and product sophistication are drawn from the global UNIDO (2009) data base. The level of sophistication of each economy's industrial sector is the weighted average of each country's individual product sophistication measures, where the weights are the share of manufacturing value added of each sector.

[3] Because the indices of product and export sophistication are measured in current US dollars it is not possible to compare sophistication levels from year to year directly, because they are affected by price changes.

FIGURE 2 – COUNTRY-LEVEL PRODUCTION SOPHISTICATION IN 18 AFRICAN COUNTRIES, 1995-2005 AND 1975-1985



Notes: Countries are ordered by their percentage of the predicted value of production sophistication in 1995-2005. Values greater than one indicate that the observed level of sophistication exceeds the predicted value at the level of per capita income.
Source: UNIDO (2009) production sophistication database; Authors' calculations.

Kenya stands out in two respects. First it is one of a handful of African countries in which the production sophistication of manufacturing exceeds its predicted value. Kenya is producing a basket of manufactured goods that are characteristic of countries at somewhat higher levels of income. This is good news. Countries that produce and export more sophisticated products – those that are primarily manufactured by countries at higher income levels – tend to grow faster.[4] Second, though, relative to predicted values the sophistication of the manufacturing sector as a whole declined. Between 1975 and 2005, Kenya's manufacturing production became increasingly concentrated in low sophistication goods. This is worrisome because more diversified production and export structures are associated with higher incomes.[5]

3. INDUSTRIAL POLICIES AND OUTCOMES

Like much of Africa, Kenya's policies to encourage industrial development have fallen into three phases: import-substitution, Structural Adjustment and reform of the "investment climate." Industrial performance has largely followed three phases as well: an early boom, decline and stagnation.

When Kenya gained independence, it adopted an industrialisation strategy that relied on import substitution, but – in contrast with most of post-colonial Africa – state ownership and management of the industrial sector was limited to a few 'strategic industries' (Ngui et al, 2016). The early push for industrial

[4] See Hausmann, Hwang, and Rodrik, (2007) and UNIDO (2009).

[5] See Imbs and Wacziarg (2003) and Cadot, Carrère and Strauss-Kahn (2011).

development had considerable success. Between 1965 and 1975 average growth of manufacturing exceeded 7.5% per year, and between 1975 and 1980 it reached nearly 11.5% per year. Manufacturing output grew not only faster than the rest of the Kenyan economy but also faster than elsewhere in sub-Saharan Africa. Light industries accounted for the lion's share of industrial production. These included paper, textiles and garment manufacturing, food processing, leather tanning and footwear (Coughlin, 1988).

The late 1970s were marked by a general deterioration in Kenya's economic performance. The government increased its participation in the economy by promoting and financing new industrial projects. Industrial production for export markets slowed down substantially, compounded by the collapse in 1977 of the East African Community (EAC). Following the second oil shock, the government introduced a Structural Adjustment Program (SAP) in part to strengthen competitiveness and reduce excess capacity in the industrial sector (Ngui et al, 2016).

The initial focus of the SAP was on macroeconomic stabilisation. Policy changes designed to improve resource allocation—liberalisation of trade and finance and regulatory reform—followed closely thereafter. The first major set of reforms took place in the 1980s and a second round in the 1990s (Gertz 2009). In 1994 the capital and current accounts were liberalised, and Kenya joined the World Trade Organization (WTO). A wide range of institutional initiatives were undertaken to reorient the economy toward export markets. These included: the Export Promotion Council established in 1993, the Export Compensation Scheme, Manufacturing under Bond (MUB), Export Processing Zones (EPZ), and import duty and VAT remission schemes that were intended to improve export producers' access to imported inputs at world prices (Bigsten et al, 2010).

The macroeconomic policy adjustments, combined with increased inflows of foreign aid, provided a stimulus to industrial production, as firms increased use of capacity that had been heavily constrained by lack of imported intermediates. Annual manufacturing growth, which had fallen to 3.8% between 1980 and 1985, recovered to 5.8% in 1985-90 (Table 3). But, despite the structural reforms, the longer term supply response was poor. Between 1990 and 2000 the manufacturing sector grew at less than 1% per year. Manufacturing output declined between 1995 and 2000, and total factor productivity growth in manufacturing was anaemic (Ngui et al, 2016).

TABLE 3 – AVERAGE ANNUAL GROWTH OF VALUE ADDED IN MANUFACTURING, 1965-2010

	1965-70	1970-75	1975-80	1980-85	1985-90	1990-95	1995-00	2000-05	2005-10
Ethiopia	8.45	3.20	4.56	3.91	1.51	1.03	3.92	5.00	9.48
Ghana	8.22	1.43	-4.74	-4.36	7.53	-7.38	4.68	4.54	2.60
Kenya	7.43	7.67	11.46	3.84	5.75	2.52	-0.03	3.09	4.38
Mozambique						-1.31	18.97	15.17	3.01
Nigeria	5.52	12.20	13.59	-0.99	4.10	-1.07	0.25	8.85	8.43
Senegal		3.17	1.27	2.64	4.05	3.19	2.90	3.11	2.02
Tanzania	9.95	4.73	2.36	-5.01	2.43	-0.02	5.73	8.09	8.61
Uganda				2.14	6.38	12.81	13.45	6.13	7.13
Tunisia	-0.74	20.50	13.63	6.39	0.50	5.66	5.78	2.79	4.88
Cambodia						8.86	21.04	13.86	8.70
Vietnam				9.50	2.42	10.35	11.26	11.66	9.33

Notes: All growth rates in constant prices. Blank cells indicate that data are not available.
Sources: 1965-1990: de Vries, Timmer and de Vries (2013); McMillan and Rodrik (2013); 1990-2010 UNIDO Statistics (2014) Manufacturing Value Added Database; Uganda 1980-1990, Tunisia 1965-2010, Vietnam 1985-1990, World Development Indicators, World Bank. Authors' calculations.

Policy reforms since 2000 – supported by the World Bank and other donors – have aimed at improving the productivity and performance of Kenyan industry through reforms of the 'investment climate' (Bigsten

et al, 2010).[6] As defined by the World Bank, the investment climate includes: (i) maintaining macroeconomic stability, (ii) trade openness; (iii) good governance and strong institutions, and (iv) improving the quality of the labour force and infrastructure (Stern, 2002). In practice, however, investment climate reform has mainly focused on reducing regulation (Ngui et al, 2016).

The adoption of investment climate reforms has not, however, transformed Kenyan industry. While there has been some acceleration in the growth of manufacturing – from 3.1% in 2000-2005 to 4.4% in 2005-2010 – manufacturing growth has remained below the growth rate of GDP. The decline in manufacturing sophistication has also not been reversed. The largest share of employment in manufacturing is in food products (41% of total employment), followed by textiles (8%), wearing apparel (5.7%), wood and wood/cork products except furniture (3.7%), and leather and related products (2.5%) (World Bank, 2016).

Labour productivity in manufacturing fell between 1995 and 2010 (Table 3), and within individual industries there is a wide dispersion of firms in terms of productivity. Formal manufacturing is characterised by a small number of larger firms with higher labour productivity that compete with a long tail of lower-productivity, generally smaller, firms. There is considerable churning. About 20% of all firms are new entrants, but in contrast to other economies such as Vietnam the newcomers do not have higher productivity than incumbents (World Bank, 2016; Newman et al, 2016a).

4. A WINDOW OF OPPORTUNITY?

Three important changes are taking place in the global market for industrial goods. First, economic trends in China are creating an opportunity for late-industrialisers in global markets. Second, a growing share of global trade in industry is made up of stages of vertical value chains—or tasks—rather than finished products, and third, trade in services and agro-industry is growing faster than trade in manufactures, broadening the range of tradable products in which Kenya can compete. Taken together, these trends suggest that in contrast with the early 2000s, there may be a window of opportunity for Kenya to undertake an industrial transformation.

4.1 CHANGES IN CHINA

China is encountering rising costs in manufacturing production. One source is increasing real wages. Since 2005, real wage growth in China has accelerated significantly. Manufacturing wages rose from just over $150 a month in 2005 to around $350 in 2010 (Lin, 2011). Stiffer enforcement of labour and environmental regulations, gradual expansion of safety-net provisions and the prospect of further increases in the value of the renminbi are likely to erode the low wage advantage further (Dinh et al., 2012). In addition, targeted stimulus measures, including higher infrastructure investment, have helped strengthen domestic demand (IMF, 2014). There is also some evidence that economic policy-makers in China have made a decision to ‘offshore’ a portion of low-end manufacturing to Africa. By the end of 2009, China‘s outward FDI in Africa had reached a stock of $9.33 billion. 22% of that investment – second only to mining – went to manufacturing (Lin, 2011), and Chinese investment in African manufacturing appears to be accelerating (Brautigam and Tang, 2012).

4.2 TRADE IN TASKS

The spectacular reduction in transport and communications costs in the global economy over the past 20 years has made it efficient for different stages of production along a value chain to be located in different countries. Trade in tasks offers great potential for late industrialisers. It is easier to master a single stage of the production process than to develop a vertically integrated industry. Indeed, Kenya has enjoyed considerable success in end-stage apparel exports under the US Africa Growth and Opportunities Act

[6] These are contained in three blueprint documents, the Poverty Reduction Strategy Paper, the Economic Recovery Strategy for Wealth and Employment Creation 2003-2007, and Kenya Vision 2030.

(AGOA) preferences, but continued success in attracting and retaining trade in tasks is by no means guaranteed. The end of the Multi Fiber Arrangement in 2005 for example brought an abrupt halt to the growth of end-stage apparel manufacturing in Kenya.

4.3 INDUSTRIES WITHOUT SMOKESTACKS

Falling transport and communications costs have also created high output per worker activities in agriculture and services – horticulture and IT-enabled services for example –that are globally traded. These 'industries without smokestacks' share a broad range of characteristics with manufacturing, and they are an increasingly important part of global industry. Kenya has had considerable success with these industries without smokestacks. The Business Process Outsourcing (BPO) industry's share of GDP has grown from less than 0.01% of GDP in 2008 to 6% in 2012 (Muchai and Kimuyu, 2016). The contribution of financial services, transport and communications services to Kenya's exports is higher than that of other countries with similar incomes per capita (World Bank, 2016). Over the past 12 years, investment in tourism grew at an average of 7% annually, and there is still significant room for growth. Kenya's US$ 2 billion of international tourism receipts are only a fraction of what more established destinations such as Egypt and Morocco earn.

5. THE DRIVERS OF INDUSTRIAL LOCATION

For Kenya to undertake a successful industrial transformation, it must do two things. First, while some firms in some industries are already sufficiently productive to be competitive internationally, a larger share of existing firms must become more productive, and second, because the manufacturing sector is still quite small, government must create the conditions to attract new firms able to compete in regional and global markets.[7] The literature on industrialisation in developing countries suggests that four factors have largely shaped the global distribution of industry. The first is the presence or absence of some 'basics:' infrastructure, human capital and institutions. The second is growth of manufactured exports. The third is industrial agglomerations, and the fourth is firm capabilities.

5.1 THE 'BASICS'

Cross-country evidence shows that a variety of country - specific factors, including infrastructure and human capital, financial depth, and barriers to entry are correlated with industrial development and diversification in low-income countries (IMF, 2014). Better and more reliable electrical power, lower costs of transport and workers who are better able to perform their jobs raise the potential productivity of all firms in an economy. A number of econometric studies highlight the productivity penalty that enterprises pay as a result of poor infrastructure and skills (Foster and Briceño-Garmendia, 2010; Escribano, Gausch and Pena, 2010). Regulatory burdens and poorly functioning institutions inhibit productivity growth by reducing the scope for competition.[8]

Although Kenya spends 9% of its GDP on infrastructure, a figure comparable to other low-income countries in Africa, this translates into just $22 per capita per year in infrastructure spending. Firm level surveys identify lack of power as the most binding constraint to enterprise performance, followed by transport. Overall, Kenya's installed electrical capacity is only 33 megawatts per million of population. This is about one-tenth the average in Africa's middle-income countries. Currently, it costs $9,900 and takes 146 days to get an electricity connection for businesses, and Kenya's industrial electricity tariff, at more than US$ 0.30 per kilowatt hour, is higher than the tariff in many African and non-African competitors (World Bank, 2016). Growing demand and reduced hydroelectric supply have led to frequent power interruptions, now averaging 53 per year and costing about 3% of firm turnover. Movement of goods is constrained by

[7] For a review of the literature on firm-level productivity see Syverson (2011). UNIDO (2009) surveys the evidence on the impact of productivity drivers on choice of industrial location.

[8] For reviews of the literature see the various World Bank Doing Business reports.

shortcomings in transport infrastructure, and infrastructure directly affecting international trade is deficient. The average World Bank Logistics Performance Index for 2012-2016 (World Bank, 2016) places Kenya 79th of 155 countries ranked. Kenya's trade and transport infrastructure is rated 91st.

A recent World Bank (2015) report flagged the mismatch between Kenya's current labour force skills and those needed to reach Vision 2030. The fastest growing sectors in the economy – those in high value added services – are increasingly struggling to find suitable employees. In 2007, only 2% of services firms identified skills as a major constraint. By 2013 more than a third of services firms were struggling to find qualified workers (World Bank, 2013). Interestingly, firm surveys of manufacturing do not identify lack of skills as a major constraint, but this may reflect the sector's lack of dynamic employment growth as much as an abundance of skilled production workers.

Production skills are mainly the product of post-primary education. Access and quality in secondary and vocational education remain significant problems. While the past decade has seen major increases in primary school access, secondary school access remains low. In 2009, the secondary school net enrolment rate was approximately 50%, and the primary-to-secondary school transition rate was equally low at 55% (Glennerster et al, 2011). Although government subsidies have reduced the fees in the vocational training sector, the current fee levels are still significant barriers for many. Fees at the cheapest government vocational schools account for approximately 15% of annual per capita expenditures.

Quality, as measured by performance on standardized tests is a problem at the secondary level. In 2008, only 25% of students in secondary education scored at least a C+ on the KCSE. The performance was weakest in District schools, where only 11% of students scored at least a C+, compared to 43% in Provincial schools and 90% in National schools. The difference in performance across types of schools partly reflects differences in facilities, teachers and other resources, but it also reflects the different levels of academic preparation of the students (Glennerster et al, 2011). There is widespread concern that the public vocational training system produces students with skills that are not relevant to the labour market (World Bank, 2015). The public vocational system is large, spanning 1,870 institutions spread across several ministries, and generally enrols students who were unable to join universities because of low academic scores.

Finally, there is an uncompleted agenda of policy and institutional reforms remaining to be undertaken. Starting a business in Kenya is extremely cumbersome. It requires 10 procedures, takes 32 days, and costs 40.4% of income per capita. This is much higher than comparator countries. Moreover, the regulatory constraints extend beyond licensing. Kenya performs worse than its peers on a number of related regulatory constraints, including the number of annual visits by days of officials, the days to obtain an import license, and the share of firms identifying tax administration as major constraints. The permitting, licensing, and regulatory environment is also commonly associated with corrupt practices. 25% of firms reported having to pay illegal payments (World Bank, 2016).

In the past few years, several initiatives to reform business regulations have failed to be implemented. Lack of effective coordination among government institutions in dealing with the private sector has undermined the capacity to carry out reforms, and the recent devolution of national functions has added further challenges to this process, as capacity constraints are generally exacerbated at the county level (World Bank, 2016). Greater attention to how public actions are implemented is potentially as important as defining the reforms themselves.

5.2 MANUFACTURED EXPORTS

The vast majority of industrialisation success stories in the past 50 years have been associated with rapid growth of manufactured exports, in part because there is increasing evidence that in low income countries productivity in exporting firms rises faster than that in non-exporters.[9] Exports have been a weak spot in Kenya. In the 1960s exports of goods and services were more than 30% of GDP, but declined steadily

[9] See Harrison and Rodriguez-Clare (2010) and Bleaney and Söderbom (2016).

during the 1980s and finally stabilized around 27-28% of GDP in the period 2006-2010 (World Bank, 2016). Manufactured exports are limited in scale and their growth has been slow. The share of manufacturing in the overall export basket declined between 2005 and 2010. Kenya's per capita manufactured exports are less than one-fifth that of Cambodia and one-tenth of Vietnam's (Table 4).

TABLE 4 – INDICATORS OF MANUFACTURED EXPORT PERFORMANCE, 2000-2010

	Manufactured exports per capita (constant 2005 U.S. dollars)			**Share of manufactured exports in total exports (%)**			**Share of medium- and high-technology exports in manufactured exports (%)**		
	2000	2005	2010	2000	2005	2010	2000	2005	2010
Ethiopia	1	1	2	4.8	18.3	12.5	0.5	1.5	4.5
Ghana	56	164	265	66.5	65.1	35.9	2.8	10.4	5.9
Kenya	20	42	62	38.2	52.4	48.9	14.8	11.0	24.9
Mozambique	7	69	35	35.2	76.4	23.4	10.4	4.6	26.7
Nigeria	0	4	121	0.2	2.5	15.6	60.7	74.9	8.9
Senegal	36	88	136	54.0	69.7	68.0	20.9	31.3	12.8
Tanzania	7	22	43	37.0	54.5	42.3	3.9	3.4	16.7
Uganda	5	10	32	29.4	36.6	51.1	12.1	21.4	32.2
Mauritius	774	771	1401	98.3	94.5	96.5	4.9	21.0	23.9
Tunisia	522	889	1381	85.4	85.0	82.0	24.8	31.5	45.8
Cambodia	107	198	335	98.5	97.5	71.5	1.0	0.9	7.1
Vietnam	87	211	764	46.8	54.0	70.0	21.5	21.4	33.7

Sources: UNIDO (2009, 2013).

Kenya's manufactured exports are highly concentrated in the East African regional market. 43% go to the East African Community (EAC), but even there, Kenyan manufacturers of products such as chemicals, non-metallic minerals, crude fertilizers and medicinal and pharmaceutical products, have been losing market share. In 2006, 11% of EAC imports came from Kenya. By 2013 the share had fallen to 6% while market shares of Chinese and Indian exporters expanded.

Compared to regional peers such as Tanzania and Uganda, Kenya's export structure consists of many firms exporting small volumes. Between 2006 and 2008 about 5,000 firms exported from Kenya each year. The agri-food sector alone had around 3,000 exporting firms (or around 60% of total exporters). This is several times larger than the exporter base in EAC regional comparators. In 2006-2008 the median exporter exported just over one product with an export value of US$ 19,000 (at the HS 6-digit level) and served between two and three export markets. The average share of output that was exported was low across most manufacturing sectors.

5.3 INDUSTRIAL AGGLOMERATIONS

Econometric evidence (Newman et al., 2016a) and case studies (Sonobe and Otsuka, 2006) document the significant productivity gains to firms from industrial agglomeration in low-income countries, in particular from the clustering of similar firms or firms in the same value chain.[10] These productivity gains come from a number of sources: a thick labour market, information and knowledge spill-overs, the ability to share common overheads and services, and the opportunity to observe customers and competitors closely (UNIDO, 2009).

[10] For evidence from Kenya see Kigombe and te Velde (2013).

Kenya has one major outward-oriented industrial cluster in the apparel sector. Driven by the U.S. Africa Growth and Opportunities Act (AGOA), which came into effect in 2000, a major apparel cluster developed in the Athi River EPZ in Nairobi. By 2004, more than 40 zones (including single factory zones) had been established, employing about 40,000 workers and producing 10% of national exports. Following the expiration of the Multi-Fiber Arrangement (MFA) in 2005 investment in the EPZs slowed sharply. Despite some success in diversifying production to other sectors, notably agro-processing, total employment in the EPZs has remained around 40,000, and between 2009 and 2013, the number of EPZ firms declined from 83 to 81. Efforts to create other industrial clusters, notably in Mombasa, have met with little success.

5.4 FIRM CAPABILITIES

Firm capabilities are shorthand for the knowledge and practices used by firms in the course of production and in developing new products. They reflect the capacity of individuals to work effectively together within some framework of rules, routines, and tacit understandings.[11] Capabilities are the basic building blocks of productivity and quality. For example, the World Bank Enterprise Surveys find that most of the productivity differences between firms observed in Kenya are between firms that implement organisational innovations and those that do not (World Bank, 2013). Globally, firms are competing in capabilities. At some price-quality combinations they can succeed in entering a market; at others higher capability competitors will block them.

Intuitively, managers must to a large extent be responsible for productivity and quality differences, either as a consequence of innate differences in their abilities or as a result of differences in management practices. Here, Kenya appears to be at an advantage relative to regional competitors such as Tanzania and Uganda. Top management in Kenya tends to be university educated and have some amount of vocational or post-graduate training (World Bank, 2013). Nevertheless, there is evidence that Kenya's firm capabilities are losing ground relative to competitors. Kenyan exports to the EU market have declined in terms of quality (as measured by unit values) in both agri-food products and textiles and apparel. The Innovation Module of the World Bank (2014) Enterprise Survey found that only 30% of Kenyan firms had introduced organisational changes and 23% had made changes in logistics and distribution. Only 12% of firms introduced products that were new to the national market.

6. NEW DIRECTIONS FOR POLICY

To achieve an industrial transformation some old policies will need to change fundamentally and some new initiatives must be undertaken. Like most of Africa, Kenya entered the 21st century with large gaps in infrastructure, human capital and institutions compared with other parts of the developing world. If Kenya is to industrialise, it must get these basics right, but it also needs to target the right constraints. At the same time, while efforts to strengthen the investment climate are important, they alone are unlikely to make it possible for Kenya to compete with the world's incumbent industrial producers. The drivers of industrial location are interdependent.

Country studies of successful industrial development highlight the importance of addressing the basics, exports, agglomerations and FDI in an integrated way (Newman et al, 2016b). Cambodia and Vietnam, for example, each implemented a coordinated set of public investments, policies and institutional changes designed to increase the share of industrial exports in GDP. This "export push" was accompanied by policies designed to promote the formation of industrial clusters and attract FDI. The combination of the export push, clustering and FDI, in turn, boosted the acquisition of firm capabilities.

6.1 REBALANCING THE INVESTMENT CLIMATE AGENDA

Efforts to improve the investment climate in Kenya have had little impact on growth of industry. This is largely because the donor-driven investment climate reform programme has been poorly designed. As

[11] See Sutton (2005; 2012).

originally conceived, the investment climate agenda was intended to balance reducing the physical constraints to industrialisation, mainly infrastructure and skills, with reforms to the regulatory and institutional environment (Stern, 2002). As implemented, the focus of investment climate reforms has been on pushing a narrow regulatory agenda. Greater attention and more resources must be directed to infrastructure and skills.

As in much of Africa, power is a major constraint to competitiveness in Kenya. Four in 10 manufacturing firms in 2013 ranked access to energy as a major constraint to business (World Bank, 2016). Fluctuations in the provision of power have a direct impact on competitiveness by raising the costs of production and by increasing uncertainty. Kenyan firms experience more sales losses due to power outages than peer countries, with the exception of Tanzania and Uganda. One estimate places the cost to the economy of power outages at 2% of GDP (Briceno-Garmendia and Shkaratan 2011). To overcome the problem, some estimates have suggested that Kenya will need to install an additional 1,000 megawatts of generation capacity over the next decade (World Bank, 2016).

Bottlenecks in road transport resulting from insufficient road infrastructure, lack of rail alternatives, regulatory and administrative barriers and lack of competition in the transport sector raise costs and reduce reliability. Transportation constraints also have an important impact on industries without smokestacks. For example, lack of adequate road infrastructure in rural Kenya has been a significant barrier to farmers attempting to produce and sell high-yield crops (Omamo, 1998). In tourism the airport in Nairobi has operated for years at overcapacity (reaching almost six million passengers per year for a design capacity of 2.5 million), and road infrastructure to key tourist destinations is in need of improvement.

Major increases in access to post-primary and vocational/technical education are needed to address the skills gap, and quality must improve at all levels. This includes ensuring that basic cognitive skills are mastered and programmes are relevant for employment. Very little is known about the current technical-vocational system, its quality, and the employment trajectories of its graduates. Anecdotal evidence suggests that it is weak in creating job-relevant technical skills and other skills valued by employers, such as accessing information, using computers, solving complex problems, and learning new skills while on the job (World Bank, 2016).Closing the skills gap is at least as daunting a fiscal task as closing the infrastructure gap, in part because there is less certainty about how educational expenditures translate into educational outcomes. In view of the identified shortage of skills in production, vocational and technical training is a logical place to begin.

The government has generally been reluctant to encourage private provision of educational services, especially in technical, vocational, and tertiary education, and the centralisation of the vocational training curriculum has prevented close collaborations between industry and the vocational sector (Johanson and Adams, 2004; Bettinger et al, 2007). These activities do, however, have high private returns and are very suitable for private provision. Private training institutes may also be more flexible, more adaptable and better able to provide trainees with market-relevant skills (Glennerster et al, 2011).

Better regulations raise productivity by promoting the entry and growth of more efficient firms and the exit of less productive ones. Given Kenya's "long tail" of relatively inefficient firms, reducing barriers to entry must remain on the investment climate agenda. There is, however, a serious question about which regulatory burdens are the binding constraint. The centrepiece of the donor approach to the investment climate in Kenya has been the World Bank/International Finance Corporation (IFC) Doing Business surveys, but Doing Business was not designed to be used as a country-level diagnostic tool. It is a "league table" or cross-country benchmarking exercise, and the indicators were developed to support cross-country comparisons. They are not suited to the evaluation of specific country regulatory reform programs. Rather, government will need to undertake the far more difficult job of engaging the private sector in a structured dialogue to identify the most relevant regulatory constraints.

6.2 MOUNTING AN EXPORT PUSH

Because manufactured and services exports offer opportunities for learning, the social returns to investments in export capacity can exceed the private returns to individual investors. This is particularly

true in cases where there are high fixed costs of entry into export markets. There is some evidence in Kenya that exporting firms face such barriers. It takes the average Kenyan firm 11 years from its year of establishment to start exporting. At the regional level many exporters lack information on how to access markets and face barriers to joining existing distribution networks. In global sectors like apparel, exporters have struggled to shift to EU or regional markets. In contrast to Tanzania and Uganda, very few firms start exporting at the time of inception. The average export value for new entrants is around US$ 5,000, and persistence is low; 65% of firms that start exporting do not export in the following year (World Bank, 2014).

Export Push strategies, designed to tilt incentives toward non-traditional exports, have been adopted by newly industrialising countries in Asia since the 1970s (World Bank, 1993). Cambodia and Vietnam are the most recent examples. Although Kenya emphasized promoting exports in Vision 2030, there is little evidence that it has implemented the coherent set of policies that characterize an export push. To move from aspiration to implementation the government will need to focus on three critical areas, policy and institutional reforms affecting exports, trade logistics and exchange rate management.

Policy and regulatory reforms need to be undertaken to reduce the transactions costs faced by exporters. Although Kenya has lower average tariffs than Uganda and Tanzania on manufacturing and agricultural inputs, it still imposes substantially higher tariffs than non-regional competitors (World Bank, 2013). This is most marked in the agricultural sector where Kenya's average applied tariffs (19%) compare to 1% or less in Vietnam, undermining the potential competitiveness of the agri-processing sector (World Bank, 2016). Although there is a "free trade regime for exporters," tariff exemptions, duty drawbacks and rebates of indirect taxes only improve competitiveness to the extent that they are well administered and timely. Kenya has had success in establishing a free trade regime for exporters in the EPZs. Now it must extend that institutional framework to the economy as a whole.

Because end-stage task-based production depends on imported intermediate inputs, the institutions directly related to international trade (such as customs) and transport infrastructure are crucial to success. Customs procedures are a source of delay, and one that seems to be particularly problematic (World Bank, 2013). Long lead times, lack of reliability and high transport costs raise the price of inputs and impede Kenyan firm's ability to join global value chains. For example, Kenya compares well with China and Cambodia on factory-level costs for production of a pair of women's jeans. However, Kenyan exporters face higher costs of fabric and trims (due to transport costs and lack of substitutes from the region) and high costs of both internal and (to a lesser degree) ocean transport. Together these factors place Kenyan products at a 6-10% cost premium over Cambodian and Chinese products (World Bank, 2016).

As the government moves to close the infrastructure gap, priority should be given to investments in logistics infrastructure and to the complementary institutional and regulatory reforms needed to increase competition among logistics providers. The port of Mombasa is highly congested, resulting in massive bottlenecks and delays. One of the main problems at the port is lack of investment. The port has a design capacity of 450,000 TEUs per year, but it handles about 800,000 TEUs -- a little more than the ports of Shanghai and Singapore handle in a week (World Bank, 2014).

Sustained real exchange rate depreciations can act as a second-best, WTO-friendly policy to offset the economic costs of the distortions that constrain industrial exports (Rodrik, 2008). Maintaining a depreciated real exchange rate requires higher saving relative to investment, or lower expenditures relative to income. This can be achieved via fiscal policy (running a large fiscal surplus), incomes policy (redistribution of income to high savers) or direct savings policy (compulsory saving schemes). The issue raised by these mechanisms is the welfare cost in poor economies of postponing present consumption in the pursuit of future growth. Depending on the 'growth payoff' from the expansion of exports and the rate of time preference this trade off may prove to be unacceptable. In addition, as the debate over 'global imbalances' has demonstrated, trading partners may exert substantial pressure on countries thought to maintain an exchange rate protection regime.

While the decision to pursue macroeconomic policies designed to undervalue the real exchange rate is complex, the government should vigorously avoid appreciation. Recent progress in macroeconomic management notwithstanding, sustained inflation over much of the last two decades has resulted in an

appreciating and volatile real effective exchange rate (REER). Kenya's REER appreciated almost 6% annually between 2002 and 2012. This has had a particularly significant impact on incentives to export because producers selling in the domestic market have greater flexibility in passing on inflation-driven price increases to the consumer.

6.3 STRENGTHENING SPATIAL INDUSTRIAL POLICY

In Cambodia, China and Vietnam the export push was accompanied by policies designed to promote the formation of industrial clusters. Government commitment to spatial industrial policies in these countries was not accidental. The productivity enhancing effect of industrial agglomerations creates a collective action problem. If a critical mass of firms can be drawn into a new industrial location every firm will realise productivity gains from clustering. At the same time, there is no incentive for a single firm to move in the absence of others. One of the success factors in the industrialisation experiences of both Cambodia and Vietnam was the decision by a critical mass of regional investors to relocate some low-end task-based production from higher cost economies in East Asia to both countries (Newman et al, 2016a).

Kenya is more advanced in implementing spatial industrial policy than its East African peers. Its EPZs offer a better policy and institutional environment than is available to firms in the domestic economy. The quality of infrastructure and services is also superior in such areas as electricity, and trade facilitation. Firms based in the EPZs rated the overall investment climate in the zones 13% better on average than the investment climate in Kenya as a whole (World Bank, 2016).

But, the EPZs also have significant limitations. Spatial policies are most successful when they are fully integrated into the national industrial development strategy (Gigombe and te Velde, 2013). A large majority of domestic manufacturing firms fail to benefit from the EPZ programme. The EPZ model adopted in Kenya is relevant only for export-oriented, assembly activities relying on imported inputs. The requirement that EPZ firms export 80% of their output restricts the investors who can benefit from the EPZs. Companies in the EPZs are disadvantaged when it comes to serving the EAC market, and services companies are excluded altogether (World Bank, 2013).

A recent effort by government to establish new Special Economic Zones (SEZs) which will accommodate both export and domestically oriented firms, as well as open up access to a wider range of activities including services is a good first step, but a number of areas of spatial policy require increased attention. The quality of infrastructure in the zones still lags considerably behind that offered by Asian and Latin American competitors (Farole, 2011). Little has been done to address gaps beyond the EPZ gates, including issues such as electricity outages, electricity costs, customs, transport and logistics. Finally, the SEZ authority needs to focus on exploiting the role of zones in creating viable industrial clusters and developing the connective infrastructure between SEZs, cities and ports (World Bank, 2013). Business-oriented management of the zones and close coordination between the zone authority and the investment promotion agency are also critical factors in their success.

6.4 RAISING CAPABILITIES

Part of the answer to whether Kenya can compete in manufacturing hinges on whether its firms can acquire the capabilities needed to match other producers in the global market for industrial goods. Public policy has an important role to play. An export push, for example, is an effective tool of capability building. Exchanges of information between suppliers and buyers in export markets and movement of technical and engineering personnel between plants help to strengthen working practices and management.[12] The 2014 World Bank Enterprise Survey finds that Kenyan firms supplying foreign markets are more likely to improve their production processes than firms that supply only the domestic market.

[12] See Sutton (2005) and Newman et al (2016a).

Policies and institutions for attracting FDI are another tool for capability building. Foreign investment in Kenya's manufacturing sector has fared relatively poorly in comparison to regional neighbours. Average annual inflows are far below the levels in Uganda and Tanzania, and are growing more slowly (World Bank, 2013). Since 2000, Uganda has attracted almost three times more investment projects in manufacturing than Kenya, and Tanzania has attracted 60% more. Foreign companies in Kenya identify a number of constraints to investment including regulations, tax policy, logistics and infrastructure. Obtaining work permits for expatriate staff, typically managers, has been especially difficult, despite the fact that two-thirds of the managers in SEZs are Kenyans, a level similar to other zones across the world (World Bank, 2016).

Because the domestic regulatory and administrative framework in Kenya is complex, an effective investment promotion agency is a prerequisite for boosting FDI. Kenya has two agencies charged with investment promotion. The Kenya Investment Authority (KenInvest) was established in 2004 under the Investment Promotion Act. It is charged with facilitating the implementation of new investment projects, providing aftercare services for new and existing investments, as well as organizing investment promotion activities both locally and internationally. The Export Processing Zones Authority (EPZA) was established in 1990 by the Export Processing Zone Act for the promotion and facilitation of export-oriented investments and the development of the enabling environment for such investments.

An UNCTAD (2012) review concluded that KenInvest needed to increase its advocacy role on issues such as taxation, regulation and infrastructure. It further recommended that its role in policy coordination and monitoring, as well as in coordinating investors' dealings across agencies, should be significantly expanded and strengthened. The review also found that KenInvest and EPZA both needed to make a significant effort in aftercare services in order to encourage existing investors to maintain or expand their presence in Kenya. In the medium term the government should consider combining the two agencies into a single agency under the office of the president to deal with the three phases of the foreign investment cycle: recruitment, embedding and after care.

Multinational enterprises are an important potential source of capabilities for domestic firms. The knowledge spill-overs that occur between foreign and domestic firms are more likely to occur between firms that are located along the same value chain.[13] However, firm to firm interactions in Kenya are very limited. Figure 3 shows that Kenya has dramatically fewer direct linkages between MNEs and domestic firms – as suppliers or customers – than Vietnam. Enterprise Surveys indicate that local sourcing of inputs is limited by such factors as lack of quality standards, low levels of reliability, lack of production and technological know-how and absence of local infrastructure (World Bank, 2016).

[13] See Harrison and Rodriguez-Clare (2010).

FIGURE 3 – SUPPLY CHAIN MAPS FOR VIETNAM AND KENYA, 2014

Vietnam FDI Firm Supplier Customer Competitor

FDI Firm				Supplier		Customer		Competitor	
No	Province	Investor	Product	No	Inputs	No	Products	No	Products
1	Hanoi	Japan	Porcelain products	1	Chemical	1	Porcelain products	x	Porcelain products
						2	Porcelain products		
						3	Porcelain products		
2	Hanoi	Japan	Furniture	2	Glass	4	Furniture	x	Furniture
				3	Wood	5	Furniture	x	Furniture
				4	Wood	6	Furniture		
3	Hanoi	Singapore	Tyres and tubes	5	Chemical	7	Tyres and tubes	x	Tyres and tubes
				6	Chemical	8	Tyres and tubes	1	Tyres and tubes
				7	Chemical	x	Tyres and tubes		
4	Hanoi	China	Electrical equipment	8	Copper wire	9	Transformers	x	Transformers
				9	Copper wire	10	Transformers	2	Transformers
5	Hanoi	Japan	Motor components	10	Inox	11	Auto assembling	x	Auto spare parts
				11	Inox	x	Auto assembling	3	Auto spare parts
				12	Inox	x	Auto assembling		
6	Hanoi	Multiple	Rubber components	13	Rubber materials	12	Rubber products	x	Rubber products
				14	Raw rubber	13	Rubber products	x	Rubber products
				15	Raw rubber	14	Rubber products	x	Rubber products
7	Hanoi	Japan	Metal components	16	Steel	15	Locks	4	Metal products
				17	Steel	16	Misc. mechanical products	x	Metal products
				18	Steel	17	Antennas	x	Metal products
8	Hanoi	Taiwan	Fibre optic cable	19	Decal, printing ink	18	Optic cable	5	Fibre optic cable
				20	PP bags	19	Optic cable		
						20	Optic cable		
9	Hanoi	Japan	Paint	21	Packing bags/boxes	21	Auto assembling	6	Paint
						22	Misc. equipment	x	Paint
						23	Misc. equipment		
10	Hanoi	Multiple	Paint	22	Chemical	24	Doors	x	Paint
				23	Chemical	25	Concrete	x	Paint
				24	Products for packing				
11	Hanoi	Multiple	Chemical products	25	Acid	26	Construction	7	Chemicals for construction
				26	Chemical	27	Concrete	x	Chemicals for construction
				27	Chemical	28	Construction		
12	Hanoi	Multiple	Carton products	28	Paper	29	Beer	8	Paper
				29	Paper	30	Milk	x	Carton
				30	Printing	31	Mechanical items	x	Paper bags
13	Hanoi	Japan	Plastic products	31	Ammoniac	32	Plastic door	9	Plastic products
						33	Plastic door	x	Plastic products
						34	Misc. plastic products	x	Plastic products
14	Hanoi	Singapore	Electrical equipment	32	Electric wires	35	Transformers	10	Electric wires
				33	Misc. electronic products	36	Transformers	x	Electric wires
				34	Misc. electric equipment	37	Radios	x	Electric wires
15	Hanoi	Japan	Printing products	35	Printing paper	38	Misc. printing products	11	Printing
				36	Printing paper	39	Misc. printing products	x	Printing
				37	Printing paper	40	Misc. printing products	x	Printing

Note: Out of the 88 identified none refused to participate in the survey. An additional 3 FDIs/MNCs were interviewed but their interlinkages were not traced.

Kenya FDI Firm Supplier Customer Competitor

FDI Firm				Supplier		Customer		Competitor	
No	City	Investor	Product	No	Inputs	No	Products	No	Products
1	Nairobi	India	Packaging	1	Tissue and Hygeine products	1	Dairy/Food processing	x	Carton packaging
						x	Dairy/Food processing	1	Packaging
								x	Packaging
2	Nairobi	Switzerland	Footwear	x	Textiles			x	Misc. Rubber products
								2	Food and Footwear
3	Nairobi	USA	Automotive Industry			2	Cement	3	Automotive Industry
4	Nairobi	UK	Pharmaceuticals					4	Pharmaceuticals
5	Nairobi	Mauritius	Iron and Steel Industry					5	Steel
								x	Steel
6	Nairobi	Taiwan	Textile	2	Carton manufacturer				
7	Nairobi	UK	Tobacco	3	Printers			6	Tobacco
8	Nairobi	Netherlands	Petroleum	4	General plastics	x	Sugar		
				x	Misc products				
9	Nairobi	USA	Beverages					7	Beverages
10	Nairobi	France	Cement					8	Cement
								x	Cement
								x	Cement

Note: Out of the 14 identified for interview 9 refused to participate in the survey.

A key area for action is to remove the obstacles that current policies—mainly in Export Processing Zones—place in the way of linkages between foreign and local firms. The government can also provide services to help link local firms with foreign investors and with large exporting firms, for instance through supplier development programs. Once KenInvest has established a track record for attracting international investors, it can turn to more selective recruitment of investors based in part on their willingness to engage with domestic supplier and work with larger FDI firms to develop capacity building programs for domestic firms. These initiatives will require strong coordination between KenInvest, the line ministries responsible for domestic industrial development and the EPZA.

7. SOME ISSUES FOR DISCUSSION

While Kenya ranks among the pioneers of the post-colonial effort to industrialise Africa, its industrial development has not been equal to its recent growth or its national aspirations. Manufacturing, together with agro-industrial exports and tradable services, has a critical role to play in sustaining growth and generating employment as Kenya moves toward Vision 2030. Today manufacturing plays about the same role in Kenya's economy as it did 30 years ago. The challenge is to kick start an industrial transformation.

Kenya's failure to industrialise is partly due to bad luck. The terms of trade shocks and economic crises of the 1970s and 1980s brought with them a 20-year period of macroeconomic stabilisation, trade liberalisation, and privatisation. Uncertainty with the outcome of the adjustment process and low economic growth meant that there was little private investment overall and practically none in industry. When Kenya emerged from Structural Adjustment just before the turn of the twenty-first century, it was no longer competing with the high-wage industrial "North," as it had in the 1960s and 1970s. It was competing with China. Stabilisation and fiscal austerity also left Kenya with very large gaps in infrastructure and human capital. The absence of these "basics" meant that Kenya's initial conditions for industrial development around 2000 were, if anything, less auspicious than after independence. From the point of view of industrial development, the timing was unlucky, to say the least.

The failure to industrialise, however, was also due to bad policy. Import substitution sowed the seeds of its own destruction. High protection and heavy import dependency meant that Kenyan industry was poorly prepared for international competition. While the reforms of the structural adjustment period succeeded in restoring macroeconomic stability, it is not clear that the "Washington Consensus" reforms and their successor, reform of the "investment climate" have been sufficient to push an industrial transformation. Despite a decade and a half of investment climate reform, Kenya has not reached a turning point in its industrial development. In part the fault lies in the design of investment climate reform programmes. Although in principle efforts to improve the investment climate were supposed to cover the whole range of issues—from macroeconomic management, to infrastructure and skills, to the policies and institutions that most closely affect private investors—in practice investment climate reform has centred too narrowly on business regulation.

Case studies of successful industrial transformations, however, point to the conclusion that investment climate reforms alone will not be sufficient for Kenya to overcome the competitive advantages of incumbent industrial producers elsewhere. This is because the drivers of firm-level productivity and industrial location are interdependent. Country studies of Cambodia, Tunisia and Vietnam illustrate the importance of addressing the basics, exports, agglomerations and capabilities in an integrated way (Newman et al, 2016b). All three countries shifted toward active promotion of industrial exports relatively early in the process of industrial development. The export push was accompanied by policies designed to promote the formation of industrial clusters and attract foreign direct investment. Kenya could have made such a strategic turn at the end of the Structural Adjustment period. It did not do so.

For Kenya to seize the new opportunities coming from changes in the global industrial economy, it will need to develop a new approach to industrial development. Part of that new approach will involve reforms to existing policies to align them more closely to the objectives set out in the government's vision documents. New policies and institutions to address the drivers of industrial location will also be needed, and effective implementation will be a major challenge.

To begin the process, the following questions should be addressed:

1. What are the key constraints keeping Kenya from moving from vision to action in implementing the industrialization strategy outlined in Vision 2030?
2. What are the priority areas for public action to build the basics in public infrastructure and relevant skills?
3. How can the investment climate agenda be modified to support the private sector more effectively?
4. What are the regulatory constraints to greater competition in industry?
5. In view of the priority given to exports in Vision 2030, what are the key policy instruments and institutional innovations needed to mount an export push?
6. What are the priority public actions needed for building and implementing SEZs and industrial parks?
7. What institutional innovations will support active FDI promotion?
8. How can government help build linkages between local and foreign firms?
9. How can greater policy coherence and coordination in implementation be achieved within government?
10. What institutional framework is needed to strengthen government consultation and collaboration with the private sector?

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